	STATT KEI OKT		
Address:	7133 Sycamore Avenue, Takoma Park	Meeting Date:	3/24/2021
Resource:	Contributing Resource	Report Date:	3/17/2021
Applicant:		Public Notice:	3/10/2021
	Melanie Stevenson	Tax Credit:	Yes
Review:	HAWP	Staff:	Michael Kyne
Permit Number	r: 937442		
PROPOSAL:	Roof replacement and exterior alterations		

MONTGOMERY COUNTY HISTORIC PRESERVATION COMMISSION STAFF REPORT

STAFF RECOMMENDATION

Staff recommends that the HPC **<u>approve</u>** the HAWP application.

ARCHITECTURAL DESCRIPTION

SIGNIFICANCE:	Contributing Resource within the Takoma Park Historic District
STYLE:	Bungalow
DATE:	c. 1920s



Fig. 1: Subject property.

PROPOSAL

The applicant proposes roof replacement and exterior alterations at the subject property.

APPLICABLE GUIDELINES

When reviewing alterations and new construction within the Takoma Park Historic District several documents are to be utilized as guidelines to assist the Commission in developing their decision. These documents include the historic preservation review guidelines in the approved and adopted amendment for the *Takoma Park Historic District (Guidelines), Montgomery County Code Chapter 24A (Chapter 24A)*, and *the Secretary of the Interior's Standards for Rehabilitation (Standards)*. The pertinent information in these documents is outlined below.

Takoma Park Historic District Guidelines

There are two very general, broad planning and design concepts which apply to all categories. These are:

- The design review emphasis will be restricted to changes that are all visible from the public rightof-way, irrespective of landscaping or vegetation (it is expected that the majority of new additions will be reviewed for their impact on the overall district), and
- The importance of assuring that additions and other changes to existing structures act to reinforce and continue existing streetscape, landscape, and building patterns rather than to impair the character of the historic district.

A majority of structures in the Takoma Park Historic District have been assessed as being "Contributing Resources." While these structures may not have the same level of architectural or historical significance as Outstanding Resources or may have lost some degree of integrity, collectively, they are the basic building blocks of the Takoma Park district. However, they are more important to the overall character of the district and the streetscape due to their size, scale, and architectural character, rather than for their particular architectural features.

Contributing Resources should receive a more lenient level of design review than those structures that have been classified as Outstanding. This design review should emphasize the importance of the resource to the overall streetscape and its compatibility with existing patterns rather than focusing on a close scrutiny of architectural detailing. In general, however, changes to Contributing Resources should respect the predominant architectural style of the resource.

The Guidelines that pertain to this project are as follows:

- All exterior alterations, including those to architectural features and details, should be generally consistent with the predominant architectural style and period of the resource and should preserve the predominant architectural features of the resource; exact replication of existing details and features is, however, not required.
- Some non-original building materials may be acceptable on a case-by-case basis; artificial siding on areas visible from the public right of way is discouraged where such materials would replace or damage original building materials that are in good condition.
- All changes and additions should respect existing environmental settings, landscaping, and patterns of open space.

- (b) The commission shall instruct the director to issue a permit, or issue a permit subject to such conditions as are found to be necessary to ensure conformity with the purposes and requirements of this chapter, if it finds that:
 - (1) The proposal will not substantially alter the exterior features of an historic site or historic resource within an historic district; or
 - (2) The proposal is compatible in character and nature with the historical, archeological, architectural or cultural features of the historic site or the historic district in which an historic resource is located and would not be detrimental thereto or to the achievement of the purposes of this chapter; or
 - (3) The proposal would enhance or aid in the protection, preservation and public or private utilization of the historic site or historic resource located within an historic district in a manner compatible with the historical, archeological, architectural or cultural value of the historic site or historic district in which an historic resource is located; or
 - (4) The proposal is necessary in order that unsafe conditions or health hazards be remedied; or
 - (5) The proposal is necessary in order that the owner of the subject property not be deprived of reasonable use of the property or suffer undue hardship; or
 - (6) In balancing the interests of the public in preserving the historic site or historic resource located within an historic district, with the interests of the public from the use and benefit of the alternative proposal, the general public welfare is better served by granting the permit.
- (c) It is not the intent of this chapter to limit new construction, alteration or repairs to any 1 period or architectural style.
- (d) In the case of an application for work on an historic resource located within an historic district, the commission shall be lenient in its judgment of plans for structures of little historical or design significance or for plans involving new construction, unless such plans would seriously impair the historic or architectural value of surrounding historic resources or would impair the character of the historic district. (Ord. No. 9-4, § 1; Ord. No. 11-59.)

Secretary of the Interior's Standards for Rehabilitation

The Secretary of the Interior defines rehabilitation as "the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features, which convey its historical, cultural, or architectural values." The *Standards* are as follows:

- 2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
- 9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

STAFF DISCUSSION

The subject property is a c. 1920s Bungalow-style Contributing Resource on a corner lot in the Takoma Park Historic District. The house fronts of Sycamore Avenue to the west, while its north (left) side faces Ethan Allen Avenue. The house has experienced previous alterations, including the addition of exterior staircase at the east side (rear). The applicant proposes a number of work items, all aimed at repairing damage and/or removing incompatible features related to this non-original /non-historic exterior staircase.

The proposed work items include:

- Removal of the exterior wooden staircase and railings at the east side (rear) of the house.
- In-kind repair/replacement of any siding and framing revealed by the removal of the staircase.
- Removal of the vinyl siding from the east room and repair of the original stucco underneath, as necessary.
- Replacement in-kind of the three-tab asphalt shingle roofing on the main house.
- Replacement of the existing built-up roofing on the east room with modified bitumen roofing, due to its low slope.
- Install one (1) wood, six-over-one, double-hung window in the east (rear) gable of the house.
 - The proposed new window will be simulated divided lite with permanently affixed 7/8" interior and exterior muntins and internal spacer bars.
 - This opening was originally a window, but was converted to a door by a previous owner.
- Window and door replacement/installation on the east room.
 - The east room retains no original materials and/or features, as they were replaced and/or covered by a previous owner.
 - The jambs are currently covered with vinyl siding on the east (rear) and south (right) elevations, and vinyl windows were installed on the the north (left) elevation.
 - The proposed new windows and door will be simulated divided lite with permanently affixed 7/8" interior and exterior muntins and internal spacer bars.
 - The proposed new fenestration includes:
 - Eight (8) wood, six-lite, casement windows
 - Three (3) on the south (right) elevation,.
 - Three (3) on the north (left) elevation.
 - Two (2) on the east (rear) elevation.
 - One (1) fifteen-lite door on the east (rear) elevation.
- Install seven (7) wooden stairs with handrails from the east room to grade at the east side (rear) of property.
 - The proposed new stairs will include a 36" x 36" landing at the top.
 - The stairs will be 36" wide, with 10" deep treads and 6.75" high risers.
 - The handrail will be made of wood, and the balusters will be inset between the top and bottom rails, with an opening less than 4" between balusters.

- Replace the existing deterioriated, non-historic/non-original garage door on the north (right) elevation (under the east room).
 - The proposed new garage door will be a steel roll up garage door, which takes visual cues from carriage house-style doors.

Staff fully supports the applicant's proposal. The proposed work mostly constitutes repairs and replacment of non-original/non-historic features at the rear and on secondary elevation. Additionally, the proposed new features and materials and generally compatible with the subject property and surrounding streetscape.

In accordance with the *Guidelines*, the proposed alterations are generally consistent with the predominant architectural style (Bungalow) of the historic house, and they respect the existing environmental settings, landscaping, and patterns of open space, as they are all largely within the existing footprint. In accordance with *Standards* #2 and #9, the proposal will not remove or alter character-defining features of the historic house or surrounding streetscape. Per *Standard* #10, the proposed alterations can be removed in the future without impairing the essential form and integrity of the historic property and its environment.

After full and fair consideration of the applicant's submission, staff finds the proposal, as modified by the condition, as being consistent with the Criteria for Issuance in Chapter 24A-8(b) 1 and 2 and (d), having found the proposal is consistent with the *Secretary of the Interior's Standards for Rehabilitation #2, #9* and *#10*, and *Takoma Park Historic District Guidelines* outlined above.

STAFF RECOMMENDATION

Staff recommends that the Commission **approve** the HAWP application under the Criteria for Issuance in Chapter 24A-8(b), (1), (2) & (d), having found that the proposal, as modified by the condition, is consistent with the *Takoma Park Historic District Guidelines*, and therefore will not substantially alter the exterior features of the historic resource and is compatible in character with the district and the purposes of Chapter 24A;

and with the Secretary of the Interior's Standards for Rehabilitation #2, #9, and #10.

and with the general condition that the applicant shall present an electronic set of drawings, if applicable, to Historic Preservation Commission (HPC) staff for review and stamping prior to submission for the Montgomery County Department of Permitting Services (DPS) building permits;

and with the general condition that final project design details, not specifically delineated by the Commission, shall be approved by HPC staff or brought back to the Commission as a revised HAWP application at staff's discretion;

and with the general condition that the applicant shall notify the Historic Preservation Staff if they propose to make any alterations to the approved plans. Once the work is completed the applicant will contact the staff person assigned to this application at 301-563-3400 or <u>michael.kyne@montgomeryplanning.org</u> to schedule a follow-up site visit.

	FOR STAFF ONLY:
	DATE ASSIGNED
HISTORIC AREA WO HISTORIC PRESERVATION 301.563.340	ORK PERMIT
APPLICANT:	
_{Name:} Melanie Stevenson	_{E-mail:} mdstev@gmail.com
Address: 7133 Sycamore Ave.	_{City:} <u>Takoma Park</u> _{zip:} 20912
Daytime Phone: <u>504-418-3640</u>	Tax Account No.:
AGENT/CONTACT (if applicable):	
Name:	E-mail:
Address:	City: Zip:
Daytime Phone:	Contractor Registration No.:
LOCATION OF BUILDING/PREMISE: MIHP # of Histori	c Property
Is the Property Located within an Historic District?	/es/District NameIakoma Park
Is there an Historic Preservation/Land Trust/Environme map of the easement, and documentation from the Ease	ental Easement on the Property? If YES, include a sement Holder supporting this application.
Are other Planning and/or Hearing Examiner Approvals (Conditional Use, Variance, Record Plat, etc.?) If YES, in supplemental information.	/Reviews Required as part of this Application? clude information on these reviews as
Building Number: 7133 Street: Syc	camore Ave.
Town/City: Takoma Park Nearest Cros	s Street: Ethan Allen Ave.
Lot: P49 Block: 22 Subdivision:	025 Parcel:
TYPE OF WORK PROPOSED: See the checklist on Pa for proposed work are submitted with this applica	age 4 to verify that all supporting items
be accepted for review. Check all that apply:	Shed/Garage/Accessory Structure
New Construction Deck/Porch	Solar Solar
Addition Fence	Tree removal/planting
Demolition Hardscape/Lands	cape ✓ Window/Door
Graung/ excavation \forall Root	Uncl
and accurate and that the construction will comply with	h plans reviewed and approved by all necessary
agencies and hereby acknowledge and accept this to l	be a condition for the issuance of this permit.
Melanie Stevenson	12/29/2020



Description of Property: Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:

The house is a 1.5 story bungalow built in 1923 on the corner of Sycamore and Ethan Allen Ave. A large external staircase and railing were installed by the previous owners on the East facade blocking what previously were windows and a door leading to the backyard. The installation of this staircase caused damage to the siding and roof. Windows on the South and East facades were covered with vinyl siding.

Additionally, a window jamb located near the top of this stairway was converted into a doorway by the previous owners.

Description of Work Proposed: Please give an overview of the work to be undertaken:

We propose to undertake five (5) work items related to the restoration and repair of the "East room" of our circa 1920 bungalow to bring the home more in line with the historic nature of the neighborhood. 1. Remove the exterior wooden staircase and railing leading from backyard to second-floor entrance in the East Elevation. Repair/replace any damage to the siding and framing revealed by the removal of the staircase. The staircase is not original to the house, and is visible from Ethan Allen Ave.

2. Replace the roof over the "East room" on the East Elevation and the roof over porch and house on the West Elevation with 3-tab shingles matching roofing on the rest of the house. Roofing in both sections currently leaks.

3. Install (1) wood, six-over-one, double-hung, sash window (simulated divided light with permanently affixed 7/8" muntins on interior/exterior with internal spacer bar) at the peak on the East Elevation. The window jamb was converted to an entrance by previous owners with a door that is not original.
4. Install eight (8) wood, six-panel, casement windows (three (3) on the South Elevation, three (3) on the North Elevation, and two (2) on the East Elevation) and one (1) fifteen-panel door in the "East room". The windows and door will be simulated divided light with permanently affixed 7/8" muntins on interior/exterior with internal spacer bar. All original elements in this room were removed by previous owners. They covered the jambs with vinyl siding on the East and South façades and installed vinyl windows in the jambs on the North façade. The proposed windows are in line with historic photos. The proposed door matches the design of the existing original exterior door on the North elevation.
5. Install approximately six (6) steps leading down from the first-floor door on the East elevation of the "East room" to the backyard.

Work Item 1: Remove External St	airs
Description of Current Condition: The stair of is in poor condition a its installa caused damage to roof and siding.	case Proposed Work: Remove the exterior wooden staircase and railing leading from backyard to second-floor entrance in the East Elevation. Repair/replace any damage to the siding and framing revealed by the removal of the staircase.
Work Item 2: Replace Roof	
Description of Current Condition: The roof le over the "I room" and over the fr porch.	Proposed Work: Replace the roof over the "East East on the East Elevation and the roof over porch and house on the West Elevation with 3-tab shingles matching roofing on the rest of the house.

Work Item 3: Install Windows/Doors/Stairs	
Description of Current Condition: The window jamb	Proposed Work: Install (1) wood, six-over-one, double-hung, sash
under the peakwas	window (simulated divided light with permanently
converted to an	affixed 7/8" muntins on interior/exterior with internal
entrance by previous	spacer bar) at the peak on the East Elevation.
owners with a door	Install eight (8) wood, six-panel, casement windows
that is not original.All	(three (3) on the South Elevation, three (3) on the
original elements in	North Elevation, and two (2) on the East Elevation)
the "East room" were	and one (1) fifteen-panel door in the "East room".
removed by previous	The windows and door will be simulated divided light
owners. They	with permanently affixed 7/8" muntins on
covered the jambs	interior/exterior with internal spacer bar. The
with vinyl siding on	proposed windows are in line with historic photos.
the East and South	The proposed door matches the design of the
façades and installed	existing original exterior door on the North elevation.
vinyl windows in the	Install approximately six (6) steps leading down from
jambs on the North	the first-floor door on the East elevation of the "East
façade.	room" to the backyard.

HISTORIC AREA WORK PERMIT CHECKLIST OF APPLICATION REQUIREMENTS

	Required Attachments						
Proposed Work	I. Written Description	2. Site Plan	3. Plans/ Elevations	4. Material Specifications	5. Photographs	6. Tree Survey	7. Property Owner Addresses
New Construction	*	*	*	*	*	*	*
Additions/ Alterations	*	*	*	*	*	*	*
Demolition	*	*	*		*		*
Deck/Porch	*	*	*	*	*	*	*
Fence/Wall	*	*	*	*	*	*	*
Driveway/ Parking Area	*	*		*	*	*	*
Grading/Exc avation/Land scaing	*	*		*	*	*	*
Tree Removal	*	*		*	*	*	*
Siding/ Roof Changes	*	*	*	*	*		*
Window/ Door Changes	*	*	*	*	*		*
Masonry Repair/ Repoint	*	*	*	*	*		*
Signs	*	*	*	*	*		*

HAWP Application: Mailing Addresses for Notifying Owners, Adjacent, and Confronting Owners

Owner's mailing address

Melanie Stevenson and Rudi Feiler 7133 Sycamore Ave. Takoma Park, MD 20912

Adjacent and Confronting Property Owners mailing addresses

Dan Philips 7131 Sycamore Ave. Takoma Park, MD 20912

Robert Turner 10224 Leslie St. Silver Spring, MD 20902

Sami and Linah Albanna 211 Ethan Allen Ave. Takoma Park, MD 20912

Susan Robb 203 Manor Circle Takoma Park, MD 20912 We propose to undertake seven (7) work items related to the restoration and repair of the "East room" of our circa 1920 bungalow to bring the home more in line with the historic nature of the neighborhood.

1. Remove the exterior wooden staircase and railing leading from backyard to second-floor entrance in the East Elevation. Repair/replace any damage to the siding and framing revealed by the removal of the staircase. The staircase is not original to the house, and is visible from Ethan Allen Ave.

2. Remove the vinyl siding from the "East Room" which covers stucco that is original to the house. Repair stucco as needed and paint.

3. Replace the roof over house and porch on the West Elevation and the roof over the "East room" on the East Elevation. The roof on the West elevation will be replaced with 3-tab shingles matching the current roofing on this part of the house. The roof over the east room, Currently Built-Up Roofing, will be replaced with Modified Bitumen Roofing material due to its low slope.

4. Install (1) wood, six-over-one, double-hung, sash window (simulated divided light with permanently affixed 7/8" muntins on interior/exterior with internal spacer bar) at the peak on the East Elevation. The window jamb was converted to an entrance by previous owners with a door that is not original.

5. Install eight (8) wood, six-panel, casement windows (three (3) on the South Elevation, three (3) on the North Elevation, and two (2) on the East Elevation) and one (1) fifteen-panel door in the "East room". The windows and door will be simulated divided light with permanently affixed 7/8" muntins on interior/exterior with internal spacer bar. All original elements in this room were removed by previous owners. They covered the jambs with vinyl siding on the East and South façades and installed vinyl windows in the jambs on the North façade. The proposed windows are in line with historic photos. The proposed door matches the design of the existing original exterior door on the North elevation.

6. Install seven (7) wooden stairs with handrails leading down from the proposed first-floor door on the East elevation of the "East room" to the backyard. The door will open onto a landing 36" wide and 36" long. The stairs will have a width of 36" with a tread of 10" and rise of 6.75". The handrail will be made of wood. Balusters will be inset between the top and bottom rails with an opening less than 4" between balusters.

7. Remove the current garage door which is not original to the house and in poor condition. Replace with a long-panel garage door with an 8-panel grille pattern window on the left and right side matching the design of the windows in the original doors seen in historic photographs.













Arial roof diagram



West Façade Elevation



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		Installed Price	
Edit	Size : 9' 2"(w) x 7' 0"(h)		
Edit	WindCode : W0		
Edit	Collection : GALLERY® Steel		
Edit	Door Design : Long Panel		
	Door Model : GR4LV	\$1113.00	
Edit	Door Construction : 2-Layer 1 5/16" Polystyrene Ins 24 Ga Shiplap Jnt R-Value 6.3		
Edit	Color : Standard White	\$0.00	
Edit	Top Section : Long with Square Grilles		
Edit	Glass Type : DSB Strength Clear Glass (Non-Insulated)	\$261.00	
Edit	Hardware :		
	Handles : Spade Lift Handle (x1 Pair Per Door)	\$0.00	
	Step Plate : Spade Step Plate (x1 Per Door)	\$0.00	
	• Hinges : No Hinge (x0 Per Door)	\$0.00	

SELECT & PROCEED WITH INSTALLED DOOR >

Price: \$1374.00

PREVIOUS STEP

v View Door
View HomeView Details
\$1374.00 / Installed Installed vs Do-It-Yourself
Quantity: 1

RUBEROID® 20 Smooth Membrane

Updated: 8/16





Description

RUBEROID[®] 20 Smooth Membrane is a tough, resilient modified bitumen membrane manufactured to stringent GAF specifications. Its core is a strong, resilient non-woven glass mat that is coated with flexible, SBS polymer modified asphalt.

Uses

RUBEROID[®] 20 Smooth Membrane is designed for new roofing and re-cover applications as well as in the construction of flashings. RUBEROID[®] 20 Smooth Membrane is an ideal base or interply roofing membrane in modified bitumen systems, including GAF CompositeRoof[™] and 20/30 systems.

Advantages

- System guarantees are available for up to 20 years.*
- Light weight—Installed roof designs weigh less than 3 pounds per square foot (14.6 kg/m²).
- Durable—Combines the strength of fiberglass reinforcement with the elongation characteristics of SBS modified asphalt.

Advantages (Continued)

- RUBEROID[®] 20 Smooth Membrane is manufactured by GAF, a company with over 125 years in the roofing business.
- Available as a smooth surface. * See applicable guarantee for complete coverage and restrictions.

Applicable Standards

Meets ASTM D6163, Type I, Grade S FM Approved ICC ESR-1274 Miami-Dade County Product Control Approved State of Florida Approved Texas Department of Insurance UL/ULC Classified

Product Specifications (nominal)

Roll Size	1.5 square (161.4 gross sq. ft.) (15.0 m ²)
Roll Length	49.2' (15.34 m)
Roll Width	39.375" (1.0 m)
Approx. Roll Weight	89.0 lb (40.37 kg)
Product Thickness	0.085" (2.1 mm)

This product meets or exceeds the following ASTM D6163, Type I, Grade S, minimum requirements:

Property	Test Method	Value
Tensile Strength @ 0°F (min), lbf/in	ASTM D5147	70
Elongation @ 0°F (min), %	ASTM D5147	1
Low Temperature Flexibility (max), °F	ASTM D5147	0
Tear Strength (min), lbf	ASTM D5147	35
Dimensional Stability, (max) %	ASTM D5147	0.5



Technical Data Sheet



XT[™] 30 Shingles XT[™] 25 Shingles CT[™] 20 Shingles

PRODUCT INFORMATION

CertainTeed offers a variety of three-tab shingle products that combine exceptional durability with flexibility for better resistance to blow-off. In addition to their suitability for residential applications, these products are ideal for commercial applications. Available in "English" dimensions – 12" x 36" and in "Metric" dimensions – 13 1/4" x 39 3/8", depending on the product and sales region.



Algae Resistant (AR) versions of these shingles are available in some regions. Algae resistant shingles help protect against staining or discoloration caused by algae.

Colors: Please refer to the product brochure or CertainTeed website for the colors available in your region.

Limitations: Use on roofs with slopes greater than 2" per foot. Low slope applications (2" to 4" per foot) require additional underlayment. In areas where icing along the eaves can cause a backup of water, apply CertainTeed WinterGuard® Waterproofing Shingle Underlayment, or its equivalent, according to application instructions provided with the product and on the shingle package.

On slopes greater than 21" per foot, apply a spot of roofing cement under each shingle tab corner according to application instructions provided on the shingle package.

Product Composition: These shingles are composed of a fiber glass mat base. Ceramic-coated mineral granules are tightly embedded in carefully refined, water-resistant asphalt. These shingles have self-sealing adhesive. These are 3-tab shingles.

UL 790 Class A Fire Resistance

ICC-ES ESR-1389 and ESR-3537

CSA Standard A123.5 (except CT20 & XT 25 English)

Applicable Standards:

ASTM D3018 Type I ASTM D3462 ASTM E108 Class A Fire Resistance ASTM D3161 Class F Wind Resistance ASTM D7158 Class H Wind Resistance

ASTM D3161 Class F Wind R ASTM D7158 Class H Wind R	lesistance Resistance	Florida Product Approval # FL5444 Miami-Dade Product Control Approved	
Technical Data: Weight/Square (approx.): Dimensions (overall): Shingles/Square: Weather Exposure:	XT 30 – English 215 lbs 12" x 36" 80 5"		
Weight/Square (approx.): Dimensions (overall): Shingles/Square: Weather Exposure:	XT 25 – English 205 lbs 12" x 36" 80 5"	XT 25 – Metric 220 lbs 13-1/4" x 39-3/8" 65 5-5/8"	
Weight/Square (approx.): Dimensions (overall): Shingles/Square: Weather Exposure:	CT 20 – English 195 lbs 12" x 36" 80 5"	CT 20 – Metric 195 lbs 13-1/4" x 39-3/8" 65 5-5/8"	

INSTALLATION

The following is a general summary of the installation methods. Detailed installation instructions are supplied on each bundle of strip shingles and must be followed. Separate application sheets may also be obtained from CertainTeed.

Roof Deck Requirements: Apply shingles to minimum 3/8" thick plywood, minimum 7/16" thick non-veneer (e.g. OSB), or minimum 1" thick (nominal) wood decks. The plywood or non-veneer decks must comply with the specifications of APA-The Engineered Wood Association.

Ventilation: Provisions for ventilation should meet or exceed current HUD Standards. To ensure adequate balance ventilation, use a combination of continuous ridge ventilation (using CertainTeed Ridge Vent products, or a comparable product with an external baffle) combined with soffit venting.

Valleys: Valley liner must be applied before shingles. The Closed-Cut valley application method is recommended, using CertainTeed WinterGuard Waterproofing Shingle Underlayment, or its equivalent, to line the valley prior to being fully covered by the shingles.

Underlayment:

On slopes 4" per foot or greater, CertainTeed recommends one layer of DiamondDeck® Synthetic Underlayment, or Roofers' Select® High-Performance shingle underlayment, or shingle underlayment meeting ASTM D226, D4869 or ASTM D6757. Always ensure sufficient deck ventilation, and take particular care when DiamondDeck or other synthetic underlayment is installed. For UL fire rating, underlayment may be required. Corrosion-resistant drip edge is recommended and should be placed over the underlayment at the rake and beneath the underlayment at the eaves. Follow manufacturer's application instructions.

On low slopes (2" up to 4" per foot), one layer of CertainTeed's WinterGuard Waterproofing Shingle Underlayment (or equivalent meeting ASTM D1970) or two layers of 36" wide felt shingle underlayment (Roofers' Select High-Performance Underlayment or product meeting ASTM D226, D4869 or ASTM D6757) lapped 19" must be applied over the entire roof, ensure sufficient deck ventilation. When DiamondDeck or other synthetic underlayment is installed, weather-lap at least 20" and ensure sufficient deck ventilation. When WinterGuard is applied to the rake area, the drip edge may be installed under or over WinterGuard. At the eave, when WinterGuard does not overlap the gutter or fascia, the drip edge should be installed under WinterGuard. When WinterGuard overlaps the fascia or gutter, the drip edge or other metal must be installed over it. Follow manufacturer's application instructions.

Fastening: Four nails are required per shingle. For English-sized shingles they are to be located 5/8" above the top of each cutout and 1" and 12" in from each side of the shingle. For Metric-sized shingles they are to be located 1" and 13-1/8" in from each side of the shingle. They must be of sufficient length to penetrate into the deck 3/4" or through the thickness of the decking, whichever is less. Nails are to be 11 or 12 gauge, corrosion-resistant roofing nails with 3/8" heads.

On steep slopes greater than 21" per foot, apply a spot of roofing cement under each shingle tab corner according to application instructions provided on the shingle package.

Application (English-Sized Shingles): The recommended application method is the Six-Course, 6" Stepped-Off Diagonal Method found on each bundle of shingles. These shingles may also be applied using the 5" Stepped-Off Diagonal Method, or the 6" Offset, Single-Column Vertical-Racking Method, instructions for which may be obtained from CertainTeed. These shingles may be used for new construction or for re-roofing over old shingles. Technical Data Sheet Strip Shingles

Application (Metric-sized shingles): The recommended application method is the Seven Course, 5-5/8" Stepped-Off Diagonal Method found on each bundle of shingles. These shingles may also be applied using the Eight Course, 5" Stepped-Off Diagonal Method or the Half-Tab Diagonal Method, instructions for which may be obtained from CertainTeed. These shingles may be used for new construction or for reroofing over old shingles.

Flashing: Use corrosion-resistant metal flashing.

Hips and Ridges: Use field shingles of a like color for capping hips and ridges.

MAINTENANCE

These shingles do not require maintenance when installed according to manufacturer's application instructions. However, to protect the investment, any roof should be routinely inspected at least once a year. Older roofs should be looked at more frequently.

WARRANTY

XT 30 (and AR), shingles carry a 30-year limited transferable warranty, XT 25 (and AR) carry a 25-year limited transferable warranty, and CT 20 (and AR), shingles carry a 20 year limited transferable warranty to the consumer against manufacturing defects. All of these shingles carry 5-year SureStart protection except for CT 20 which carries 3-year SureStart protection. For specific warranty details and limitations, refer to the warranty itself (available from the local supplier, roofing contractor or on-line at www.certainteed.com).

FOR MORE INFORMATION

Sales Support Group: 800-233-8990 Web site: <u>www.certainteed.com</u> See us at our on-line specification writing tool, CertaSpec, at <u>www.certainteed.com/certaspec</u>.

CertainTeed Roofing 20 Moores Road Malvern, PA 19355

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SECTION 08240



CLAD SWINGING DOORS AND SIDELIGHTS Aspen Swing Doors and Sidelights

Sierra Pacific Windows P.O. Box 8489 Red Bluff, CA 96080 Toll Free Tel: 800.433.4873 Web: www.sierrapacificwindows.com

PART 1GENERAL

- 1.1 SUMMARY
 - A. Related Documents: Provisions established within the General and Supplementary Conditions of the Contract, Division 1 General Requirements, and the Drawings are collectively applicable to this Section.
 - B. Section Includes:
 - 1. Aluminum clad wood swing panels (outswing) and sidelights installed in frame.
 - C. Related Sections:
 - 1. Section [____] Rough Carpentry: Wood blocking.
 - 2. Section [____] Sheet Metal Flashing and Trim: Flashing for opening.
 - 3. Section [____] Painting: Field finishing.

1.2 REFERENCES

Α.

- American Architectural Manufacturers Association (AAMA):
 - 1. AAMA/WDMA/CSA 101/I.S.2/A440-08 "NAFS North American Fenestration Standard/Specification for windows, doors and skylights."
 - AAMA/WDMA/CSA 101/I.S.2/A440-11 "NAFS 2011 North American Fenestration Standard/Specification for windows, doors and skylights."
 - AAMA 2604 "Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels."
 - 4. AAMA 2605 "Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels."American Architectural Manufacturers Association (AAMA):
- B. American National Standards Institute (ANSI):
 - 1. ANSI Z97.1 "Safety Glazing Materials Used in Buildings Safety Performance Specifications and Methods of Test."
- C. American Society for Testing and Materials (ASTM):
 - 1. ASTM B 136 "Standard for Measurement of Stain Resistance of Anodic Coatings on Aluminum."
 - 2. ASTM B 137 "Standard for Measurement of Coating Mass Per Unit Area on Anodically Coated Aluminum."
 - 3. ASTM B 244 "Standard for Measurement of Thickness of Anodic Coatings on Aluminum and of Other Nonconductive Coatings or Nonmagnetic Basis Metals with Eddy Current Instruments."
 - 4. ASTM C 1036 "Standard Specification for Flat Glass."
 - 5. ASTM C 1048 "Standard Specification for Heat-Treated Flat Glass Kind HS, Kind FT Coated and Uncoated Glass."
 - 6. ASTM D 3359 "Standard Test Methods for Measuring Adhesion by Tape Test."
 - 7. ASTM D 5235 "Standard Test Method for Microscopical Measurement of Dry Film Thickness of Coatings on Wood Products."









CLAD SWINGING DOORS AND SIDELIGHTS Aspen Swing Doors and Sidelights

- 8. ASTM D 5572 "Standard Specification for Adhesives Used for Finger Joints in Nonstructural Lumber Products."
- 9. ASTM D 5751 "Standard Specification for Laminate Joints in Nonstructural Lumber Products."
- 10. ASTM E 283 "Standard Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors."
- 11. ASTM E 330 "Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference."
- 12. ASTM E 547 "Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential."
- 13. ASTM F 588 "Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact."
- D. Canadian Standards Association
 - 1. AAMA/WDMA/CSA 101./I.S.2/A440-08 "NAFS North American Fenestration Standard/Specification for windows, doors and skylights."
 - CSA A440S1-09 "Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, NAFS – North American Fenestration Standard/Specification for windows, doors and skylights."
- E. Consumer Products Safety Commission:
 - 1. 16 CFR, Part 1201 "Safety Standard for Architectural Glazing Material."
 - National Fenestration Rating Council (NFRC):
 - 1. NFRC 100 "Procedure for Determining Fenestration Products U-Factors."
 - 2. NFRC 200 "Procedure for Determining Fenestration Product Solar Heat Gain Coefficients at Normal Incidence."
 - 3. NFRC 300 "Procedure for Determining Solar Optical Properties of Simple Fenestration Product."
- G. Window and Door Manufacturers Association (WDMA):
 - 1. AAMA/WDMA/CSA 101/I.S.2/A440 "Standard/ Specification for windows, doors, and unit skylights".
 - 2. WDMA I.S.4 "Industry Standard for Water Repellant Preservative Non-Pressure Treatment for Millwork."Window and Door Manufacturers Association (WDMA):
- 1.3 DEFINITIONS

F.

- A. U Cog: Units Btu/(hr•ft²•°F), center-of-glass U value. Center-of-glass is the central glazed portion of the window which one sees through that is more than 2.5 inches from sightline.
- B. U/R Total: Value of total unit calculated per NFRC 100 using window and frame. U Factor is the primary measure of winter energy efficiency. A low U Factor means less heat passes through the unit due to exterior air and roomside air temperature differences. R Value = 1/U.
- C. SHGC: The solar heat gain coefficient of the total fenestration system represents the solar heat gain through the system relative to the incident solar radiation striking the exterior surface. Solar Heat Gain Ratings are determined in accordance with NFRC 200.
- D. Vtc: The visible transmittance of the total fenestration system is the transmittance across the visible portion of the solar spectrum where sensitivity to each wave length is weighted by the eye's response. Visible Transmittance Ratings are determined in accordance with NFRC 300.

1.4 PERFORMANCE REQUIREMENT

- A. Performance Grade SD-LC-PG40, AAMA/WDMA/CSA 101/I.S.2/A440-08:
 - 1. Air Infiltration, ASTM E 283: Maximum 0.30 cfm/ft. at 1.57 psf (25 mph).
 - 2. Water Resistance, ASTM E 547: No leakage at 6.00 psf (48.41 mph).
 - 3. Structural Performance, ASTM E 330: Withstands up to +/-40 psf (125 mph).
 - 4. Operating Force: 30 lbg to open, 20 lbng to maintain motion.





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CLAD SWINGING DOORS AND SIDELIGHTS Aspen Swing Doors and Sidelights

- 5. Forced Entry: Grade 25
- 6. [clad XO] [clad OLO]

1.5 THERMAL PERFORMANCE RATING

- A. Glazing Type and Finish: clad.
 - 1. Center of Glass U Value (U Cog), NFRC 100: [____].
 - 2. U Tot. NFRC 100: [_____].
 - 3. Solar Heat Gain Coefficient (SHGC), NFRC 200: [_____].
 - 4. Visible light transmission (Vtc), NFRC 300: [____].
- 1.6 COATING PERFORMANCE
 - A. Primer shall comply with testing in accordance with ASTM D 3359 and ASTM D 5235.
- 1.7 SUBMITTALS
 - A. Provide submittals under provisions of Division 1.
 - B. Product Data: Include the following for each type of door required.
 - 1. Construction details and fabrication methods.
 - 2. Profiles and dimensions of individual components.
 - 3. Data on hardware, accessories, and finishes.
 - 4. Recommendations for maintenance and cleaning of exposed surfaces.
 - C. Shop Drawings: Include information not fully detailed in manufacturer's product data and include the following for each type of door required.
 - 1. Fabrication, layout and installation details, including anchors.
 - 2. Typical door elevations.
 - 3. Full size section details of typical composite members, including reinforcement.
 - 4. Hardware, including operators.
 - 5. Glazing details.
 - 6. Accessories.
 - D. Samples: Submit one corner section. Submit color samples as appropriate.
- 1.8 QUALITY ASSURANCE
 - A. Manufacturer Qualifications: Manufacturer shall have produced types of doors specified for not less than ten years, with similar projects that have been in successful use for not less than ten years.
 - B. Obtain wood door units through one source from a single manufacturer.
 - C. Safety Glass Standard: Provide products complying with testing requirements of United States Consumer Product Safety Commission's 16 CFR, Part 1201 for Category II materials or as prescribed by local codes. Provide products complying with ANSI Z97.1.
 - 1. Subject to compliance with project requirements, provide safety glass permanently marked with certification label of Safety Glazing Certification Council or another certification agency acceptable to authorities having jurisdiction.
 - D. Insulated Glass Certification: Provide insulated glass units permanently marked on spacers or on at least one component pane of units with appropriate certification label of inspecting agency.
 - E. WDMA Hallmark Certification: Provide products that have been certified as having been manufactured in accordance with WDMA Hallmark standards. Compliance is verified through independent third party product testing and semi-annual inspections of the manufacturing facility.
 - F. Wood Components Sustainability Standards: Provide products that have been certified by independent third parties and labeled as having been produced in compliance with the accepted principles of sustainable forest management. Current certification systems that



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CLAD SWINGING DOORS AND SIDELIGHTS Aspen Swing Doors and Sidelights

meet this standard of sustainability include the SFI[™] or Sustainable Forestry Initiative (independent third-party verification), the ISO 14001 EMS program, the FSC (Forest Stewardship Council) system, and the CSA (Canadian Standards Association) certification system.

- 1.9 DELIVERY, STORAGE, AND HANDLING
 - A. Ship units with both temporary and permanent NFRC labeling.
 - 1. Temporary label shall indicate that the unit is NFRC certified and include brief product description and thermal or energy performance values.
 - 2. Permanent label shall include manufacturer identification and performance tracking for life of product.
 - B. Deliver in original packaging, undamaged, with instructions.
 - C. Store off ground and protect from weather.
- 1.10 WARRANTY
 - A. Insulated Glass: Provide manufacturer's limited warranty against failure of air seal due to defects in materials or workmanship for period of 20 years from date of manufacture.
 - B. Wood Components, Hardware, and Weatherstripping: Provide manufacturer's ten year limited warranty against defects in workmanship or materials which might unreasonably affect product's normal functioning.
 - C. Metal Clad Warranty:
 - 1. Residential 2605 Metal Clad Warranty: Provide manufacturer's 30 year limited warranty on metal clad coating against cracking or checking; 25 year limited warranty on metal clad coating against color change; 20 year warranty on metal clad coating against chalking or peeling (adhesion loss).
 - 2. Commercial 2605 Metal Clad Warranty: Provide manufacturer's 20 year limited warranty on metal clad coating against cracking, checking, color change, chalking or peeling (adhesion loss) in normal conditions; 10 year limited warranty on metal clad coating against cracking, color change, chalking or peeling (adhesion loss) in extreme conditions.
 - 3. 2604 Metal Clad Warranty: Provide manufacturer's 10 year limited warranty on metal clad coating against cracking, checking, color change, chalking or peeling (adhesion loss). (2604 powder coating available in Heritage Collection Textured Series only.)

PART 2PRODUCTS

- 2.1 MANUFACTURERS
 - A. Acceptable Manufacturers: Sierra Pacific Windows, Red Bluff, CA, Medford and Merrill, WI. 800-824-7744; <u>www.sierrapacificwindows.com</u>
 - B. Substitutions: Not permitted.
- 2.2 MATERIALS

Β.

- A. Wood: Ponderosa Pine, kiln dried to moisture content of 6 to 12 percent at time of fabrication; water-repellent preservative treated in accordance with WDMA I.S.4.
 - 1. Grade and Grain:
 - a. Interior Exposed Wood: Solid clear, suitable for staining or painting.
 - Aluminum Cladding: Extruded 6063 T5 grade aluminum.
 - 1. Frame Cladding Thickness: 0.062 inch.
 - 2. Panel Cladding Thickness: 0.075 inch.
- C. Glazing: Provide manufacturer's standard glazing material.



Aspen Swing Doors and Sidelights

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CLAD SWINGING DOORS AND SIDELIGHTS Aspen Swing Doors and Sidelights

- 1. Insulated Glass (IG): 3/4 inch total thickness separated by 1/2 inch silicone foam Super Spacer® system from Edgetech.
- 2.3 COMPONENTS
 - A. Hardware:
 - 1. Multi-point Locking System:
 - a. Active Leaf: 3-point lock.
 - Lever handle with key lock controls engaging and releasing of bolts at head and sill.
 a. Handle Style: [Munchen]
 - b. Escutcheon Style: 374.
 - 3. Deadbolt.
 - 4. Latch.
 - 5. Hinges: Standard butt hinge, 4 inches by 4 inches, [adjustable hinge, includes set and guide hinges].
 - a. Provide three hinges on 80 inch and 82 inch height doors.
 - 6. Strike Plates: Door manufacturer's heavy gage type.
 - 7. Head and Sill Strike Plates: Stainless Steel. Door manufacturer's heavy gage type.
 - B. Sill: Extruded aluminum sill with pultruded fiberglass threshold /thermal break.
 - 1. Strike plate: Stainless Steel.
 - 2. Strike plate anchor: Glass-filled Nylon.
 - 3. Sill Plugs: Glass-filled Nylon.
 - C. Weatherstripping:
 - 1. Head and Side Jambs: Vinyl-covered foam weatherstrip.
 - 2. Panels: Vinyl-covered foam weatherstrip around entire perimeter.
 - 3. Panel Tops: Leaf type weatherstrip.
 - 4. Panel Bottoms: Aluminum track with vinyl sweep.
 - 5. Sill: Vinyl-covered foam weatherstrip.
 - D. Drip Cap: Extruded aluminum clad drip cap factory mounted to frame.
- 2.4 FABRICATION
 - A. Fabricate units that are reglazable from interior without dismantling.
 - B. Factory assemble unit to include frame, panels, weatherstripping, applied jamb extension, astragals, drip cap, and operating hardware.
 - C. Basic Jamb:
 - 1. Basic Jamb Width: 4-9/16 inches.
 - D. Frame Head: Fabricate with stainless steel strike plate for the multi-point lock system.
 - E. Panels:
 - 1. Stile and Rail Thickness: 2-1/4 inches.
 - 2. Stile Width: 4-5/8 inches.
 - 3. Top Rail Width: 4-5/8 inches.
 - 4. Bottom Rail Width: 6-13/16 inches.
 - 5. Attach solid, edge-glued rails to laminated engineered stiles with 5/8 inch by 4 inch fluted dowels. Seal with exterior glue.
 - 6. Fabricate with phenolic high density laminate moisture vapor barrier laminated to both sides of stiles.
 - F. Glued and Laminated Components: Comply with ASTM D 5572 and ASTM D 5751.

G. Cladding:

- 1. Clad exterior wood surfaces with extruded aluminum.
- 2. Fabricate frame cladding to meet frame weatherstripping.
- 3. Seal clad frame corners with silicone, along with butyl pads, and secure with stainless steel screws.
- 4. Fabricate frame extrusion with continuous integral nail flange.



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CLAD SWINGING DOORS AND SIDELIGHTS Aspen Swing Doors and Sidelights

- 5. Fabricate exterior of frame with accessory groove to accept retrofit trim system or clad brickmould.
- H. Glazing: Fabricate door unit with fifteen lites.
- I. Muntins:
 - 1. Fabricate interior simulated divided lite (simulite) bars of wood.
 - 2. Fabricate exterior simulated divided lite (simulate) bars of aluminum clad.
 - 3. Permanently apply muntins to both interior and exterior of glass surface using VHB acrylic adhesive tape.
 - 4. Muntin Profile and Width:
 - a. Traditional: 7/8 inch.
- J. Sill:
 - 1. Outswing Doors: Fabricate sill with strike plate and anchor for multi-point lock system.
- 2.5 FINISHES
 - A. [Interior Exposed Wood: Factory apply acrylic latex primer.]
 - B. Exterior Finish Cladding: To be manufacturer's pre-treated aluminum surface with baked on, electrostatically applied super durable polyester powder paint, zero-VOC finish conforming to specified AAMA 2604 or AAMA 2605 test procedures. Color specified from one of the seven available design collections. Please refer to our website www.sierrapacificwindows.com, or contact your SPW representative to view this expansive color palette.
 - 1. Manufacturer's super durable polyester powder; 1.5 to 2.5 mil dry film thickness.
 - Factory finish to comply with AAMA 2604. Color: White.
 - 1) Textured Collection.
 - C. Drip Cap: Match frame color.
 - D. Exposed Hardware:

a.

- 1. Interior / Exterior Operating Lever Handle / Escutcheon Set / Strike Plates: Satin nickel
- 2. Hinges:
 - a. Outswing Resista satin nickel
- E. Sill:
 - 1. Exposed Aluminum: Anodized bronze tone.

PART 3EXECUTION

- 3.1 EXAMINATION
 - A. Site Verification of Conditions: Verify installation conditions previously established under other sections are acceptable for product installation in accordance with manufacturer's instructions.
 - B. Verify that field measurements are acceptable to suit door unit tolerances.
 - C. Verify sill plate is level.
 - D. Verify supports and anchors are correctly and securely positioned.
 - E. [Verify masonry surfaces are dry and free of excess mortar, sand, and other construction debris.]
 - F. [Verify wood frame walls are dry, clean, sound, well-nailed, free of voids, and without offsets at joints. Ensure that nail heads are driven flush with surfaces in opening and within 3 inches of the corner.]
 - G. Scheduling of installation implies that substrate and conditions are prepared and ready for product installation. Proceeding with installation implies installer's acceptance of substrate and conditions.
- 3.2 PREPARATION
 - A. Coordinate door installation with wall flashings and other built-in components.



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CLAD SWINGING DOORS AND SIDELIGHTS Aspen Swing Doors and Sidelights

- 3.3 INSTALLATION
 - A. Install door units, hardware, and components in accordance with manufacturer's instructions and approved shop drawings, in compliance with specified performance requirements, and to provide weathertight construction.
 - B. Anchor components rigidly and securely to building structure, plumb and level, accurately fitted, and free from distortion or defects.
 - C. Fit exposed connections to form tight hairline joints.
- 3.4 ADJUSTING
 - A. Adjust doors, hardware, and weatherstripping to provide tight fit at contact points, smooth operation, and weathertight closure.
- 3.5 CLEANING
 - A. Clean interior and exterior surfaces immediately after installation in accordance with manufacturer's recommendations for cleaning and maintenance.
 - B. Remove temporary labels from surfaces.
 - C. Remove and replace glass damaged during construction period.
- 3.6 PROTECTION
 - A. Protect door units from damage or deterioration until Substantial Completion.

END OF SECTION

PART 4





SECTION 085213-3

ALUMINUM CLAD/WOOD WINDOWS Standard Casement/Awning (WI)

Sierra Pacific Windows P.O. Box 8489 Red Bluff, CA 96080 Toll Free Tel: 800.824.7744 Web: www.sierrapacificwindows.com

GENERAL

- 1.1 SECTION INCLUDES
 - A. Aluminum clad exterior/ wood interior Casement / Awning windows with hardware.
- 1.2 RELATED SECTIONS
 - A. Section 01330 Submittal Procedures.
 - B. Section 01600 Product Requirements.
 - C. Section 06100 Rough Carpentry.
 - D. Section 06200 Finish Carpentry.
 - E. Section 07900 Joint Sealers.
 - F. Section 08810 Glass and Glazing.
 - G. Section 09900 Painting: Interior painting of primed wood frame, door and trim.

1.3 REFERENCES

- A. AAMA American Architectural Manufacturers Association:
 - 1. AAMA 2604 Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
 - 2. AAMA 2605 Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
- B. AAMA/WDMA/CSA American Architectural Manufacturers Association/Window and Door Manufacturers Association/Canadian Standards Association:
 - 1. AAMA/WDMA/CSA 101./I.S.2/A440-11 Standard/Specification for Windows, Doors and Unit Skylights.
- C. ANSI American National Standards Institute:
 - 1. ANSI Z97.1 American National Standard for Safety Glazing Materials Used in Buildings -Safety Performance Specifications and Methods of Test.
 - 2. ANSI-SMA-1004 Aluminum Tubing Framing Screens for Windows.
- D. ASTM American Society for Testing and Materials:
 - 1. ASTM C1036 Standard Specification for Flat Glass.
 - ASTM C1048 Standard Specifications for Heat-Treated Glass Kind HS, Kind FT Coated and Uncoated Glass.
 - 3. ASTM E283 Standard Test Method for Determining the Rate of Air Leakage through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Difference Across the Specimen.



Standard Casement/Awning (WI)





ALUMINUM CLAD/WOOD WINDOWS

Standard Casement/Awning (WI)

- 4. ASTM E330 Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
- 5. ASTM E547 Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls and Doors by Cyclic Static Air Pressure Difference.
- 6. ASTM E2188 Standard Test Method for Insulating Glass Unit Performance.
- 7. ASTM E2189 Standard Test Method for Testing Resistance to Fogging in insulated Glass.
- E. FS Federal Specification
 - 1. FS L-S-125B Screen, Insect Non-Metallic.
- F. IGCC Insulated Glass Certification Council.
- G. IGMA Insulating Glass Manufacturers Alliance.
- H. NAAMM National Association of Architectural Metal Manufacturers Metal Finishes Manual for Architectural and Metal Products.
- I. NFRC National Fenestration Rating Council:
 - 1. NFRC 102 Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems.
 - 2. NFRC 200 Procedures for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.
 - 3. NFRC 500 Procedure for Determining Fenestration Product Condensation Resistance Values.
 - 4. Energy Star Compliant Models available.

1.4 DEFINITIONS

- A. Performance Class Designations:
 - 1. R (Residential): Commonly used in one and two-family dwellings.
 - 2. LC (Light Commercial): Commonly used in low-rise multi dwellings, low rise professional offices, libraries and low-rise motels.
 - 3. CW or C (Commercial): Commonly used in low-rise and mid-rise building and factories, hotels and retail sales buildings.
 - 4. AW or H (Heavy Commercial): Commonly used in high-rise and mid-rise buildings to meet increased loading requirements and limits on deflection and in buildings where frequent and extreme use of the fenestration products is expected. For example; hospitals, schools, institutions, dormitories, government or public buildings, and other buildings where heavy use of fenestration products is expected.
- B. Performance Grade (PG) Designations: Actual design pressure that is designated by a number following the type and class designation in pounds force per square foot.
- C. Minimum test size: The smallest size unit permitted for performance class (gateway test size). Products must be tested at the minimum test size or at a size larger than minimum test size to comply with requirements for performance class.

1.5 PERFORMANCE REQUIREMENTS.

- A. Air infiltration (air leakage) shall not exceed the following when tested at 1.57 psf when tested in accordance with ASTM E283: 0.30 cfm per square foot of frame.
- B. Water penetration resistance There shall be no water penetration when tested at 7.52 psf pressure in accordance with ASTM E547.



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ALUMINUM CLAD/WOOD WINDOWS

Standard Casement/Awning (WI)

C. Structural load testing - Product shall meet the damaged and permanent deflection pass/fail criteria as stated in AAMA/WDMA/CSA 101 I.S.2/A440-11 when tested in accordance with ASTM E330.

1.6 SUBMITTALS

- A. Shop Drawings: Submit under provisions of Section 01300.
- B. [<u>Product Data</u>]: Submit manufacturer's catalog data on each product to be used in accordance with Section 01330. Include glazing system and two complete sets of color chips representing manufacturer's full range of available colors.
- C. Samples: Submit corner section in accordance with Section 01330. Include glazing system and two complete sets of color chips representing manufacturer's full range of available colors.

1.7 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
 - 1. A manufacturer capable of fabricating wood windows that meet or exceed performance requirements indicated and of documenting this performance by inclusion in lists and by labels, test reports, and calculations.
- B. Installer Qualifications:
 - 1. An installer acceptable to wood window manufacturer for installation of units required for this Project.
- C. Product Requirements:
 - 1. Comply with AAMA/WDMA 101/I.S.2/NAFS, "North American Fenestration Standard Voluntary Performance Specification for Windows, Skylights and Glass Doors," for definitions and minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.
 - 2. Comply with published recommendations of glass manufacturers and with GANA's "Glazing Manual" unless more stringent requirements are indicated.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging in an upright position off the ground in a clean, dry area until ready for installation.
- B. Prime or seal wood surfaces if more than 30 days between delivery and installation.

1.9 PROJECT CONDITIONS

- A. Field Measurements: Verify wood window openings by field measurements before fabrication and indicate measurements on Shop Drawings.
- B. 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 absolute limits.

1.10 WARRANTY

- A. Warranty: Provide manufacturer's standard warranty as follows.
 - 1. Workmanship and Materials: 10-year limited warranty.
 - 2. Insulating Glass: 20-year limited warranty (Residential and Commercial).
 - 3. Exterior Clad Finish:







ALUMINUM CLAD/WOOD WINDOWS

Standard Casement/Awning (WI)

- a. Commercial 2605 Metal Clad: 20-year limited warranty on metal clad coating against cracking, checking, color change, chalking or peeling (adhesion loss) in normal conditions; 10 year limited warranty on metal clad coating against cracking, checking, color change, chalking or peeling (adhesion loss) in extreme conditions.
- b. Residential 2605 Metal Clad: 30-year limited warranty on metal clad coating against cracking or checking.
- c. Commercial and Residential 2604 Metal Clad Warranty: 10-year limited warranty on metal clad coating against cracking, checking, color change, chalking or peeling (adhesion loss).
- 4. Interior Finish: 2-year limited warranty.
- 5. Warranty Labor: 2-year limited warranty.

PART 2 PRODUCTS

- 2.1 MANUFACTURERS
 - A. Acceptable Manufacturers: Sierra Pacific Windows, Red Bluff, CA, Medford and Merrill, WI. 800-824-7744; <u>www.sierrapacificwindows.com</u>
 - B. Substitutions: Not permitted.

2.2 APPLICATIONS/SCOPE

Refer to Window Schedule on the drawings for application and location.

- A. Aluminum Clad Casement:
 - 1. Aluminum Clad Operating Casement as manufactured by Sierra Pacific Windows.
 - a. Performance: CW-PG50, standard product, maximum size 36.1875 inches (919mm) by 84.1875 inches (2138mm). Single Units Only.
 - b. Performance: CW-PG30, maximum size 42.1875 inches (1072mm) by 84.1875 inches (2138mm). Single Units Only. With Limit Device.
 - c. Performance: LC-PG50, standard product, maximum size 36.1875 inches (919mm) by 72.1875 inches (1833mm). Single or Mulled Units.
 - d. Performance: LC-PG25, standard product, maximum size 28.1875 inches (716mm) by 96.1875 inches (2443mm). Single or Mulled Units.
 - Operating Hardware: Truth Encore E-Guard dual arm operator allowing sash to open 90 degrees. Standard adjustable hinges with optional butt hinges.
 a. Optional Coastal Corrosion finish.
 - 3. Locking Hardware: Single lever, multi-lock system.
- 2.3 GLAZING
 - A. Premium quality flat glass complying with ASTM C 1036.
 - B. Factory-Glazed Fabrication: Comply with requirements of Section 08810 and with AAMA/WDMA 101/I.S.2/NAFS.
 - 1. Safety Glass: Provide laminated and tempered products complying with testing requirements in 16 CFR 1201, for Category II materials.
 - C. Interior Glazed.
 - D. Glass Type: Standard Low-E Insulated Glass (IG).
 - 1. Optional glazing:
 - a. Clear IG (no coatings)
 - E. Glass Type: Standard ¼" Monolithic Clear (no coatings).



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ALUMINUM CLAD/WOOD WINDOWS Standard Casement/Awning (WI)

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ina (WI)

- SIERRA PACIFIC WINDOWS
 - F. Grilles
 - 1. Type:
 - a. Simulated Divided Lite (SDL): Combination of applied wood interior grille bars, spacer within the airspace of the IG, with applied exterior grille bars using superior 3M tape.
 - 2. Profile:
 - a. Interior Removable Wood Surround.
 - 1)Traditional, 7/8 inch (22 mm) width. (Surround with concealed clip only).
 - b. GBG.
 - 1) 5/8 inch (16 mm) width Flat.
 - 2)11/16 inch (17.5 mm) width Contour.
 - 3)1 inch (25.4 mm) width Contour
 - c. Simulated Divided Lite (SDL)
 - 1)Traditional 7/8 inch (22 mm) width.
 - 3. Pattern:
 - a. Equal.
 - 2.4 CONSTRUCTION
 - A. Frame: 1-1/4" (32mm) thick frame, 0.050" (1.27mm) extruded aluminum, mitered corners mechanically fastened with injectable corner keys, and interior wood for head, sill and jamb, kiln dried to a moisture content of 6-12% at time of fabrication. Interior wood stops blind fastened from the perimeter of the frame.
 - B. Sash: 1-11/16" (44 mm) thick sash, 0.050" (1.27mm) thick extruded aluminum and wood interior, sash corners tenoned and mechanically fastened.
 - C. Interior: Solid wood species. Finish as scheduled1. Pine (standard).
 - D. Coreguard Plus: Wood parts are treated in accordance with WDMA I.S.4.
 - E. Extension Jambs: As indicated.
 - F. Weatherproofing: Dual weatherstip system to include primary closed-cell foam weatherstrip on perimeter of frame with secondary PVC bulb type weatherstrip applied to all four sides of the sash.
 - 2.5 FINISH
 - A. Interior Finish: [____]
 - 1. Primed Wood.
 - B. ** NOTE TO SPECIFIER ** Delete if not required.

2.6 HARDWARE

- A. Finish:
 - 1. White. (Standard)

2.7 SCREENS

- A. Removable insect screens provided for each operating sash, fitted to the interior of the window unit, with integral lift rail and top leaf springs.
- B. Screen fabric is 18x16 fiberglass mesh. Charcoal fiberglass cloth standard. Charcoal aluminum, bright aluminum, better vue and ultra vue mesh optional.






ALUMINUM CLAD/WOOD WINDOWS Standard Casement/Awning (WI)

C. Screen Finish: [Matched to selected hardware finish].

2.8 FABRICATION

- A. Fabricate wood windows in sizes indicated.
- B. Weather Stripping: Provide full-perimeter weather stripping for each operable sash and ventilator, unless otherwise indicated.
- C. Factory machine windows for openings and for hardware that is not surface applied.
- D. Mullions: Provide mullions and cover plates as shown, matching window units, complete with anchors for support to structure and installation of window units.

PART 3 EXECUTION

- 3.1 EXAMINATION
 - A. Do not begin installation until substrates have been properly prepared.
 - B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- 3.2 PREPARATION
 - A. Clean surfaces thoroughly prior to installation.
 - B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- 3.3 INSTALLATION
 - A. Install in accordance with manufacturer's instructions.
- 3.4 PROTECTION
 - A. Protect installed products until completion of project.
 - B. Touch-up, repair or replace damaged products before Substantial Completion.
 - C. Finished Windows: Replace windows that are damaged or do not comply with requirements. Windows may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing.

END OF SECTION





SECTION 085213-8

METAL-CLAD WOOD WINDOWS Westchester Double/Single Hung Westchester Double Hung Picture/Transom

Sierra Pacific Windows P.O. Box 8489 Red Bluff, CA 96080 Toll Free Tel: 800.824.7744 Web: www.sierrapacificwindows.com

GENERAL

1.1 SECTION INCLUDES

A. Aluminum clad exterior/ wood interior Westchester Double/Single Hung windows with hardware, Westchester Picture and Transom windows.

1.2 RELATED SECTIONS

- A. Section 01330 Submittal Procedures.
- B. Section 01600 Product Requirements.
- C. Section 06100 Rough Carpentry.
- D. Section 06200 Finish Carpentry.
- E. Section 07900 Joint Sealers.
- F. Section 08810 Glass and Glazing.
- G. Section 09900 Painting: Interior painting of primed wood frame, door and trim.
- 1.3 REFERENCES
 - A. AAMA American Architectural Manufacturers Association:
 - 1. AAMA 2604 Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
 - 2. AAMA 2605 Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
 - 3. AAMA 611 Voluntary Specification for Anodized Architectural Aluminum.
 - B. AAMA/WDMA/CSA American Architectural Manufacturers Association/Window and Door Manufacturers Association/Canadian Standards Association:
 - 1. AAMA/WDMA/CSA 101./I.S.2/A440-11 Standard/Specification for Windows, Doors and Unit Skylights.
 - C. ANSI American National Standards Institute:
 - 1. ANSI Z97.1 American National Standard for Safety Glazing Materials Used in Buildings Safety Performance Specifications and Methods of Test.
 - 2. ANSI-SMA-1004 Aluminum Tubing Framing Screens for Windows.





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METAL-CLAD WOOD WINDOWS Westchester Double/Single Hung Westchester Double Hung Picture/Transom

- D. ASTM American Society for Testing and Materials:
 - 1. ASTM C1036 Standard Specification for Flat Glass.
 - 2. ASTM C1048 Standard Specifications for Heat-Treated Glass Kind HS, Kind FT Coated and Uncoated Glass.
 - 3. ASTM E283 Standard Test Method for Determining the Rate of Air Leakage through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Difference Across the Specimen.
 - 4. ASTM E330 Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
 - 5. ASTM E413 and E90 Standard Test Method for Laboratory Measurment of Airborne Sound Transmission Loss of Building Partitions and Elements.
 - 6. ASTM E547 Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls and Doors by Cyclic Static Air Pressure Difference.
 - 7. ASTM E2188 Standard Test Method for Insulating Glass Unit Performance.
 - 8. ASTM E2189 Standard Test Method for Testing Resistance to Fogging in insulated Glass.
- E. IGCC Insulated Glass Certification Council.
- F. IGMA Insulating Glass Manufacturers Alliance.
- G. NFRC National Fenestration Rating Council:
 - 1. NFRC 102 Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems.
 - 2. NFRC 200 Procedure for Determining Fenestration Product Solar Heat Gain Coefficient at Normal Incidence.
 - 3. NFRC 300 Procedure for Determining Solar Optical Properties of Simple Fenestration Product.
 - 4. Energy Star Compliant Models available.
- H. WDMA I.S.4 Industry Specification for Preservative Treatment in Millwork.
- 1.4 DEFINITIONS
 - A. Performance Class Designations:
 - 1. R (Residential): Commonly used in one and two-family dwellings.
 - 2. LC (Light Commercial): Commonly used in low-rise multi dwellings, low rise professional offices, libraries and low-rise motels.
 - 3. CW or C (Commercial): Commonly used in low-rise and mid-rise building and factories, hotels and retail sales buildings.
 - 4. AW or H (Heavy Commercial): Commonly used in high-rise and mid-rise buildings to meet increased loading requirements and limits on deflection and in buildings where frequent and extreme use of the fenestration products is expected. For example; hospitals, schools, institutions, dormitories, government or public buildings, and other buildings where heavy use of fenestration products is expected.
 - B. U-Value: Is a thermal transmittance, or the heat loss through a structural element. It is the rate of transfer of heat through a structure, divided by the difference in temperature across that structure.
 - C. SHGC: The solar heat gain coefficient of the total fenestration system represents the solar heat gain through the system relative to the incident solar radiation striking the exterior surface. Solar Heat Gain Ratings are determined in accordance with NFRC 200.





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METAL-CLAD WOOD WINDOWS Westchester Double/Single Hung Westchester Double Hung Picture/Transom

- D. Vtc: The visible transmittance of the total fenestration system is the transmittance across the visible portion of the solar spectrum where sensitivity to each wave length is weighted by the eye's response. Visible Transmittance Ratings are determined in accordance with NFRC 300.
- E. Performance Grade (PG) Designations: Actual design pressure that is designated by a number following the type and class designation in pounds force per square foot.
- F. Minimum test size: The smallest size unit permitted for performance class (gateway test size). Products must be tested at the minimum test size or at a size larger than minimum test size to comply with requirements for performance class.
- 1.5 PERFORMANCE REQUIREMENTS.
 - A. Air infiltration (air leakage) shall not exceed the following when tested at 1.57 psf when tested in accordance with ASTM E283: 0.30 cfm per square foot of frame.
 - B. Water penetration resistance There shall be no water penetration when tested at 7.52 psf pressure in accordance with ASTM E547.
 - C. Structural load testing Product shall meet the damaged and permanent deflection pass/fail criteria as stated in AAMA/WDMA/CSA 101 I.S.2/A440-11 when tested in accordance with ASTM E330.
 - D. Sound Transmission Class (STC) Product shall meet an STC rating of [_____] when tested in accordance to ASTM E413 and ASTM E90.

1.6 THERMAL PERFORMANCE RATING

Repeat following paragraph format for each Glazing Type required. Insert Glazing Type required and its corresponding performance ratings. Refer to Sierra Pacific Windows' Thermal Product Performance Guide.

- A. Glazing Type: Clear Cardinal Spacer
 - 1. U-Value, NFRC 100: .45
 - 2. Solar Heat Gain Coefficient (SHGC), NFRC 200: .55
 - 3. Visible Light Transmission (Vtc), NFRC 300: .58
- 1.7 SUBMITTALS
 - A. Shop Drawings: Submit under provisions of Section 01300.
 - B. [<u>Product Data</u>]: Submit manufacturer's catalog data on each product to be used in accordance with Section 01330. Include glazing system and two complete sets of color chips representing manufacturer's full range of available colors.
 - C. Samples: Submit corner section in accordance with Section 01330. Include glazing system and two complete sets of color chips representing manufacturer's full range of available colors.



Weschester Double Hung





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METAL-CLAD WOOD WINDOWS Westchester Double/Single Hung Westchester Double Hung Picture/Transom

1.8 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
 - 1. A manufacturer capable of fabricating wood windows that meet or exceed performance requirements indicated and of documenting this performance by inclusion in lists and by labels, test reports, and calculations.
- B. Installer Qualifications:
 - 1. An installer acceptable to wood window manufacturer for installation of units required for this Project.
- C. Product Requirements:
 - 1. Comply with AAMA/WDMA 101/I.S.2/NAFS, "North American Fenestration Standard Voluntary Performance Specification for Windows, Skylights and Glass Doors," for definitions and minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.
 - 2. Comply with published recommendations of glass manufacturers and with GANA's "Glazing Manual" unless more stringent requirements are indicated.
- 1.9 DELIVERY, STORAGE, AND HANDLING
 - A. Store products in manufacturer's unopened packaging in an upright position off the ground in a clean, dry area until ready for installation.
 - B. Prime or seal wood surfaces if more than 30 days between delivery and installation.
- 1.10 PROJECT CONDITIONS
 - A. Field Measurements: Verify wood window openings by field measurements before fabrication and indicate measurements on Shop Drawings.
 - B. 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 absolute limits.

1.11 WARRANTY

- A. Warranty: Provide manufacturer's standard warranty as follows.
 - 1. Workmanship and Materials: 10-year limited warranty.
 - 2. Insulating Glass: 20-year limited residential warranty (Residential and Commercial).
 - 3. Exterior Clad Finish:
 - a. Commercial AAMA 2605 Metal Clad: 20-year limited warranty on metal clad coating against cracking, checking, color change, chalking or peeling (adhesion loss) in normal conditions; 10 year limited warranty on metal clad coating against cracking, checking, color change, chalking or peeling (adhesion loss) in extreme conditions.
 - b. Residential AAMA 2605 Metal Clad: 30-year limited warranty on metal coating against cracking or checking.
 - c. Commercial and Residential AAMA 2604 Metal Clad Warranty: 10-year limited warranty on metal clad coating against cracking, checking, color change, chalking or peeling (adhesion loss).
 - 4. Interior Finish: 2-year limited warranty.
 - 5. Warranty Labor: 2-year limited warranty.



Weschester Double Hung



SECTION 085213-8

METAL-CLAD WOOD WINDOWS Westchester Double/Single Hung Westchester Double Hung Picture/Transom

PART 2 PRODUCTS

2.1 MANUFACTURERS

1.

- A. Acceptable Manufacturers: Sierra Pacific Windows, Red Bluff, CA, Medford and Merrill, WI. 800-824-7744; <u>www.sierrapacificwindows.com</u>
- B. Substitutions: Not permitted.

2.2 APPLICATIONS/SCOPE Refer to Window Schedule on the drawings for application and location.

- A. Westchester Double/Single Hung:
 - Aluminum Clad Westchester Operating Double/Single Hung as manufactured by Sierra Pacific Windows.
 - a. Performance: LC-PG50, standard product, maximum size 47-1/2 inches (1207mm) by 83-1/2 inches (2121mm). Single unit only.
 - b. Performance: LC-PG30, maximum size 59-1/2 inches (1511mm) by 107-1/2 inches (2731mm). Single unit only.
 - 2. Jamb width: standard 4-9/16 inches (116 mm);
 - 3. Operating Hardware: Combination lock and tilt mechanism with concealed tilt latches in the sash stile.
- 2.3 GLAZING
 - A. Premium quality flat glass complying with ASTM C 1036.
 - B. Factory-Glazed Fabrication: Comply with requirements of Section 08810 and with AAMA/WDMA 101/I.S.2/NAFS.
 - 1. Safety Glass: Provide laminated and tempered products complying with testing requirements in 16 CFR 1201, for Category II materials.
 - C. Reglazable sandwich-glazed double taped with closed-cell foam glazing tape and silicone sealant to the exterior.
 - D. Glass Type: Standard Low-E 272 [3/4"] Insulated Glass (IG).
 - E. Grilles
 - 1. Type:
 - Simulated Divided Lite (SDL): Combination of applied wood interior grille bars, spacer within the airspace of the IG, with applied exterior grille bars using superior Very High Bonded (VHB) tape.
 - 2. Profile: Traditional 7/8 inch (22 mm) width.
 - 3. Pattern: Equal.
- 2.4 CONSTRUCTION
 - A. Operating Frame: 5/8" inch (16mm) thick frame, 6/4 pine finger joint [solid] head and jambs kiln dried to a moisture content of 6-12% at time of fabrication. Mitered 0.063" (1.60mm) extruded aluminum exterior with integral nail fins. Sloped sill fabricated with rot and thermally resistant 0.078" (1.98mm) extruded vinyl with integral nail fin, with snap fitted extruded



Weschester Double Hung



METAL-CLAD WOOD WINDOWS Westchester Double/Single Hung Westchester Double Hung Picture/Transom

aluminum sill cover color matched to exterior finish. Side jambs have PVC endcap water management system with integral angled installation leg.
Overall frame depth is 5-3/4 inches (147mm), standard

are assembled and fastened to the wood sash via a vinyl clip system. Fiberglass interlock on

- B. Operating Sash: 1-3/4" (44 mm) thick sash, wood stiles and rails slot and tenon joined at the bottom rail and top rail. Top and bottom sash checkrails are dovetailed to the stiles. Stiles and rails are mechanically fastened and glued with the stiles running through. Extruded 0.055" (1.39 mm) aluminum sash stiles and top rail, 0.063" extruded aluminum bottom rail.
- C. Interior: Solid wood species. Finish as scheduled 1. Pine (standard).
- D. CoreGuard Plus™: Wood parts are dip treated in accordance with WDMA I.S.4.
- E. Weatherproofing: Combination pile weatherstipping w/center fin and a compressible bulb weatherstrip. Pile weatherstrip on sash at checkrails. Compressible bulb weatherstrip at bottom of bottom sash rail and hollow bulb weatherstrip on top rail of upper sash.
- 2.5 FINISH
 - A. Interior Finish:
 - 1. Primed Wood.

top and bottom sash.

- B. Exterior Finish: To be manufacturer's pre-treated aluminum surface with baked on, electrostatically applied super durable polyester powder paint, zero-VOC finish conforming to specified AAMA 2605 or AAMA 2604 (Textured Collection only) test procedures. Color specified from one of the industry leading 75 color palette. Please refer to our website www.sierrapacificwindows.com, or contact your SPW representative to view this expansive color palett
- 2.6 HARDWARE
 - A. Finish:
 - 1. Satin Nickel.
- 2.7 SCREENS
 - A. Screen Frame: Flexscreen (standard) with PVC coated spring steel frame with integrated insect screen mesh with no exposed fasteners. Screen frame profile to measure 11/64" x 5/16". Full screen fitted in pocketed screen channel for full engagement and removable.
 - B. Screen fabric: 18x16 Charcoal fiberglass mesh (standard).
 - C. Screen Finish: Matched to selected exterior clad color.
- 2.8 FABRICATION
 - A. Fabricate wood windows in sizes indicated.
 - B. Weather Stripping: Provide full-perimeter weather stripping for each operable sash and ventilator, unless otherwise indicated.







METAL-CLAD WOOD WINDOWS Westchester Double/Single Hung Westchester Double Hung Picture/Transom

- C. Factory machine windows for openings and for hardware that is not surface applied.
- D. Mullions: Provide mullions and cover plates as shown, matching window units, complete with anchors for support to structure and installation of window units.
- PART 3 EXECUTION
- 3.1 EXAMINATION
 - A. Do not begin installation until substrates have been properly prepared.
 - B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- 3.2 PREPARATION
 - A. Clean surfaces thoroughly prior to installation.
 - B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- 3.3 INSTALLATION
 - A. Install in accordance with manufacturer's instructions.
- 3.4 PROTECTION
 - A. Protect installed products until completion of project.
 - B. Touch-up, repair or replace damaged products before Substantial Completion.
 - C. Finished Windows: Replace windows that are damaged or do not comply with requirements. Windows may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing.

END OF SECTION





OPEN A WORLD OF EXTRAORDINARY DOORS.







At Sierra Pacific, we've been building exceptional light commercial and residential door designs for some time. With new advancements in door technology, we now have even more configurations to share, each created to highlight or complement any design you can imagine, each crafted with the same meticulous attention to detail and longevity as our windows. On the following pages, you'll find extraordinary options in specially, swinging, sliding and entrance doors. Come on in and find the idea your next project needs to open up its full potential.

More Possibilities, More Attention To Detail.







BI-FOLD Pages 6-9







SIDELITES & TRANSOMS Pages 42-45







WITH A FEATHER TOUCH.

Hinged to fold and glide with the lightest touch, our bi-fold doors are available up to 45 feet wide and 10 feet high. Stack them to one or both sides, swing them in or out, go around 90-degree corners. You can even incorporate an access door panel to go in or out without moving your entire wall. And now it's available in our FeelSafe line, for storm-prone areas.









Multi-Amazing.

Slide them in one direction. Slide them in the other direction. Stack them to one side, or slide them into a pocket in the wall. Turn a 90-degree corner into a stunning conversation. Our multi-slide doors and windows are engineered to give you years

of silky-smooth service.











And Defy Gravity.

No wonder it's being called a game changer. Ingenious mechanics raise the door panels to glide effortlessly, then lower them down to seal out the elements. With an advanced weep system to handle rainfall exposure, certification up to PG50 and a pocketing configuration, this door changes everything.







Every corner of a living space provides more opportunities for expanded views and seamless transition, which is why we've engineered our bi-fold and multi-slide doors and windows to take full advantage of 90 and 270 degrees. By reducing mass and increasing glass, we're able to transform a normal corner into a point of Interest with a beautiful view.





When you rethink everything, doors don't just open, they disappear completely. This is the idea behind our pocketing systems for our multi-slide doors and windows and lift & slide doors.

and life & slide doors. With pockets hidden in the walls, even the widest expanses of glass can be stowed out of sight, leaving you nothing but open air and spacious living.







Experiment with space, with light, with transitions, with boundaries. No matter how expansive your opening or how specific your design needs, our specialty doors are created to please. If it's a design you like, chances are we've done it. If not, we're more than happy to find just the right configuration to fit your space and your life.

Mark





Little Details, Big Impression.

A grand entrance, an elegant transition between inside and outside, both doors operable, just one door operable - no matter what you need, you'll find every one of our swinging doors carries the meticulous attention to detail and innovative engineering that sets Sierra Pacific windows and doors apart.







Consider adding a radius top to your swing doors, or experiment with the height and width of your door. Look at a Shasta door with one fixed panel and a sliding screen. Anytime you consider a swinging door from Sierra Pacific, you have a lot of other things to consider.







Inswing, Outswing, Any Way You Like It.

The movement of a door affects movement through the room. With swinging doors offered in nearly every configuration imaginable, we think you'll find a Sierra Pacific combination that moves you.





When full glass isn't right, panels add a richness and traditional aesthetic that adds warmth and charm. Experiment with our combinations, and find one that opens up a new world of design sensibility.







You Could Go Dutch.



Extra ventilation? Easy pass through? Whatever the reason, you're sure to love the utility of a door with a top and bottom panel that operate independently. Sometimes it's smart to be this functional.



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WITH ENTRANCE DOORS THAT Welcome Your Design.





Create a remarkable and distinctive look with our new pivot doors. Coming soon.







Commercial



OVERBUILT BEAUTIES.

Made with thick extruded aluminum cladding and equipped with heavy-duty construction, our commercial swinging doors come in beautiful design configurations engineered for years of repeated swinging.















Sliding Doors

A MATERIAL IMPROVEMENT.

Choose exteriors with luxurious wood or low maintenance, thick aluminum cladding. You'll also find vinyl for new construction or replacement. All share the same exceptional quality, all will give you years of flawless operation.





Practical, And Configurable.

In addition to being a smart choice for limited space, our sliding doors come in a number of eye-catching configurations to turn a large part of your wall into a large and practical combination of doors and expansive views.

A swinging door capable of withstanding hurricane force winds is something to behold. And if you live in a coastal region, it's something to live behind. Extra engineering and structural reinforcement give our FeelSafe patio doors plenty of strength to withstand the toughest conditions. Even our new FeelSafe bi-fold doors meet Zone IV/HVHZ requirements, all while letting in the most beautiful sunsets.





BEAUTIFUL INSIDE, TOUGH OUTSIDE.

Our FeelSafe sliding patio doors are constructed of the strongest, laminated glass to withstand the ugliest storms, while the interior retains the beauty of natural wood.



Stunning Views. Storm-Ready.



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SIDELITES AND TRANSOMS



ADD A SPECIAL ACCENT

Looking to get a little more inventive with your door style? Look no further than our selection of matching sidelites and transoms. They'll turn any beautiful Sierra Pacific door into something even more dramatic.







TRANSOMS ADD PRESENCE TO ANY OPENING.





SIDELITES Stunning And Useful.

Stationary or vented, add sidelites that are perfectly integrated with your door style. From recognizing a visitor to some additional ventilation, you'll love the expanded view.



DRESSING UP YOUR DOORS.



There are so many ways to customize your new Sierra Pacific doors and windows, you'll be able to create the exact look you want. Accessorize your doors to make a statement, or to blend in seamlessly with your design.

INTERIOR



Hardware



Your door handles and locking mechanisms should be pleasing to the eye and to the touch. So we make ours from forged brass and finish them with equal parts beauty and toughness.



Exterior



COLORS INSPIRED BY NATURE.

Extruded aluminum twice as thick as roll-form cladding is coated with a unique, industry-leading AAMA 2604 or 2605 powder-coated finish in an unprecedented 75 colors, with textured finishes and custom color matching also available.

TRIM TO ACCENT YOUR DESIGN.

Several choices of exterior trim in wood or aluminum cladding bring your outside design together completely.





The Natural Beauty Of Wood.

The way natural wood enriches your interior can't be overstated. We offer nine species of exceptional grain and depth to give your interior design a timeless appeal. In fact, as long as the wood is viable, we'll craft your order out of almost any species you choose.





BI-FOLD DOOR & WINDOW Features And Specifications.

Available in both inswing and outswing configurations.
 Available in wood exterior or fully extruded, durable aluminum clad exterior.

 Wood species include Ponderosa Pine, Douglas Fir, Knotty Alder and other species upon request.
 Extruded aluminum clad exteriors feature 74 AAMA 2605 & AAMA 2604 powder-coat colors and anodized finishes.

 The door panels and window sash match the profile of other Sterra Pacific product for a clean, consistent look.
 The weight of bi-fold doors and windows is carried by the header.
 The minimum jamb thickness for inswing and wood

exterior products is 6 9/16". • The bi-fold door accommodates openings up to approximately 23' wide and 10' tall.

Available with 4 5/8" or 3 3/8" stiles.
 4 5/8" Stiles are engineered.

 3 3/8" Stiles are LVL. Maximum height is 96".
 Standard glass options apply, although some obscure glass patterns may not be available due to size limitations.
 Protected by our exclusive CoreGuard Plus", the industry's best wood protection.

THE E-3 DOOR SYSTEM • Available with 1 3/4" or 2 1/4" thick panels. • Maximum panel height 120" for 2 1/4" panel, 96" for 1 3/4" panel. • Maximum panel width 48" • Maximum panel weight 250 pounds. • E-5 hardware has been tested in-house to LC-25 (outswing only, 36" x 96" - 3 panel configuration)

THE E-4 DOOR SYSTEM (Clad Outswing Only) • Available with 2 1/4" thick panels. • Maximum panel height 120". • Maximum panel width 31". • Maximum panel weight 330 pounds.

SINGLE PANEL BI-FOLD & ACCESS DOORS Matching single panel swing doors and sidelights are available. Access panels are available in most configurations and allow egress with the folding panels in the closed position. Linits with an access panel leature standard multi-point locking systems with trim set. CORNER MULLS • 90 degree corner mull is available in outswing configurations with specific operations. • 270 degree corner mull is available in inswing configurations with specific operations.

BI-FOLD WINDOWS The bi-fold window accommodates openings up to approximately 23° wide and 7° tall. 36° x 44° maximum sash size. E3 hardware: Authi-point locking hardware on operable sash. Window sash features 23/16° LVL sitiles and rails. Hardware linish options are bronze or satin nickel. Comer multis available.

HARDWARE

 Heavy dury hinges with stainless seel bearings for corrosion resistance and smooth operation. The number of hinges varies with the panel or sash height. The hinges are available in 32D brushed stainless steel, PVD brass and bronze powder coal finishes.

 D^o shaped pull handles are integrated into the design for ease of operation.
 Symphony style flushbolts: The length of the top flushbolts can

vary according to the panel or sash height. The flushbolts are available in brushed aluminum, PVD brass and bronze powder coated finishes.

Access door trimset hardware is available in several profiles and finishes.

 The clad outswing head track is powder coated to match the frame, while the inswing and all-wood product head track is 024 Bronze powder coat.

SILL TRACK

 Sills are available in our standard water resistant design, as well as low profile ADA or U-channel designs in a bronze anodized finish.
 Bi-fold products with our standard sill carry the standard

Sierra Pacific Limited Warranty. Request a copy from your sales representative or visit sierrapacificwindows.com to download.

RR LZRR LLYR \sim шш 📈 RRRRR YRRRR LZRRR $\sim \sim \sim$ \bigtriangledown ZRRRRR Exterior Exterior

RIGHT OPENING CONFIGURATIONS

LEFT

ONFIGURATIONS





Access door multi-point locking hardware available

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Hidden Flush Bolts

optional with specific

"D" handles



Multi-Slide Door & Window Features And Specifications.

Available in stacking or pocketing units.
Available in single or multi-directional configurations.
Vood species include Ponderones Pine, Douglas Fir, Knotty Alder and other species by request.
Extruded aluminum clied exteriors leature 74 AAMA 2605 & AAMA 2604 powder coat colors and anodized finishes.
The door panels and window sash match the profile of other Sierra Pacific products for a clean, consistent look.
Accommodates openings up to 23 'wide and 10' tall.
Single direction. up to 5 panels.
1 34' raz panel width 60', max height 119 1/2''.
1 34'' Raz panel width 60', max height 109 1/2''.
1 34'' Raz panel width 60', max height 96'.
Available with 4 5/8' or 3 3/8' sites.
Fanels are clain 0.07's exits heavy-duty extruded aluminum.
Full selection of performance glazing and designer options including hardware finishes.

· Protected by our exclusive CoreGuard Plus™, the industry's

best wood protection.

 Note: Due to low profile sill track, multi-slide door systems carry no water infiltration performance rating. Application requires consideration of potential exposure to weather events and elevation/location of the door system. Protection alforded by special installation techniques such as stepped sill applications and overhangs can help offset potential for water intrusion.

HARDWARE

 Two heavy-duity 2 1/8" stainless steel precision bearing rollers are installed in each panel for a smooth-as stilk glide.
 Plush inger paul in our tubbe formize or stain incikel linish.
 Multi-point lock system on leading panel.
 Initerior inger pull thumb turn activates the multipoint locking mechanism.
 Keyed lock available.

HEAD TRACK

 The head track and side jambs are finished to match the clad panel color. On wood exterior units the head track is 024 Bronze powder coat.

 $\begin{array}{l} {\sf SILL TRACK} \\ {\sf -Three heights for sill tracks: II/16", 1 1/8", 1 5/8". \\ {\sf -Three heights for selected based on the finished floor condution. \\ {\sf Chick Floor-Tall Track, Thin Floor-Short Track Sill track is saticated to the subfloor and then flooring is built up to 1/8" - 3/16" from the top of the track. \\ {\sf Tracks are made of extraded aluminum and covered with stainless steel caps. \\ {\sf -When the finished surface is complete, stainless steel cap is all that is visible. \\ \end{array}$

MULTI-SLIDE WINDOWS - Sierra Pacific Windows multi-slide windows enjoy all of the same great leatures and construction as our multi-slide doors. - Create expansive openings up to 23' wide, perfect for a pass through to an outdoor living space.



Clad Multi-Slide Door

Operation Configuration-Pocket (Multi Direction)

Clad Multi-Slide Door Operation Configuration-Pocket (Single Direction)



Clad Multi-Slide Door Operation Configuration-Stacked (Multi Direction)



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Keyed flush finger pulls.



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Clad Multi-Slide Door

Operation Configuration-Stacked (Single Direction)

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LIFT & SLIDE FEATURES AND SPECIFICATIONS.

· Available in stacking or pocketing units. · Single and bi-parting operations. · Wood species include Ponderosa Pine, Douglas Fir, Knotty

Alder and other species by request. Extruded aluminum clad exteriors feature 74 AAMA 2605 and AAMA 2604 powder coat colors and anodize finishes. · Accommodates openings up to 45' wide and 10' tall.

- · Single direction, up to 5-panels.
- · Multi-directional, up to 10-panels. · Continuous nailing flange is an integral part of the

frame extrusion. · Factory-applied extruded aluminum drip cap standard.

 Stile width 4 5/8". Head rail heights 4 5/8" or 6 13/16". Kick rail SILL TRACK heights 6 3/16" or 12". Panels greater than 60" wide require 12" bottom rail.

· 2 1/4" Max panel height 120", max panel width 72". · Dependent on size and performance requirements, optional structural upgrades available.

· Jamb widths are 7 1/2", 10 1/2", 13 1/2", and 16 1/2" (2, 3, 4, and 5 tracks respectively) including stops applied to the interior. HEAD TRACK · Heavy-duty extruded aluminum cladding, .062" thick frame & .075" thick panels.

 Standard glass options apply although some obscure glass patterns may not be available due to size limitations. • Protected by our exclusive CoreGuard Plus**, the industry's best wood protection.

HARDWARE · Hardware system operates with lower carriages that roll on an extruded aluminum sill track when the panels are in the lifted position. Carriages and bottom track support the full panel weight. Head tracks guide the door panels during operation. · Removable handle is standard on stacking systems, SlimLine handles are standard on pocketing systems, to lift and lower panels and move panels along the sill track. · Multipoint lockset on leading active panel edge. This engages the lock bolts attached to the side jamb.

· Non-keyed flush pull on exterior stile of leading active panel.

 Innovative exclusive sill design. Low profile drain track made of thermally broken extruded aluminum in a dark bronze anodized finish. Intruding water drains through the exterior weep gates or via installed drain tubes. · Standard height is 1".

 The head track on aluminum clad exterior product has a powder coat linish to match the clad panel color.





Clad Lift & Slide Door Operation Configuration-Pocket (Multi Direction)

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Clad Lift & Slide Door Operation Configuration-Stacked (Single Direction)



Clad Lift & Slide Door Operation Configuration-Stacked (Multi Direction)





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Sterra Pacific Windows is part of Sterra Pacific Industries, which owns 1.9 million acres of timberland in California and Washington state. Our vertical integration gives us total control of manufacturing. from planted seed to delivered window and door. The result? Nothing but the best gets passed on to you.



Exceptional Doors, Exceptional Support For Architects.

Every Sierra Pacific door and window comes with the full support of our Architectural Services Group and our nationwide network of Architectural Consultants, which means you get what you need when you need it. From the initial designs to the order process and final delivery, these exceptional resources will help answer your questions, streamline your project and support you down the road.





All Doors Should Be This Deeply Protected.

Our wood windows and doors are protected by CoreGuard Plus¹⁰ wood treatment, which is to say all our wood products repel water, insects and rot with enough strength to be thoroughly tested in Hawaiian rainforests, and still remain completely intact.



A WARRANTY AS TOUGH AS OUR PRODUCTS.

Sierra Pacific windows and doors are backed by our fully transferable 30/20 Limited Warranty (20/10 for commercial products). It provides 30 year residential AAMA 2605 clad exterior coating coverage, 20 year insulated glass coverage, 10 year parts coverage, 2 year labor coverage, and 10 year AAMA 2604 clad exterior coating coverage. For warranty specifics, please refer to SierraPacificWindows.com.



For support and answers to any questions, call 800-824-7744, or visit SierraPacificWindows.com

SIERRA SIERRA PACIFIC Windows That Never Compromise



We reserve the right to change product specifications without notice. Photography used may not represent current product features and options. Sierra Pacific windows and doors are successful thanks in part to our unique patents. Visit spi-ind.com/ip to learn more. ©2018 Sierra Pacific Windows

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Photo of East Façade from Eastern Property Line



Photo of East Façade from 2nd Floor





Photo of South Façade from Southern Property Line Photo of West Façade from Sycamore Ave.







Ariel Photo