250'



PROPOSED SITE PLAN

SCALE = 3/64"=1'-0"

VALERIE HALAS

RICK AND KAREN MILENTHAL 60 S DREXEL AVE. BEXLEY, OH 43209

PLAN SITE

ARB SUBMISSION 03.05.25

SHEET NUMBER

G0-00 REVISION #:







FRONT







NORTH SIDE





SOUTH SIDE

G0-02

REVISION #:





REAR





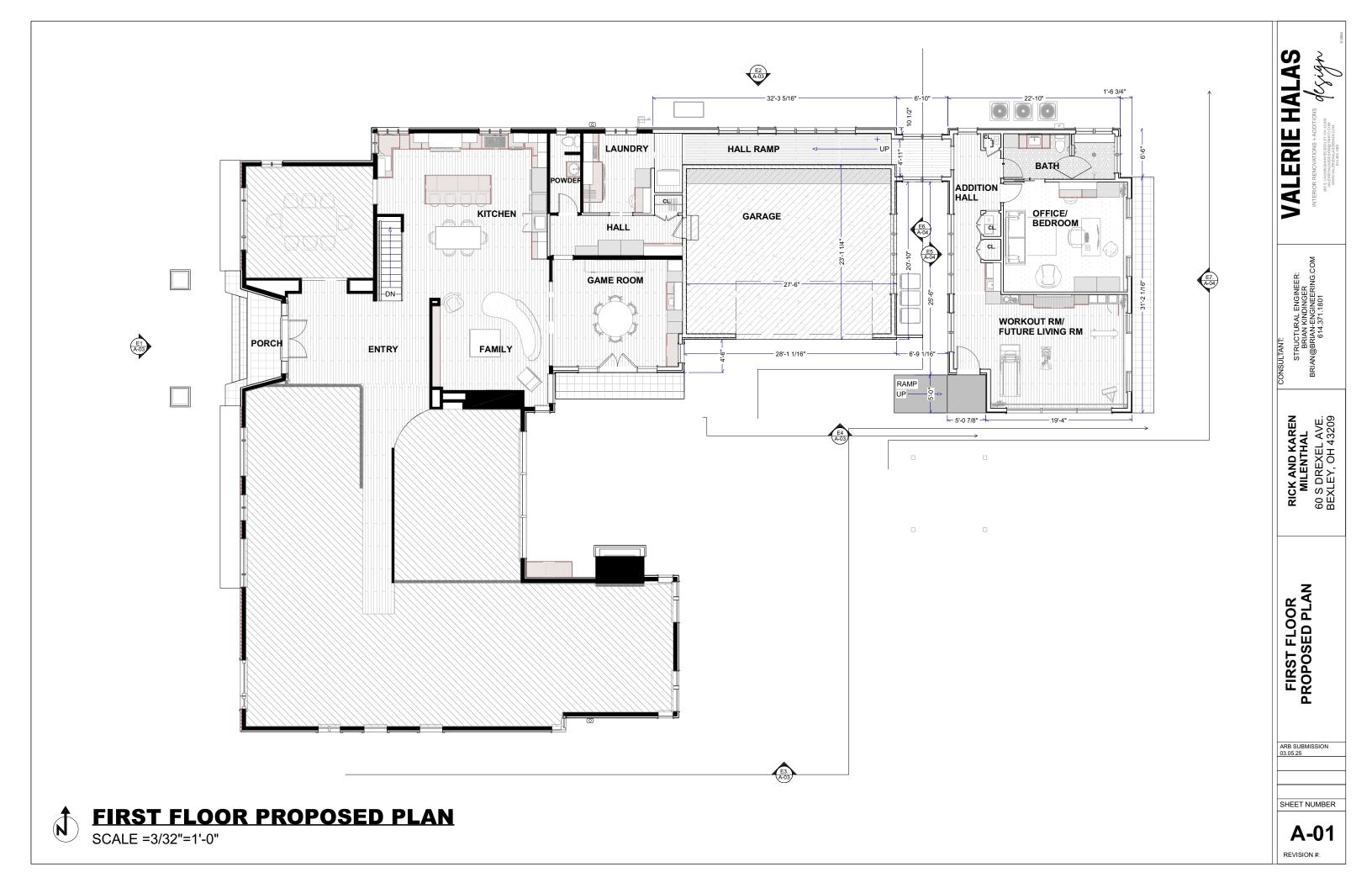


SHEET NUMBER

D-01 REVISION #:

FIRST FLOOR DEMOLITION PLAN SCALE =3/32"=1'-0"

1





BASEMENT/ FOUNDATION PROPOSED PLAN SCALE =3/32"=1'-0"

VALERIE HALAS

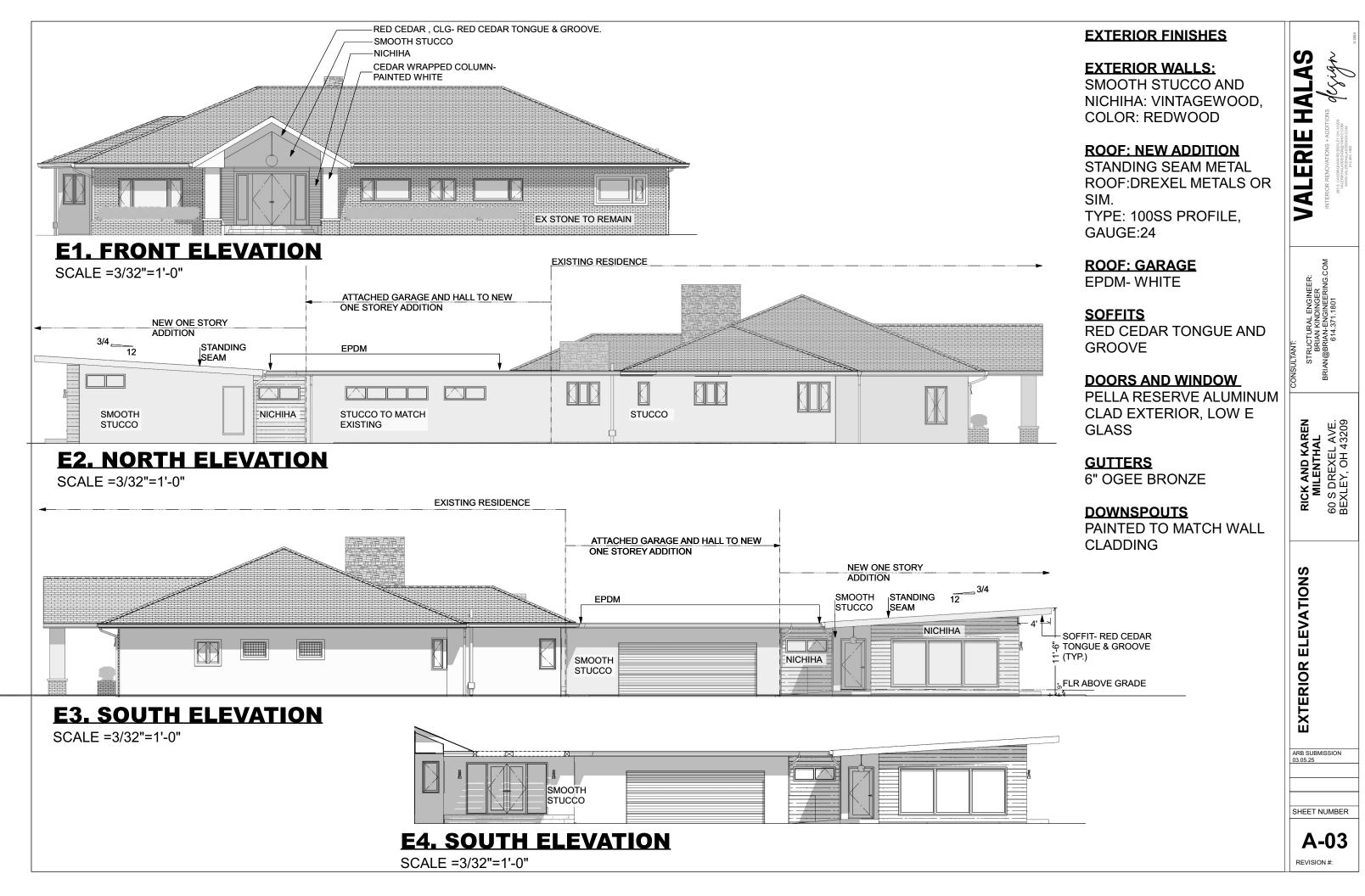
RICK AND KAREN MILENTHAL 60 S DREXEL AVE. BEXLEY, OH 43209

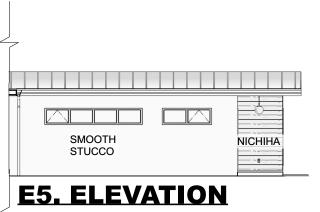
BASEMENT PROPOSED PLAN

ARB SUBMISSION 03.05.25

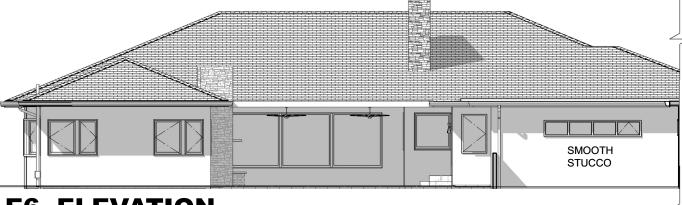
SHEET NUMBER

A-02 REVISION #:





SCALE =3/32"=1'-0"



E6. ELEVATION

SCALE =3/32"=1'-0"



E7. REAR ELEVATION

SCALE =3/32"=1'-0"

EXTERIOR FINISHES

EXTERIOR WALLS:

SMOOTH STUCCO AND NICHIHA: VINTAGEWOOD, COLOR: REDWOOD

ROOF: NEW ADDITION

STANDING SEAM METAL ROOF:DREXEL METALS OR SIM.

TYPE: 100SS PROFILE, GAUGE:24

ROOF: GARAGE EPDM- WHITE

SOFFITS

RED CEDAR TONGUE AND GROOVE

DOORS AND WINDOW

PELLA RESERVE ALUMINUM CLAD EXTERIOR, LOW E GLASS

GUTTERS

6" OGEE BRONZE

DOWNSPOUTS

PAINTED TO MATCH WALL CLADDING

VALERIE HALAS
INTERIOR RENOVATIONS + ADDITIONS | OK, 1997

SI KUCI UKAL ENGINEEK: BRIAN KINDINGER BRIAN@BRIAN-ENGINEERING.CI 614.371.1801

RICK AND KAREN MILENTHAL 60 S DREXEL AVE. BEXLEY, OH 43209

EXTERIOR ELEVATIONS

ARB SUBMISSION 03.05.25

SHEET NUMBER

A-04

REVISION #:









VALERIE HALAS
INTERIOR RENOVATIONS + ADDITIONS

ASS. CARGINGHAMED BOX COLUMN
VINCENIA REPRESENCE COLUM

STRUCTURAL ENGINEER: BRIAN KINDINGER RIAN@BRIAN-ENGINEERING. 614.371.1801

RICK AND KAREN MILENTHAL 60 S DREXEL AVE. BEXLEY, OH 43209

EXTERIOR 3D VIEWS

ARB SUBMISSION 03.05.25

SHEET NUMBER

A-05
REVISION #:

VALERIE HALAS
INTERIOR RENOVATIONS + ADDITIONS

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STRUCTURAL ENGINEER: BRIAN KINDINGER RIAN@BRIAN-ENGINEERING.C. 614.371.1801

RICK AND KAREN MILENTHAL 60 S DREXEL AVE. BEXLEY, OH 43209

FRANKLIN COUNTY AUDITORS MAP

ARB SUBMISSIO 03.05.25

SHEET NUMBER

A-06

REVISION #:

GARAGE DOOR

CANYON RIDGE® garage doors



America's Favorite Garage Doors®

CARRIAGE HOUSE • CHEVRON • LOUVER • MODERN • ELEMENTS





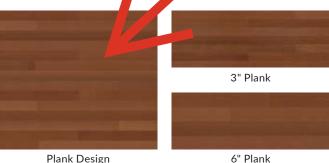
CANYON RIDGE® Modern

Statement-making and sophisticated, our Canyon Ridge® Modern faux-wood garage doors combine realistic wood textures with key elements of contemporary architecture: clean, horizontal lines with mid-century appeal, sleek windows and metallic accents. The doors are constructed in a durable, low-maintenance composite material that resists rot and weathering. An energy-efficient, polyurethane foam insulated steel core provides year-round comfort. Choose from three designs in Clear Cypress or Mahogany faux-wood cladding that can be painted or stained.



- COMPOSITE OVERLAY
- STEEL
- 2" INTELLICORE®
- POLYURETHANE INSULATION
- 4 STEEL

DOOR DESIGN









Full-View Design

STYLE AND CONSTRUCTION

- 4-layer composite faux-wood doors with Intellicore® polyurethane insulation.
- Plank design: 20.4 R-value.
- Metal Inlay design: 18.4 R-value.
- Full-View design: 6.3 R-value.
- Multiple window configurations available for Plank doors.
- Insulated glass styles include clear, frosted, rain and obscure. See page 16 for details.

Calculated door section R-value is in accordance with DASMA TDS-163. Weighted average calculations using insulated glass windows in all sections, all panels. Canyon Ridge® doors not applicable for new construction in California areas designated as "Fire Hazard Severity Zones".

WINDOWS

Available only on Plank door designs.





Both window sizes are available on single car and double car doors.

PLANK WINDOW CONFIGURATIONS





14" × 6" Windows down right side

35" × 6" Windows in all panel locations

Note: Configurations are illustrated from outside garage. When ordering, window locations are identified from inside garage looking out. Please keep in mind to avoid ordering windows in wrong location.

WARRANTIES





MATERIAL DESIGN

PLANK CLADDING

Clear Cypress (C)



Mahogany (M)



Clear Cypress (C)



Mahogany (M)



FULL-VIEW OVERLAY

Clear Cypress (C)



Mahogany (M)

COLORS



Medium Finish

Dark Finish



Walnut Finish



Slate Finish



Bronze Finish*



Black Finish*





(No Finish)

Doors can be ordered primed for custom field painting or staining. Door stain color may vary due to finishing process.

^{*}Bronze, Charcoal, Black and White Finish available only on Mahogany cladding and overlays.

Due to the printing process, colors may vary. Order free color samples at clopaydoor.com/requestcolorsamples

DESIGNING YOUR DOOR

Use the information below to select the appropriate model number.

CANYON RIDGE® CARRIAGE HOUSE 5-LAYER

Canyon Ridge Door Thickness

Cladding Material

Overlay Material

Window Design/Top Section

CANYON RIDGE® CARRIAGE HOUSE 4-LAYER

Canvon Ridge Door Thickness

(Does Not

Overlay Material

Window Design/Ton Section

CANYON RIDGE® ELEMENTS

Canvon Ridge Door Thickness

Design

Overlay Material

Window Design/Top Section

CANYON RIDGE® CHEVRON

Canyon Ridge Door Thickness

Window Design/ Ton Section

CANYON RIDGE® LOUVER

Canyon Ridge Door

Insulation Thickness

Window Design/Top Section

CANYON RIDGE® MODERN

PLANK DESIGN

Canyon Ridge Door Insulation Thickness

Cladding Material

Design

6

METAL (ALUMINUM) INLAY DESIGN

FULL-VIEW DESIGN

Canyon Ridge Door

Design

ORDERING CODE KEY TERMS:

2 = 2" Polyurethane Insulation

1 = 1-3/8" Polystyrene Insulation

P = Pecky Cypress

C = Clear Cypress

L = Louver Mahogany

M = Mahogany

N = No Cladding

RS = Woodgrain Classic

DESIGN CONSIDERATIONS

- Two-tone color options available. To view all options, visit: dis.clopay.com.
- Custom designs available. See your Clopay Dealer for more information.
- Attractive beveled edge, clip-in window grilles are removable for easy cleaning.
- Replaceable vinyl bottom weatherseal in a corrosion-resistant retainer helps seal out the elements.
- 10-ball nylon rollers for quiet operation.
- Heavy-duty 14 gauge steel hinges for long-lasting performance.
- Clopay's Safe-T-Bracket® prevents serious injury that could occur if the bottom bracket were removed with the garage door closed and under tension.
- WindCode® built-in door reinforcement available for high wind load applications. Learn more at: www.clopaydoor.com/residential/windcode-residential-information.
- Canyon Ridge® garage doors are not applicable for new construction in California areas designated as "Fire Hazard Severity Zones".

FINISHING AND CARE

Proper care and maintenance are imperative for long-term performance and appearance of Canyon Ridge® garage doors. Periodic inspection and maintenance of the composite cladding and overlays are required. Minor expansion and contraction is normal for exterior building materials exposed to direct sunlight and is not considered a defect. Complete finishing and maintenance instructions are provided with the door and are also available from your Clopay Dealer or online at www.clopaydoor.com.

ENVIRONMENTAL ASSURANCE

Clopay doors are compliant with environmental laws and regulations and do not contain HFCs.

- California SB 1013
- New Jersey A-5583/S-3919 Greenhouse Gas Bill
- Washington HB 1112 Hydrofluorocarbon Greenhouse Gas Emissions
- Canadian regulations amending the ozone-depleting substances and halocarbon alternatives regulations
- Product complies with 2015 IECC air infiltration requirement of 0.40 cfm/ft2 or less (IECC, Section C402.5.2)



Visit clopaydoor.com or call 1-800-2CLOPAY (225-6729) for more information on Clopay, America's Favorite Garage Doors.





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ARCHITECTURAL WALL PANELS

Single Family Full Line Catalog



Get the natural look of wood with unmatched durability.

With 11 varieties of style and color, the Wood Series is our largest and most popular product line. Built to last, our VintageWood,™ RoughSawn,™ RiftSawn™ and Natura panels offer the rich textures of wood while providing color stability and withstanding extreme weather elements.

VintageWood exudes modern refinement and works well in both modern and vintage designs. Available in five colors — Bark, Cedar, Redwood, Ash and Spruce — VintageWood pairs perfectly with glass, metal and block panels, adding a touch of warmth to the coolness of these materials. And because VintageWood can be installed vertically or horizontally, it offers a wide range of design options.

VINTAGEWOOD







REDWOOD

PACKAGING (PIECES PER PACK)







DESIGN TIP

Achieve the organic staggered look you love with our VintageWood 1818 panels, measuring nearly

VINTAGEWOOD SPECS	AWP 1818	AWP 3030	
DIMENSIONS (ACTUAL MM)	17-7/8" H x 71-9/16" L	17-7/8" H x 119-5/16" L	
	(455MM H x 1818MM L)	(455MM H x 3030MM L)	
THICKNESS (ACTUAL MM)	5/8" (16MM)	5/8" (16MM)	
WEIGHT (LBS. PER PANEL)	34.8	57.3	
WEIGHT (LBS. PER SQ. FT.)	3.9	3.8	
EXPOSED COVERAGE (SQ. FT. PER PANEL)	8.88 SQ. FT.	14.81 SQ. FT.	



2 [17.76 SQ. FT.]



2 [29.62 SQ. FT.]

AWP 3030 CAN BE INSTALLED HORIZONTALLY OR VERTICALLY.





18 WOOD SERIES WOOD SERIES 19

ESSENTIAL FLASHING

Create a clean, polished look for your building with the highest level of precision.



COMPRESSION JOINT FLASHING (10')

Used in conjunction with Ultimate Horizontal/Vertical Starter Tracks at floor joists in buildings that require compression joints. Can be painted or powder coated to match panels.

THICKNESS	10MM
PACKAGING (LN. FT. PER TUBE)	50



OVERHANG FLASHING (10') - JOH7288

Used at the base of overhangs, bump-outs or porte-cochères.

(LN. FT. PER BOX) 40

PACKAGING

THICKNESS 10MM

OVERHANG FLASHING INSIDE CORNER -JOH7288D

Used in conjunction with Overhang Flashing at inside corners.

THICKNESS	10MM
PACKAGING	

(PCS PER PACK) 2



OVERHANG FLASHING OUTSIDE CORNER -JOH7288B

Used in conjunction with Overhang Flashing at outside corners.

THICKNESS	101414
THICKNESS	10MM
PACKAGING	
(PCS PER PACK)	2



OVERHANG FLASHING CLIP -JOH7288S

Placed at seams where Overhang Flashing and corners meet.

THICKNESS	10MM
PACKAGING	
(PCS PER PACK)	1



STARTER FLASHING (10') -FTD4788

Used in conjunction with the Ultimate Horizontal/Vertical Starter Tracks at the bottom of a building.

THICKNESS	10MM
PACKAGING	
(LN. FT. PER BOX)	50



STARTER FLASHING OUTSIDE CORNER - FTD4788B

Used in conjunction with Starter Flashing at outside corners.

THICKNESS	10MM	
PACKAGING (PCS PER PACK)	4	



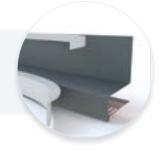
STARTER FLASHING INSIDE CORNER - FTD4788D

Used in conjunction with Starter Flashing at inside corners.

THICKNESS	10MM
PACKAGING	
(PCS PER PACK)	4

NOTES: EACH COMPONENT OF ESSENTIAL FLASHING IS SOLD SEPARATELY; STARTER AND OVERHANG FLASHING IS AVAILABLE IN BLACK ONLY.

Nichiha takes accessory protection to the next level with a **removable film layer.** Once installed, simply peel off the film to reveal blemish-free fixtures.







Our starter flashing serves a dual role — ensuring your project is polished to perfection and operating as a bug screen to keep annoying pests away.

30 ESSENTIAL FLASHING 31

PRODUCTS

APPLICATIONS

RESOURCES

PRICING

ABOUT US

PANEL CORNERS

CORNERS

- Prefinished corners are used in conjunction with horizontal panel installation
- Available for all AWP products except Miraia

SPECIFICATIONS

Outside Dimensions [in.)	17-7/8 H x 3-1/2 [face]
Outside Dimensions (actual mm)	455 H x 88.9 [face]
Packaging (pieces per pack)	6

PRODUCT SUPPORT





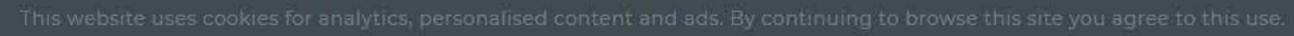












INSTALLATION HARDWARE

Easily take your vision from the drawing board to reality.



ULTIMATE CLIP II WITH JOINT TAB ATTACHMENT - JEL778* & JEL788**

Creates a hidden fastening system that all but eliminates face fastening. The joint tab helps support panel lateral stability.

THICKNESS	10MM
PACKAGING (PCS PER BOX)	30



ULTIMATE HORIZONTAL STARTER TRACK (10') - FA700

Ensures a fast, level installation. Its patented drainage channel directs water out and away from the base of the wall.

THICKNESS	10MM
PACKAGING (LN. FT. PER BOX)	100



ULTIMATE VERTICAL STARTER TRACK (10') - FA710T

Ensures a fast, level installation with 3030 panels. Its patented drainage channel directs water out and away from the base of the wall.

THICKNESS	10MM
PACKAGING (LN. FT. PER BOX)	100



SINGLE FLANGE SEALANT BACKER (6.5') - FHK1015R

Used for vertical jambs at doors and windows and at inside corners of the building.

THICKNESS	10MM
PACKAGING (LN. FT. PER BOX)	65



DOUBLE FLANGE SEALANT BACKER (10') - FH1015R

Used for vertical expansion joints. Placed at the end of each 3030 panel, and every 30' with 1818 panels and with the preformed outside corner.

THICKNESS	10MM	
PACKAGING (LN. FT. PER BOX)	100	



CORRUGATED SHIM (4') - FS1005 & FS1010

Used for face fastening where required (top of building, doors, windows, etc.)

THICKNESS (FS1005)	5MM
THICKNESS (FS1010)	10MM
PACKAGING (LN. FT. PER BOX)	200



CORNER CLIP - JE777C* & JE787C**

Corner clip for the preformed Nichiha fiber cement corners.

THICKNESS	10MM
PACKAGING (PCS PER BOX)	6



Prefinished corners are used in conjunction with horizontal panel installation.

17 7/8"H x 3-1/2" [face]
1818MM H x 88.9MM [face]

^{*}JEL778 and JE777C are compatible with all panels except SandStone and VintageBrick.

METAL TRIM

With our customized metal trim, your project practically finishes itself.

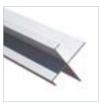


CORNER KEY

Extrusion used at outside corners instead of a preformed corner. A vertical expansion joint is required 2' to 10' from the corner when using this corner.

(NOM. FT. ~ ACTUAL MM) (76.2MM × 3030MM)	DIMENSIONS	3" x 10'
	(NOM. FT. ~ ACTUAL MM)	(76.2MM x 3030MM)

PACKAGING (LN. FT. PER TUBE) 50

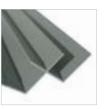


OPEN OUTSIDE CORNER

Extrusion used at outside corners instead of a preformed corner. A vertical expansion joint is required 2' to 12' from the corner when using this corner.

DIMENSIONS	2.96" x 10'
(NOM. FT. ~ ACTUAL MM)	(75MM×3030MM)

PACKAGING (LN. FT. PER TUBE) 50

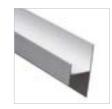


INSIDE CORNER

Used where two Nichiha panels meets in an inside corner; alternative to Single Flange Sealant backer with sealant.

DIMENSIONS	3.4" x 10'
(NOM. FT. ~ ACTUAL MM)	(86.4MM×3030MM)

PACKAGING (LN. FT. PER TUBE) 50



H-MOLD

Can be used at the end of 3030 panels instead of the Double Flange Sealant Backer, but not at the preformed outside corners.

DIMENSIONS	2" x 10'	
(NOM. FT. ~ ACTUAL MM)	(50.8MM × 3030MM)	
PACKAGING (LN. FT. PER TUBE)	50	

J-MOLD

Can be used instead of Single Flange Sealant Backer at vertical jambs for doors and windows, but not at the inside corners of the building.

DIMENSIONS	0.375" x 10'
(NOM. FT. ~ ACTUAL MM)	(9.5MM × 3030MM)
PACKAGING (I N FT PER TUBE)	50



Our trim gives you options

All of our metal trim is available in four finishes: primed, clear anodized, powder coated, or custom color. For pricing and lead times, view our Price Catalog at nichiha.com/price-catalog.





For popular panels like VintageWood, we've made ordering easier by color matching all of our trim profiles to have in stock for fast delivery.





Thanks to our Color Xpressions system, Nichiha can customize trim to match any color you use on custom color panels.



32 HARDWARE & ACCESSORIES 33

^{**}JEL788 and JE787C are compatible with SandStone and VintageBrick only.

Behind our Architectural Wall Panels is SOME SERIOUS TECHNOLOGY.



EASY INSTALLATION

Time-saving clip installation system that reduces construction time and minimizes mistakes.



NO MORTAR, NO MESS

Prefinished panels eliminate the need for messy mortar or costly masonry-skilled labor.



ANY WEATHER PRODUCT

Products can be installed year round in any climate across the country. No geographical restrictions means more possibilities



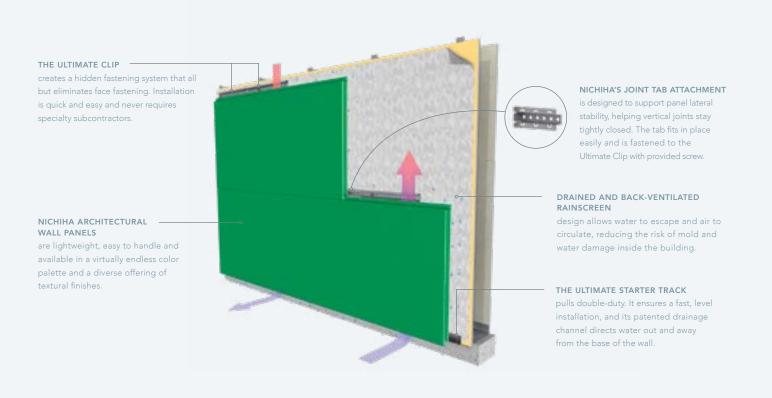
LOW MAINTENANCE

No-fuss products. Little ongoing cleaning or regular maintenance needed. Bring your vision to life and ensure it looks great for years to come.



ENGINEERED FOR PERFORMANCE

Go beyond our durable panels and discover a meticulously engineered moisture management system that provides a vertical drainage point for air and moisure to exit.



Never underestimate the power of REALLY GOOD TOOLS.

Whether you are an architect, contractor, installer or builder, Nichiha ensures that you have all the information you need to make your project go as smoothly as possible. The way we see it, we are partners. Our website offers a comprehensive collection of technical information, installation videos, architectural details, in-depth specifications and everything you'll ever need to know about installing Nichiha products.



DESIGN REVIEW GUIDE

Download our quick reference guide to get an overview on our Architectural Wall Panels.

nichiha.com/docs/nichiha-design-review-guide.pdf



INSTALL DOCUMENTATION

Take an even deeper dive and download our in-depth installation guides.

nichiha.com/resource-center/install-support



INSTALL VIDEOS

Watch our installation instructions come to life — check out our installation videos today!

nichiha.com/resource-center/install-support



Our in-house technical team is here to assist. If you have questions, comments or concerns, call or email us.

1.866.424.4421 or technicalservices@nichiha.com

RESOURCES 35 34 RESOURCES

THE POWER OF POSSIBILITIES

At Nichiha USA we value genuine relationships, bold ideas and a willingness to evolve into a better version of ourselves as we create better spaces for all to enjoy. Our visually stunning, high-performing building materials and incomparable service to our partners may set us apart, but we are proud to be a part of a global, vibrant building community.

Nichiha USA is a subsidiary of Nichiha Corporation. Founded in Japan in 1956, Nichiha now has over 2800 employees in 13 locations worldwide. As we continue to grow, we keep our overarching goal in mind: Building a Better Human Environment. Learn more about our global presence at: nichiha.co.jp/global.

NICHIHA WARRANTIES

- ARCHITECTURAL WALL PANELS
 15-year limited warranty* on panels
 15-year limited warranty* on finish
- METAL TRIM
 TAMLYN warrants defective-free products for a period of 10 years for the original purchaser. Please visit tamlyn.com for detailed information on terms, conditions and limitations.

*See Nichiha warranties for detailed information on terms, conditions and limitations. Visit nichiha.com for easy downloadable warranties or call toll-free 1.866.424.4421 for a copy.

Nichiha MSDS is available at nichiha.com, at your local Nichiha dealer or call Nichiha direct, toll-free 1.866.424.4421.

CERTIFICATION & TESTING









CCRR-0299

Report No. EC-58

Canada CCMC 14366-R

Report No. FL12875 No. FL12812







NOA 21-0312.11

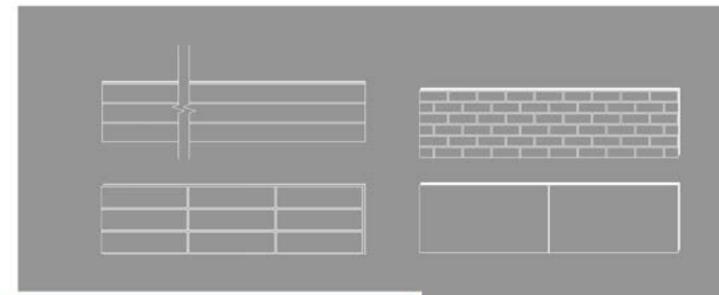
WUI 8140-2029

RR 26081



SILICA DUST WARNING: Nichiha products may contain some amounts of crystalline silica [a.k.a. sand, silicon dioxide], which is a naturally occurring mineral. The amount will vary from product to product. Inhalation of crystalline silica into the lungs and repeated exposure to silica can cause health disorders, such as silicosis, lung cancer, or death depending upon various factors. To be conservative, Nichiha recommends that whenever cutting, sawing, sanding, sniping or abrading the product, users observe Safety Instructions. For further information or questions, please consult the MSDS, your employer, or visit osha.gov/SLTC/silicacrystalline/index.html and cdc.gov/niosh/topics/silica. The MSDS for Nichiha products are available at nichiha.com, at your local Nichiha dealer or through Nichiha directly at 1.866.424.4421. FAILURE TO ADHERE TO OUR WARNINGS, MSDS, AND OTHER INSTRUCTION MAY LEAD TO SERIOUS PERSONAL IN JURY OR DEATH

ARCHITECTURALBLOCK, CANYONBRICK, EMPIREBLOCK, ILLUMINATION, INDUSTRIALBLOCK, KURASTONE, PLYMOUTHBRICK, MIRAIA, RIBBED, ROUGHSAWN, SANDSTONE, TUFFBLOCK, THE POWER OF POSSIBILITIES, VINTAGEBRICK and VINTAGEWOOD are trademarks of Nichiha USA, Inc.

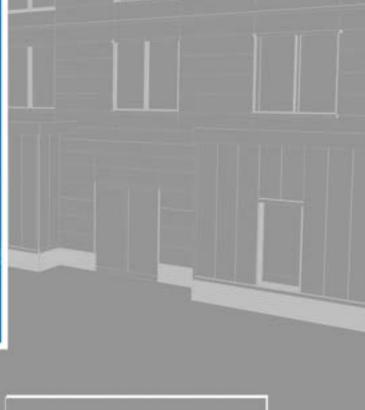




ARCHITECTURAL WALL PANELS

DESIGN REVIEW GUIDE

AWP 1818 AWP 3030 | HORIZONTAL + VERTICAL







AWP DESIGN GUIDE

TABLE OF CONTENTS



- NICHIHA RAINSCREEN 3
 - PRODUCTS 4
- PRODUCT PARTICULARS 5
- PLANNING AND LAYOUT 6

- 7 CONTINUOUS INSULATION
- 8 ARCHITECTURAL LAYOUT
- 10 HORIZONTAL REQUIREMENTS
- 12 VERTICAL REQUIREMENTS
- **14** TECHNICAL REQUIREMENTS



Always install products in accordance with the latest installation guidelines and all applicable building codes and other laws, rules, regulations and ordinances. Review all installation instructions and other applicable product documents before installation.

THE NICHIHA RAINSCREEN

Moisture intrusion in a wall system can be the cause of building defects, as well as health ailments for the building's occupants, making rainscreens a very important tool in water mitigation. Rather than attacking the symptoms of moisture intrusion, rainscreens tackle the source—the forces that drive water into the building shell. Nichiha's concealed installation system creates a 10mm (3/8") drainage and ventilation plane behind our panels.



THE PRODUCTS

Before you jump into the design process, we recommend taking a minute to familiarize yourself with the dimensions of Nichiha's family of <u>Architectural Wall Panels</u>. All panels have the same height (455mm) but are either 1818mm or 3030mm wide.

AWP 1818

Horizontal Installation Allowed

Stacked or Staggered Layout (Horizontal)

Dimensions: 17-7/8" [H] x 71-9/16" [L]

455mm [H] x 1818mm [L]

Thickness (unless noted): 5/8" (16mm)

ArchitecturalBlock

CanyonBrick

Illumination^c

Miraia

Novenary 7/8" Thickness

PlymouthBrick

RiftSawn 3/4" Thickness

SandStone 3/4" Thickness

TuffBlock^c

VintageBrick 3/4" Thickness

VintageWood

Natura

Corbosa

Latura

Modern Brick

AWP 3030

Horizontal or Vertical Installation Allowed

Stacked Layout Only

Dimensions: 17-7/8" [H] x 119-5/16" [L]

455mm [H] x 3030mm [L] **Thickness:** 5/8" (16mm)

EmpireBlock

Illumination

IndustrialBlock

Ribbed

RoughSawn

VintageWood

Latura

Nichiha's Architectural Detail Finder is ready to help with all your detailing needs and is found at nichiha.com/architectural-details. Panel dimension profiles, installation components & accessories, trims, and wall details for many assembly types and conditions are available in AutoCAD, Revit, and PDF.

^c Panel profiles offering the Color Xpressions system (Illumination, Ribbed, and TuffBlock) require a lead-time versus stock colors. Contact a Sales Representitive for more information.



COMPATIBILITY BETWEEN PANEL TYPES

NICHIHA AWP 1818 VERSUS AWP 3030

AWP 1818 have shiplap edges on all four sides and the panels joint directly with each other. The vertical joints may be aligned or staggered with each course. Because of their shape, AWP 1818 can only be installed horizontally.

AWP 3030 have shiplap edges only on the long dimension. The short edges are square cut. This enables a vertical installation option for AWP 3030 with a different Starter Track (FA710T). However, it also requires all vertical joints to align when the panels are installed horizontally. This means an AWP 3030 layout can *only* be stacked. The vertical joints must use the Double Flange Sealant Backer with sealant or H-Mold Trim.

GROUPING 1818 & 3030 PANELS:

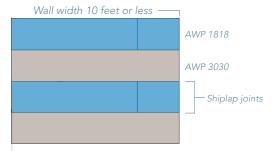
The difference of the vertical edge jointing means AWP 1818 and AWP 3030 can only be matched directly together in a mixed arrangement on walls 10 feet or less in width so that AWP3030 will not require any vertical joints. (Elevation A)

On walls sections wider than 10 feet, the two sizes can be used together only if the AWP 3030 is grouped below the AWP 1818. (Elevation B)

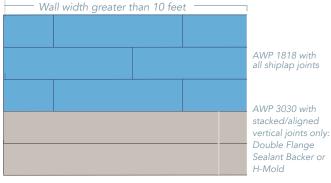
AWP 1818 THICKNESSES

Imported SandStone and VintageBrick (3/4") require use of the JEL788 Ultimate Clip, which accounts for a thicker panel edge. All other panels, including Novenary Tile (7/8") and RiftSawn (3/4") are designed with edges compatible with the JEL778 Ultimate Clip. Because of the difference in edge thicknesses and required clips, imported SandStone and VintageBrick cannot be jointed directly with any other AWP profiles. These two panels must be separated from all other panel types by Horizontal/Compression Joints and Vertical Control/Expansion Joints.

Novenary Tile (7/8") panels joint normally with any 5/8"thick AWP 1818 on all four sides.



A) 16mm & 21mm AWP 1818 and AWP 3030 mixed on walls ten feet or less in width.



B) 16mm & 21mm AWP 1818 and AWP 3030 together on walls wider than ten feet. 1818's grouped on top with 3030's below only.

AWP 1818 JOINT PROFILES

V-Groove: Architectural Block, Illumination 1818

Split V-Groove: TuffBlock, EmpireBlock, IndustrialBlock

Soft U: Illumination 3030

Implications: Illumination 3030 meeting Illumination 1818 or ArchitecturalBlock at a corner will result in different neighboring joint aesthetics. The same is true where TuffBlock may neighbor Illumination 1818 or ArchitecturalBlock.



These are joint profiles for Illumination 1818 or Architectual Block (left) with a V-Groove joint versus TuffBlock (right) with a Split V-Groove.

PLANNING & LAYOUT

The Nichiha system works most efficiently when full panels are used. Designing panel layouts symmetrically from a wall center, outwards will help to create less product waste. It is important to keep in mind the actual metric dimensions when considering the modular panel layout, including placement of control and compression joints, and also with respect to sizing window and door openings.

Detailing around openings involves a number of variables such as the depth of the opening and the overall thickness of the wall assembly. For example, a continuous insulation and furring condition with recessed windows will necessitate a jamb, head, and sill return material/finish. Depending on the dimensions, Nichiha factory Corners or cut panels may be used at jambs, or an alternate material such as metal may be necessary. Nichiha Corners may not be used for head and sill return conditions. Please reach out to Nichiha Technical for detailing recommendations.

VERTICAL CONTROL/ EXPANSION JOINT REQUIREMENTS

On walls wider than 30 feet, when using AWP 1818 panels and metal trim outside corners, Vertical Control/Expansion Joints (Double Flange Sealant Backers) are required within 2 to 12 feet of outside corners (on both sides of corner) and then approximately every 30 feet thereafter.

When using AWP 1818 panels and Nichiha factory Corners, control joints are required at the factory Corner and then approximately every 30 feet thereafter.

When using AWP 3030 panels installed horizontally, vertical control joints or H-molds are required at each vertical joint. Panels may not be butted together and these vertical joints may not be split up or staggered.

Control/Expansion Joints are 10mm (3/8") wide.

HORIZONTAL/COMPRESSION JOINT REQUIREMENTS

Metal Framed projects taller than three stories: Place compression joints every other floor.

Wood Framed projects three stories or taller: Compression Joints required at each floor.

Compression Joint requirements:

Compression Joint Flashing - heavy gauge z-shaped metal flashing or similar, 1/2" (min.) gap between panels at floor lines/plate, and Starter Track.



Installed Horizontal/Compression Joint examples



CONTINUOUS INSULATION

Nichiha AWP Horizontal AWP may be installed directly over up to one inch of foam plastic insulation such as polyiso or XPS over wood or gypsum sheathing. Insulation compressive strength of 15 psi or greater is required. For horizontal panels, continuous insulation (c.i.) thicker than one inch or mineral wool c.i. of any thickness must be paired with a furring or other solution to satisfy the Framing &

Sheathing Requirements set out in the AWP install guides. For vertical panels, the presence of any c.i. requires an assembly adjustment and is subject to a required Technical Review process. Refer to the guides for complete installation requirements and instructions. This document is not intended to prohibit options or furring combinations not covered herein. Please contact the Technical Department for assistance.

Exterior Continuous Insulation Requirements

Horizontal Panel Installation

(With any c.i. >1" or any mineral wool)

Shaped Metal Furrings (Z, hat channel, C, etc.), Min. 18 ga.

-or-2x P.T. Lumber

Energy Code Option -with-

Furring aligned vertically at 16" o.c. (max)

Vertical Panel Installation

(With any c.i., contact Nichiha Technical Services)

Minimum 18 gauge steel horizontal shaped furring (Z, hat channel, C, etc.) with maximum 16" o.c. spacing. Minimum 18 gauge horizontal hat channel must be used at starter track to support the weight of the panels

Energy Code Friendly Options

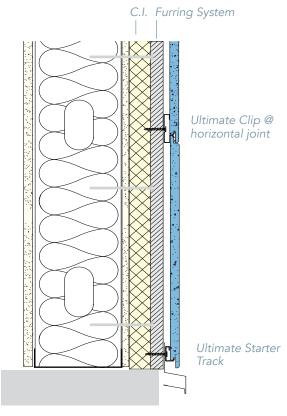
Engineered third-party systems

Cascadia Clips®™
FERO Cladding Support ISO Clip™
Knight Wall MFI®™
Cladiator CL-300®™
Hunter Xci Ply®™
Knight Wall Cl® and HCl™
SMART ci GreenGirts™

*Consult a structural engineer to design the furring system to manage the AWP system dead load of minimum 5 psf and also meet the project wind load design criteria. Furring must account for expected building compression. Nichiha does not provide fastener design for anchoring the furring to structure. Refer to the International Building Code (IBC) for more info.

NFPA 285 and Hourly Ratings

Refer to <u>Intertek CCRR 0299</u> and our Priest Associates engineering evaluations for <u>NFPA 285 compliant</u> and <u>hourly-rated assemblies</u>.



Section view: AWP System on vertical furring

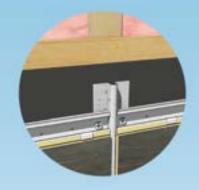
ARCHITECTURAL LAYOUT





INSIDE CORNER

Butt line-of-sight panels to corner.
On opposite wall, add Single Flange
Sealant Backer and caulk or use Inside
Corner metal trim.



VERTICAL CONTROL JOINT

Often aligned with window jambs, Double Flange Sealant Backer is fastened to framing/furring, wood sheathing, or blocking.



OUTSIDE CORNER

- Factory Corners with 3-1/2" Face Returns
- Corner Key Trim
- Open Outside Corner Trim
- Fiber Cement Trim Boards



HORIZONTAL DESIGN REQUIREMENTS

AWP 1818 – HORIZONTAL

- Ultimate Horizontal Starter Track always level
- Ultimate Clip II JEL778 for most panels (JEL788 for SandStone and VintageBrick only) - 2-1/2 clips per panel edge I 10mm (~3/8") rain screen
- Joint Tab Attachments required between panels at vertical factory joints
- Vertical Control/Expansion Joints (Double Flange Sealant Backer) on 30'+ walls with metal trim outside corners: 2'-12' from edges + every ~30' thereafter
- Vertical Control/Expansion Joints with Nichiha Corners plus every ~30' thereafter
- Vertical Control/Expansion Joints every ~30' on walls with no outside corners.
- Horizontal/Compression Joints: Wood Framing three stories or more = joint at every floor

- three stories= joint about every every other floor
- Sealant Joints (Single Flange Sealant Backer) or Inside Corner trim at inside corners
- Horizontally cut edges require face fastening with shim
- MIN. Clearances: 6" above soil grade, 2" above hardscape and decking, 1" above roof
- 1/4" clearance between the panel edge and flashings
- Panel Thickness 16-21mm | 5/8" 7/8"
- Total System Depth 26mm 31mm | 1-1/32" -1-7/32"

See table for Framing & Sheathing Requirements
Reference page 4 for panel thickness

Horizontal/Compression Joints: Metal Framing over

HORIZONTAL AWP CONTINUOUS INSULATION REQUIREMENTS

ontinuous Insulation Requirements Horizontal Panel Installation (With any c.i. >1" or any

(With any c.i. >1" or an mineral wool)

Shaped Metal Furrings (Z, hat channel, C, etc.), Min. 18 ga.

-or-2x P.T. Lumber

-or-Energy Code Option

-with-Furring aligned vertically at 16"o.c.(max) Energy Code Friendly Options

Engineered third-party systems

Cascadia Clips®™
FERO Cladding Support ISO Clip™
Knight Wall MFI®™
Cladiator CL-300®™
Hunter Xci Ply®™
Knight Wall Cl® and HCI™
SMART ci GreenGirts™





AWP 3030 - HORIZONTAL

- Ultimate Horizontal Starter Track always level
- Ultimate Clip II JEL778 for all 3030mm panels 4 clips per panel edge I 10mm (~3/8") rain screen
- Vertical Control/Expansion Joints (Double Flange Sealant Backer) or H-Mold trim at each vertical joint
- Stacked layout only no staggering of vertical joints
- Horizontal/Compression Joints: Wood Framing three stories or more = joint at every floor
- Horizontal/Compression Joints: Metal Framing over three stories = joint about every other floor
- Sealant Joints (Single Flange Sealant Backer) or Inside Corner trim at inside corners

- Horizontally cut edges require face fastening with Spacer
- MIN. Clearances: 6" above soil grade, 2" above hardscape and decking, 1" above roof
- 1/4" clearance between the panel edge and flashings
- Panel Thickness 16mm | 5/8"
- Total Wall System Depth 26mm | 1-1/32"

See table for Framing & Sheathing Requirements

HORIZONTAL AWP FRAMING & SHEATHING REQUIREMENTS

WALL TYPES	ATTRIBUTES	STUD SPACING	SHEATHING
Metal Studs	18 gauge min.	16" o.c. max.	Min. 7/16" OSB/Plywood 1/2" or 5/8" Gypsum
Wood Studs	2X Lumber 16" o.c. ma.		Min. 7/16" OSB/Plywood 1/2" or 5/8" Gypsum
Concrete Furring is required	18 ga shaped metal or P.T. 2X Lumber	16" o.c. max.	N/A
SIPs & NailBase C.I.	Per SIP Standard (sips.org) w/ min. four (4), evenly spaced screws per clip 24 gauge up to -31.41 PSF Deflection Criteria: L/120 max. 22 gauge up to -39.29 PSF Fastening: #10 fastener @12" o.c.		
PEMBs			

VERTICAL DESIGN REQUIREMENTS



AWP 3030 – VERTICAL

- Ultimate Vertical Starter Track always level and continuous, bearing the dead loads of vertical AWP 3030, fastened 8" o.c. with every other fastener attaching to the vertical framing members. Required sheathing is a minimum 7/16" OSB or Plywood
- No vertical panel staggering
- Ultimate Clip II JEL778 for all 3030mm panels 4 clips per panel edge I 10mm (~3/8") rain screen
- Vertical Control/Expansion Joints not required
- Horizontal/Compression Joints after each course
- Don't span floors
- Sealant Joints (Single Flange Sealant Backer) or

Inside Corner trim at inside corners

- Vertically cut edges require face fastening to structure, through shim
- MIN. Clearances: 6" above soil grade, 2" over hardscape and decking, 1" over roof
- 1/4" clearance between the panel edge and flashings
- Panel Thickness 16mm | 5/8"
- Total System Depth 26mm | 1-1/32"
- Structural Sheathing of 7/16" or thicker APA rated
 OSB or Plywood is required for direct fastening
 See table for Framing & Sheathing requirements

VERTICAL AWP CONTINUOUS INSULATION REQUIREMENTS

WALL TYPES	ATTRIBUTES	STUD SPACING	SHEATHING
Metal Studs	18 gauge min.	16" o.c. max.	Min. 7/16" OSB/Plywood
Wood Studs	2X lumber	16" o.c. max.	Min. 7/16" OSB/Plywood
Concrete Furring is required	18 gauge shaped metal furring.	N/A	N/A
SIPs	Per SIP Standard (sips.org) and Vertical Starter Track must be fastened directly into solid lumber with min. 1" penetration		
PEMBs	Product not intended for this application		





VERTICAL AWP CONTINUOUS INSULATION REQUIREMENTS

Continuous Insulation – also refer to the installation guides.

For vertical AWP, the presence of *any* c.i. necessitates adjustments. Please contact the Technical Department.

Standard Stud Walls w/ C.I. Shaped Metal Furring Grid

Minimum 18 gauge steel horizontal shaped furring (Z, hat channel, C, etc.) with maximum 16" o.c. spacing.

Minimum 18 gauge horizontal hat channel must be used at starter track to support the weight of the panels

Standard Stud Walls w/ C.I.

Wood Sheathing added to Vertical Furring

Furring: minimum 18 gauge shaped metal or 2X lumber -and-

Furring aligned vertically at 16" o.c. (max) - secured to wall framing

Min. 7/16" APA Rated Plywood/OSB - secured to furring -and-Code-approved WRB

CMU and Concrete

Exterior Continuous Insulation Requirements

Shaped Metal Furring

Minimum 18 gauge -and-Aligned horizontally at 16" o.c. -and-

Additional vertical furring segments at Vertical Starter Track locations to enable 8" o.c. fastener spacing for track

Specialty Third-Party Systems

Cascadia Clips®™
FERO Cladding Support ISO Clip™
Knight Wall MFI®™
Cladiator CL-300®™
Hunter Xci Ply™
Knight Wall Cl® and HCI™
SMARTci GreenGirts™

Contact Nichiha Technical Department

TECHNICAL REQUIREMENTS



STANDARD REQUIREMENTS

Let's start with the basics. Each of the following criteria must be met in order for Nichiha Architectural Wall Panels to perform as intended.

- Refer to Intertek CCRR-0299 for product building code compliance certification as well as wind load engineering requirements. For this and other Nichiha product approvals for Florida, Miami-Dade, Texas TDI, and L.A.R.R., visit nichiha.com/resource-center, and select Product Certifications under the Design Support filter
- Continuous Insulation refer to the <u>installation</u> guides
- Vapor Permeable Weather Resistive Barriers required over stud walls and SIPs. CMU/concrete - defer to local code. Sheathings and C.I. with integrated code compliant WRB are acceptable
- <u>Hardware, Corners, Trims, Flashings</u> (nichiha.com/ hardware-and-accessories)
- Minimum Clearances a minimum of 6" above soil grade, 2" above hard surfaces, 1" above roofing, or per local building codes
- Single Flange Sealant Backers at inside corners, along window & door jambs and transition points with other cladding

- Double Flange Sealant Backers Vertical Control/ Expansion joints, Non-90-Degree Corners and at Nichiha Corners
- Sealants refer to Technical Bulletin Sealants
- 10mm Spacer required at all face fastening locations
- Face fastening every 12-16" o.c. to framing/furring spaced min. 1" distance from the panel edge
- Fasteners must penetrate: Wood Studs a min. 1", Metal Studs a min. 1/2" with three threads needed for grab
- Fasteners must be stainless steel or corrosion resistant such as hot dipped zinc or ceramic coated - pan, wafer, or hex head required for clip and track fastening (min. #8)
- Equipment/Mechanical Screens must be fully enclosed wall system
- Soffit and Angled Wall applications (with standard warranties) are prescribed in the *Horizontal AWP Install Guide*. See pages 39-42.



ADDITIONAL REQUIREMENTS

- Structural Insulating Panels (SIPs)
- Nail-base insulation sheathings
- Continuous Insulation (C.I.) greater than one inch in thickness
- Insulated Concrete Forms (ICFs) require <u>additional measures</u>
- Retrofits and atypical applications
- Modular or panelized wall structures

All of the above require a technical review by Nichiha to evaluate feasibility via our Technical Design Review (TDR) process. Submission of a TDR does not imply or guarantee project approval.



TECHNICAL DESIGN REVIEWS

If your project meets any of the criteria listed below, or you simply wish to take advantage of the service, your Nichiha Sales Representative can connect you to Technical Department staff for a Technical Design Review. It's our way of making your specification of Nichiha AWP as easy as possible. Refer to nichiha.com/technical-design-review.

- Any project of more than three stories or 45 feet
- Those located in high wind coastal areas (Exposure Categories C and D with Wind Speed in excess of 130 mph (Vult) per ASCE 7-10)
- Those with any wall assembly not described in the Framing & Sheathing Requirements
- Continuous Insulation projects



If your project includes any of the following attributes, contact Nichiha Technical Services for clarification and advice. Refer also to Technical Bulletins in our Resource Center under the Install Support filter.

- No Radius/Curved Walls
- No existing or new masonry w/o furring
- No remodels over hard coat & synthetic stucco/ EIFS
- No Pre Engineered Metal Building retrofits. New construction only with horizontal installation, no vertical installation allowed
- Do not use AWP on open screen walls
- Do not cut panels to less than 4" in width or length

 For Vertical Panels: do not span floors with panels.
 Place compression joints at each floor line. No staggering of joints



For complete offerings of AutoCAD and Revit details visit nichiha.com/architectural-details

For Code Compliance, product testing, installation hardware, accessories, and full installation requirements/details visit: nichiha.com/resource-center

TechnicalServices@nichiha.com | Phone: 866-424-4421



THE POWER OF POSSIBILITIES

At Nichiha USA we value genuine relationships, bold ideas and a willingness to evolve into a better version of ourselves as we create better spaces for all to enjoy. Our visually stunning, high-performing building materials and incomparable service to our partners may set us apart, but we are proud to be a part of a global, vibrant building community.

Nichiha USA is a subsidiary of Nichiha Corporation. Founded in Japan in 1956, Nichiha now has over 2800 employees in 13 locations worldwide. As we continue to grow, we keep our overarching goal in mind: Building a Better Human Environment. Learn more about our global presence at: nichiha.co.jp/global.

SILICA DUST WARNING: Nichiha products may contain some amounts of crystalline silica [a.k.a. sand, silicon dioxide], which is a naturally occurring mineral. The amount will vary from product to product. Inhalation of crystalline silica into the lungs and repeated exposure to silica can cause health disorders, such as silicosis, lung cancer, or death depending upon various factors. To be conservative, Nichiha recommends that whenever cutting, sawing, sanding, sniping or abrading the product, users observe Safety Instructions. For further information or questions, please consult the MSDS, your employer, or visit osha.gov/SLTC/silicacrystalline/index.html and cdc.gov/niosh/topics/silica. The MSDS for Nichiha products are available at nichiha.com, at your local Nichiha dealer or through Nichiha directly at 1.866.424.4421. FAILURE TO ADHERE TO OUR WARNINGS, MSDS, AND OTHER INSTRUCTION MAY LEAD TO SERIOUS PERSONAL INJURY OR DEATH.

ARCHITECTURALBLOCK, CANYONBRICK, EMPIREBLOCK, ILLUMINATION, INDUSTRIALBLOCK, KURASTONE, PLYMOUTHBRICK, MIRAIA, RIBBED, ROUGHSAWN, SANDSTONE, TUFFBLOCK, THE POWER OF POSSIBILITIES, VINTAGEBRICK and VINTAGEWOOD are trademarks of Nichiha USA, Inc.

RESIDENTIAL





A CARLISLE COMPANY



Walls Residence, Little Rock, AR
Architect: Polk Stanley Wilcox Architects
Installing contractor: Govington Roofing & Sheet Metal
Material: PAC-CLAD 24 ga. steel
Color: Musket Gray

Cover photo:
Private Residence, FL
Contractor: Moore Roofing
Architect: WHL Architecture
Distributor: ARC Supply
Photo: hortonphotoin.com
Profile: Snap-Clad
Color: Cityscape

AN ELEGANT PALETTE

Petersen's extensive color palette includes options that are complementary to most architectural styles, building materials including brick, stone and wood, plus exterior products such as siding, windows and doors.



Premium Colors —



Due to limitations of the printing process, color representation on the grid above is not 100% accurate. Please request a free color guide from your Petersen rep, architect or contractor to confirm your color choice before placing an order.



A home with a metal roof stands with more pride than neighboring homes, and for good reason. The beauty of a metal roof is superior to the asphalt shingles most homeowners think of when envisioning a residential roof. A metal roof will perform better, too. The properties of metal combined with the incredible solar reflectivity of our superior PAC-CLAD paint coating can reduce the cost of heating and cooling a home. Additionally, a metal roof will last much longer and endure better than an asphalt or wood roof. While neighbors

complain about replacing their non-metal roofs, those living under metal roofs will beam with pride that theirs looks as good as the day it was installed.

SEE IT ON YOUR HOME TODAY

Drop a photo of any home into our online visualization tool to see how

Petersen's PAC-CLAD products will look on it. Visit pac-clad.com/pac-e-tools
to work with the visualizer. Or, ask your contractor for assistance.

LIFETIME INVESTMENT Private Residence, Tallahassee, FL Material distributor: ABC Supply Installing contractor: Tallahassee Roofing Architect: C. Brandon Ingram Design General contractor: Barton Construction Photo: jeffherrphoto.com Profiles: Snap-Clad Color: Mill finish

When considering a metal roof, discussions should focus on lifetime value, not upfront cost. A metal roof is for homeowners who appreciate its value. The price of a metal roof, which comes with an estimated lifetime of 50 years if properly maintained, can be up to three times the installed cost of other materials. In return for the investment, the made-in-the-USA metal roof will last 3 or 4 times longer than a typical residential roof.

METAL EXPERIENCE MATTERS

When choosing an architect or contractor, experience matters. A metal roof is a different product that requires a specialized skill set to properly specify and install. Choosing architects and contractors with metal roof experience will maximize your metal roof's performance, and add a level of comfort to your decision.

NEW CONSTRUCTION OR REMODELING

A metal roof will look beautiful and perform well on a home built from the ground up, or on a home undergoing an exterior remodel or simple roof replacement. A good architect or designer can blend a Petersen metal roof or siding with any architectural style or color.

STEEL OR ALUMINUM

Petersen's PAC-CLAD metal roofing and siding products are available in either steel or aluminum. An experienced Petersen rep, architect or contractor will guide homeowners toward the material that's best for their home.

A GREEN, SUSTAINABLE PRODUCT

A Petersen metal roof is made with recycled content, qualifying it as a "green" or recycled-content product. It is also 100% recyclable at the end of its useful life, unlike other roofing materials which are routinely disposed of by the ton in landfills.

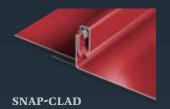
LITERALLY COOL COLORS

A PAC-CLAD metal roof from Petersen is available in 35 colors that are rated by the Cool Roof Rating Council. Coating technology that is specifically formulated for PAC-CLAD products reflects sunlight and cools a roof by emitting radiation to its surroundings. The roof stays cooler and reduces the amount of heat conducted to a home, saving up to 40% of a typical home's annual energy costs.

WARRANTY COVERAGE

Petersen offers a limited 30-year finish warranty on its PAC-CLAD painted metal roof and siding panels. A weathertight warranty is available on selected metal roof products.

Metal Roofing

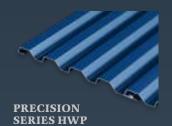


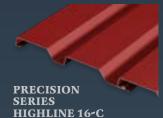












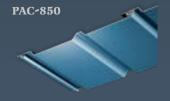




Siding available in wood grain and ore patina finishes.

Soffits





Soffit panels come in solid, full-vented and half-vented variations.

Private residence, Florida Architect: T. S. Adams Studio Architects Installing contractor: Cartercraft Roofing Profiles: PAC-150, Flush panel Colors: Weathered Zinc, Champagne

BEAUTIFUL PROFILES





RESIDENTIAL.PAC-CLAD.COM

800-PAC-CLAD INFO@PAC-CLAD.COM

Petersen offers national distribution through its seven locations in Illinois, Georgia, Texas, Maryland, Arizona, Washington and Minnesota

PAC-150 180° SEAM

MATERIALS

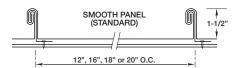
.032 aluminum 24 gauge steel

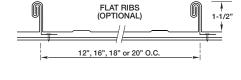
SPECS

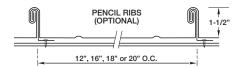
12", 16", 18"

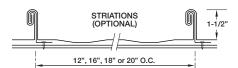
or 20" O.C. 1-1/2" High











PRODUCT FEATURES

- > 35-year non-prorated finish warranty
- Weathertightness warranty available
- Available in four pan variations; smooth, striated, pencil rib or flat rib. Check locally for panel condition availability
- Maximum panel length of 64' when factory or shop-formed but virtually unlimited when field-formed
- ▶ Mechanically seamed in the field to 180°
- NOTE: Seamers for PAC-150 are available from pac-clad.diroofseamers.com

MATERIAL

- ▶ 48 stocked colors (24 gauge steel)
- > 34 stocked colors (.032 aluminum)
- ▶ Galvalume Plus available

UL CLASSIFICATION

- ▶ UL-580
- ▶ UL-1897
- TAS-125

FLORIDA BUILDING PRODUCT APPROVALS

Contact the Acworth, Georgia facility for PAC-150 product approvals.



Pella® Lifestyle Series

Clad/Wood



#1 performing wood window and patio door for the combination of energy, sound and value.¹

Triple-pane casement



Dual-pane double-hung window with Hidden Screen



Easy-to-learn Pella Steady Set⁻⁻ interior installation system

Pella Steady Set Interior Installation System is a revolutionary, award-winning and safer way to install new construction windows. The simple system is the fastest, most labor efficient wood window installation system with uncompromising quality.2 Available on select windows.

Performance redefined

You don't have to compromise on any aspect of performance. Available performance solutions offer an unbeatable combination of energy efficiency, sound control and value.3

ENERGY STAR® certified4

Pella products offer energy-efficient options that will meet or exceed ENERGY STAR guidelines in all 50 states. Pella Lifestyle Series products with triple-pane glass have been awarded ENERGY STAR Most Efficient Mark in 2023.

· Enhanced sound control

Our patented, triple-pane design with Advanced Low-E glass allows for mixed glass thickness for enhanced sound dampening resulting in an average 52% noise reduction versus single-pane windows.5

· Intentional design for improved durability

Intentional jamb on sill design helps seal the end grain of the wood and elevates it off the rough opening, reducing the potential for moisture.

· Durable 3-way corner joints

Three-way corner joints are made up of mortise-and-tenon, metal fasteners and commercial adhesive for added strength and durability.

· Quality exterior finishes

EnduraClad® finish is a tough, protective aluminum finish for windows. The overlapping, watershed cladding resists chalking and fading. Our extruded aluminum-cladding delivers exceptional durability for sliding patio door exteriors.

· Exclusive wood protection

Pella's exclusive EnduraGuard® wood protection is applied after the pieces have been cut and milled, but prior to final assembly. It provides advanced protection against the effects of moisture, decay, stains from mold and mildew — as well as termite damage.

· Time-tested innovations

Create unique room-by-room solutions and achieve project goals with performance options and purposeful innovations like the Hidden Screen and integrated blinds and shades.

Best limited lifetime warranty⁶

Pella Lifestyle Series products are covered by the best limited lifetime warranty in the industry for wood windows and patio doors.6

Testing beyond requirements

At Pella, our products are tested beyond requirements to help ensure they have long-lasting performance and reduce call-backs for you.

· Convenient & durable screens

The revolutionary Hidden Screen appears when you open a double-hung window and folds away when it is closed. It provides a clear view when the window is closed and improves curb appeal year-round. The heavy-duty TuffScreen® by Phifer keeps bugs out and allows more fresh air in as one of the most durable screen options on the market. Available on sliding patio doors.

Available in these window and patio door styles:7



















Product Specifications

					5.	Performance Values —				
Window & Patio Door Styles	Min. Width	Min. Height	Max. Width	Max. Height	Performance Class & Grade	U-Factor	SHGC	STC	Frame/Install	
Awning Dual-pane vent	21"	17"	59"	59"	LC30 - LC50	0.25-0.34	0.19-0.51	25-28		
Awning Triple-pane vent	21"	17"	59"	59"	R20 - CW50	0.20-0.28	0.15-0.41	31-37		
Casement Dual-pane vent	17"	17"	35"	73"	LC30-LC50	0.25-0.34	0.19-0.58	25-31	Pella Steady Set™,	
Casement Triple-pane vent	17"	17"	35"	73"	R20-CW50	0.20-0.25	0.17-0.46	31-37	Fold-out Fin, Block Frame, EnduraClad Exterior Trim /	
Fixed Casement Dual-pane	17"	17"	73"	73"	LC30-LC50	0.23-0.35	0.20-0.57	29-32	Brickmould	
Fixed Casement Triple-pane	17"	17"	73"	73"	R20-CW50	0.19-0.27	0.15-0.49	33-37		
Double-Hung Dual-pane vent	21"	35"	48"	84"	LC30-LC50	0.25-0.34	0.20-0.48	27-31		
Hinged Patio Door Dual-pane single door	30"	80"	38"	96"	LC50	0.26-0.32	0.18-0.48	31		
Hinged Patio Door Triple-pane single door	30"	80"	38"	96"	LC55	0.23-0.28	0.12-0.34	34-36		
Hinged Patio Door Dual-pane double door	60"	80"	75"	96"	LC50	0.25-0.29	0.18-0.48	30-32		
Hinged Patio Door Triple-pane double door	50"	80"	75"	96"	LC55	0.22-0.26	0.14-0.38	34-36		
Sliding Patio Door Dual-pane double-door vent (OX or XO)	60"	80"	120"	120"	R20-LC50	0.26-0.31	0.20-0.51	28-31	Fold-out Fin, Block Frame, EnduraClad	
Sliding Patio Door Triple-pane double-door vent (OX or XO)	60"	80"	96"	96"	LC35-LC50	0.23-0.26	0.19-0.47	32-34	Exterior Trim / Brickmould	
Sliding Patio Door Dual-pane triple-door vent (OXO)	90"	80"	180"	120"	R20-LC35	0.26-0.31	0.20-0.51	_		
Sliding Patio Door Triple-pane triple-door vent (OXO)	90"	80"	144"	96"	LC35	0.23-0.26	0.19-0.47	-		
Sliding Patio Door Dual-pane quadruple-door vent (OXXO)	117"	80"	237"	120"	R20-LC35	0.26-0.31	0.20-0.51	-		
Sliding Patio Door Triple-pane quadruple-door vent (OXXO)	117"	80"	189"	96"	LC35	0.23-0.26	0.19-0.47	-		

Window sizes available in 1/4" increments
Special sizes available in dual- and triple-pane sliding patio doors. For more information regarding performance, visit pella.com/performance. For more information regarding frame and installation types, visit installpella.com.

Window Hardware

Essential Collection Select from popular designs and finishes to suit every style.



Fold-Away





Patio Door Hardware

Essential Collection

Elevate your style and transform a home with elegant selections.



Hinged Patio





Colors

Prefinished Pine Interior Colors

We can prefinish pine in your choice of several paint and stain colors. Unfinished or primed and ready-to-paint are also available.



Aluminum-Clad **Exterior Colors**

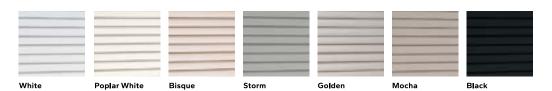
Our low-maintenance EnduraClad® exterior finish resists fading and helps protect andows and patio doors for years.



Integrated Blinds & Shades

Integrated Blinds⁸

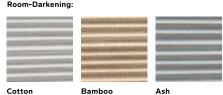
Raise blinds up for an unobstructed view or tilt to let in just the right amount of light.



Integrated

Our best integrated fabric shades feature a white exterior fabric for a uniform look from the street. Integrated and accessible shades are available manual or motorized with Pella Insynctive technology.





Haven't landed on the final blind or shade color selection? No problem. With our patented triple-pane design, you and your customer can make those decisions later in the schedule. Our triple-pane products come with all of the hardware to add a blind or shade straight from the factory or at a later time in the building or remodeling process.

Screens⁹

Hidden Screen	The Hidden Screen appears when you open a double-hung window and folds away when the window is closed. It allows 44% more natural light into your home when a window is closed than a standard screen. Hidden Screen cartridge available in Black, White, Brown, Fossil and Iron Ore colors to match or complement the exterior cladding color choice.
Rolscreen®	Rolscreen soft-closing retractable screens roll out of sight when not in use. Available on casement and awning windows.
TuffScreen® by Phifer*	The heavy-duty vinyl-coated screen is tear, puncture and damage resistant, standing up to pets, children and harsh weather. The TuffScreen® by Phifer is 2.5x stronger than a standard screen.¹² Available on sliding patio doors.
	*All trademarks are property of their respective owners
InView™	InView flat screens let in 14% more light and are 8% more open for improved airflow when compared to the conventional fiberglass screen. ¹¹

8, 9, 10, 11, 12 See back cover for disclosures.

To make things easier, we've created performance packages.

Performance solutions offer an unbeatable combination of energy efficiency, sound control and value.¹ Create room-by-room solutions with the upgraded triple-pane glass design.

All values below are averages compared with single-pane windows.

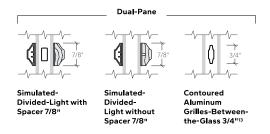


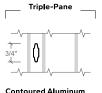
Pella® Lifestyle Series offers products awarded ENERGY STAR® Most Efficient for 2023.⁴

Base	Performance 71% More Energy Efficient® + 34% Noise Reduction®	Sound Control 52% Noise Reduction ⁵	Energy Efficiency 83% More Energy Efficient ¹⁰	Ultimate Performance 79% More Energy Efficient® Reduction ⁵
Tow-E Clear	EXTENDS. Tow-E Clear Clear	Fow-E Clear Clear	Fow-E Hard Coat Clear	RANGE Hard Coat Clear
Advanced Low-E	Advanced Low-E SunDefense Low-E or NaturalSun Low-E	Advanced Low-E, SunDefense Low-E or NaturalSun Low-E Sound-reduction glazing	AdvancedComfort	AdvancedComfort Sound-reduction glazing
Two panes of insulating, energy-efficient glass and our most popular features and options.	A triple-pane glass design for a combination of both improved energy efficiency and sound performance.	Triple-pane glass design featuring mixed glass thicknesses for enhanced sound dampering.	A triple-pane glass design with upgraded AdvancedComfort Low-E glass for enhanced energy efficiency.	A triple-pane glass design featuring mixed glass thicknesses with upgraded AdvancedComfort Low-E glass for enhanced energy efficiency.

Grilles

Choose the look of true divided light or make cleaning easier by selecting grilles-between-the-glass.





Grilles-Betweenthe-Glass 3/4"13



The Best Limited Lifetime Warranty in the Industry

We know your reputation matters and you stake your reputation on quality, dependable products. That's why we have the best limited lifetime warranty in the industry for wood windows and patio doors.⁶

- Compared to leading national wood window brands recommended installation methods for new construction windows.
- ² Comparing average install time and plumb/level/square measurements of leading national wood window brands when installed following the manufacturer's standard installation methods for new construction windows.
- ³ Performance solutions require upgrades to triple-pane, AdvancedComfort Low-E and mixed glass thickness. Based on comparing product quotes and published STC/OITC and U-Factor ratings of leading national wood window and patio door brands.
- ⁴ Some Pella products may not meet ENERGY STAR certification in Canada. For more information, contact your local Pella sales representative or go to nrcan.gc.ca/energy/products/categories/fenestration/13739.
- ⁵ Reduction in sound based on OITC ratings of Pella Lifestyle Series windows with respective performance package compared to a single-pane wood or vinyl window with an OITC of 19. Calculated by using the sound transmission loss values in the 80 to 4000 Hz range as measured in accordance with ASTM E-90(09). Actual results may vary.
- ⁶ Based on comparing written limited warranties of leading national wood window and wood patio door brands. See written limited warranty for details, including exceptions and limitations, at pella.com/warranty.

- Double-hung windows available in dual-pane only.
- 8 Available with triple-pane products only.
- Requires the Insynctive App on a smart device, an Insynctive Bridge and a wireless home router with internet connection.
- Window energy efficiency calculated in a computer simulation using RESFEN 6.0 default parameters for a 2000 sq. foot new construction single-story home when Pella Lifestyle Series windows with the respective performance package are compared to a single-pane wood or vinyl window. The energy efficiency and actual savings will vary by location. The average window energy efficiency is based on a national average of 94 modeled cities across the country and weighting based on population. For more details see pella.com/methodology.
- Improved airflow is based on calculated screen cloth openness. Screen cloth transmittance was measured using an integrated sphere spectrophotometer.
- Based on the composite results of a 5-panel strength analysis comparing TuffScreen and standard screening.
- Appearance of exterior grille color may vary depending on the Low-E insulating glass selection.

DOORS

Contemporary Clad/Wood



Simple and sophisticated designs that embody the tenets of pure, contemporary style.

Interior



Exterior



• Easy-to-learn Pella Steady Set™ interior installation system

Pella Steady Set Interior Installation System is a revolutionary, award-winning and safer way to install new construction windows.¹ The simple system is the fastest, most labor efficient wood window installation system with uncompromising quality.² Available on select windows.

· Clean lines

Bring your vision to life with expansive glass options combined with some of the narrowest sightlines in the industry.

· Modern hardware

Our renowned, exclusive hardware has set the bar for the industry. Featuring sleek lines, the Saldo foldaway crank adds the perfect finishing touch.

Architectural interest

Our industry-leading modern designs with through-stile construction deliver a clean sash joint with pure, 90-degree exteriors. Square grille profiles provide another layer of design flexibility.

· Virtually unlimited customization

If you can dream it, we can build it with our most customizable product line. From extra tall to extra wide, Pella can craft unique windows that complement your aesthetic. Custom sizes, grille patterns and designs, finishes, wood types and glass options are available.

• Tailor-made solutions

From preliminary drawings to installation, Pella's expert team of architects, engineers, drafters and consultants can work to deliver custom window and door solutions for your project. Partner with Pella to achieve your unique vision without concessions.

Cutting-edge innovation

Our intentional innovations solve modern-day inconveniences without compromising on design. Preserve the beauty of Pella Reserve windows and doors while protecting what matters most with integrated security sensors.

• Durable interiors and extruded aluminum exteriors

To help save you time on the jobsite, interior finish options are available in a variety of paints, stains and primed and ready to paint. To complement your exterior aesthetic, choose from our carefully curated color palette or define your own custom color for your project.

ENERGY STAR® certified¹

Pella wood products offer energy-efficient options that will meet or exceed ENERGY STAR guidelines in all 50 states.

• Testing beyond requirements

At Pella, our products are tested beyond requirements to help ensure they have long-lasting performance and reduce call-backs for you.

• Best limited lifetime warranty²

Pella Reserve products are covered by the best limited lifetime warranty in the business for wood windows and patio doors.²

Available in these window and patio door styles:



Product Specifications

					Performance Values					
Window & Patio Door Styles	Min. Width	Min. Height	Max. Width	Max. Height	Performance Class & Grade	U-Factor	SHGC	STC	Frame / Install	
Awning	13-3/4"	13-3/4"	73"	73"	LC30-CW50	0.19-0.48	0.15-0.55	26-34		
Casement	13-3/4"	13-3/4"	47"	108"	R30-CW50	0.19-0.48	0.15-0.54	26-34	Pella Steady Set™, Fold-out Fin, Block Frame, EnduraClad Exterior Trim / Brickmould	
Fixed Casement/Fixed Awning	10"	13-3/4"	144"	144"	CW30-CW50	0.16-0.50	0.16-0.50	28-33		
In-Swing Hinged Patio Door (Single)	24"	48"	48"	119-1/2"	LC40-LC55	0.25-0.29	0.14-0.40	31-35		
In-Swing Hinged Patio Door (Double)	48"	79-1/2"	96"	119-1/2"	LC40-LC55	0.25-0.29	0.14-0.40	31-35		
Out-Swing Hinged Patio Door (Single)	24"	48"	48"	119-1/2"	LC40-LC70	0.25-0.30	0.14-0.39	30-36		
Out-Swing Hinged Patio Door (Double)	48"	48"	96"	119-1/2"	LC40-LC70	0.25-0.30	0.14-0.39	30-36	Fold-out Fin, Block Frame, EnduraClad Exterior Trim / Brickmould,	
Sliding Patio Door (OX, XO)	60"	74"	120"	120"	R20-LC50	0.26-0.31	0.20-0.51	0.28-0.33		
Sliding Patio Door (OXO)	90"	74"	180"	120"	R20-LC35	0.26-0.31	0.20-0.51	-		
Sliding Patio Door (OXXO)	117"	74"	237"	120"	R20-LC35	0.26-0.31	0.20-0.51	-		
Multi-Slide Patio Door	41-7/8"	50-1/2"	713-5/8"	119-1/2"	R15-LC25 ³	0.30-0.36	0.15-0.46	31	For more info visit	
Bifold Patio Door	32-1/8"	41"	425-7/8"	119-1/2"	R15-LC25 ³	0.26-0.44	0.13-0.45	_	Pella ADM.com	

Window sizes available in 1/8" increments

Grilles

Integral Light Technology^{®4}

Choose the look of true divided light or make cleaning easier by selecting grilles-between-the-glass.









Square 5/8"

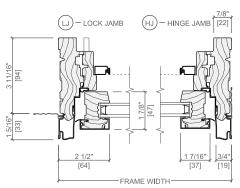
Square 7/8"

Square 11/4"

3,4 See back cover for disclosures.

Attention to Detail

Cross Sections The venting casement cross sections provide visual reference to the squared-off profile on both the lock and hinge jamb and the consistent sightline this will provide from interior through to exterior.



Optional Fold-Out Installation Fin

Window Hardware

Modern Collection

Achieve the ultimate contemporary look with exclusive hardware designed by Pella. Our renowned modern hardware has set the bar for the industry. Featuring sleek lines, the Saldo fold-away crank adds the perfect finishing touch.



Fold-away Crank



Patio Door Hardware

Modern Collection

Select modern hardware created in collaboration with Baldwin® to achieve the ultimate contemporary look with sleek finishes.

BALDWIN



Hinged & Bifold

Sliding & Multi-Slide Patio Door Handle



Multi-Slide Patio



Essential Collection

Elevate your style and transform a home with elegant selections.



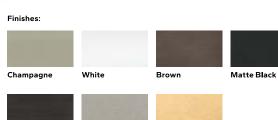




Standard







Satin Brass

Bronze

Additional hardware collections available. Visit PellaADM.com for more information

5,6,7 See back cover for disclosures

Colors

Wood Types

Choose the wood species that best complements your project's interior.



Pine



Douglas Fir





White Oak





Cherry



Prefinished Pine Interior Colors

Custom interior finishes, unfinished or primed and ready-to-paint are also available.















Golden Oak Stain

Early American

Red Oak

Provincial Stain

Dark Mahogany Stain



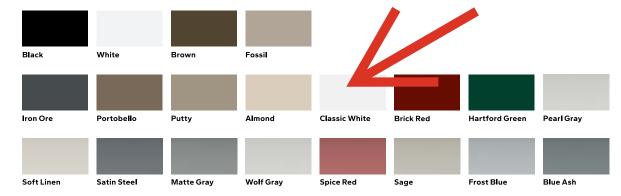
Charcoal Stain Black Stain

Extruded Aluminum-Clad **Exterior Colors**

Our low-maintenance EnduraClad® exterior finish resists fading. Take durability one step further with EnduraClad Plus which also resists chalking and corrosion.7







Screens

Rolscreen®

Rolscreen soft-closing retractable screens roll out of sight when not in use. Available on casement windows.

Integrated Rolscreen®

A concealed retractable screen that moves seamlessly with the sash of a single- or double-hung window appearing when you open the window and rolling out of sight when you close it.

TuffScreen® by Phifer*

The TuffScreen® is 2.5x stronger than a standard screen.® It is tear, puncture and damage resistant, standing up to pets, children and harsh weather. Available on sliding patio doors.

*All trademarks are property of their respective owners

Flat

InView™ screens are clearer than conventional screens and come standard.



The Best Limited Lifetime Warranty in the Industry

We know your reputation matters and you stake your reputation on quality, dependable products. That's why we have the best limited lifetime warranty in the industry for wood windows and patio doors.²

- Some Pella products may not meet ENERGY STAR® guidelines in Canada. For more information, contact your local
- Pella sales representative or go to energystar.gc.ca.

 Based on comparing written limited warranties of leading national wood window and wood patio door brands. See written limited warranty for details, including exceptions and limitations, at pella.com/warranty or contact Pella Customer Service
- Ratings are contingent on product configurations
- Color-matched to your product's interior and exterior color. Offering may vary by product type. See Pella sales representative for details.
- Flush multi-slide handle is a Pella exclusive design.
- Flush multi-slide handle is not available in Champagne
- EnduraClad Plus protective finish is not available with all colors. See your local Pella sales representative
- 8 Based on the composite results of a 5-panel strength analysis comparing TuffScreen and standard screening.



PERMISSION FOR AGENT TO REPRESENT OWNER

03.05.25

CITY OF BEXLEY
BUILDING & ZONING DEPARTMENT
2242 E MAIN STREET
BEXLEY, OH 43209

RE: MILENTHAL RESIDENCE

60 S DREXEL AVENUE BEXLEY OH, 43209

As owner of the above referenced property, I give my permission for Valerie Halas of Valerie Halas Design to apply on my behalf to the City of Bexley Architectural Review Board and Board of Zoning Appeals, if necessary. I also agree to any conditions of approval that result as a part of the approval process.

Sincerely,		
SIGNATURE		
DATE	 	

INTERIOR RENOVATIONS + ADDITIONS

WWW.VALERIEHALASDESIGN.COM VALERIEHALASDESIGN@YAHOO.COM 614.400.1460