

4138 Lincoln St. Renovation Historic District Commission Review

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CONTENTS

Photos of Existing Conditions	2-4
Description of Existing Conditions	5
Description of Project	6
Detailed Scope of Work	7
Replacement Material Info	8
Exterior Paint Scheme Diagrams	9-11
Existing Window Conditions	12-20

APPENDIX

Product Data and Cut Sheets

1. Photographs of Existing Conditions (taken Aug. 14 2023)



Front Façade looking North



Front Façade looking East



View from Lincoln St. looking North



View from Lincoln St. looking Southeast



South Façade from side yard



Rear Façade



Front Porch



Front Porch



Front porch / South Façade from side yard.



Rear coal chimney proposed for removal



Front chain link fence proposed for removal

2. Description of Existing Conditions

4138 Lincoln St. is a wood-framed two-story single-family house with full basement and attic constructed in the late 19th Century in the Woodbridge Farms Historic District. The style exhibits a hybrid style of residential design combining modest Victorian elements that was common of homes constructed between 1870-1910 in the area spanning Woodbridge, Corktown, and east of Cass Ave.

The most unique existing elements are the front porch which features a sweeping staggered roof with flared concave eaves, intricate wood paneling at the front bay window, sawtooth brackets below a small attic-level cantilever at the front façade and bedroom bay protrusion at the side façade, expressive shingle-clad curved corners of the front façade at the second story, and three single-hung windows with decorative motifs at the front gable attic level. The original wood structure is structurally sound overall, requiring some patches and repairs to the first floor joists and timber beams from water damage at the foundation. The brick foundation is also structurally sound and was repointed several years ago, but will require some module replacement and repointing at the rear. An original one-story rear portion of the house was removed at some point in time - the gabled imprint is still present as the siding was never properly patched.

The house features a gabled roofline at the front and hipped roof at the rear. The coatings of the existing roof shingle are degraded and require replacement. The existing front porch roof is in repairable condition, but visibly detaching from the main house structure. The existing porch columns, guardrail, decking, and skirting are not original to the structure and have significant portions missing or deteriorated beyond repair due to improper connections and general neglect. The original wood lap-siding that wrapped the majority of the house and wood scallop shingle cladding at the second story of the front and partial side facades was uncovered by the

previous owners after they had removed asphalt tiles in 2021 that covered the entire house and most likely installed decades prior. The original wood siding, trim, and front bay window panel cladding will require patching and some partial replacement of missing or rotted boards, but is in salvageable and repairable condition overall.

The majority of the original windows including frames, sashes, and aluminum storm windows were removed following a break-in and theft in January 2023 upon the purchase of the property. The only windows that remain are the three single-hung wood windows with divided lite sunburst motifs at the fixed upper sashes, which are in poor condition requiring several new components, but which the owner intends to repair and restore.

The interior has been stripped of all mechanical and plumbing fixtures and supply lines. Some electrical was previously installed by the previous owner, but will need to be reconfigured to meet electrical codes. Interior finishes have mostly been stripped and replaced, except for some original plaster walls at the front entryway, main stairway, and front bedroom at the second story. The main stairway, landing, and entryway have remained relatively unaltered from their original condition. The utility stairway leading to the basement from the first floor was relocated at some point from the rear of the house to the be stacked under the main stairway. This stairway will be repaired and partially rebuilt for structural reinforcement at its current location.

3. Description of Project

The current homeowners are seeking to perform a full renovation to become their primary residence, with modifications to the previously-approved renovation scope. Proposed work that departs from the original scope includes the addition of a deck and glazed patio doors at the south side façade to extend into the side yard and provide garden access off the dining area, raising the sills of the two windows at the south façade towards the rear to accommodate kitchen cabinet height, the replacement of all missing window units, removal of the small coal chimney at the rear, and installation of solar array panels at the rear hipped roof and at the pitched roof to be hidden from the street view behind the second level gabled bay protrusion at the south façade.

The parameters of the new side deck are designed to align with the second level gabled bay protrusion above to create a harmonious façade. The new posts and balusters will reflect those of the rebuilt front porch to establish a cohesive character. In order to provide access to the deck, we are proposing extending the bottom of the existing window openings down 20" to floor level, and infilling with new full-glazed double-swing patio doors to match the widths of the original window openings. Note that there is little to no visibility to the lower portion of the south façade from the street affronting the property due to a tall old-growth hedgerow that exists along the entire front property line. The owners are also proposing to remove the existing chain link fence in front of the hedgerow. At the rear façade, the owners seek to remove the existing rear door and infill the opening, and install a new rear entry door with transom window at the opposing side of the rear façade that opens onto a new small wood porch with stairs to access the rear of the lot for future carport/parking area. The proposed plan also includes a new slender window at the first level of the rear to increase visibility from the kitchen to the rear yard.

The original wood lap-siding and scallop shingles will be sanded and patched where required with new wood siding matching type, profile, and exposure. The wood paneling at the front bay window will similarly be patched and repaired as needed to restore to its original appearance as much as possible. The entire rear façade of the house with missing siding will be clad in new cedar lap-siding and trim boards to match the lap-siding of the side facades in profile and exposure. All siding, trim, and cladding is proposed to be painted according to the attached

paint diagrams which incorporate two Grayish Greens from Color System B, and a gray/off-white trim accent gray/off-white to balance the heavier blue/green tones. The owners intend to use a linseed-oil based paint in keeping with a type of paint authentic to the original house.

The existing double-hung window units are mostly missing and the openings have been boarded for security. The owners would like to infill the windows openings with the attached aluminum-clad wood window units. The proposed window model most closely approaches the originals in frame and sash dimension, site lines, and overall aesthetic effect after comparison between four different window models. The three original wood single-hung windows at the front gable attic level that remain will be repaired and refurbished by a local professional window restoration company. Several components of these windows are missing and will need to be replaced or recreated (meeting rails, muntins, glazing).

The proposed rebuilt front porch will not deviate from that approved within the COA issued in March 2021. The original porch roof structure will remain and be stabilized/reinforced as necessary, and the porch posts and base will be completely rebuilt per the attached drawings. The original double-swing panel front door is to remain and be refinished with a dark stain, and the existing aluminum storm door will be removed. The roof shingle covering will be replaced with new asphalt shingles to match those of the main roof.

4. Detailed Scope of Work

- Demolition:
 - Remove existing front porch elements including posts, decking, stairs, skirting, guards, and roof finishes (existing porch roof structure to remain and be repaired/refinished including bead board, trim, cornice molding, brackets)
 - Remove existing layers of roof shingles and deteriorated portions of roof decking (if applicable) and prepare surface for new shingle roof
 - Cut new openings in rear facade at first level for new kitchen window, mudroom door, and porch ledger.
 - Extend openings from removed windows on south façade below second level bedroom protrusion to allow for new patio doors to new deck.
 - Infill lower sill portions of both window openings at south façade towards rear to accommodate kitchen counter height at interior.
 - Remove existing CMU coal chimney at rear wall.
 - Remove existing chain-link fence at front yard/sidewalk.
- Exterior Improvements:
 - Install new roof membrane, shingles, flashing, gutters, and downspouts
 - Repair and repoint brick foundation wall, replace spalling or missing modules with matching common brick
 - Infill existing basement window openings with ventilated glass block
 - Replace all missing window units with proposed new aluminum-clad wood units
 - Repair three existing single-hung window units at front gable attic-level including divided-lite sunburst motifs in kind to their original construction
 - Repair existing front porch roof and rebuild porch base atop existing foundation in accordance with attached drawings
 - Construct new wood side deck and stairs; and rear porch and stairs
 - Install new rear entry door with half-lite glazing
 - Refinish existing double-swing panel front door
 - Patch, repair, refinish, and paint existing original wood lap-siding, shingles, and panel cladding at front bay window

- Install new cedar lap-siding and trim boards across entire rear façade to match side facades in profile and exposure.
- Refinish window trim at all window openings to greatest extent possible; patch in new wood trim to match the original as required.
- Paint all exterior siding and trim in accord with attached elevation paint diagrams

5. Replacement Material Information

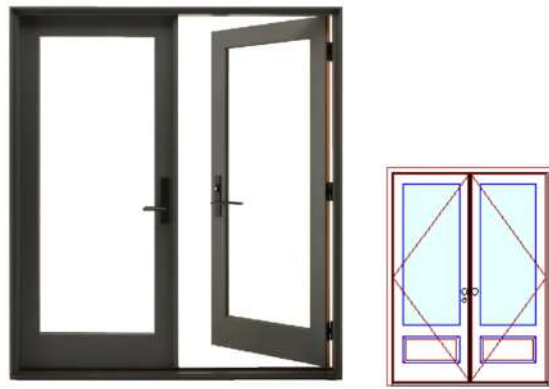
Windows

Marvin - Ultimate G2
Aluminum-Clad Wood, Black Exterior



Exterior Doors at Side/Rear:

Marvin Wood Swing Doors
Panel Base (not full lite, see shop drawing)



Basement Windows:

IPS - 8" glass block windows with vent



Roof Shingles (Main House and Porch Roof):

Atlas Roofing - Storm Master Shake
Black Shadow



6. Exterior Paint Scheme Diagrams

Body: Lap Siding



B:12 Grayish Green
MS: 10G 4/2

Body: Shingle



B:10 Grayish Green
MS: 10G 5/2

Trim:



Viking Linseed Oil Paint
Ottofon: Umber Grey

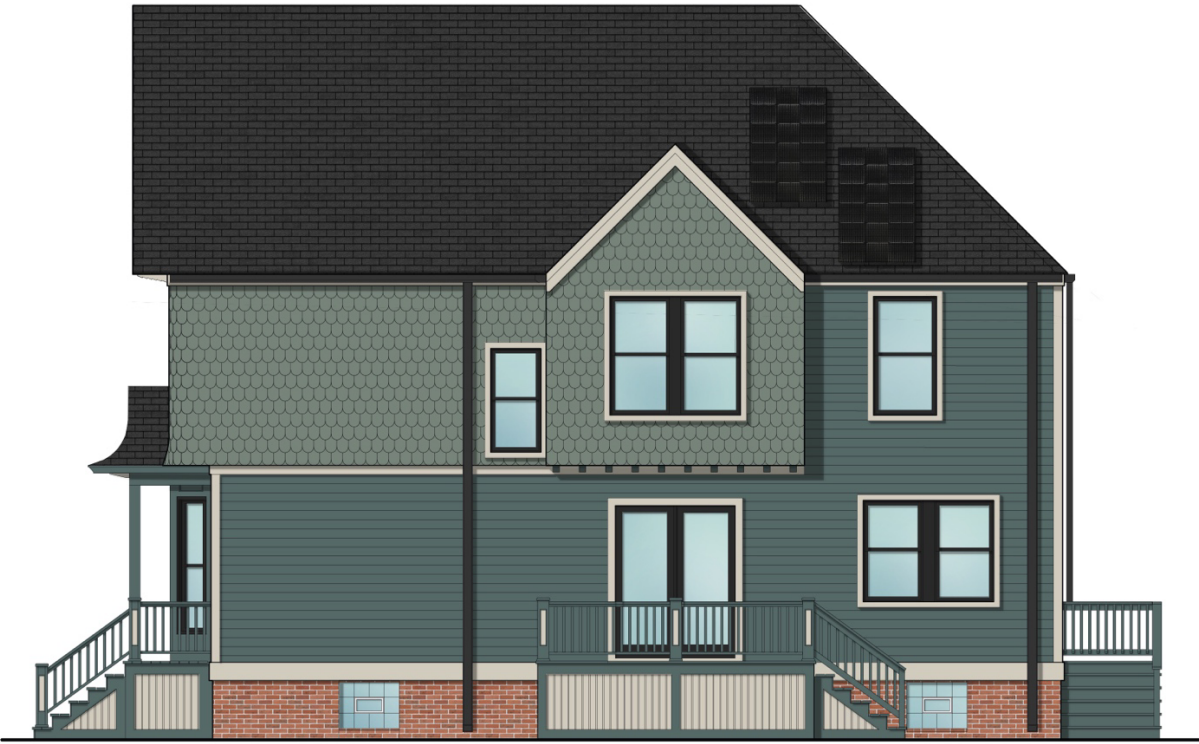
Sash/Gutters



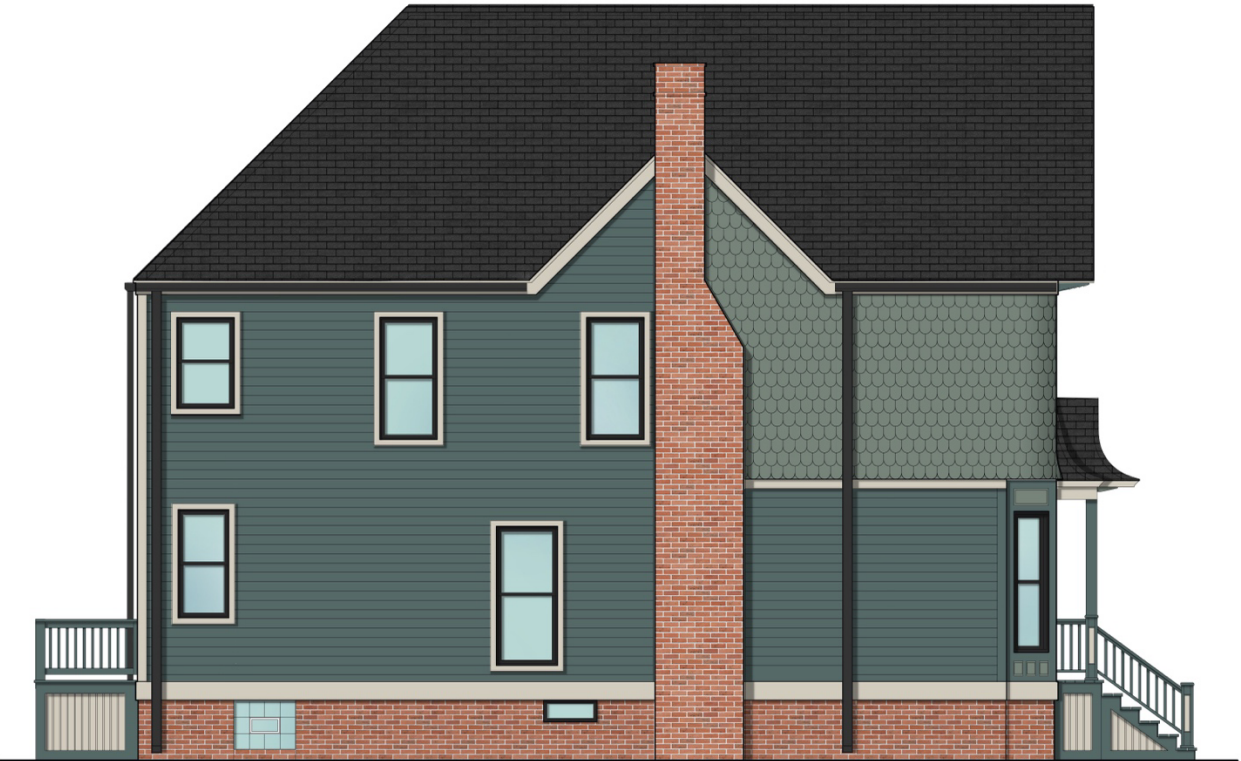
B:19 Black
MS: N 0.5/



FRONT FAÇADE (Southwest)



SIDE FAÇADE (Southeast)



SIDE FAÇADE (Northwest)



REAR FAÇADE (Northeast)

7. Existing Window Conditions

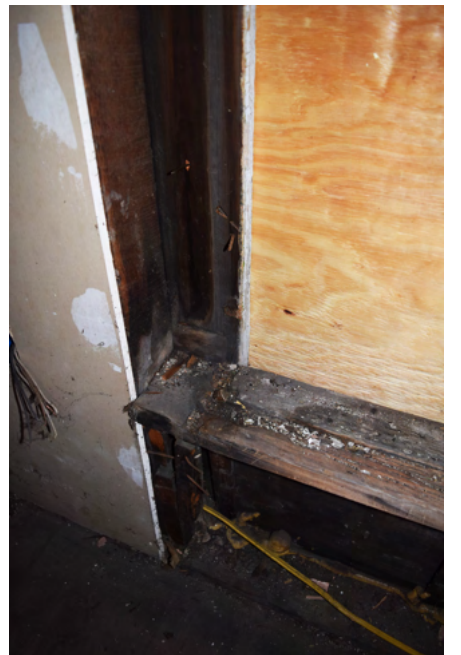
Window 1.0

Location	First Level, Front Facade
Operation	Double Hung
Condition	Missing



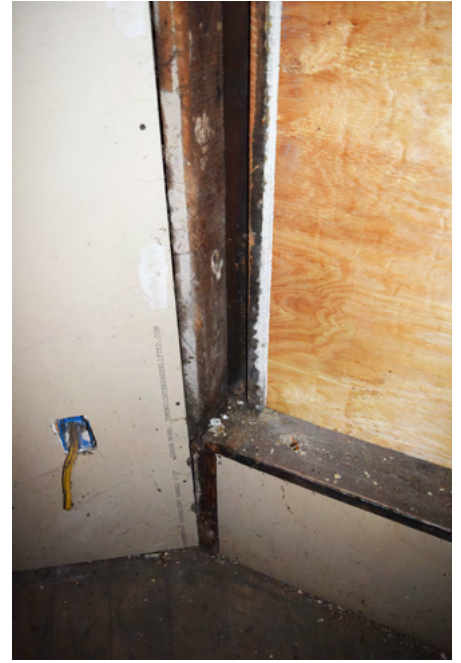
Window 1.1

Location	First Level, Front Facade
Operation	Fixed Picture with Transom
Condition	Missing



Window 1.2

Location First Level, Front Facade
Operation Double Hung
Condition Missing



Window 1.3

Location First Level, Side Facade
Operation Double Hung
Condition Missing



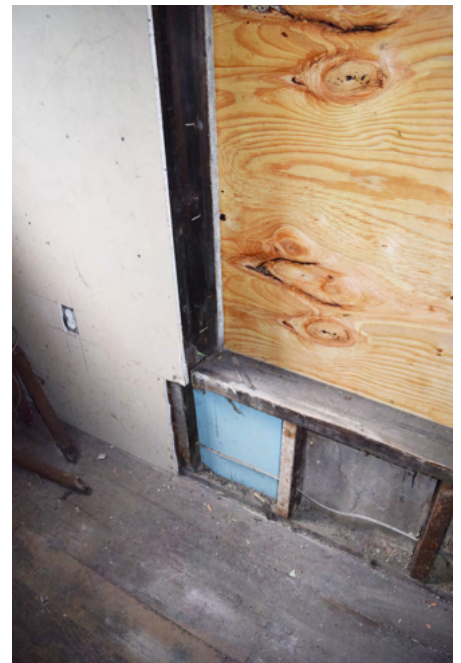
Window 1.4

Location First Level, Side Facade
Operation Double Hung
Condition Missing



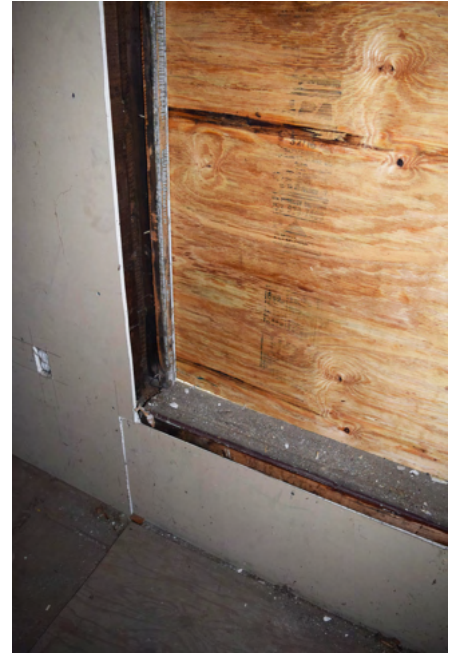
Window 1.7 / 1.8

Location First Level, Side Facade
Operation Double Hung
Condition Missing



Window 1.9

Location First Level, Side Facade
Operation Double Hung
Condition Missing



Window 2.0 / 2.1

Location Second Level, Front Facade
Operation Single Hung
Condition Missing



Window 2.2 / 2.3

Location Second Level, Front Facade
Operation Double Hung with transom
Condition Missing



Window 2.4

Location Second Level, Side Facade
Operation Double Hung
Condition Missing



Window 2.5

Location Second Level, Side Facade
Operation Double Hung
Condition Missing



Window 2.6

Location Second Level, Side Facade
Operation Double Hung
Condition Missing



Window 2.7

Location Second Level, Side Facade
Operation Double Hung
Condition Missing



Window 2.8 / 2.9

Location Second Level, Side Facade
Operation Double Hung
Condition Missing



Window 2.10

Location Second Level, Side Facade
Operation Double Hung
Condition Missing



Window 3.0

Location Third Level, Front Facade, Attic
Operation Single Hung
Condition Water damage to frame, glass missing from both sashes, broken and missing muntins



Window 3.1

Location Third Level, Front Facade, Attic
Operation Single Hung
Condition Broken and missing muntins, glass missing



Window 3.2

Location Third Level, Front Facade, Attic
Operation Single Hung
Condition Water damage to frame and sash, broken muntins

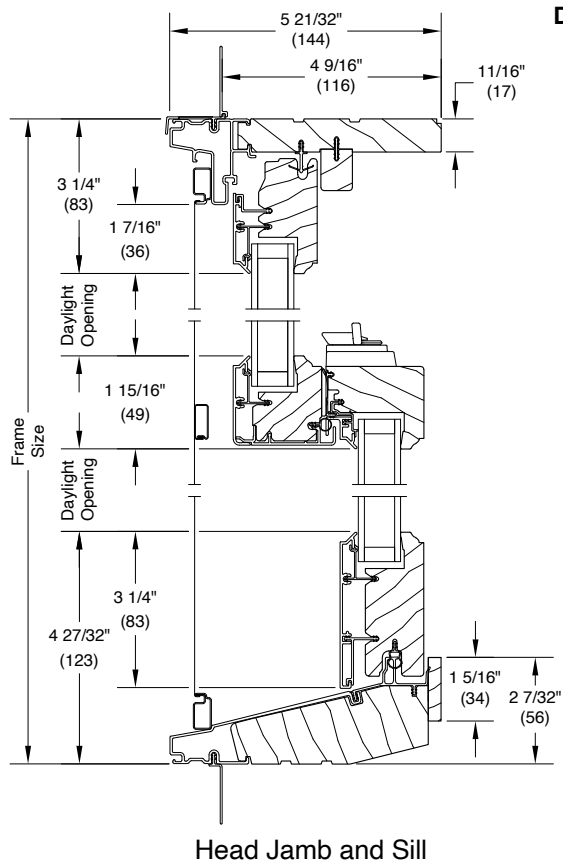


APPENDIX

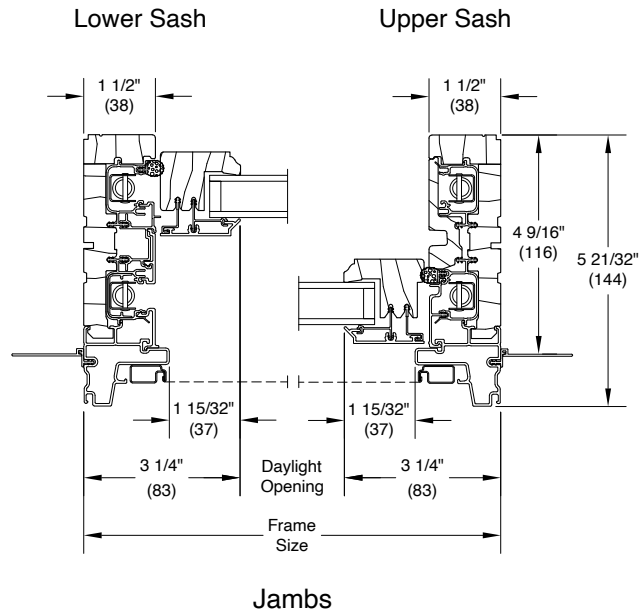
Product Data and Cut Sheets

Section Details: Operating

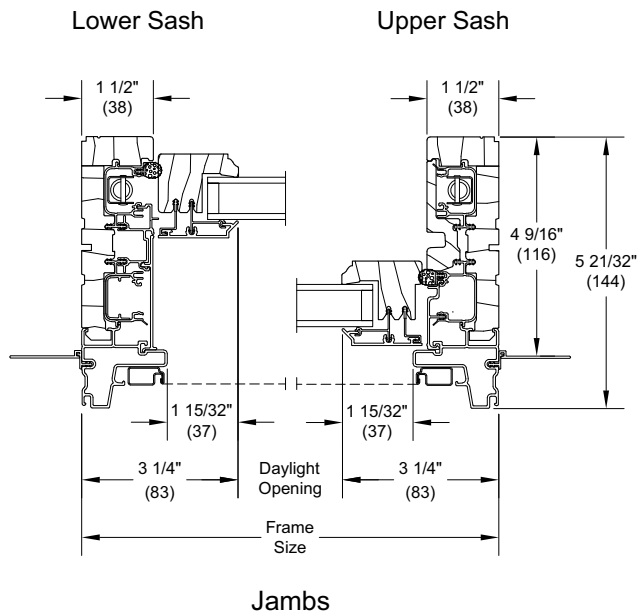
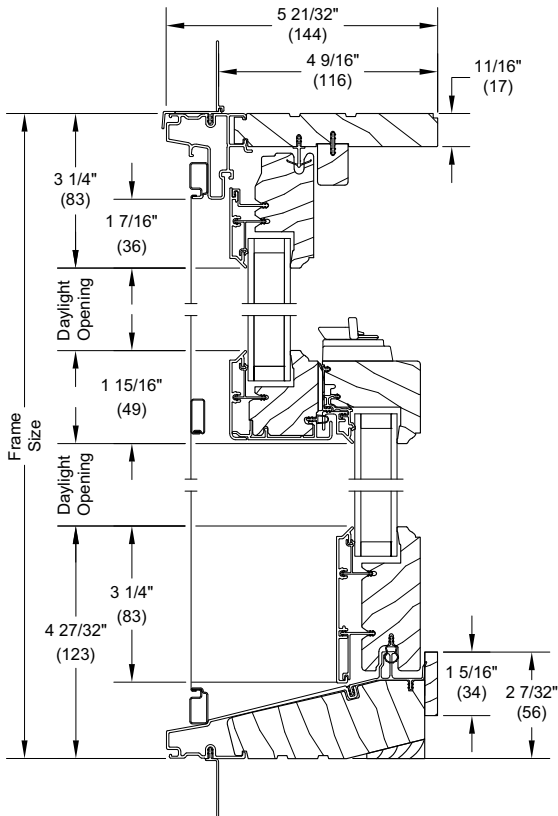
Scale: 3" = 1' 0"



Double Hung



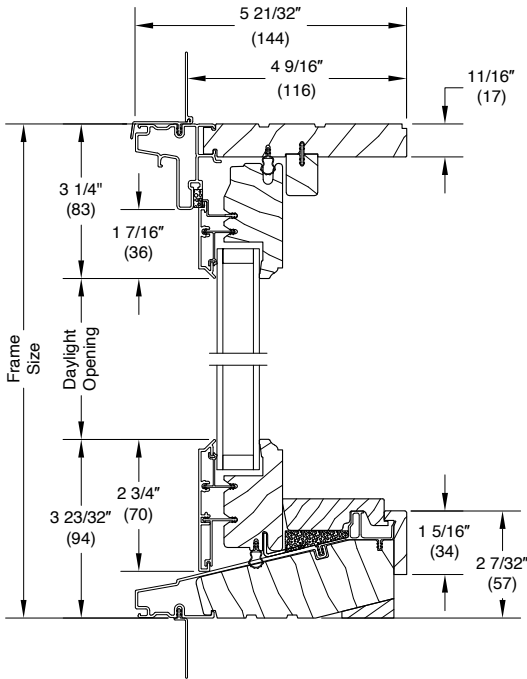
Single Hung



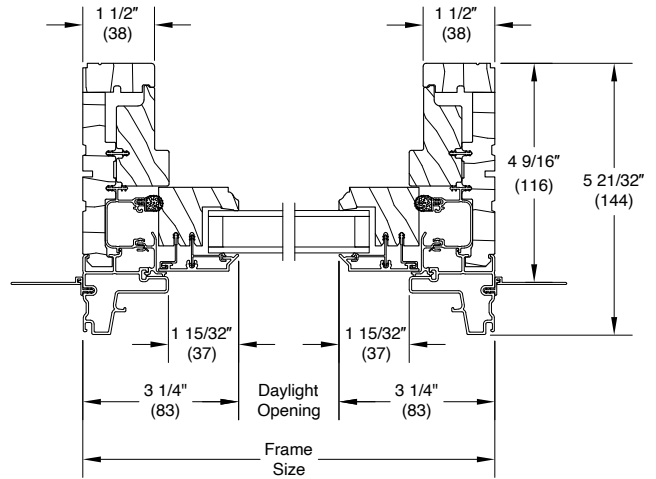
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Scale: 3" = 1' 0"

Transom

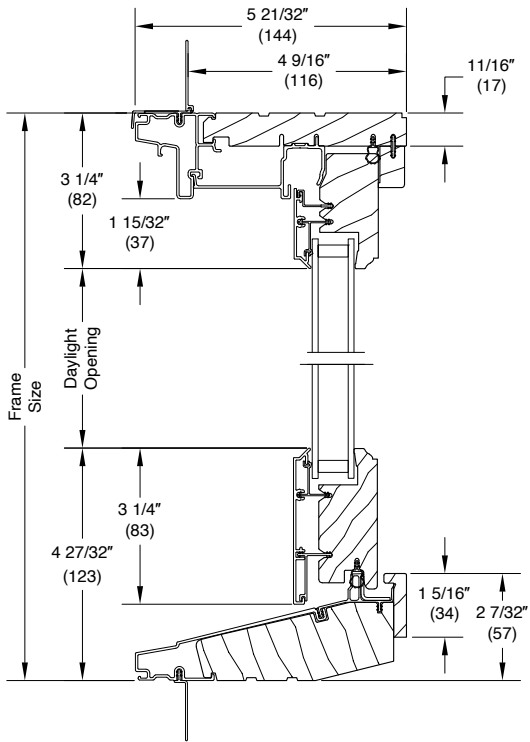


Head Jamb and Sill

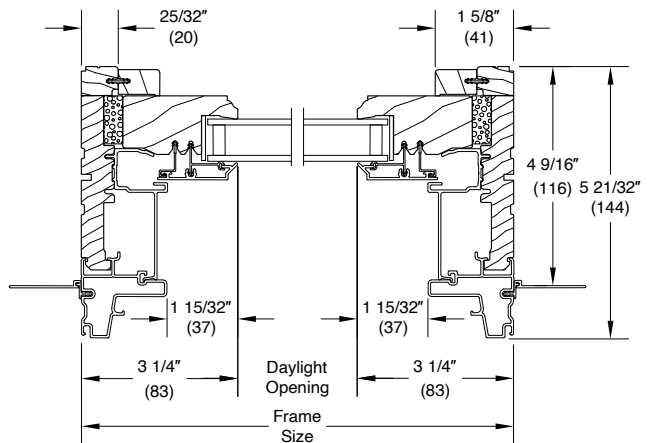


Jambs

Picture



Head Jamb & Sill



Jambs

Unit Features

Wood Swinging Door Collection consists of:

- UWIFD: Ultimate Wood Inswing French Door
- UWOFD: Ultimate Wood Outswing French Door
- UWIFD AT: Ultimate Wood Inswing French Door Arch Top
- UWOFD AT: Ultimate Wood Outswing French Door Arch Top
- UWIFD 2.25: Ultimate Wood Inswing French Door 2 1/4"
- UWOFD 2.25: Ultimate Wood Outswing French Door 2 1/4"
- UWIFD 2.25 AT: Ultimate Wood Inswing French Door Arch Top 2 1/4"
- UWOFD 2.25 AT: Ultimate Wood Outswing French Door Arch Top 2 1/4"

Frame:

- Frame thickness: 1 1/16" (27)
- Frame width: 4 9/16" (116)
- Fiberglass reinforced pultruded sill with water shed and weep system
 - Standard color: beige
 - Optional color: bronze
- Arch Top radius head jamb is laminated veneer lumber (LVL) core with non finger-jointed bare wood to the interior
- Optional interior sill liner of Oak, Mahogany or Cherry for UWIFD, UWOFD
- Standard Oak sill liner for UWIFDAT, UWOFDAT, UWIFD2.25, UWIFD2.25AT, UWOFD2.25, UWOFD2.25AT
- Optional interior sill liner of Mahogany or Cherry for UWIFD2.25, UWIFD2.25AT, UWOFD2.25, UWOFD2.25AT,

Panel:

- Panel thickness: 1 3/4" (44)
 - Top rail height and stile width: 4 3/4" (121)
 - Sidelite stile width: 3" (76)
 - Traditional French Door bottom rail height: 8 1/8" (206)
 - Contemporary Door bottom rail height: 4 3/4" (121)
 - Bottom rail:
 - Stave core is used for Pine, Douglas Fir and Mahogany
 - Stationary stile and hinged stile:
 - LVL is used for Mahogany
 - Stave core is used for Pine and Douglas Fir
 - Locking stile: all wood species uses LVL
 - Top rail:
 - LVL is used for Mahogany
 - Stave core is used for Pine and Douglas Fir
 - Solid wood for arch top doors
 - Intermediate rail: solid wood for all species
- Panel thickness: 2 1/4" (57)
 - Top rail height and stile width: 6" (152)
 - Bottom rail height: 8 1/8" (206)
 - Bottom rail, stationary stile, locking stile, hinged stile and top rail for all species use LVL
 - Top radius rail is finger-jointed solid wood
 - Top rail is solid wood for arch top doors
 - Intermediate rail: solid face laminated
 - Locking stile: all wood species uses LVL
 - Standard interior wood cope sticking: ogee
 - Optional interior wood cope sticking: square

NOTE: Short Bottom Rail doors will default to square sticking with an option to select ogee

- Panels are interior glazed

Unit Features

Raised/Flat Panel Option:

- Standard raised/flat panel is constructed of medium density fiberboard (MDF) core with laminate veneer to interior and exterior
- Alternative wood species is Vertical Grain Douglas Fir and Mahogany

NOTE:

- Panel option not available with Short Bottom Rail door.

Hardware:

- Multi-point lock: applied to active and optional on inactive panels, 2 3/8" (60) backset, with latch engagement and three locking points, with option of keyed alike
 - Dead bolt
 - Sill bolt
 - Head jamb bolt
 - Manual head and foot bolt standard on inactive panel with option of multi-point
- Multi-point is standard on 2 1/4" inactive panels
- Optional mortise lock and passage latch on active panel
- Optional prep for passage latch with deadbolt
- Optional no lock/no bore
- Optional lever handle set: active, inactive and dummy
- Traditional handle set finish options:
 - Powder coat finishes: Satin Taupe, White, Dark Bronze, Matte Black
 - Optional finishes: Satin Chrome, Polished Chrome, Antique Brass, Oil Rubbed Bronze, Oil Rubbed Bronze PVD, Brass PVD, Satin Nickel PVD
- Contemporary handle set finish options:
 - Painted finishes: Matte Black, Dark Bronze, Oil Rubbed Bronze PVD, Satin Nickel PVD

Hinges

- Adjustable hinges:
 - Standard finish: Satin Taupe with a steel substrate
 - Optional powder coat finish: Gold Tone, Dark Bronze, Silver Frost, White, Matte Black
 - Optional finishes: Antique Brass, Satin Chrome, Oil Rubbed Bronze, Polished Chrome, Brass PVD, Satin Nickel PVD, Oil Rubbed Bronze PVD
 - Dimensions: 4 1/4"(108) x 3 3/4"(95) with 3/8"(10) radius corners
 - Adjustment is 3/16"(5) for horizontal and vertical of panels in frame
 - Quantity per panel for WUIFD, WUOFD
 - Unit rough opening height ≤ 96" (2438) = three hinges per panel
 - Optional four hinges for unit rough opening height ≥ 86 1/2" (2197) and ≤ 96"(2438)
 - Quantity per panel for WUIAF, WUOAF
 - Unit rough opening height ≤ 80" (2032) = three hinges per panel
 - Unit rough opening height ≥ 84" (2134) and ≤ 96"(2438) = four hinges per panel
 - Quantity per panel for WMIFD, WMOFD, WMIAF, and WMOAF
 - Unit rough opening height ≤ 86 1/2"(2197) = three hinges per panel
 - Unit rough opening height > 86 1/2" (2197) and ≤ 96 (2438) = four hinges per panel
 - Unit rough opening height > 96" (2438) = five hinges per panel
 - Optional four hinges for unit rough opening height ≤ 96"(2438)
- Optional butt hinge for 1 3/4" doors
 - Default finish (Inswing): Satin Taupe with steel substrate
 - Optional finish: Brass Plated, Solid Brass, Antique Brass, Oil Rubbed Bronze, Satin Chrome, Satin Nickel, White, Stainless Steel, Satin Nickel PVD
 - Default finish (Outswing): Solid Brass or Stainless Steel with non-removable pin
 - Dimensions: 4" (102) x 4" (102) with radius corners
 - Quantity per panel
 - Unit rough opening height < 86 1/2" (2198) = three hinges per panel
 - Unit rough opening height ≥ 86 1/2" (2198) up to ≤ 110 1/2"(2807) = four hinges per panel
 - Unit rough opening height > 110 1/2" (2807) = five hinges per panel

Unit Features:**Hinges Continued**

- Optional ball bearing hinges for 2 1/4" doors
 - Default finish: Satin Chrome with a brass substrate
 - Optional finish: Solid Brass, Bronze with a brass substrate or stainless steel
 - Dimensions: 4 1/2" (114) x 4 1/2" (114) with square corners
 - Quantity per panel
 - Unit rough opening height < 86 1/2" (2198) = three hinges per panel
 - Unit rough opening height ≥ 86 1/2" (2198) up to ≤ 96" (2438) = four hinges per panel
 - Unit rough opening height > 96" (2438) = five hinges per panel

Optional Screens: (Inswing Units only)

- Ultimate top hung sliding screen
 - Extruded aluminum
 - Roller bar
 - Integral handle
 - Colors: Pebble Gray, Bahama Brown, Evergreen, Bronze, Stone White, Ebony, Wineberry, Coconut Cream, Hampton Sage, Cashmere, Sierra White, Cadet Gray, Cascade Blue, Liberty Bronze (Pearlescent), Gunmetal, Suede, Clay
 - Sliding screen for XO, OX, OOX, XOO, OXO, OXXO operation
- Ultimate swinging screen:
 - Four concealed hinges per panel are factory installed within the Z bar
 - Handle includes latch with exterior handle and internal locking mechanism
 - Default: Contemporary Handle available in Bronze PVD, Nickel PVD, Matte Black, Dark Bronze
 - Optional: Traditional Handle available in Brass PVD, Bronze PVD, Satin Taupe, Satin Nickel PVD.
 - Screen Colors: Pebble Gray, Bahama Brown, Evergreen, Bronze, Stone White, Ebony, Wineberry, Coconut Cream, Hampton Sage, Cashmere, Sierra White, Cadet Gray, Cascade Blue, Liberty Bronze (Pearlescent), Gunmetal, Suede, Clay
 - Standard screen mesh: charcoal fiberglass
 - Optional screen mesh: bronze, charcoal aluminum, silver aluminum, black aluminum, or charcoal high transparency fiberglass mesh (CH Hi-Tran)

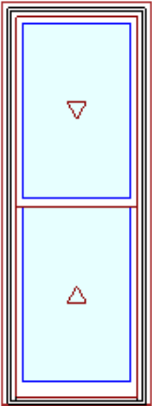
Weather Strip:

- Weather strip at all panel perimeter points
- Standard color: beige
- Optional color: black

LINE ITEM QUOTES

The following is a schedule of the windows and doors for this project. For additional unit details, please see Line Item Quotes. Additional charges, tax or Terms and Conditions may apply. Detail pricing is per unit.

Line #1	Mark Unit: 1.0	Net Price:		2,080.00
Qty: 1		Ext. Net Price:	USD	2,080.00

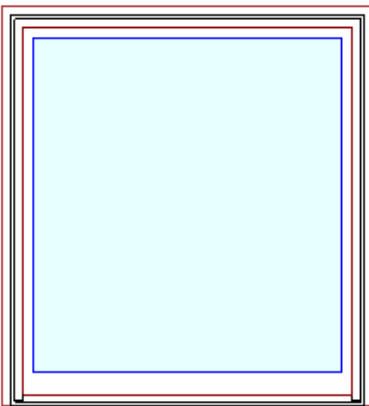


As Viewed From The Exterior

Entered As: FS
FS 30" X 84"
RO 31" X 84 1/2"
Egress Information
 Width: 26 13/32" Height: 36 15/16"
 Net Clear Opening: 6.77 SqFt

Ebony Clad Exterior
 Painted Interior Finish - White - Pine Interior 139.39
 Ultimate Double Hung G2 1,408.33
 Frame Size 30" X 84"
 Rough Opening 31" X 84 1/2"
 Top Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 Bottom Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite 239.06
 Tempered Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 White Interior Weather Strip Package
 Black Exterior Weather Strip Package
 Matte Black Sash Lock
 Matte Black Top Sash Strike Plate Assembly Color
 Extruded Aluminum Screen
 Ebony Surround
 Bright View Mesh
 ***Screen/Combo Ship Loose
 4 9/16" Jamb
 Casing with Subsill 293.22
 Ebony 1 5/16" Clad BMC
 Ebony A246 Subsill
 Nailing Fin
 ***Note: Unit Availability and Price is Subject to Change

Line #2	Mark Unit: 1.1A	Net Price:		2,409.34
Qty: 1		Ext. Net Price:	USD	2,409.34



As Viewed From The Exterior

Ebony Clad Exterior
 Painted Interior Finish - White - Pine Interior 139.39
 Ultimate Double Hung Picture G2 1,523.89
 Frame Size 52" X 56"
 Rough Opening 53" X 56 1/2"
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite 468.00
 Tempered Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 White Interior Weather Strip Package
 Black Exterior Weather Strip Package
 4 9/16" Jamb
 Casing with Subsill 278.06
 Ebony 1 5/16" Clad BMC
 Ebony A246 Subsill
 Nailing Fin
 ***Note: Unit Availability and Price is Subject to Change

Entered As: FS
FS 52" X 56"
RO 53" X 56 1/2"
Egress Information
 No Egress Information available.

Line #3	Mark Unit: 1.1B	Net Price:		1,515.95
Qty: 1		Ext. Net Price:	USD	1,515.95

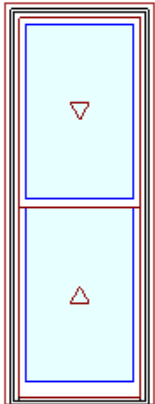


As Viewed From The Exterior

Entered As: FS
FS 52" X 24"
RO 53" X 24 1/2"
Egress Information
 No Egress Information available.

Ebony Clad Exterior
 Painted Interior Finish - White - Pine Interior 139.39
 Ultimate Double Hung Picture G2 1,179.39
 Frame Size 52" X 24"
 Rough Opening 53" X 24 1/2"
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 White Interior Weather Strip Package
 Black Exterior Weather Strip Package
 4 9/16" Jambs
 Casing with Subsill 197.17
 Ebony 1 5/16" Clad BMC
 Ebony A246 Subsill
 Nailing Fin
 ***Note: Unit Availability and Price is Subject to Change

Line #4	Mark Unit: 1.2	Net Price:		2,080.00
Qty: 1		Ext. Net Price:	USD	2,080.00

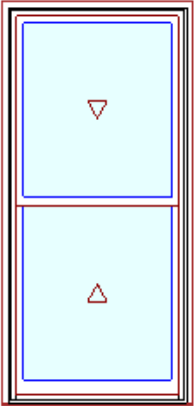


As Viewed From The Exterior

Entered As: FS
FS 30" X 84"
RO 31" X 84 1/2"
Egress Information
 Width: 26 13/32" Height: 36 15/16"
 Net Clear Opening: 6.77 SqFt

Ebony Clad Exterior
 Painted Interior Finish - White - Pine Interior 139.39
 Ultimate Double Hung G2 1,408.33
 Frame Size 30" X 84"
 Rough Opening 31" X 84 1/2"
 Top Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 Bottom Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite 239.06
 Tempered Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 White Interior Weather Strip Package
 Black Exterior Weather Strip Package
 Matte Black Sash Lock
 Matte Black Top Sash Strike Plate Assembly Color
 Extruded Aluminum Screen
 Ebony Surround
 Bright View Mesh
 ***Screen/Combo Ship Loose
 4 9/16" Jambs
 Casing with Subsill 293.22
 Ebony 1 5/16" Clad BMC
 Ebony A246 Subsill
 Nailing Fin
 ***Note: Unit Availability and Price is Subject to Change

Line #5	Mark Unit: 1.3	Net Price:	2,095.17
Qty: 1		Ext. Net Price:	2,095.17
		USD	

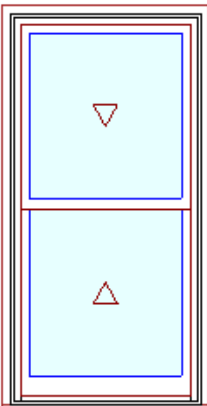


As Viewed From The Exterior

Entered As: FS
FS 38" X 82"
RO 39" X 82 1/2"
Egress Information
 Width: 34 13/32" Height: 35 41/64"
 Net Clear Opening: 8.51 SqFt

Ebony Clad Exterior
 Painted Interior Finish - White - Pine Interior 139.39
 Ultimate Double Hung G2 1,408.33
 Frame Size 38" X 82"
 Rough Opening 39" X 82 1/2"
 Top Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 Bottom Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite 239.06
 Tempered Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 White Interior Weather Strip Package
 Black Exterior Weather Strip Package
 Matte Black Sash Lock
 Matte Black Top Sash Strike Plate Assembly Color
 Extruded Aluminum Screen
 Ebony Surround
 Bright View Mesh
 ***Screen/Combo Ship Loose
 4 9/16" Jambs
 Casing with Subsill 308.39
 Ebony 1 5/16" Clad BMC
 Ebony A246 Subsill
 Nailing Fin
 ***Note: Unit Availability and Price is Subject to Change

Line #6	Mark Unit: 1.4	Net Price:	1,444.44
Qty: 1		Ext. Net Price:	1,444.44
		USD	



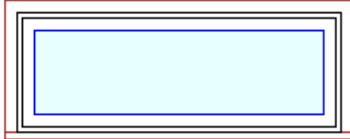
As Viewed From The Exterior

Entered As: FS
FS 32" X 64"
RO 33" X 64 1/2"
Egress Information
 Width: 28 13/32" Height: 26 15/16"
 Net Clear Opening: 5.31 SqFt

Ebony Clad Exterior
 Painted Interior Finish - White - Pine Interior 139.39
 Ultimate Double Hung G2 1,057.33
 Frame Size 32" X 64"
 Rough Opening 33" X 64 1/2"
 Top Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 Bottom Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 White Interior Weather Strip Package
 Black Exterior Weather Strip Package
 Matte Black Sash Lock
 Matte Black Top Sash Strike Plate Assembly Color
 Extruded Aluminum Screen
 Ebony Surround
 Bright View Mesh
 ***Screen/Combo Ship Loose
 4 9/16" Jambs

Casing with Subsill 247.72
 Ebony 1 5/16" Clad BMC
 Ebony A246 Subsill
 Nailing Fin
 ***Note: Unit Availability and Price is Subject to Change

Line #7	Mark Unit: 1.5	Net Price:		799.51
Qty: 1		Ext. Net Price:	USD	799.51



As Viewed From The Exterior

Entered As: FS

FS 36" X 13"

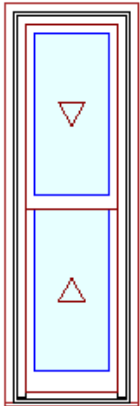
RO 37" X 13 1/2"

Egress Information

No Egress Information available.

Ebony Clad Exterior
 Painted Interior Finish - White - Pine Interior 139.39
 Ultimate Direct Glaze Rectangle 531.56
 Frame Size 36" X 13"
 Rough Opening 37" X 13 1/2"
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 4 9/16" Jamb
 Casing with Subsill 128.56
 Ebony 1 5/16" Clad BMC
 Ebony A246 Subsill
 Nailing Fin
 ***Note: Unit Availability and Price is Subject to Change

Line #8	Mark Unit: 1.6	Net Price:		1,164.94
Qty: 1		Ext. Net Price:	USD	1,164.94



As Viewed From The Exterior

Entered As: FS

FS 18" X 59"

RO 19" X 59 1/2"

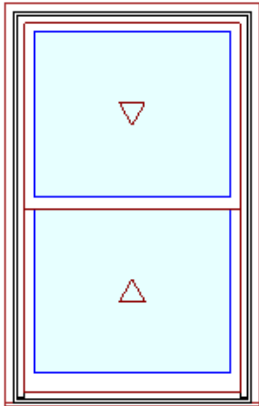
Egress Information

Width: 14 13/32" Height: 24 7/16"

Net Clear Opening: 2.44 SqFt

Ebony Clad Exterior
 Painted Interior Finish - White - Pine Interior 139.39
 Ultimate Double Hung G2 826.22
 Frame Size 18" X 59"
 Rough Opening 19" X 59 1/2"
 Top Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 Bottom Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 White Interior Weather Strip Package
 Black Exterior Weather Strip Package
 Matte Black Sash Lock
 Matte Black Top Sash Strike Plate Assembly Color
 Extruded Aluminum Screen
 Ebony Surround
 Bright View Mesh
 ***Screen/Combo Ship Loose
 4 9/16" Jamb
 Casing with Subsill 199.33
 Ebony 1 5/16" Clad BMC
 Ebony A246 Subsill
 Nailing Fin
 ***Note: Unit Availability and Price is Subject to Change

Line #9	Mark Unit: 1.7, 1.8	Net Price:		1,451.66
Qty: 2		Ext. Net Price:	USD	2,903.32

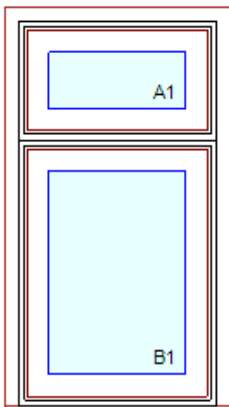


As Viewed From The Exterior

Entered As: FS
FS 38" X 61"
RO 39" X 61 1/2"
Egress Information
 Width: 34 13/32" Height: 25 7/16"
 Net Clear Opening: 6.08 SqFt

Ebony Clad Exterior
 Painted Interior Finish - White - Pine Interior 139.39
 Ultimate Double Hung G2 1,057.33
 Frame Size 38" X 61"
 Rough Opening 39" X 61 1/2"
 Top Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 Bottom Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 White Interior Weather Strip Package
 Black Exterior Weather Strip Package
 Matte Black Sash Lock
 Matte Black Top Sash Strike Plate Assembly Color
 Extruded Aluminum Screen
 Ebony Surround
 Bright View Mesh
 ***Screen/Combo Ship Loose
 4 9/16" Jambs
 Casing with Subsill 254.94
 Ebony 1 5/16" Clad BMC
 Ebony A246 Subsill
 Nailing Fin
 ***Note: Unit Availability and Price is Subject to Change

Line #10	Mark Unit: 2.0, 2.1	Net Price:		1,357.78
Qty: 2		Ext. Net Price:	USD	2,715.56



As Viewed From The Exterior

Entered As: FS
FS 19" X 36"
RO 20" X 36 1/2"
Egress Information A1, B1
 No Egress Information available.

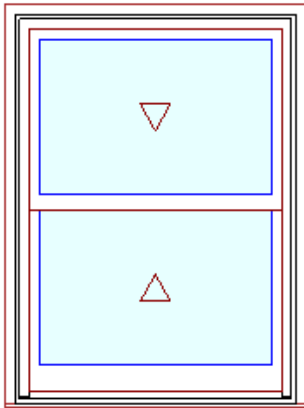
Ebony Clad Exterior
 Painted Interior Finish - White - Pine Interior 278.78
 1W2H - Rectangle Assembly
 Assembly Frame Size
 19" X 36"
 Assembly Rough Opening
 20" X 36 1/2"
 Unit: A1 442.00
 Ultimate Casement - Stationary
 Basic Frame 19" X 11 1/8"
 Rough Opening 20" X 11 5/8"
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 3/4" - 1 Lite
 Low E2
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 Standard Bottom Rail
 Black Weather Strip
 Solid Wood Covers
 Unit: B1 455.72
 Ultimate Casement - Stationary
 Basic Frame 19" X 24 7/8"
 Rough Opening 20" X 25 3/8"
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 3/4" - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 Standard Bottom Rail

Black Weather Strip
 Solid Wood Covers
 Standard Mull Charge 37.56
 4 9/16" Jamb
 Casing with Subsill 143.72
 Ebony 1 5/16" Clad BMC
 Ebony A246 Subsill
 Nailing Fin

***Note: This configuration meets a minimum structural performance of DP 20 through either physical testing or calculations in accordance with AAMA 450 and building code requirements. Mull certification ratings may vary from individual unit certification ratings. Reference the mulling chapter of the ADM for additional information.

***Note: Unit Availability and Price is Subject to Change

Line #11	Mark Unit: 2.2A, 2.3A	Net Price:		1,340.44
Qty: 2		Ext. Net Price:	USD	2,680.88



As Viewed From The Exterior

Entered As: FS

FS 37" X 50"

RO 38" X 50 1/2"

Egress Information

Width: 33 13/32" Height: 19 15/16"

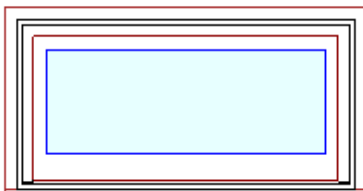
Net Clear Opening: 4.63 SqFt

Ebony Clad Exterior
 Painted Interior Finish - White - Pine Interior 139.39
 Ultimate Double Hung G2 976.44
 Frame Size 37" X 50"
 Rough Opening 38" X 50 1/2"
 Top Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 Bottom Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 White Interior Weather Strip Package
 Black Exterior Weather Strip Package
 Matte Black Sash Lock
 Matte Black Top Sash Strike Plate Assembly Color
 Aluminum Screen
 Ebony Surround
 Bright View Mesh
 ***Screen/Combo Ship Loose

4 9/16" Jamb
 Casing with Subsill 224.61
 Ebony 1 5/16" Clad BMC
 Ebony A246 Subsill
 Nailing Fin

***Note: Unit Availability and Price is Subject to Change

Line #12	Mark Unit: 2.2B, 2.3B	Net Price:		901.33
Qty: 2		Ext. Net Price:	USD	1,802.66



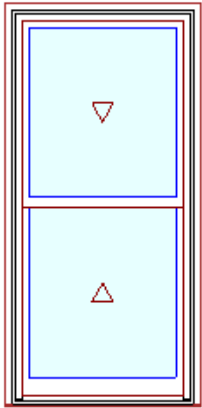
As Viewed From The Exterior

Ebony Clad Exterior
 Painted Interior Finish - White - Pine Interior 139.39
 Ultimate Double Hung Transom G2 618.22
 Frame Size 37" X 18"
 Rough Opening 38" X 18 1/2"
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 White Interior Weather Strip Package

Entered As: FS
FS 37" X 18"
RO 38" X 18 1/2"
Egress Information
 No Egress Information available.

Black Exterior Weather Strip Package
 4 9/16" Jamb
 Casing with Subsill 143.72
 Ebony 1 5/16" Clad BMC
 Ebony A246 Subsill
 Nailing Fin
 ***Note: Unit Availability and Price is Subject to Change

Line #13	Mark Unit: 2.4, 2.5	Net Price:		1,843.84
Qty: 2		Ext. Net Price:	USD	3,687.68



As Viewed From The Exterior

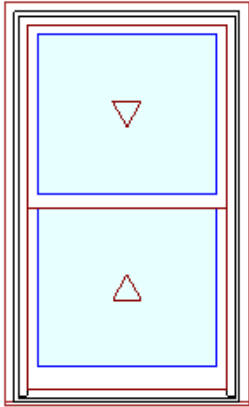
Entered As: FS
FS 34" X 72"
RO 35" X 72 1/2"
Egress Information
 Width: 30 13/32" Height: 30 15/16"
 Net Clear Opening: 6.53 SqFt

Ebony Clad Exterior
 Painted Interior Finish - White - Pine Interior 139.39
 Ultimate Double Hung G2 1,220.56
 Frame Size 34" X 72"
 Rough Opening 35" X 72 1/2"
 Top Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 Bottom Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite 210.89
 Tempered Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 White Interior Weather Strip Package
 Black Exterior Weather Strip Package
 Matte Black Sash Lock
 Matte Black Top Sash Strike Plate Assembly Color
 Extruded Aluminum Screen
 Ebony Surround
 Bright View Mesh
 ***Screen/Combo Ship Loose
 4 9/16" Jamb
 Casing with Subsill 273.00
 Ebony 1 5/16" Clad BMC
 Ebony A246 Subsill
 Nailing Fin
 ***Note: Unit Availability and Price is Subject to Change

Line #14	Mark Unit: 2.6	Net Price:		1,278.33
Qty: 1		Ext. Net Price:	USD	1,278.33



Ebony Clad Exterior
 Painted Interior Finish - White - Pine Interior 139.39
 Ultimate Double Hung G2 916.50
 Frame Size 32" X 54"
 Rough Opening 33" X 54 1/2"
 Top Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 Bottom Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile



As Viewed From The Exterior

- White Interior Weather Strip Package
- Black Exterior Weather Strip Package
- Matte Black Sash Lock
- Matte Black Top Sash Strike Plate Assembly Color
- Aluminum Screen
- Ebony Surround
- Bright View Mesh
- ***Screen/Combo Ship Loose
- 4 9/16" Jambs
- Casing with Subsill 222.44
- Ebony 1 5/16" Clad BMC
- Ebony A246 Subsill
- Nailing Fin
- ***Note: Unit Availability and Price is Subject to Change

Entered As: FS

FS 32" X 54"

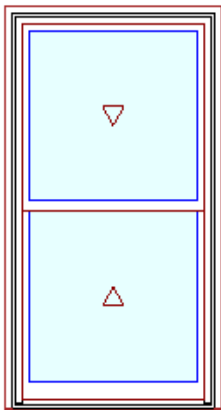
RO 33" X 54 1/2"

Egress Information

Width: 28 13/32" Height: 21 15/16"

Net Clear Opening: 4.33 SqFt

Line #15	Mark Unit: 2.7, 2.8, 2.9	Net Price:	1,853.95
Qty: 3		Ext. Net Price:	5,561.85
		USD	



As Viewed From The Exterior

- Ebony Clad Exterior
- Painted Interior Finish - White - Pine Interior 139.39
- Ultimate Double Hung G2 1,220.56
- Frame Size 38" X 72"
- Rough Opening 39" X 72 1/2"
- Top Sash
- Ebony Clad Sash Exterior
- Painted Interior Finish - White - Pine Sash Interior
- IG - 1 Lite
- Low E2 w/Argon
- Black Perimeter Bar
- Ogee Interior Glazing Profile
- Bottom Sash
- Ebony Clad Sash Exterior
- Painted Interior Finish - White - Pine Sash Interior
- IG - 1 Lite 210.89
- Tempered Low E2 w/Argon
- Black Perimeter Bar
- Ogee Interior Glazing Profile
- White Interior Weather Strip Package
- Black Exterior Weather Strip Package
- Matte Black Sash Lock
- Matte Black Top Sash Strike Plate Assembly Color
- Extruded Aluminum Screen
- Ebony Surround
- Bright View Mesh
- ***Screen/Combo Ship Loose
- 4 9/16" Jambs
- Casing with Subsill 283.11
- Ebony 1 5/16" Clad BMC
- Ebony A246 Subsill
- Nailing Fin
- ***Note: Unit Availability and Price is Subject to Change

Entered As: FS

FS 38" X 72"

RO 39" X 72 1/2"

Egress Information

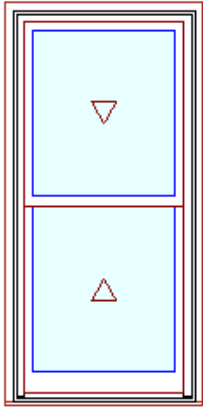
Width: 34 13/32" Height: 30 41/64"

Net Clear Opening: 7.32 SqFt

Line #16	Mark Unit: 2.10	Net Price:	1,405.45
Qty: 1		Ext. Net Price:	1,405.45
		USD	



- Ebony Clad Exterior
- Painted Interior Finish - White - Pine Interior 139.39

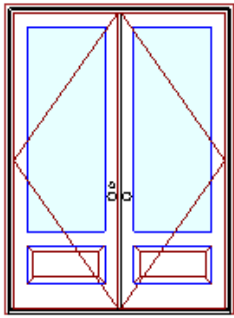


As Viewed From The Exterior

Entered As: FS
FS 30" X 63"
RO 31" X 63 1/2"
Egress Information
 Width: 26 13/32" Height: 26 7/16"
 Net Clear Opening: 4.85 SqFt

Ultimate Double Hung G2 1,026.28
 Frame Size 30" X 63"
 Rough Opening 31" X 63 1/2"
 Top Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 Bottom Sash
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 White Interior Weather Strip Package
 Black Exterior Weather Strip Package
 Matte Black Sash Lock
 Matte Black Top Sash Strike Plate Assembly Color
 Extruded Aluminum Screen
 Ebony Surround
 Bright View Mesh
 ***Screen/Combo Ship Loose
 4 9/16" Jambs
 Casing with Subsill 239.78
 Ebony 1 5/16" Clad BMC
 Ebony A246 Subsill
 Nailing Fin
 ***Note: Unit Availability and Price is Subject to Change

Line #18	Mark Unit: H	Net Price:	8,877.57
Qty: 1		Ext. Net Price:	8,877.57
		USD	



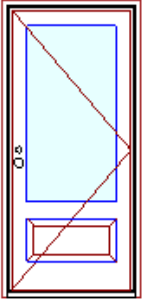
Active Inactive

As Viewed From The Exterior

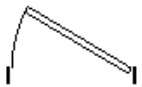
Entered As: CN
CN 6080
FS 72 5/8" X 98"
RO 73 5/8" X 98 1/2"
Egress Information
 Width: 65 3/16" Height: 94 11/32"
 Net Clear Opening: 42.71 SqFt

Ebony Clad Exterior
 Painted Interior Finish - White - Pine Interior 476.67
 Ultimate Inswing French Door G2 4 9/16" - XX Left Hand 4,730.56
 CN 6080
 Rough Opening 73 5/8" X 98 1/2"
 Left Panel
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Tempered Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 Stamped Raised Panel Visible Panel Height 12 1/64" 1,396.06
 Right Panel
 Ebony Clad Sash Exterior
 Painted Interior Finish - White - Pine Sash Interior
 IG - 1 Lite
 Tempered Low E2 w/Argon
 Black Perimeter Bar
 Ogee Interior Glazing Profile
 Stamped Raised Panel Visible Panel Height 12 1/64" 1,396.06
 Traditional Lever(s)
 Multi-Point Lock on Active Panel
 Matte Black Active Exterior Handle Set on Active Panel Keyed 165.39
 Matte Black Active Interior Handle Set on Active Panel
 Multi-Point Lock on Inactive Panel
 Matte Black Inactive Exterior Handle Set on Inactive Panel 102.56
 Matte Black Inactive Interior Handle Set on Inactive Panel
 Matte Black Adjustable Hinges 4 Per Panel- 173.33
 Bronze Ultrex Sill
 Black Weather Strip
 4 9/16" Jambs
 Ebony 1 5/16" Clad BMC 436.94
 Thru Jamb Installation w/ Nailing Fin
 ***Note: Unit Availability and Price is Subject to Change

Line #19	Mark Unit: J	Net Price:	4,088.49
Qty: 1		Ext. Net Price:	USD 4,088.49



Active



As Viewed From The Exterior

Entered As: CN

CN 3068

FS 37 7/16" X 82"

RO 38 7/16" X 82 1/2"

Egress Information

Width: 32 1/16" Height: 78 11/32"

Net Clear Opening: 17.45 SqFt

Ebony Clad Exterior	
Painted Interior Finish - White - Pine Interior	238.33
Ultimate Inswing French Door G2 4 9/16" - X Right Hand	1,944.94
CN 3068	
Rough Opening 38 7/16" X 82 1/2"	
Ebony Clad Sash Exterior	
Painted Interior Finish - White - Pine Sash Interior	
IG - 1 Lite	
Tempered Low E2 w/Argon	
Black Perimeter Bar	
Ogee Interior Glazing Profile	
Stamped Raised Panel Visible Panel Height 12 1/64"	1,396.06
Traditional Lever(s)	
Multi-Point Lock on Active Panel	
Matte Black Active Exterior Handle Set on Active Panel Keyed	165.39
Matte Black Active Interior Handle Set on Active Panel	
Matte Black Adjustable Hinges 3 Per Panel-	36.83
Bronze Ultrex Sill	
Black Weather Strip	
4 9/16" Jamb	
Ebony 1 5/16" Clad BMC	306.94
Thru Jamb Installation w/ Nailing Fin	

***Note: Unit Availability and Price is Subject to Change

Project Subtotal Net Price: USD	48,591.14
6.000% Sales Tax: USD	2,915.47
Project Total Net Price: USD	51,506.61

Solstice[®] Shingle

70W



A high-efficiency solar shingle designed for integration with all asphalt shingle roofs.

FEATURES AND BENEFITS

Beautiful

- Sleek and uniform appearance that integrates seamlessly with asphalt shingles

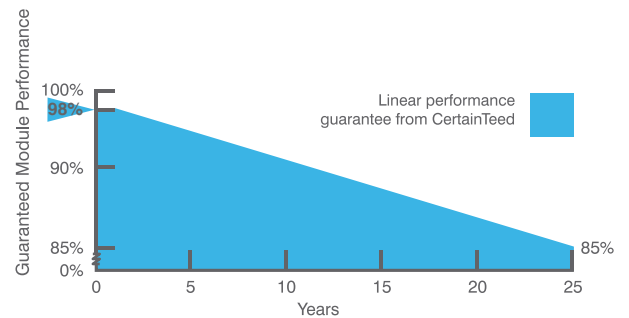
Simplified

- Easy design and permitting using industry leading software
- Designed for fast installation by shingle roofing crews. Installed directly on roof sheathing using standard deck screws.

Dependable

- Industry-leading reliability thanks to use of patented state-of-the-art technology that makes the Solstice Shingles one of the most electrically and mechanically robust solar shingles on the market
- Market-leading impact and wind resistance for solar shingles
- Watertight: Water channels and raised fastener locations provide added protection against water intrusion. With over a century of roofing experience, we know how to keep water out of your home.
- Superior performance even under diffused light and shade boosting overall energy production

POWER OUTPUT WARRANTY

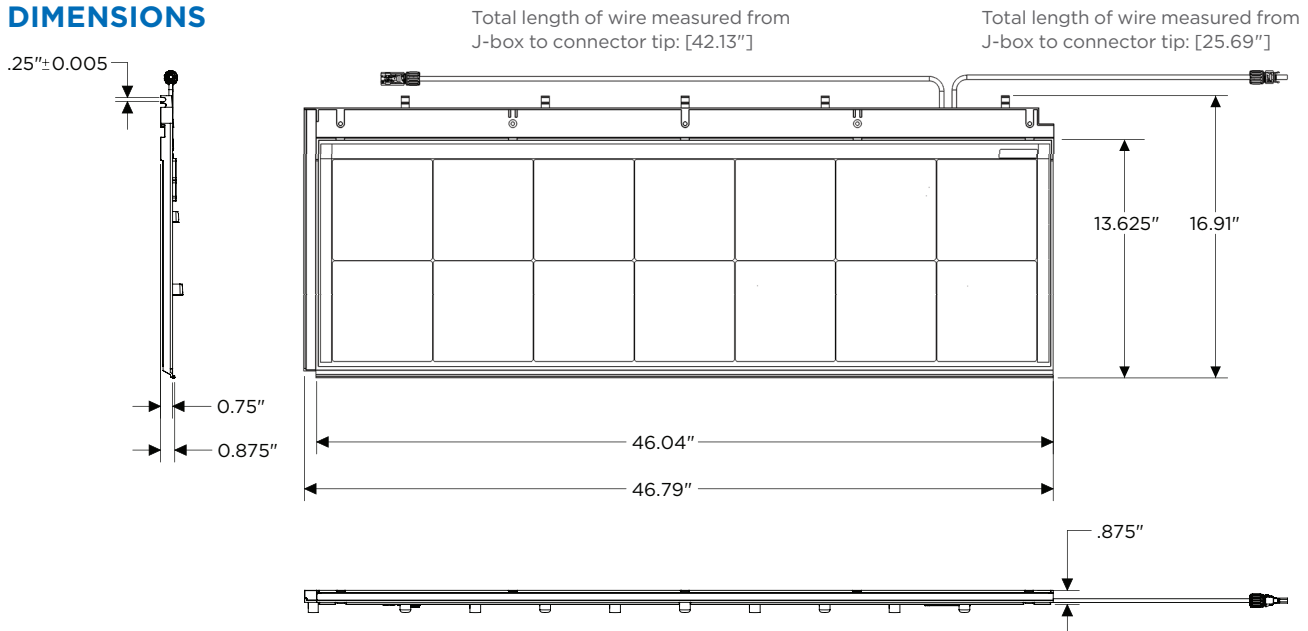


WARRANTY AND CERTIFICATIONS

Warranty*	25 year limited power warranty 25 year limited workmanship warranty 10 year 110 mph limited wind warranty
Certifications	UL 61730 BIPV UL 7103 Fire Certification UL 790 Class A & C Wind Classification ASTM D3161 Class F 110 mph Impact Resistance FM4473 Class 3 NEC 690.12 Compliant UL 3741 California CEC Listed (pending) FBC HVHZ Approved (Vasd of 150 mph and Vult of 194 mph) (pending)

*See CertainTeed's limited warranty for details

DIMENSIONS



ELECTRICAL CHARACTERISTICS

Standard Test Conditions: 25° C, 1000 W/m², AM 1.5

Maximum Power (Pmax)	70 W
Voltage at Maximum Power	7.8 V
Current at Maximum Power	9.0 A
Open Circuit Voltage (Voc)	9.5 V
Short Circuit Current (Isc)	9.4 A
Maximum System Voltage	600 V
Series Fuse Rating	15 A
Temp. Coefficient of Pmax	-0.34 %/°C
Temp. Coefficient of Voc	-0.26 %/°C
Temp. Coefficient of Isc	+0.04%/° C
Normal Operating Cell Temp. (NOCT)	53.6° C
Active cell efficiency	19.85%
PTC	62.6 W

Power Performance Tolerance +/- 5%
All other electrical characteristics within +/- 10%

MECHANICAL CHARACTERISTICS

Tested and Passed Temperature Range	-40 to +85° C
Exposed Area	46" x 13-5/8"
Weight	12.7 lb (2.3 lb per sq ft)
Cell	Monocrystalline PERC
No. of cells and connections	14 in series
Bypass Diode	2 per shingle
Design Load	+2400/-1600 Pa
Wiring	12 AWG PV wire
Connectors	Renhe RHC2
Minimum Roof Pitch	2/12"