Meeting Agenda

Owosso Downtown Historic District Commission Wednesday, December 20, 2023, 6:00 p.m.

Call to order and roll call:

Review and approval of agenda: December 20, 2023

Review and approval of minutes: September 20, 2023

Communications:

Public Comments:

Public Hearings: None

Items of Business:

- 1) RESOLUTION 300 W Main St Shook/Matthews Building Design
- 2) RESOLUTION 219 N Ball St Window Replacement

Public Comments:

Board Comments:

1) Next Meeting: January 17, 2024

Adjournment:

[The City of Owosso will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting/hearing upon 72 hours notice to the City of Owosso. Individuals with disabilities requiring auxiliary aids on services should contact the City of Owosso by writing or calling Amy Kirkland, City Clerk, 301 W. Main St, Owosso, MI 48867 (989) 725-0500 or on the Internet. The City of Owosso Website address is www.ci.owosso.mi.us.]

MINUTES FOR REGULAR MEETING OWOSSO HISTORIC DISTRICT COMMISSION Wednesday, September 20, 2023 at 6:00 p.m. Virginia Teich Council Chambers

MEETING CALLED TO ORDER: at 6:01 p.m. by Chairperson Steven Teich.

ROLL CALL: was taken by City Manager Nathan Henne.

PRESENT: Chairperson Steven Teich, Vice Chairperson Omer, Commissioners Philip Hathaway, Erin Powell, Matthew Van Epps, William Byrne, Lisa Gallinger

ABSENT:

OTHERS IN ATTENDANCE: City Manager Nathan Henne, Dave Acton

AGENDA APPROVAL: September 20, 2023.

MOTION FOR APPROVAL OF THE AGENDA AS PRESENTED BY COMMISSIONER VAN EPPS. SECONDED BY COMMISSIONER GALLINGER.

AYES ALL. MOTION CARRIED.

MINUTES APPROVAL: August 16, 2023.

MOTION FOR APPROVAL OF MINUTES AS PRESENTED BY COMMISSIONER VAN EPPS. SECONDED BY COMMISSIONER POWELL.

AYES ALL. MOTION CARRIED.

COMMUNICATIONS: None.

PUBLIC/COMMISSIONER COMMENTS: None.

PUBLIC HEARINGS: None.

ITEMS OF BUSINESS:

1. Demolition by Neglect Resolution – 117 West Exchange Street – City Club Building

Dave Acton – property owner – gave an update on his efforts to satisfy the demolition by neglect letter's requirements to stabilize the areas of concern and these efforts have satisfied the requirements of the Building Department regarding pedestrian safety. The barricades on the sidewalk have been removed to reflect this. Mr. Acton went on to update the HDC Board regarding the overall project and his strong interest in some new grant opportunities through the County Land Bank.

MOTION BY SECRETARY HATHAWAY TO ISSUE A LETTER TO ACTON BUILDING COMPANY, LLC RELEASING THE DEMOLITION BY NEGLECT NOTICE FOR 117 W EXCHANGE REGARDING THE FRONT AND REAR WALL STABILIZATION.

MOTION SECONDED BY VICE CHAIR OMER.

A Roll Call Vote was taken.

AYES: ALL

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NAYS: NONE ABSENT:

MOTION CARRIED.

2. 5TH 3RD Building Redevelopment Discussion – 123 N WASHINGTON STREET

Secretary Hathaway requested that the minutes reflect that the Shiawassee County Land Bank is offering grants for blight elimination and commented that this was a very welcome and effective use of federal ARPA funds. City Manager updated the Commission on the MEDC Grant award process regarding the 5th 3rd redevelopment project. The deadline for the MEDC's initial letter of interest was extended to December 12, 2023 so that the developers could satisfy grant requirements needed for full grant award to be issued. City will be continuing its IPMC enforcement for the condition of the building's exterior.

PUBLIC COMMENTS: The Commission asked about what was happening with the Matthews Building. Henne updated the Commission on the property sale and his conversations with the owner but does not have any concrete plans to present at this time.

BOARD COMMENTS: None.

NEXT MEETING: October 18, 2023

MOTION BY SECRETARY HATHAWAY TO ADJOURN. SECONDED BY COMMISSIONER BYRNE.

AYES ALL. MOTION CARRIED.

ADJOURNMENT BY CHAIRMAN TEICH AT 6:54 P.M.

Philip Hathaway, Secretary

CITY OF OWOSSO HISTORIC DISTRICT COMMISSION APPLICATION FOR A CERTIFICATE OF APPROPRIATENESS OR NOTICE TO PROCEED

This application must be received by the Owosso Building Department a minimum of ten working days prior to the scheduling of the application on the Historic District Commission agenda. Applicants are strongly encouraged to conduct a preliminary discussion with staff and/or the Historic District Commission prior to the consideration of an application. The Commission generally meets on the Third Wednesday of each month.

Please consult the Secretary of the Interior's Standards for Rehabilitation and the Historic District Commission guidelines for specific details on permissible alterations to the exterior of a structure or for the construction or demolition of any structure within the Historic District that require a CoA.

The following information shall be attached to this application. Additional information is encouraged:

1. A detailed plan drawn to a legible scale depicting the proposed alteration including size, a detailed description of materials and finishing work to be completed. If the size of the plan exceeds 11x17 then additional copies may be requested.

• Plan shall show existing property lines and any prominent features on the site.

2. A minimum of the following photographs labeled to indicate the direction of view:

• Current photos of the structure as seen from the street and/or façade of alteration;

• Close up of existing detail in present condition proposed for alteration.

Date:	12/14/23			<u>_</u>		
Proper	ty Address:_	300/312 W.	Main St	(Owner's Name:	Shook Riverside Development LLC
Phone	One: <u>98927</u>	73296	_Other Phone:_	989277329	95Ema	ail:_joshshook@yahoo.com
Applica	ants Address	5115 Colby	Rd Owosso	A	pplicants Name	. Josh Shook
Phone	One: <u>98927</u>	73296	Other Phone:_	989277329	95Ema	ail: joshshook@yahoo.com and kori@korishook.com
Does t	he property	have or will if	t have before t	the propose	d project compl	etion date, a fire alarm system or

a smoke alarm complying with the requirements of the Stille-DeRosset-Hale single state construction code act, 1972 PA 230, MCL 125.1501-12501531*. _yes

Description of Work proposed BE SPECIFIC (attach sheets describing activities, materials, dimensions, etc.)

Joshua Shook Applicant's Signature loshua Shook Property Owner's Signatu

Kori Shook

Please contact Nathan Henne for further information 989.725.0568 during business hours, or <u>nathan.henne@ci.owosso.mi.us.</u>

Return to City Hall, 301 W. Main St., Owosso, MI 48867

*"Fire alarm system" means a system designed to detect and annunciate the presence of fire or by-products of fire. Fire alarm system includes smoke alarms. "Smoke alarm" means a single-station or multiple-station alarm responsive to smoke and not connected to a system. As used in this subdivision, "single-station alarm" means an assembly incorporating a detector, the control equipment, and the alarm sounding devices into a single unit, operated from a power supply either in the unit or obtained at the point of installation.

"Multiple station alarm" means 2 or more single station alarms that are capable of interconnection such that actuation of 1 alarm causes all integrated separate audible alarms to operate.

























301 W. MAIN • OWOSSO, MICHIGAN 48867-2958 • (989) 725-0599 • FAX (989) 723-8854

DATE:	12.20.23
TO:	Historic District Commission
FROM:	City Manager
SUBJECT:	300 W Main St – Notice to Proceed – Facade

HISTORY:

As originally envisioned by Detroit architects Lane, Davenport & Peterson, this structure was to have been capped by an impressive dome, an element eliminated by the city council to compensate for cost overruns during construction. The cornerstone ceremony on July 10, 1924, employed the trowel used for the identical purpose in laying of the State Capitol cornerstone in

1873 - The site of City Hall occupies a stretch of bank along the Shiawassee River that has been central to Owosso's civic life since its earliest days. In the 1830s, flour, woolen and planning mills clustered along the river and millrace.

1856 - White Brothers planing mill

1866 - The planing mill is purchased and operated by Woodard brothers Lyman, William, Henry and Warren.

1871 - Woodard & Faulkner (brother-in-law to Warren Woodard) manufactures doors, sashes and blinds.

1885 - Two stories are added to the Woodard Planing Mill to support furniture manufacturing.

1890 - Lyman Woodard buys out his younger brothers' interest in the planning mill, after which the other brothers went on to other businesses. Lyman manufactures furniture at the mill, mostly for the bedroom.

1898 - In September, a great fire destroys the Woodard Planing Mill and, across Main Street, the Mueller Brothers Brewery and Crowe and Payne Implement Company. Woodard rebuilds the planing mill and factory four years later at Cass and Elm Streets, west of downtown.

1922 - The Argus Press reports on May, 22,1922: "Last night several hundred people gathered on West Main Street, to see the big Woodard chimney fall. The chimney had been left standing since the Woodard factory burned in 1898".

1924 - The City Hall Building is erected on the former site of the Woodard Planing Mill.

2020's – Most of the building was torn down due to severe deterioration creating a public safety hazard. What remains has a newer roof but is vacant. (added for context but not in 2010 report)

BACKGROUND:

The building department received a request to rehabilitate the facade at 300 W Main St on December 14, 2023 from owners Josh and Kori Shook. The scope of work includes adding onto the existing structure, replacing windows and doors, restore historic window openings and install windows, and rehabilitating the façade. The plans seem to indicate that the building addition will have a brick exterior and that the east wall of the existing structure that is not traditional brick (but rather large cement brick) will be clad in fiber cement panels.

RECOMMENDATION:

The Design Guidelines do not allow for metal or vinyl clad windows within the district. However, there are examples of such windows that were approved on other properties – albeit under specific circumstances.

I recommend approving a notice to proceed for the rehabilitation of the façade at 300 W Main as presented. The only component of the plan that does not meet the guidelines seems to be the use of metal clad windows.

Examples of buildings in historic district with metal clad windows (not an exhaustive list): Armory (2018), 114 W Main St (2019), City Hall (date unknown)

HISTORIC DISTRICT COMMISSION RESOLUTION NO. 2023-____

RESOLUTION APPROVING NOTICE TO PROCEED FOR FAÇADE RESTORATION AND BUILDING ADDITION AT 300 W MAIN ST

WHEREAS, the Historic District Commission of Owosso, Michigan, has received a proposed plan from the property owner to rehabilitate the facade at 300 W Main St; and

WHEREAS, the Commission was established to preserve the historic nature of district using the guidelines set forth by the United State Secretary of the Interior; and

WHEREAS, the building at 300 W Main St is a contributing structure according to the 2010 Historic District Report; and

WHEREAS, the Owosso Downtown Historic District Commission finds that the proposed exterior improvements at 219 N Ball Street do not meet the Secretary of the Interior's Standards regarding windows and are inappropriate for the district, but recognize that the following condition(s) prevail:

Conditions:_____

NOW THEREFORE BE IT RESOLVED by the Historic District Commission of the City of Owosso, Shiawassee County, Michigan that:

FIRST: That a Notice to Proceed is hereby approved based on the aforementioned prevailing conditions.

Moved: _____

Supported: _____

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• Close up of existing detail in present condition proposed for alteration.

Date: _/Z-4-23	_
Property Address: 219 N, Ball ST.	_Owner's Name: <u>Randall B</u> , Smith
Phone One: <u>989-725-6158</u> Other Phone:	Email:
Applicants Address: 304 Ogkwood Ave.	_Applicants Name: Randall B. Smith
Phone One: Sange Other Phone:	Email:

Does the property have or will it have before the proposed project completion date, a fire alarm system or a smoke alarm complying with the requirements of the Stille-DeRosset-Hale single state construction code act, 1972 PA 230, MCL 125.1501-12501531*. $\underline{\gamma \not e S}$

Description of Work proposed, BE SPECIFIC (attach sheets describing activities, materials, dimensions, etc.)

Applicant's Signature Property Owner's Signature

Please contact Nathan Henne for further information 989.725.0568 during business hours, or nathan.henne@ci.owosso.mi.us.

Return to City Hall, 301 W. Main St., Owosso, MI 48867

*"Fire alarm system" means a system designed to detect and annunciate the presence of fire or by-products of fire. Fire alarm system includes smoke alarms. "Smoke alarm" means a single-station or multiple-station alarm responsive to smoke and not connected to a system. As used in this subdivision, "single-station alarm" means an assembly incorporating a detector, the control equipment, and the alarm sounding devices into a single unit, operated from a power supply either in the unit or obtained at the point of installation.

"Multiple station alarm" means 2 or more single station alarms that are capable of interconnection such that actuation of 1 alarm causes all integrated separate audible alarms to operate.

FIRST CONTRACTING INC.

P O Box 75 Ovid, Michigan 48866 Office (989) 834-1500 Office Fax (989) 834-1300

PROPOSAL R. Smith A.89-725-6158

July 28, 2023

To: Mr. Randy Smith

Project Name: Project Location: Scope of Work: 219 N. Ball St. Owosso, Michigan Labor and materials to complete scope of work below

First Contracting, Inc. does hereby propose to furnish all labor, materials, insurance, taxes, tools, equipment and services to complete all work required for the Work Category(ies) indicated above in accordance with the plans and specifications of the project. In proposals where a detailed scope of work is attached (see below) this detailed scope of work shall be considered incorporated into this proposal and shall supersede all other detail of work documentation.

Scope of Work: We propose the following window options at 219 N. Ball Street. All options include the following:

- Remove & Dispose of Existing Windows
- Furnish & Install Windows on 2nd Floor; Nineteen (19) Openings
- Insulate & Seal Around Openings

Excluded:

- No Painting or Trim Included
- No Permit Included. Owner Paid if Required.

Option 01: Architect Series Pella Windows (Historically Approved).

Aluminum Clad Exterior w/ Painted Interior.

Color Selections to be Manufactures Standard Options.

Option 01 Sum: Thirty-Nine Thousand Nine Hundred and 00/100 Dollars

\$39,900.00

Add Option 01: Add One (1) Window in Door Opening.

Add Option 01 Sum: \$3,025.00

Page 1 of 3

Option 02:	Anderson 400 Series Windows.
Option 02 Sum:	Thirty-Four Thousand Twenty-Five and 00/100 Dollars
	\$34,025.00
Add Option 02:	Add One (1) Window in Door Opening.
Add Option 02 Sum:	\$2,715.00
Option 03:	Pella Lifestyle Series.
Option 03 Sum:	Twenty-Nine Thousand Eight Hundred Thirty and 00/100 Dollars
	\$29,830.00
Add Option 03:	Add One (1) Window in Door Opening.
Add Option 03 Sum:	\$2,490.00

~ . . .

DRAW SCHEDULE:

Monthly draws on approved schedule of values.

ACCEPTANCE:

- - 6

The prices stated in this Proposal are guaranteed for 30 days from the date of this proposal, and, if notified of acceptance of this Proposal within this period, the undersigned agrees to execute a Contract for the work for the above stated compensation and to begin work upon the receipt of an executed Notice to Proceed.

SCHEDULE:

If the undersigned is awarded a Contract, we agree to work according to the "Approved Construction Schedule".

WARRANTY:

First Contracting, Inc. warrants the work to be performed above to be free from defects in workmanship for a period of One (1) year from the date of completion of the work. Material warranty(ies) by manufacturer(s). This warranty may be executed by written notification to First Contracting that such defect(s) exist.

BIDDER'S CERTIFICATE:

I hereby certify that all statements herein are made on behalf of FIRST CONTRACTING, INC., a Corporation organized and existing under the laws of the State of Michigan.

First Contracting, Inc.

By: William J. Seeler

Federal I.D.# 38-3134714

Title: Controller

Date: July 28, 2023

Option O

Pella[°] Architect Series[°]

Traditional Wood & Clad/Wood

Expertly crafted wood windows and patio doors with nearly endless possibilities.

Double-Hung Interior



Double-Hung Exterior



- Designed with distinguished details Crafted with classic aesthetics to make a statement and add architectural interest to your project, inside and out.
- Enhanced style options and custom capabilities Maximum design flexibility with dramatic sizes, custom colors, finishes, profiles, product types and more.
- Authentic look of true divided light
 Pella's Integral Light Technology* grilles use a metal spacer to create the
 authentic look of true divided light by casting a more realistic shadow.
- · Interior finish options

From light to dark, Architect Series – Traditional wood windows and patio doors are available in an array of classic and on-trend colors. Pine interiors are available in a variety of paint and stain colors.

- Beautiful hardware Choose from Pella's collection of rich patinas and other timeless finishes.
- · Optional integrated security sensors

Built-in security sensors allow homeowners to know when their windows and doors are open or locked, while being virtually invisible when the product is closed.

ENERGY STAR[®] certified¹

Pella products offer energy-efficient options that will meet or exceed ENERGY STAR guidelines in all 50 states. Pella Architect Series – Traditional products with triple-pane glass have been awarded the ENERGY STAR Most Efficient Mark in 2023.¹

Long-lasting durability

Aluminum-clad exteriors with EnduraClad[®] finish is applied in an overlapping fashion on windows for exceptional protection. Pella's exclusive EnduraGuard[®] wood protection is applied after the pieces have been cut and milled, but prior to final assembly.

Best limited lifetime warranty²

Pella Architect Series – Traditional products are covered by the best limited lifetime warranty in the industry for wood windows and patio doors.²

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.

Available in these window and patio door styles:

Product Specifications

						Perfo	mance Values			
Window & Patlo Door Styles	Width	Min. Height	Max.Width	Height	Class & Grade	U-Factor	SHGC	STC	Frame / Install	
Awning	13-34*	13-¾"	73*	73*	LC40-CW50	0.25-0.29	0.18-0.47	27-33	Fold-out Fin, Block Frame, EnduraClad Exterior Trim / Brickmould	
Casement	13-%"	13-14*	41*	96*	CW30-CW50	0 25-0.29	0.18-0.47	28-33	Fold-out Fin, Block Frame, EnduraClad Exterior Trim / Brickmould	
Fixed Casement/Fixed Awning	10*	10*	144*	144"	CW30-CW50	0.25-0.29	0.18-0.47	28-32	Fold-out Fin, Block Frame, EnduraClad Exterior Trim / Brickmould	
Double-Hung	14"	24-%*	54"	96*	CW40-CW50	0.25-0.30	0.19-0.53	26-34	Fold-out Fin, Block Frame, EnduraClad Exterior Trim / Brickmould	
Precision Fit Double-Hung	13-3%*	23-3/4*	48*	84*	CW40-CW50	0.25-0.31	0.19-0.53	26-30	Pocket Replacement	
In-Swing Hinged Patio Door (Single)	18*	36*	48"	119-½"	LC40-LC55	0.20-0.40	0.14-0.40	-		
In-Swing Hinged Patio Door (Double)	36*	36*	96°	119-1/2"	LC40-LC55	0.20-0.40	0.14-0.40	31-35		
Out-Swing Hinged Patio Door (Single)	18*	36*	48*	119-1/2"	R50-LC70	0.20-0.40	0.14-0.39	30-36		
Out-Swing Hinged Patio Door (Double)	36*	36*	96-	119-%"	R50-LC70	0.20-0.40	0.14-0.39	30-36	Fold-out Fin, Block Frame, EnduraClad	
Stiding Patio Door (O)	30-%*	74"	60-½*	119-1/2"	LC25-LC70	0.25-0.40	0.15-0.42	-	Exterior Trim / Brickmould	
Sliding Patio Door (OX, XO)	59-%"	74"	119-14*	119-%"	LC25-LC70	0.25-0.40	0.15-0.42	31-35		
Sliding Patio Door (CXO)	90"	74"	180*	119-½*	LC25-LC70	0.25-0.40	0.15-0.42	-		
Sliding Patio Door (CXXO)	116-%*	74"	236-%"	119-%"	LC25-LC70	0.25-0.40	0.15-0.42	-		
Multi-Silde Patio Door	40-%*	50-%*	701-5%"	119-15"	R15-LC25'	0.30 - 0.36	0.15 - 0.46	-	For more info visit	
Bifold Patio Door	32-%*	41"	425-%*	119-%"	R15-R25'	0.26-0.44	0.13-0.45	-	PellaADM.com	

Window sizes available in 1/8" increments

Window Hardware



Oil-Rubbed

Bronze

Satin Nickel

See back cover for disclosures.

mance. For more information regarding frame and installation types, visit PellaADM com

Patio Door Hardware



Grilles

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

*14 See back cover for disclosures

4



3/4

Ogee Integral Light Technolog 7/8", 1-1/4" or 2"



Colors

-

Wood Types														
	Pine													
Prefinished Pine Interior	Custom int	erior finishes, unfi	inished or prime	d and ready-to-	paint are also a	vailable.		Manager & Descent of						
COOL														
	White	Bright White	Linen White	Natural Stain	Golden Oak Stain	Early American Stain	Provincial Stain	Dark Mahogany Stain						
	Red Mahogar Stain	ny Espresso Stain	Charcoal Stain	Black Stain										
Aluminum-Clad Exterior Colors	Our low-m also resists	aintenance Endura s chalking and cor	aClad® exterior f rosion. ⁸	inish resists fad	ing. Take durab	ility one step fur	ther with Endura	Clad Plus whic						
	Black	White	Brown	Fossil										
Custom colors														
	the second se	Contraction in the second seco	and a second sec											

Added Peace of

Integrated Security Sensors

Integrated wireless security sensors maintain aesthetics, streamline security installation and ensure no warranty loss is caused by post-installation drilling. Sensors can be monitored via the free Pella® Insynctive® App and are compatible with major security panel systems.9 For more information, go to connectpella.com.



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

¹ 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. Some relia products may not meet exercise state-guidelines in Canada, For more information, context you recar can such operations of generatives of generatives of leading acceptions and limitations, at pella.com/warranty.
 Performance ratings vary based on product configuration.

- * Flush multi-slide handle is a Pella exclusive design.
- ⁵ Flush multi-slide handle is not available in Champagne
- ⁶ Color-matched to your product's interior and exterior color.
 ⁷ Appearance of exterior grille color may vary depending on the Low-E insulating glass selection.
- EnduraClad Plus protective finish is not available with all colors. See your local Pella sales representative for available with all colors.
 Requires the Insynctive App on a smart device, an Insynctive Bridge and a wireless home router with internet connection



Option 02

AL

400 SERIES

TILT-WASH DOUBLE-HUNG FULL-FRAME WINDOWS

Tables of Sizes	78-81
Specifications	79-83
Custom Sizes	84
Grille Patterns	85
Window Details 8	35-86
Joining Details	86
Narroline® Conversion Kit	87
Combination Designs	181
Product Performance	197



Dimensions in parentheses are in millimeters.

TILT-WASH DOUBLE-HUNG FULL-FRAME WINDOWS

FEATURES

FRAME

A Exterior outer frame members are covered with a Perma-Shield® rigid vinyl cladding, minimizing maintenance and providing an attractive appearance.

€ For exceptional long-lasting performance, sill members are constructed with a wood core and a Fibrex® material exterior. Sill ends are protected and sealed with weather-resistant covers.

• Natural wood stops are available in pine, and prefinished white, dark bronze and black."

• A factory-applied rigid vinyl anchoring flange on the head, sill and sides of the outer frame helps secure the unit to the structure.

() An extruded rigid vinyl jamb liner and fin provide a protective seal against the outer frame members. Exclusive slide wash assists make it easy to tilt the sash into wash mode position.



Unique block-and-tackle balancers feature sized-to-the-unit, rust-resistant springs that require no adjustment. Glass-reinforced nylon balancer shoes provide smooth, reliable sash operation. Sash can be removed, without tools, for drywall pass-through. Jamb liners are available in white or gray, and must be specified when ordering. Contact your Andersen supplier for details.

G Weatherstrip throughout the unit provides a long-lasting, energyefficient, weather-resistant seal. For the top and bottom rails, an encased foam material is used. The head jamb liner and sill have a rigid vinyl rib that the weatherstrip material compresses against. At the meeting rail, compressible vinyl bulb material is used. Side jamb liners use leaf-type weatherstrip with foam inserts.



SASH

Wash assists make it easy to till the sash into wash mode

G Wood sash members are treated with a water-repellent preservative for long-lasting protection and performance. Interior surfaces are unfinished pine. Lowmaintenance prefinished white interiors are also available.

A polyester-stabilized coat with a Flexacron® finish is electrostatically applied to penetrate all exterior surfaces for maximum protection and a lustrous finish

Sash joints simulate the look of traditional mortise-and-tenon construction inside and out.

GLASS

In addition to stainless steel glass spacers, black or white glass spacers are now available to allow the spacer to blend in with the unit color.

C Silicone bed glazing provides superior weathertightness and durability.

High-Performance options include:

- Low-E4® glass
- Low-E4 HeatLock® alass
- Low-E4 SmartSun[™] glass
- Low-E4 SmartSun HeatLock glass · Low-E4 Sun glass

Tempered and other glass options are available. Contact your Andersen supplier.

A removable translucent film helps shield the glass from damage during delivery and construction, and simplifies finishing at the job site.

Patterned Glass

Patterned glass options are available. See page 12 for more details.

- *Visit andersenwindows.com/warranty for details.
- ** Products with dark bronze and black interiors have matching exteriors.

"Flexacron" is a registered trademark of PPG Industries, Inc.

Dimensions in parentheses are in millimeters.

Printing limitations prevent exact replication of colors and finishes. See your Andersen supplier for actual color and finish samples.

Naturally occurring variations in grain, color and texture of wood make each window one of a kind. All wood interiors are unfinished unless a finish is specified.

Distressed bronze and oil rubbed bronze are "living" finishes that will change with time and use.



HARDWARE



Black | Gold Dust | Stone | White

Stone is standard with natural interior units. White comes with prefinished white interiors. Other finishes optional.

Standard Lock & Keeper

OPTIONAL HARDWARE Sold Separately

ESTATE"



Antique Brass | Bright Brass Brushed Chrome | Distressed Bronze Distressed Nickel | Oil Rubbed Bronze Polished Chrome | Satin Nickel

Optional Estate lock and keeper reduces the clear opening height by %18" (14). Check with local building code officials to determine compliance with egress requirements.

CONTEMPORARY



Antique Brass | Black | Bright Brass Brushed Chrome | Distressed Bronze Distressed Nickel | Gold Dust Oil Rubbed Bronze | Polished Chrome Satin Nickel | Stone | White

TRADITIONAL Bar Lift



Hand Lift

Antique Brass | Black | Bright Brass | Brushed Chrome Distressed Bronze | Distressed Nickel | Gold Dust | Oil Rubbed Bronze Polished Chrome | Satin Nickel | Stone | White

Satin

Bold name denotes finish shown.

HARDWARE FINISHES







Gold Dust Oil Rubbed Polished Bronze Chrome



Storn WATCH

400 Series tilt-wash double-hung full-frame windows are available with Stormwatch® Protection. Visit andersenwindows.com/coastal for more details.

Performance Grade (PG) Upgrades

A high inside sill stop' with exterior sill brackets and hidden interior brackets is available to provide additional structural support for till-wash windows, allowing standard, non-impact glass units to achieve higher performance arade ratings. Performance Grade (PG) ratings are more comprehensive than Design Pressure (DP) ratings for measuring product performance. For up-todate performance information of individual products, please visit andersenwindows.com. Use of this option will subtract 5/8" (15) from the clear opening height. PG Upgrade not available for 72" (1829) and 76" (1930) heights. Contact your Andersen supplier for availability.

SASH OPTIONS



Cottage

Reverse Cottage

ACCESSORIES Sold Separately FRAME

Extension Jambs



Standard jamb depth is 4 1/2" (114). Extension jambs are available in unfinished pine or prefinished white. Some sizes may be veneered.

Factory-applied and non-applied interior extension jambs are available in 1/16" (1.5) increments between 5 1/4" (133) and 7 1/8" (181). Extension jambs can be factory applied to either three sides (stool and apron application) or four sides (picture frame casina).

Pine Stool



A clear pine stool is available and ready for finishing. The tilt-wash stool is available in 4 %16" (116) for use in wall depths up to 5 1/4" (133), and 6%/10" (167) for use in wall depths up to 7 1/8" (181). Works with 2 1/4" (57) and 21/2" (64) casing widths.

HARDWARE

Window Opening Control Device



A recessed window opening control device is available factory applied. It limits the sash travel to less than 4" (102) when the window is first opened. Available in white, stone and black. A field-applied window opening control device kit is also available.

STORM/INSECT SCREEN COMBINATION UNIT"

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A self-storing storm window combined with an insect screen provides areater energy efficiency, while allowing ventilation when needed.

Constructed with an aluminum frame, single-pane upper and lower glass panels, and charcoal powder-coated aluminum screen mesh. Available in white, Sandtone and Terratone to match product exteriors. Canvas, dark bronze, forest green and black are available by special order.

Combination units can improve Sound Transmission Class (STC) and Outdoor Indoor Transmission Class (OITC) ratings. Ideal for projects near airports, busy roadways or other noisy environments. For example, adding a combination unit to a 400 Series tilt-wash double-hung (3862) unit with Low-E4® glass will improve its STC rating from 26 to 32. Contact your Andersen supplier for additional STC and OITC rating information.

GLASS

Andersen® Art Glass

Available for 400 Series tilt-wash transom and picture units. Andersen art glass panels come in a variety of original patterns. See art glass section starting on page 173 for more information or visit andersenwindows.com/artglass.

INSECT SCREENS

Insect Screen Frames



Full and half insect screens are available for most unit sizes. Frame colors match product exteriors. Half insect screen (shown above) allows ventilation without affecting the view through the upper sash. Not available on windows with Stormwatch Protection.

TruScene® Insect Screens

Andersen TruScene insect screens let in over 25% more fresh air[†] and provide 50% greater clarity than conventional Andersen insect screens, all while keeping out unwanted small insects.

Conventional Insect Screens

Conventional insect screens have charcoal powder-coated aluminum screen mesh

GRILLES

Grilles are available in a variety of configurations and widths. For doublehung grille patterns, see page 85.

EXTERIOR TRIM

Available with Andersen exterior trim. See exterior trim section starting on page 175.

CAUTION

- Painting and staining may cause damage to rigid vinvl.
- 400 Series windows in Terratone color may be painted any color lighter than Terratone color using quality oil-based or latex paint.
- Do not paint 400 Series windows in white canvas. Sandtone, dark bronze, forest green or black exterior colors.
- Andersen does not warrant the adhesion or performance of homeowner-applied paint over vinyl or other factory-coated surfaces.
- For vinyl painting instructions and preparation, contact your Andersen supplier.
- Do not paint weatherstrip.
- · Creosote-based stains should not come in contact with Andersen products.
- · Abrasive cleaners or solutions containing corrosive solvents should not be used on Andersen products

*Infringes on the overall net clear opening. Unit clear operable area may not meet egress requirements. See your local building code official for more information

** Do not add combination units to windows with Low-E4 Sun glass unless window glass is tempered. Combination units may also reduce the overall clear operable area of the window. See your local code official for egress requirements in your area.

†TruScene insect screens let in over 25% more fresh air than standard Andersen fiberglass insect screens. Dimensions in parentheses are in millimeters.

TILT-WASH DOUBLE-HUNG FULL-FRAME WINDOWS

Table of Tilt-Wash Double-Hung Window Sizes

Scale 1/8" (3) = 1'-0" (305) - 1:96





Scale 1/8" (3) = 1'-0" (305) - 1:96



"Minimum Rough Opening" dimensions may need to be increased to allow for use of building wraps, flashing, sill panning, brackets, fasteners or other items. See pages 210-211 for more details.

· Dimensions in parentheses are in millimeters.

Meet or exceed clear opening area of 5.7 sq. ft. or 0.53 m², clear opening width of 20" (508) and clear opening height of 24" (610). See tables on pages 82-83.

TWT3023

400 SERIES

Custom-size windows are available in 1/s" (3) increments. See page 84 for custom sizing.

Windows 7'-4 7/8" (2257) and 7'-8 7/8" (2359) high have interior and exterior brackets. Interior brackets, located on both sides of the meeting rail, must be flipped up for proper product performance. Andersen* reinforced joining materials must be used when vertically joining 7'-4 7/8" (2257) and 7'-8 7/8" (2359) height windows.

Grille patterns shown on page 85.

Tilt-Wash Transom Window Area Specifications

TWT2617

2.54 (0.24)

4.68 (0.44)

Glass Area Sq. Ft./(m²)	Overall Window Area Sq. Ft./(m²)	Window Number	GI Ai Sq. F	ass rea 't./(m²)	Overall Ai Sq. F	Window rea t./(m²)	Window Number	GI A Sq. F	ass rea rt./(m²)	Overall Ar Sq. F	Window 'ea t./(m²)
0.56 (0.05)	1.80 (0.17)	TWT26111	3.23	(0.30)	5.56	(0.52)	TWT3027	5.73	(0.53)	8.70	(0.81)
1.32 (0.12)	2.90 (0.27)	TWT2621	3.58	(0.33)	6.00	(0.56)	TWT3031	7.02	(0.65)	10.27	(0.95)
1.52 (0.14)	3.20 (0.30)	TWT2623	3.93	(0.37)	6.44	(0.60)	TWT3410	1.30	(0.12)	3.47	(0.32)
1.94 (0.18)	3.80 (0.35)	TWT2627	4.62	(0.43)	7.32	(0.68)	TWT3415	3.07	(0.29)	5,58	(0.52)
2.15 (0.20)	4.10 (0.38)	TWT2631	5.66	(0.53)	8.63	(0.80)	TWT3417	3.56	(0.33)	6.16	(0.57)
2.35 (0.22)	4.40 (0.41)	TWT2810	1.00	(0.09)	2.80	(0.26)	TWT34111	4.53	(0.42)	7.32	(0.68)
2.77 (0.26)	5.00 (0.47)	TWT2815	2.37	(0.22)	4.51	(0.42)	TWT3421	5.02	(0.47)	7.89	(0.73)
3.39 (0.32)	5.90 (0.55)	TWT2817	2.74	(0.26)	4.98	(0.46)	TWT3423	5.50	(0.51)	8.47	(0.79)
0.70 (0.07)	2.14 (0.20)	TWT28111	3.49	(0.32)	5.91	(0.55)	TWT3427	6.47	(0.60)	9.63	(0.90)
1.67 (0.16)	3.44 (0.32)	TWT2821	3.87	(0.36)	6.38	(0.59)	TWT3431	7.93	(0.74)	11.36	(1.06)
1.93 (0.18)	3.79 (0.35)	TWT2823	4.24	(0.39)	6.84	(0.64)	TWT3810	1.45	(0.14)	3.80	(0.35)
2.46 (0.23)	4.50 (0.42)	TWT2827	4.99	(0.46)	7.78	(0.72)	TWT3815	3.42	(0.32)	6.12	(0.57)
2.72 (0.25)	4.86 (0.45)	TWT2831	6.12	(0.57)	9.18	(0.85)	TWT3817	3.97	(0.37)	6.75	(0.63)
2.98 (0.28)	5.22 (0.49)	TWT21010	1.07	(0.10)	2.97	(0.28)	TWT38111	5.05	(0.47)	8.02	(0.75)
3.51 (0.33)	5.93 (0.55)	TWT21015	2.55	(0.24)	4.78	(0.44)	TWT3821	5.59	(0.52)	8.65	(0.80)
4.30 (0.40)	7.00 (0.65)	TWF21017	2.95	(0.27)	5.27	(0.49)	TWT3823	6.13	(0.57)	9.29	(0.86)
0.85 (0.08)	2.47 (0.23)	TWT210111	3.75	(0.35)	6.26	(0.58)	TWT3827	7.21	(0.67)	10.55	(0.98)
2.02 (0.19)	3.97 (0.37)	TWT21021	4.15	(0.39)	6.76	(0.63)	TWT3831	8.84	(0.82)	12.46	(1.16)
2.34 (0.22)	4.38 (0.41)	TWT21023	4.56	(0.42)	7.25	(0.67)	TWT31010	1.51	(0.14)	3.94	(0.37)
2.98 (0.28)	5.21 (0.48)	TWT21027	5.36	(0.50)	8.24	(0.77)	TWT4210	1.66	(0.15)	4.28	(0.40)
3.29 (0.31)	5.62 (0.52)	TWT21031	6.57	(0.61)	9.73	(0.90)	TWT41010	1.95	(0.18)	4.94	(0.46)
3.61 (0.34)	6.03 (0.56)	TWT3010	1.15	(0.11)	3.14	(0.29)	TWT5610	2.25	(0.21)	5.61	(0.52)
4.25 (0.40)	6.85 (0.64)	TWT3015	2.72	(0.25)	5.05	(0.47)	TWT6210	2.55	(0.24)	6.28	(0.58)
5.21 (0.48)	8.09 (0.75)	TWT3017	3.15	(0.29)	5.57	(0.52)	 Dimensions in parentheses ar 	e in square	meters.		
0.93 (0.09)	2.64 (0.25)	TWT30111	4.01	(0.37)	6.61	(0.61)		1999 - Carolina - Caro			
2.19 (0.20)	4.24 (0.39)	TWT3021	4.44	(0.41)	7.14	(0.66)					
	Glass Area Sq. Ft./(m²) 0.55 (0.05) 1.32 (0.12) 1.52 (0.14) 1.94 (0.18) 2.15 (0.20) 2.35 (0.22) 2.77 (0.26) 3.39 (0.32) 0.70 (0.07) 1.67 (0.16) 1.93 (0.18) 2.46 (0.23) 2.72 (0.25) 2.98 (0.28) 3.51 (0.33) 4.30 (0.40) 0.85 (0.08) 2.02 (0.19) 2.34 (0.22) 2.98 (0.28) 3.29 (0.31) 3.61 (0.34) 4.25 (0.40) 5.21 (0.48) 0.93 (0.09)	Glass Area Sq. FL/(m²) Overall Window Area Sq. FL/(m²) 0.56 (0.05) 1.80 (0.17) 1.32 (0.12) 2.90 (0.27) 1.52 (0.14) 3.20 (0.30) 1.94 (0.18) 3.80 (0.35) 2.15 (0.22) 4.40 (0.41) 2.77 (0.26) 5.00 (0.47) 3.39 (0.32) 5.90 (0.55) 0.70 (0.07) 2.14 (0.20) 1.67 (0.16) 3.44 (0.32) 1.93 (0.18) 3.79 (0.35) 2.46 (0.23) 4.50 (0.42) 2.72 (0.25) 4.86 (0.45) 2.98 (0.28) 5.22 (0.49) 3.51 (0.33) 5.93 (0.55) 0.85 (0.08) 2.47 (0.23) 2.92 (.19) 3.77 (0.37) 2.34 (0.22) 4.38 (0.41) 2.92 (.19) </td <td>Glass Area Sq. FL/(m²) Overall Window Area Sq. FL/(m²) Window Number 0.55 (0.05) 1.80 (0.17) TWT26111 1.32 (0.12) 2.90 (0.27) TWT2621 1.52 (0.14) 3.20 (0.30) TWT2623 1.94 (0.18) 3.80 (0.35) TWT2623 2.15 (0.20) 4.10 (0.38) TWT2611 2.35 (0.22) 4.40 (0.41) TWT2623 2.35 (0.22) 4.40 (0.41) TWT2611 2.77 (0.26) 5.00 (0.47) TWT2810 2.77 (0.26) 5.00 (0.47) TWT2811 1.67 (0.16) 3.44 (0.20) TWT2817 0.70 (0.07) 2.14 (0.20) TWT2811 1.67 (0.16) 3.44 (0.32) TWT2821 1.93 (0.18) 3.79 (0.35) TWT2821 2.72 (0.25) 4.86 (0.45) TWT21010</td> <td>Glass Area Sq. FL/(m²) Overall Window Area Sq. FL/(m²) Window Number Glass Sq. FL/(m²) 0.56 (0.05) 1.80 (0.17) TWT26111 3.23 1.32 (0.12) 2.90 (0.27) TWT2621 3.58 1.52 (0.14) 3.20 (0.30) TWT2623 3.93 1.94 (0.18) 3.80 (0.35) TWT2621 3.56 2.35 (0.22) 4.40 (0.41) TWT2631 5.66 2.35 (0.22) 4.40 (0.41) TWT2810 1.00 2.77 (0.26) 5.00 (0.47) TWT2811 3.49 1.67 (0.16) 3.44 (0.32) TWT2817 2.74 0.70 (0.07) 2.14 (0.20) TWT2813 6.12 1.93 (0.18) 3.79 (0.35) TWT2821 3.87 1.93 (0.18) 3.79 (0.35) TWT2816 6.12 2.98 (0.28) 5.22 (0.49) TWT2815</td> <td>Glass Area Sq. FL/(m²) Overall Window Area Sq. FL/(m²) Window Number Glass Area Sq. FL/(m²) 0.56 (0.05) 1.80 (0.17) TWT26111 3.23 (0.30) 1.32 (0.12) 2.90 (0.27) TWT2621 3.58 (0.33) 1.52 (0.14) 3.20 (0.30) TWT2623 3.93 (0.37) 1.94 (0.18) 3.80 (0.35) TWT2611 5.66 (0.53) 2.15 (0.20) 4.10 (0.38) TWT2611 5.66 (0.53) 2.35 (0.22) 4.40 (0.41) TWT2815 2.37 (0.22) 3.39 (0.32) 5.90 (0.55) TWT2811 3.49 (0.32) 1.67 (0.16) 3.44 (0.32) TWT2811 3.47 (0.36) 1.93 (0.18) 3.79 (0.35) TWT2821 3.87 (0.36) 2.72 (0.23) 4.50 (0.42) TWT2815 2.55 (0.24) 3.593</td> <td>Glass Area Sq. FL/(m²) Overall Window Area Sq. FL/(m²) Window Number Glass Sq. FL/(m²) Overall Area Sq. FL/(m²) 0.56 (0.05) 1.80 (0.17) TWT26111 3.23 (0.30) 5.56 1.32 (0.12) 2.90 (0.27) TWT2621 3.88 (0.33) 6.00 1.52 (0.14) 3.20 (0.30) TWT2623 3.33 (0.37) 6.44 1.94 (0.18) 3.80 (0.35) TWT2623 3.33 (0.37) 6.44 2.15 (0.20) 4.10 (0.38) TWT2631 5.66 (0.53) 8.63 2.35 (0.22) 4.40 (0.41) TWT2810 1.00 (0.09) 2.80 2.77 (0.26) 5.90 (0.55) TWT2817 2.74 (0.26) 4.98 0.70 (0.07) 2.14 (0.20) TWT2811 3.49 (0.32) 5.91 1.67 (0.18) 3.79 (0.35) TWT2823 4.24 (0.39) 6.8</td> <td>Glass Area Sq. FL/(m?) Overall Window Area Sq. FL/(m?) Window Area Sq. FL/(m?) Overall Window Area Sq. FL/(m?) Overall Window Area Sq. FL/(m?) 0.56 0.050 1.80 0.17) TWT26111 3.23 0.30) 5.56 0.52) 1.32 0.12) 2.90 0.27) TWT2611 3.23 0.30) 5.56 0.52) 1.52 0.14) 3.20 0.30) TWT2623 3.93 0.37) 6.44 0.60) 1.94 0.18) 3.80 0.35) TWT2627 4.62 0.43) 7.32 0.68) 2.15 0.20 4.10 0.38) TWT2631 5.66 0.53) 8.63 0.80) 2.33 0.32) 5.90 0.55) TWT2815 2.37 0.22) 4.51 0.42) 3.39 0.32) 5.90 0.55) TWT2817 2.74 0.26 4.98 0.46) 0.70 0.070 2.14 0.20) TWT28111 3.49 0.32) 5.91 0.55) <</td> <td>Glass Area Sq. FL/(m²) Overall Window Area Sq. FL/(m²) Window Area Sq. FL/(m²) Window Area Sq. FL/(m²) Window Area Sq. FL/(m²) Window Area Sq. FL/(m²) 1.32 (0.12) 2.90 (0.27) TWT2621 3.58 (0.33) 6.00 (0.56) TWT3027 1.32 (0.12) 2.90 (0.33) TWT2621 3.58 (0.33) 6.00 (0.56) TWT3017 1.52 (0.14) 3.20 (0.36) TWT2621 4.62 (0.43) 7.32 (0.68) 2.15 (0.20) 4.10 (0.38) TWT2621 5.66 (0.53) 8.63 (0.69) 2.35 (0.22) 4.40 (0.41) TWT2815 2.37 (0.22) 4.51 (0.42) 3.39 (0.32) 5.90 (0.55) TWT2817 2.74 (0.26) 4.38 (0.46) TWT3413 3.39 (0.32) 5.90 (0.42) TWT2811 3.47 (0.36) 6.38 (0.59) 3.39 (0.32) 5.90</td> <td>Glass Sq. FL/(m) Overall Window Area Sq. FL/(m) Window Area Sq. FL/(m) Glass Sq. FL/(m) Overall Window Area Sq. FL/(m) Window Area Sq. FL/(m) Window Area Sq. FL/(m) 0.56 0.051 1.80 0.17 TW726111 3.23 0.30 5.56 0.551 1.32 0.12 2.90 0.027 TW72621 3.58 0.33 6.00 0.561 TW73017 5.73 1.32 0.12 2.90 0.027 TW72621 3.58 0.33 6.00 0.561 TW73011 7.02 1.52 0.14 0.038 TW72623 3.33 0.37 6.44 0.680 TW73415 3.07 2.15 0.20 4.10 0.038 TW72815 2.37 0.22 4.51 0.407 TW73417 3.56 2.77 0.26 5.00 0.47 TW72815 2.37 0.22 4.51 0.461 TW73427 6.47 3.93 0.32 5.90 0.55 TW72817 2.44 0.23 5.91</td> <td>Blass Sq. FL/(m) Overall Window Area Sq. FL/(m) Window Sq. FL/(m) Window Sq. FL/(m) Window Sq. FL/(m) Window Sq. FL/(m) Window Sq. FL/(m) 0.55 0.05) 1.80 0.17) Window Sq. FL/(m) Sq. FL/(m) Sq. FL/(m) Window Sq. FL/(m) 1.32 0.12) 2.90 0.27) WinZel1 3.58 0.33 6.00 0.56 Win3031 7.02 0.65 1.52 0.14) 3.20 0.30) Win2e23 3.93 0.37 6.44 0.60) Win3031 7.02 0.65 1.54 0.18) 3.80 0.38) Win2e31 5.66 0.633 8.68 0.80) Win3031 7.02 0.65 2.35 0.22) 4.40 0.41) Win281 5.66 0.53 8.68 0.80) Win3411 4.53 0.42) 2.77 0.20 5.00 0.47) Win2815 2.47 0.22 4.51 0.42) 1.67 0.16) 3.44 0.32) <t< td=""><td>Blass Area Sq. FL/(m) Overall Window Area Sq. FL/(m) Window Area Sq. FL/(m) Window Area Sq. FL/(m) Window Area Sq. FL/(m) Window Area Sq. FL/(m) 0.556 (0.52) 1.32 (0.17) TW726111 3.23 (0.30) 5.56 (0.52) TW73031 7.02 (0.65) 1.02 1.52 (0.14) 3.20 (0.30) TW72621 3.58 (0.31) 7.02 (0.65) 1.027 1.52 (0.14) 3.20 (0.35) TW72621 5.66 (0.53) 6.00 TW73415 3.07 (0.24) 2.15 (0.22) 4.40 (0.41) TW72631 5.66 (0.53) 6.83 0.80) TW73411 4.53 (0.42) 7.72 0.20 5.00 0.47) TW72815 2.37 (0.22) 4.51 (0.42) TW73411 4.53 (0.42) 7.72 0.70 (0.07) 2.14 0.20) TW72811 3.46 (0.32) 5.50 (0.41) TW73421 5.02 0.47 7.89 <</td></t<></td>	Glass Area Sq. FL/(m²) Overall Window Area Sq. FL/(m²) Window Number 0.55 (0.05) 1.80 (0.17) TWT26111 1.32 (0.12) 2.90 (0.27) TWT2621 1.52 (0.14) 3.20 (0.30) TWT2623 1.94 (0.18) 3.80 (0.35) TWT2623 2.15 (0.20) 4.10 (0.38) TWT2611 2.35 (0.22) 4.40 (0.41) TWT2623 2.35 (0.22) 4.40 (0.41) TWT2611 2.77 (0.26) 5.00 (0.47) TWT2810 2.77 (0.26) 5.00 (0.47) TWT2811 1.67 (0.16) 3.44 (0.20) TWT2817 0.70 (0.07) 2.14 (0.20) TWT2811 1.67 (0.16) 3.44 (0.32) TWT2821 1.93 (0.18) 3.79 (0.35) TWT2821 2.72 (0.25) 4.86 (0.45) TWT21010	Glass Area Sq. FL/(m²) Overall Window Area Sq. FL/(m²) Window Number Glass Sq. FL/(m²) 0.56 (0.05) 1.80 (0.17) TWT26111 3.23 1.32 (0.12) 2.90 (0.27) TWT2621 3.58 1.52 (0.14) 3.20 (0.30) TWT2623 3.93 1.94 (0.18) 3.80 (0.35) TWT2621 3.56 2.35 (0.22) 4.40 (0.41) TWT2631 5.66 2.35 (0.22) 4.40 (0.41) TWT2810 1.00 2.77 (0.26) 5.00 (0.47) TWT2811 3.49 1.67 (0.16) 3.44 (0.32) TWT2817 2.74 0.70 (0.07) 2.14 (0.20) TWT2813 6.12 1.93 (0.18) 3.79 (0.35) TWT2821 3.87 1.93 (0.18) 3.79 (0.35) TWT2816 6.12 2.98 (0.28) 5.22 (0.49) TWT2815	Glass Area Sq. FL/(m²) Overall Window Area Sq. FL/(m²) Window Number Glass Area Sq. FL/(m²) 0.56 (0.05) 1.80 (0.17) TWT26111 3.23 (0.30) 1.32 (0.12) 2.90 (0.27) TWT2621 3.58 (0.33) 1.52 (0.14) 3.20 (0.30) TWT2623 3.93 (0.37) 1.94 (0.18) 3.80 (0.35) TWT2611 5.66 (0.53) 2.15 (0.20) 4.10 (0.38) TWT2611 5.66 (0.53) 2.35 (0.22) 4.40 (0.41) TWT2815 2.37 (0.22) 3.39 (0.32) 5.90 (0.55) TWT2811 3.49 (0.32) 1.67 (0.16) 3.44 (0.32) TWT2811 3.47 (0.36) 1.93 (0.18) 3.79 (0.35) TWT2821 3.87 (0.36) 2.72 (0.23) 4.50 (0.42) TWT2815 2.55 (0.24) 3.593	Glass Area Sq. FL/(m ²) Overall Window Area Sq. FL/(m ²) Window Number Glass Sq. FL/(m ²) Overall Area Sq. FL/(m ²) 0.56 (0.05) 1.80 (0.17) TWT26111 3.23 (0.30) 5.56 1.32 (0.12) 2.90 (0.27) TWT2621 3.88 (0.33) 6.00 1.52 (0.14) 3.20 (0.30) TWT2623 3.33 (0.37) 6.44 1.94 (0.18) 3.80 (0.35) TWT2623 3.33 (0.37) 6.44 2.15 (0.20) 4.10 (0.38) TWT2631 5.66 (0.53) 8.63 2.35 (0.22) 4.40 (0.41) TWT2810 1.00 (0.09) 2.80 2.77 (0.26) 5.90 (0.55) TWT2817 2.74 (0.26) 4.98 0.70 (0.07) 2.14 (0.20) TWT2811 3.49 (0.32) 5.91 1.67 (0.18) 3.79 (0.35) TWT2823 4.24 (0.39) 6.8	Glass Area Sq. FL/(m?) Overall Window Area Sq. FL/(m?) Window Area Sq. FL/(m?) Overall Window Area Sq. FL/(m?) Overall Window Area Sq. FL/(m?) 0.56 0.050 1.80 0.17) TWT26111 3.23 0.30) 5.56 0.52) 1.32 0.12) 2.90 0.27) TWT2611 3.23 0.30) 5.56 0.52) 1.52 0.14) 3.20 0.30) TWT2623 3.93 0.37) 6.44 0.60) 1.94 0.18) 3.80 0.35) TWT2627 4.62 0.43) 7.32 0.68) 2.15 0.20 4.10 0.38) TWT2631 5.66 0.53) 8.63 0.80) 2.33 0.32) 5.90 0.55) TWT2815 2.37 0.22) 4.51 0.42) 3.39 0.32) 5.90 0.55) TWT2817 2.74 0.26 4.98 0.46) 0.70 0.070 2.14 0.20) TWT28111 3.49 0.32) 5.91 0.55) <	Glass Area Sq. FL/(m ²) Overall Window Area Sq. FL/(m ²) 1.32 (0.12) 2.90 (0.27) TWT2621 3.58 (0.33) 6.00 (0.56) TWT3027 1.32 (0.12) 2.90 (0.33) TWT2621 3.58 (0.33) 6.00 (0.56) TWT3017 1.52 (0.14) 3.20 (0.36) TWT2621 4.62 (0.43) 7.32 (0.68) 2.15 (0.20) 4.10 (0.38) TWT2621 5.66 (0.53) 8.63 (0.69) 2.35 (0.22) 4.40 (0.41) TWT2815 2.37 (0.22) 4.51 (0.42) 3.39 (0.32) 5.90 (0.55) TWT2817 2.74 (0.26) 4.38 (0.46) TWT3413 3.39 (0.32) 5.90 (0.42) TWT2811 3.47 (0.36) 6.38 (0.59) 3.39 (0.32) 5.90	Glass Sq. FL/(m) Overall Window Area Sq. FL/(m) Window Area Sq. FL/(m) Glass Sq. FL/(m) Overall Window Area Sq. FL/(m) Window Area Sq. FL/(m) Window Area Sq. FL/(m) 0.56 0.051 1.80 0.17 TW726111 3.23 0.30 5.56 0.551 1.32 0.12 2.90 0.027 TW72621 3.58 0.33 6.00 0.561 TW73017 5.73 1.32 0.12 2.90 0.027 TW72621 3.58 0.33 6.00 0.561 TW73011 7.02 1.52 0.14 0.038 TW72623 3.33 0.37 6.44 0.680 TW73415 3.07 2.15 0.20 4.10 0.038 TW72815 2.37 0.22 4.51 0.407 TW73417 3.56 2.77 0.26 5.00 0.47 TW72815 2.37 0.22 4.51 0.461 TW73427 6.47 3.93 0.32 5.90 0.55 TW72817 2.44 0.23 5.91	Blass Sq. FL/(m) Overall Window Area Sq. FL/(m) Window Sq. FL/(m) Window Sq. FL/(m) Window Sq. FL/(m) Window Sq. FL/(m) Window Sq. FL/(m) 0.55 0.05) 1.80 0.17) Window Sq. FL/(m) Sq. FL/(m) Sq. FL/(m) Window Sq. FL/(m) 1.32 0.12) 2.90 0.27) WinZel1 3.58 0.33 6.00 0.56 Win3031 7.02 0.65 1.52 0.14) 3.20 0.30) Win2e23 3.93 0.37 6.44 0.60) Win3031 7.02 0.65 1.54 0.18) 3.80 0.38) Win2e31 5.66 0.633 8.68 0.80) Win3031 7.02 0.65 2.35 0.22) 4.40 0.41) Win281 5.66 0.53 8.68 0.80) Win3411 4.53 0.42) 2.77 0.20 5.00 0.47) Win2815 2.47 0.22 4.51 0.42) 1.67 0.16) 3.44 0.32) <t< td=""><td>Blass Area Sq. FL/(m) Overall Window Area Sq. FL/(m) Window Area Sq. FL/(m) Window Area Sq. FL/(m) Window Area Sq. FL/(m) Window Area Sq. FL/(m) 0.556 (0.52) 1.32 (0.17) TW726111 3.23 (0.30) 5.56 (0.52) TW73031 7.02 (0.65) 1.02 1.52 (0.14) 3.20 (0.30) TW72621 3.58 (0.31) 7.02 (0.65) 1.027 1.52 (0.14) 3.20 (0.35) TW72621 5.66 (0.53) 6.00 TW73415 3.07 (0.24) 2.15 (0.22) 4.40 (0.41) TW72631 5.66 (0.53) 6.83 0.80) TW73411 4.53 (0.42) 7.72 0.20 5.00 0.47) TW72815 2.37 (0.22) 4.51 (0.42) TW73411 4.53 (0.42) 7.72 0.70 (0.07) 2.14 0.20) TW72811 3.46 (0.32) 5.50 (0.41) TW73421 5.02 0.47 7.89 <</td></t<>	Blass Area Sq. FL/(m) Overall Window Area Sq. FL/(m) Window Area Sq. FL/(m) Window Area Sq. FL/(m) Window Area Sq. FL/(m) Window Area Sq. FL/(m) 0.556 (0.52) 1.32 (0.17) TW726111 3.23 (0.30) 5.56 (0.52) TW73031 7.02 (0.65) 1.02 1.52 (0.14) 3.20 (0.30) TW72621 3.58 (0.31) 7.02 (0.65) 1.027 1.52 (0.14) 3.20 (0.35) TW72621 5.66 (0.53) 6.00 TW73415 3.07 (0.24) 2.15 (0.22) 4.40 (0.41) TW72631 5.66 (0.53) 6.83 0.80) TW73411 4.53 (0.42) 7.72 0.20 5.00 0.47) TW72815 2.37 (0.22) 4.51 (0.42) TW73411 4.53 (0.42) 7.72 0.70 (0.07) 2.14 0.20) TW72811 3.46 (0.32) 5.50 (0.41) TW73421 5.02 0.47 7.89 <

4.87 (0.45) 7.66 (0.71)

TILT-WASH DOUBLE-HUNG FULL-FRAME WINDOWS

Table of Tilt-Wash Transom Window Sizes

Scale 1/8" = 1'-0" (1:96)

Window Dimension	1'-9 5%" 2'-1 5%" (549) (651)	2'-5 5/8" 2'-7 5/8" (752) (803)	(854)	(905) 3'-1 5/8" (905) (956)	3'-5 5/8" (1057)	3'-9 5/8" (1159)	<u>3'-11 5/16"</u> (1202) (1303)
Minimum Rough Opening	1'-10 ¹ /8" 2'-2 ¹ /8" (562) (664)	2'-6 ¹ /8" 2'-8 ¹ /8" (765) (816)	2'-10 1/8" 3 (867)	3'-0 1/8" 3'-2 1/8" (917) (968)	3'-6 1/8" (1070)	3'-10 1/8" (1172)	3'-11 7/3" 4'-3 7/8" (1215) (1318)
Unobstructed Glass	15" 19" (380) (482)	23" 25" (583) (635)	27" (685)	29" 31" (737) (787)	35" (888)	39" (990)	40 ¹¹ / ₁₆ " 44 ¹¹ / ₁₆ " (1033) (1135)
	CUSTOM WIDTHS – 2	21 %s° to 75 %16°					
1-0" (305) (318) 5 3/8" (136) 0 39 5/1 8	TWT1810 TWT2010	TWT 2410 TWT 2610	TWT2810 TY	VT21010 TWT3010	TWT 3410	TWT3810	TWI 31010 TWI 4210
1'-7 5/16" (491) (491) (504) (504) (12 11/16" (321) IS -12 "	TWT1815 TWT2015	TWT2415 TWT2615	TWT2815 TV	VT21015 TWT3015	TWT 3415	TWT 3815	5.
1-9 5/16" (541) (541) (555) 14 11/16" (372) M HEIGH	TWT1817 TWT2017	TWT2417 TWT2617	TWT 2817 TV	VT21017 TWT3017	TWT3 417	TWF 3817	
2'-1 ⁵ / ₁₆ * (643) (657) (657) (857) (474) (474)				T210111 TWT30111	T WT34111	THI29111	Custom-size windows
2'-3 5/16" (694) (707) (707) (525)					T M72421		are available in 1/8" (3) increments. See page 84
2'-5 5/16" (745) (758) (758) (575) (575)							for custom sizing. Grille patterns shown
2'-9 5/16" (846) 2'-9 7/8" (860) 26 11/16" (677)	TWT1823 TWT2023	TWT2423 TWT2623		VT21023 TWT3023		TWT3823	on page 85.
3'-3 5/16" (999) 3'-3 78" (1012) 32 11/16" (829)	TWT1831 TWT2031	TWI2421 TWI2631	TWT2831	VT21031 TWT3031	TWI3431	W 13627	

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"Window Dimension" always refers to outside frame-to-frame dimension.
 "Minimum Rough Opening" dimensions may need to be increased to allow for use of building wraps, flashing, sill panning, brackets, fasteners or other items.
 See pages 210-211 for more details.
 Dimensions in parentheses are in millimeters.

Tilt-Wash Picture Window Area Specifications

Window Number	Glass Area Sq. Ft./(m²)	Overall Window Area Sq. Ft./(m²)	Window Number	Sc	Glass Overall Window Area Area Sq. Ft./(m²) Sq. Ft./(m²)		Window Number	Gl Aı Sq. F	ass ea t./(m²)	Overall Ar Sq. F	Window ea t./(m²)	
DHP10310	2.03 (0.19)	4.07 (0.38)	DHP34410	13.5	8 (1.26)	17.60	(1.64)	DHP42510	21.03	(1.95)	25.97	(2.41)
DHP1042	2.22 (0.21)	4.41 (0.41)	DHP3452	14.6	0 (1.36)	18.75	(1.74)	DHP4262	22.32	(2.07)	27.39	(2.55)
DHP1046	2.42 (0.23)	4.74 (0.44)	DHP3456	15.6	2 (1.45)	19.91	(1.85)	DHP410310	15,60	(1.45)	20.13	(1.87)
DHP10410	2.61 (0.24)	5.07 (0.47)	DHP34510	16.6	4 (1.55)	21.07	(1.96)	DHP41042	17.11	(1.59)	21.78	(2.02)
DHP1052	2.81 (0.26)	5.41 (0.50)	DHP3462	17.6	6 (1.64)	22.22	(2.06)	DHP41046	18.62	(1.73)	23.43	(2.18)
DHP1056	3.01 (0.28)	5.74 (0.53)	DHP310310	12.1	6 (1.13)	16.06	(1.49)	DHP410410	20.13	(1.87)	25.07	(2.33)
DHP10510	3.20 (0.30)	6.07 (0.56)	DHP31042	13.3	3 (1.24)	17.37	(1.61)	DHP41052	21.64	(2.01)	26.72	(2.48)
DHP1062	3.40 (0.32)	6.41 (0.60)	BHP31046	14.5	1 (1.35)	18.69	(1.74)	DHP41056	23.15	(2.15)	28.37	(2.64)
DHP30310	9.38 (0.87)	12.77 (1.19)	DHP310410	15.6	9 (1.46)	20.00	(1.86)	DHP410510	24.66	(2.29)	30.02	(2.79)
DHP3042	10.29 (0.96)	13.82 (1.28)	DHP31052	16.8	7 (1.57)	21.32	(1.98)	DHP41062	26.17	(2.43)	31.66	(2.94)
DHP3046	11.19 (1.04)	14.86 (1.38)	DHP31056	18.0	4 (1.68)	22.63	(2.10)	DHP56310	17.89	(1.66)	22.85	(2.12)
DHP30410	12.10 (1.12)	15.91 (1.48)	DHP310510	19.2	2 (1.79)	23.94	(2.22)	DHP5642	19.63	(1.82)	24.72	(2.30)
DHP3052	13.01 (1.21)	16.95 (1.58)	DHP31062	20.4	0 (1.90)	25.26	(2.35)	DHP5646	21.36	(1.98)	26.59	(2.47)
DHP3056	13.92 (1.29)	18.00 (1.67)	DHP42310	13.3	0 (1.24)	17.42	(1.62)	DHP56410	23.09	(2.15)	28.46	(2.64)
DHP30510	14.83 (1.38)	19.04 (1.77)	DHP4242	14.5	6 (1.35)	18.83	(1.75)	DHP5652	24.83	(2.31)	30.33	(2.82)
DHP3062	15.73 (1.46)	20.09 (1.87)	DHP4246	15,8	8 (1.48)	20.27	(1.88)	DHP5656	26.56	(2.47)	32.20	(2.99)
DHP34310	10.53 (0.98)	14.13 (1.31)	DHP42410	17.1	7 (1.60)	21.69	(2.02)	DHP56510	28.29	(2.63)	34.07	(3.17)
DHP3442	11.54 (1.07)	15.28 (1.42)	DHP4252	18.4	6 (1.72)	23.12	(2.15)	DHP5662	30.02	(2,79)	35.93	(3,34)
DHP3446	12.56 (1.17)	16.44 (1.53)	DHP4256	19.7	5 (1.84)	24.54	(2.28)	Dimensions in parentheses a	re in square r	neters.		



400 SERIES

4'-11 5/16"	5'-7 5/16"	6'-3 5/16"
(1057)	(1710)	(1913)
4'-11 7/8"	5'-7 7/8"	6'-3 7/8"
(1070)	(1724)	(1927)
52 11/16"	60 11/16"	68 11/16"
Î (905) Î	Ī (1556) Ī	Ī (1745) Ī
TWT41010	TWT 5610	TWT6210

Table of Tilt-Wash Picture Window Sizes

Scale 1/8" (3) = 1'-0" (305) - 1:96





Custom-size windows are available in ¹/8" (3) increments. See page 84 for custom sizing.

Grille patterns shown on page 85.

 "Window Dimension" always refers to outside frame-to-frame dimension.
 "Minimum Rough Opening" dimensions may need to be increased to allow for use of building wraps, flashing, sill panning, brackets, fasteners or other items. See pages 210-211 for more details.
 "Dimensions in parentheses are in millimeters.

TILT-WASH DOUBLE-HUNG FULL-FRAME WINDOWS

Tilt-Wash Double-Hung Window Opening and Area Specifications

	-		Clear Op	ening in	Full Open	Position					Top of S	Subfloor		
Window	Clear C	Opening		741		-	Gl	ass	Ve	ent	to Top o	f Inside	Overall	Window
Number	Sa. Ft	ea ((m²)	Inches	on /(mm)	Inches	gni /(mm)	Sq. Ft	ea _/(m²)	Sa. Ft	ea (m²)	Inches	5.0p /(mm)	Sa. A	ea _/(m²)
TW18210	1.77	(0.16)	17 1/4*	(454)	14 1/4*	(362)	2.90	(0.27)	1.78	(0.17)	48 1/,*	(1231)	5.53	(0.51)
TW1832	2.02	(0.19)	17 %*	(454)	16 1/4"	(412)	3.32	(0,31)	2.03	(0.19)	44 1/5*	(1130)	6.14	(0.57)
TW1836	2.26	(0.21)	17 7/.*	(454)	18 1/.*	(463)	3.74	(0.35)	2.28	(0.21)	40 1/5*	(1028)	6 74	(0.63)
TW18310	2.51	(0.23)	17 7/-*	(454)	20 1/.*	(514)	4 15	(0.39)	2 53	(0.24)	361/.*	(926)	7 34	(0.68)
TH1010	0.76	(0.20)	47.7/*	(454)	12 1/ *	(624)	4.57	(0.00)	2.00	(0.24)	20 1/2	(020)	7.04	(0.00)
TW1042	2.10	(0.20)	11 78	(404)	22 ./4	(000)	4.51	(0.43)	2.70	(0.20)	32 1/2	(023)	1.94	(0.74)
TW1846	3.07	(0.29)	1/ 1/8	(454)	24 3/4"	(628)	4.98	(0.46)	3.03	(0.28)	28 1/2-	(711)	8.54	(0.79)
TW18410	3.26	(0.30)	17 1/8	(454)	26 1/4"	(666)	5.40	(0.50)	3.27	(0.30)	24 ¹ /2*	(622)	9.14	(0.85)
TW1852	3.51	(0.33)	17 1/0"	(454)	28 1/4*	(717)	5.81	(0.54)	3.52	(0.33)	20 1/2"	(520)	9.74	(0.91)
TW1856	3.75	(0.35)	17 7/6	(454)	30 1/4	(768)	6.23	(0.58)	3.77	(0.35)	16 1/2"	(418)	10.34	(0.96)
TW18510	4.00	(0,37)	17 1/8"	(454)	32 1/4"	(819)	6.65	(0.62)	4.02	(0.37)	12 1/2	(317)	10.94	(1.02)
TW1862	4.12	(0.38)	17 1/8"	(454)	33 1/4"	(843)	7.06	(0.66)	4.24	(0.39)	8 ¼2°	(203)	11.54	(1.07)
TW1872	5.00	(0.46)	17 7/8"	(454)	40 1/4"	(1022)	8.32	(0.77)	5.03	(0,47)	10 1/4**	(260)*	13,35	(1.24)
TW1876	5.24	(0.49)	17 1/8*	(454)	42 1/4*	(1073)	8.74	(0.81)	5.27	(0,49)	6 1/4" *	(159)*	13.95	(1.30)
TW20210	2,16	(0,20)	21 7/8"	(556)	14 1/4"	(362)	3.68	(0.34)	2.18	(0.20)	48 1/2*	(1231)	6,56	(0.61)
TW2032	2.47	(0.23)	21 7/8"	(556)	16 1/4"	(412)	4.21	(0.39)	2.48	(0.23)	44 1/2*	(1130)	7.27	(0.68)
TW2036	2.77	(0.26)	21 7/8"	(556)	18 1/4"	(463)	4.73	(0.44)	2.79	(0.26)	40 1/2"	(1028)	7.98	(0.74)
TW20310	3.07	(0.29)	21 7/4"	(556)	20 1/4"	(514)	5.26	(0.49)	3.09	(0.29)	36 1/5"	(926)	8.69	(0.81)
TW2042	3.38	(0.31)	21 7/*	(556)	22 1/4"	(565)	5.79	(0.54)	3.40	(0.32)	32 1/3"	(825)	9.41	(0.87)
TW2046	3.76	(0.35)	21 7/4*	(556)	24 3/."	(628)	6.31	(0.59)	3.71	(0.34)	28 1/.*	(711)	10.12	(0.94)
TH20410	3 99	(0.37)	21 7/.*	(556)	26 1/.*	(666)	6.84	(0.64)	4 00	(0.37)	24 1/-*	(622)	10.83	(1.01)
1020410	1 20	(0.01)	21 7/8	(556)	281/.	(717)	7 97	(0.69)	4.00	(0.40)	201/*	(622)	11 54	(1.07)
THEOSE	4.20	(0.40)	41 78	(556)	20 74	(769)	7.90	(0.05)	4.51	(0,40)	161/1	(320)	11.34	(1.07)
102050	4.39	(0.43)	21 7/8	(000)	30 74	(700)	1.09	(0.13)	4.01	(0.43)	10.72	(410)	12.25	(1.14)
TW20510	4.90	(0.46)	21 1/8	(558)	32 ./4	(913)	8,42	(0.78)	4,92	(0,46)	12 1/2	(317)	12.96	(1.20)
TW2062	5.04	(0.47)	21 1/8	(000)	33 1/4"	(843)	8.95	(0.83)	5.18	(0.48)	8 1/2"	(203)	13.68	(1.27)
TW2072 0	6.11	(0.57)	21 1/2*	(556)	40 1/4"	(1022)	10.54	(0.98)	6.14	(0.57)	10 1/4**	(260)*	15,82	(1,47)
TW2076 0	6.42	(0.60)	21 7/8"	(556)	42 1/4	(1073)	11.06	(1.03)	6.45	(0.60)	61/4**	(159)*	16.53	(1.54)
TW24210	2.56	(0.24)	25 7/6"	(657)	14 1/4"	(362)	4.46	(0.41)	2.58	(0.24)	48 ¹ /2	(1231)	7.58	(0.70)
TW2432	2.92	(0.27)	25 1/8"	(657)	16 1/4"	(412)	5.09	(0.47)	2.94	(0.27)	44 1/2	(1130)	8.40	(0.78)
TW2436	3.28	(0.31)	25 7/8"	(657)	18 1/4"	(463)	5.73	(0.53)	3.30	(0.31)	40 1/2"	(1028)	9.23	(0.86)
TW24310	3.64	(0.34)	25 1/8"	(657)	20 1/;*	(514)	6.37	(0.59)	3.66	(0.34)	36 1/2"	(926)	10.05	(0.93)
TW2442	4.00	(0.37)	25 1/6"	(657)	22 1/4"	(565)	7.01	(0.65)	4.02	(0.37)	32 1/2"	(825)	10.87	(1.01)
TW2446	4.44	(0.41)	25 7/8"	(657)	24 ³/4"	(628)	7.65	(0.71)	4.39	(0.41)	28 1/2"	(711)	11.70	(1.09)
TW24410	4,71	(0.44)	25 1/1"	(657)	26 1/4*	(666)	8.28	(0.77)	4.74	(0.44)	24 1/2"	(622)	12.52	(1.16)
TW2452	5.07	(0.47)	25 1/."	(657)	28 1/4"	(717)	8,92	(0.83)	5.10	(0.47)	20 1/2*	(520)	13.34	(1.24)
TW2456	5.43	(0.51)	25 7/.	(657)	30 1/4*	(768)	9,56	(0.89)	5.46	(0.51)	16 1/2*	(418)	14.17	(1.32)
TW24510 0	5,79	(0.54)	25 7/4"	(657)	32 1/4*	(819)	10.20	(0.95)	5.81	(0.54)	12 1/2"	(317)	14.99	(1.39)
TW24620	5.97	(0.55)	25 1/."	(657)	33 1/4*	(843)	10.84	(1.01)	6.13	(0.57)	81//*	(203)	15.81	(1.47)
TW24720	7.23	(0.67)	25 1/.*	(657)	40 1/.*	(1022)	12.76	(1.19)	7.26	(0.68)	10 1/.**	(260)*	18.28	(1.70)
TW24760	7 59	(0.71)	25 7/.*	(657)	42 1/.*	(1073)	13.40	(1.25)	7.62	(0.71)	61/.**	(159)*	19.11	(1 78)
TW26210	2 76	(0.26)	27 1/.*	(708)	14 1/.*	(362)	4 84	(0.45)	2 78	(0.26)	48 1/.*	(1231)	8 00	(0.75)
1020210	2.10	(0.20)	27 7/	(709)	161/*	(412)	5.54	(0.52)	2.10	(0.20)	40 72 AA 1/.*	(11201)	9.07	(0.73)
1112032	3.14	(0.23)	21 78	(700)	10 74	(412)	6.07	(0.52)	3.11	(0.30)	49 1/2	(1130)	0.31	(0.03)
10/2030	3.55	(0.33)	21 78	(700)	10.74	(403)	6.00	(0.56)	3.35	(0.33)	40 72	(1020)	9.00	(0.92)
TW26310	3.92	(0.36)	21 78	(700)	20 ./4	(514)	0.92	(0.84)	3.94	(0.37)	30 1/2	(920)	10.73	(1.00)
TW2642	4.30	(0.40)	21 1/8	(708)	22 4	(565)	7.62	(0.71)	4.33	(0.40)	32 1/2	(825)	11,61	(1.08)
TW2646	4.79	(0.44)	27 1/8"	(708)	24 3/4"	(628)	8.31	(0.77)	4.73	(0.44)	28 1/2	(711)	12.49	(1.16)
TW26410	5.08	(0.47)	27 1/8	(708)	26 1/4	(666)	9.01	(0.84)	5.10	(0,47)	24 1/2	(622)	13.36	(1.24)
TW2652	5.47	(0.51)	27 7/8"	(708)	28 1/4"	(717)	9.70	(0.90)	5.49	(0.51)	20 1/2*	(520)	14.24	(1.32)
TW2656 0	5.85	(0.54)	27 1/8"	(708)	30 1/4"	(768)	10.39	(0.96)	5.88	(0.55)	16 1/2"	(418)	15,12	(1.41)
TW26510 0	6.24	(0.58)	27 1/8"	(708)	32 1/4"	(819)	11.09	(1.03)	6.26	(0.58)	12 1/2"	(317)	16.00	(1.49)
TW2662 Ø	6.43	(0.60)	27 1/8"	(708)	33 1/4"	(843)	11.78	(1.09)	6.61	(0.61)	8 ¹ /2"	(203)	16.88	(1.57)
TW2672 0	7.79	(0.72)	27 ⁷ /8"	(708)	40 ¹/₄"	(1022)	13.86	(1.29)	7.82	(0.73)	10 1/4" *	(260)*	19.52	(1.81)
TW2676 0	8.18	(0.76)	27 1/6"	(708)	42 1/4"	(1073)	14.56	(1.35)	8.21	(0.76)	6 1/4"*	(159)*	20.40	(1.89)
TW28210	2.95	(0.27)	29 1/8"	(759)	14 1/4"	(362)	5.23	(0.49)	2.98	(0.28)	48 1/2"	(1231)	8.61	(0.80)
TW2832	3.37	(0.31)	29 1/2"	(759)	16 1/4"	(412)	5.98	(0.56)	3.39	(0.32)	44 1/2"	(1130)	9.54	(0.89)
TW2836	3.78	(0.35)	29 7/8"	(759)	18 1/4"	(463)	6.73	(0.63)	3.81	(0.35)	40 1/2"	(1028)	10.47	(0.97)
TW28310	4.20	(0.39)	29 1/.*	(759)	20 1/4"	(514)	7.48	(0.70)	4.22	(0.39)	36 1/2"	(926)	11.41	(1.06)
TW2842	4.61	(0,43)	29 7/.*	(759)	22 1/.*	(565)	8.23	(0,77)	4.64	(0.43)	32 1/.*	(825)	12.34	(1.15)
TW2846	5.13	(0.48)	29 7/.*	(759)	24 3/.*	(628)	8.98	(0.83)	5.07	(0.47)	28 1/.*	(711)	13.28	(1.23)
TW28410	5 44	(0.51)	29 7/-*	(750)	26 1/.*	(666)	9 73	(0.90)	5 4 7	(0.51)	24 1/-	(622)	14 21	(1.32)
THEOREDA	5,44 6 0C	(0.01)	20 7/8	(750)	20 74	(717)	10.40	(0.00)	5.47	(0.55)	-7 72	(620)	15 14	(1.41)
1112032 V	0.00	(0.04)	20.18	(109)	20 74		10,40	(0.31)	0.00	(0.00)	40 72	(520)	13.14	(++)

Opening calculations change when using PG Upgrade sill stop. For opening specifications for windows with Stormwatch* Protection, visit andersenwindows.com/openingspecs. For cottage and reverse cottage sash

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1

opening specifications, visit

andersenwindows.com/openingspecs.

"Top of Subfloor to Top of Inside Sill Stop" is calculated based upon a structural header height of 6'-10 ¹/₂" (2096) except for 7'-5" and 7'-9" heights which are calculated using a header height of 8' (2438).
 Dimensions in parentheses are in millimeters or square

Otherwised in the parentities are in manufacters to sequence meters.
 Meet or exceed clear opening area of 5.7 sq, ft, or 0.53 m², clear opening width of 20° (508) and clear opening height of 24° (610).
 *Calculated based upon a structural header height of ender the sequence of the second se

8' (2438).

continued on next page



Tilt-Wash Double-Hung Window Opening and Area Specifications (continued)

			Clear Op	ening in I	Full Open	Position					Top of S	Subfloor			
Window Number	Clear C Ar Sq. Ft)pening ea ./(m²)	Wic Inches,	dth /(mm)	Hei Inches	ght /(mm)	GI A Sq. F	ass rea t./(m²)	Ve Ar Sq. Ft	ent ea ./(m²)	to Top of Sill Inches	f Inside Stop /(mm)	Overall Ar Sq. Ft	Window rea /(m²)	
TW2856◊	6.27	(0.58)	29 7/8"	(759)	30 1/4"	(768)	11.22	(1.04)	6.30	(0.59)	16 1/2"	(418)	16.08	(1.49)	
TW28510 Ø	6.69	(0.62)	29 7/8"	(759)	32 1/4"	(819)	11.97	(1.11)	6.71	(0.62)	12 1/2"	(317)	17.01	(1.58)	
TW2862 Ø	6.89	(0.64)	29 7/8*	(759)	33 1/4"	(843)	12.72	(1.18)	7.08	(0.66)	8 ¹ / ₂ "	(203)	17.95	(1.67)	
TW2872 ◊	8.35	(0.78)	29 ⁷ / ₈ *	(759)	40 1/4"	(1022)	14.98	(1.39)	8.38	(0.78)	10 1/4"*	(260)*	20.75	(1.93)	
TW2876 Ø	8.77	(0.81)	29 7/8"	(759)	42 1/4"	(1073)	15.72	(1.46)	8.80	(0.82)	6 1/4 *	(159)*	21.69	(2.01)	
TW210210	3.15	(0.29)	31 7/8*	(809)	14 1/4"	(362)	5.62	(0.52)	3.18	(0.30)	48 1/2"	(1231)	9.12	(0.85)	
TW21032	3.59	(0.33)	31 7/8"	(809)	16 1/4"	(412)	6.42	(0.60)	3.62	(0.34)	44 1/2"	(1130)	10.11	(0.94)	Opening calculations change when
TW21036	4.04	(0.38)	31 7/8"	(809)	18 1/4"	(463)	7.23	(0.67)	4.06	(0.38)	40 1/2"	(1028)	11.10	(1.03)	using PG Ungrade sill stop
TW210310	4.48	(0.42)	31 7/8"	(809)	20 1/4"	(514)	8.03	(0.75)	4.51	(0.42)	36 1/2"	(926)	12.09	(1.12)	using Po opgrade sin stop.
TW21042	4.92	(0.46)	31 7/8"	(809)	22 1/4"	(565)	8.84	(0.82)	4.95	(0.46)	32 1/2"	(825)	13.08	(1.22)	For opening specifications for windows
TW21046	5.48	(0.51)	31 7/8"	(809)	24 3/4"	(628)	9.64	(0.90)	5.41	(0.50)	28 1/2"	(711)	14.07	(1.31)	with Stormwatch® Protection, visit
TW2104100	5.81	(0.54)	31 7/8"	(809)	26 1/4"	(666)	10.45	(0.97)	5.83	(0.54)	24 1/2"	(622)	15.05	(1.40)	andaraanulndawa aam (ananinganaaa
TW21052 Ø	6.25	(0.58)	31 7/5"	(809)	28 1/4"	(717)	11.25	(1.05)	6.28	(0.58)	20 1/2"	(520)	16.04	(1.49)	andersenwindows.com/ openingspecs.
TW21056◊	6.69	(0.62)	31 7/8"	(809)	30 1/4"	(768)	12.06	(1.12)	6.72	(0.62)	16 1/2 ^s	(418)	17.03	(1.59)	
TW2105100	7.14	(0.66)	31 7/8"	(809)	32 1/4"	(819)	12.86	(1.20)	7.16	(0.67)	12 1/2"	(317)	18.02	(1.67)	For cottage and reverse cottage sash
TW21062 Ø	7.35	(0.68)	31 7/8"	(809)	33 1/4"	(843)	13.67	(1.27)	7.55	(0.70)	8 1/2"	(203)	19.01	(1.77)	opening specifications visit
TW21072 0	8.91	(0.83)	31 7/8"	(810)	40 1/4"	(1022)	16.08	(1.49)	8.94	(0.83)	10 1/4**	(260)*	21.99	(2.04)	oponing opcontourions, have
TW21076 Ø	9.35	(0.87)	31 7/8"	(810)	42 1/4"	(1073)	16.90	(1.57)	9.38	(0.87)	6 1/4" *	(159)*	22.98	(2.13)	andersenwindows.com/openingspecs.
TW30210	3.35	(0.31)	33 7/8"	(860)	14 1/4"	(362)	6.01	(0.56)	3.38	(0.31)	48 1/2"	(1231)	9.63	(0.90)	
TW3032	3.82	(0.36)	33 7/8"	(860)	16 1/4"	(412)	6.87	(0.64)	3.85	(0.36)	44 1/2"	(1130)	10.67	(0.99)	
TW3036	4.29	(0.40)	33 7/8"	(860)	18 1/4"	(463)	7.73	(0.72)	4.32	(0.40)	40 1/2"	(1028)	11.72	(1.09)	
TW30310	4.76	(0.44)	33 7/8"	(860)	20 1/4"	(514)	8.59	(0.80)	4.79	(0.45)	36 1/2"	(926)	12.76	(1.19)	
TW3042	5.23	(0.49)	33 7/8*	(860)	22 1/4"	(565)	9.45	(0.88)	5.26	(0.49)	32 1/2"	(825)	13.81	(1.28)	
TW3046◊	5.82	(0.54)	33 7/8"	(860)	24 3/4"	(628)	10.31	(0.96)	5.75	(0.53)	28 1/2"	(711)	14.85	(1.38)	
TW30410 \$	6.17	(0.57)	33 7/8"	(860)	26 1/4"	(666)	11.17	(1.04)	6.20	(0.58)	24 1/2"	(622)	15.90	(1.48)	
TW3052 Ø	6.64	(0.62)	33 7/8"	(860)	28 1/4"	(717)	12.03	(1.12)	6.67	(0.62)	20 1/2"	(520)	16.95	(1.58)	
TW30560	7.11	(0.66)	33 7/8"	(860)	30 1/4"	(768)	12.89	(1.20)	7.14	(0.66)	16 1/2"	(418)	17.99	(1.67)	
TW30510 Ø	7.58	(0.70)	33 7/8"	(860)	32 1/4"	(819)	13.75	(1.28)	7.61	(0.71)	12 1/2"	(317)	19.04	(1.77)	
TW3062 Ø	7.81	(0.73)	33 7/5*	(860)	33 1/4"	(843)	14.61	(1.36)	8.03	(0.75)	8 1/2"	(203)	20.08	(1.87)	
TW3072 Ø	9.47	(0.88)	33 7/8"	(860)	40 1/4"	(1022)	17.20	(1.60)	9.50	(0.88)	10 1/.**	(260)*	23.22	(2.16)	
TW3076 ◊	9,94	(0.92)	33 7/4"	(860)	42 1/4"	(1073)	18.06	(1.68)	9.97	(0.93)	6 1/4**	(159)*	24.27	(2.25)	
TW34210	3.74	(0.35)	37 1/2"	(962)	14 1/.*	(362)	6.79	(0.63)	3.78	(0.35)	48 1/."	(1231)	10.65	(0.99)	
TW3432	4.27	(0.40)	37 7/.*	(962)	16 1/4"	(412)	7,76	(0.72)	4.30	(0.40)	44 1/2"	(1130)	11.81	(1.10)	
TW3436	4.80	(0.45)	37 1/."	(962)	18 1/."	(463)	8.73	(0.81)	4.83	(0.45)	40 1/."	(1028)	12.97	(1.21)	
TW34310	5.32	(0.49)	37 1/."	(962)	20 1/."	(514)	9.70	(0.90)	5.35	(0.50)	36 1/3"	(926)	14.12	(1.31)	
TW3442	5.85	(0.54)	37 7/."	(962)	22 1/.*	(565)	10.67	(0.99)	5.88	(0.55)	32 1/2"	(825)	15.28	(1.42)	
TW34460	6.51	(0.60)	37 7/.*	(962)	24 3/.*	(628)	11.64	(1.08)	6.42	(0.60)	28 1/2"	(711)	16.43	(1.53)	
TW34410 0	6.90	(0.64)	37 7/."	(962)	26 1/."	(666)	12.61	(1.17)	6.93	(0.64)	24 1/2"	(622)	17.59	(1.63)	
TW3452 0	7.43	(0.69)	37 1/.*	(962)	28:/.*	(717)	13.58	(1.26)	7.46	(0.69)	20 1/-"	(520)	18.75	(1.74)	
TW34560	7.95	(0.74)	37 7/.*	(962)	30 1/."	(768)	14 55	(1.35)	7 98	(0.74)	16 1/4"	(418)	19.90	(1.85)	
TW34510.0	8.48	(0.79)	37 1/.*	(962)	32 1/.*	(819)	15.53	(1.44)	8 51	(0.79)	12 1/."	(317)	21.06	(1.96)	
TW3462.0	8 73	(0.81)	37 7/.*	(962)	33 1/.*	(843)	16.50	(1.53)	8.98	(0.83)	8 1/."	(203)	22.00	(2.06)	
TW3472 0	10.59	(0.01)	37 7/.*	(962)	40 1/."	(1022)	19.42	(1.80)	10.62	(0.00)	101/**	(260)*	25.69	(2.30)	
TW2476 A	11 11	(1.03)	377/*	(962)	40 /4	(1072)	20.28	(1.80)	11.14	(1.04)	61/**	(150)*	26.85	(2.00)	
TW39210	4.14	(1.03)	A1 7/ *	(1064)	141/.*	(362)	7.56	(0.70)	4 17	(0.30)	18 1/ *	(133)	11.68	(1.09)	
TW3832	4.72	(0.44)	A1 7/."	(1064)	161/.*	(412)	8.64	(0.80)	4.11	(0.44)	40 /2 AA 1/.º	(1130)	12.00	(1.00)	
TW3052	5 30	(0.44)	41 7/8	(1064)	191/*	(412)	0.04	(0.80)	5.24	(0.44)	44 72	(1130)	14.21	(1.20)	
TW3030	5.50	(0.49)	41 7/8	(1064)	20.1/*	(403)	10.01	(0.90)	5.04	(0.50)	26 1/ "	(1020)	15.49	(1.32)	
TW38310	0.65	(0.55)	41 1/8	(1004)	20 1/4	(514)	10.01	(1.00)	5.92	(0.55)	30 1/2	(920)	10.40	(1.44)	
TW3042	7.40	(0.60)	41 1/8	(1004)	22 1/4"	(000)	12.07	(1.11)	7.40	(0.00)	201/2	(711)	10.75	(1.50)	
TW3640 V	7.19	(0.07)	41 1/5	(1004)	24 3/4"	(028)	12,97	(1.21)	7.10	(0.00)	20 1/2"	((11)	10.00	(1.07)	
1W384100	7.63	(0.71)	41 1/8"	(1064)	26 1/4	(666)	14.05	(1.31)	7.66	(0.71)	24 1/2*	(622)	19.28	(1.79)	
TW3852 Ø	8.21	(0.76)	41 7/8	(1064)	28 1/4"	(717)	15.14	(1.41)	8.25	(0.77)	20 1/2"	(520)	20.55	(1.91)	
TW3856 Ø	8.79	(0.82)	41 7/8	(1064)	30 1/4"	(768)	16.22	(1.51)	8.83	(0.82)	16 1/2"	(418)	21.62	(2.01)	
TW38510≬	9.37	(0.87)	41 7/8"	(1064)	32 1/4"	(819)	17.30	(1.61)	9.41	(0.87)	12 1/2"	(317)	23.08	(2.14)	
TW3862 Ø	9.66	(0.90)	41 ⁷ /8"	(1064)	33 1/4"	(843)	18.38	(1.71)	9.92	(0.92)	8 ¹ / ₂ "	(203)	24.35	(2.26)	
TW 3872 ◊	11.70	(1.09)	41 ⁷ / ₈ "	(1064)	40 1/4"	(1022)	21.64	(2.01)	11.73	(1.09)	10 1/4" *	(260)*	28.16	(2.26)	
TW3876 ◊	12.29	(1.14)	41 7/8"	(1064)	42 1/4"	(1073)	22.72	(2.11)	12.32	(1.14)	6 1/4" *	(159)*	29.43	(2.73)	

• "Top of Subfloor to Top of Inside Sill Stop" is calculated based upon a structural header height of 6'-10 1/2" (2096) except for 7'-5" and 7'-9" heights which are

Dip of solution to be inside an actor is calculated based upon a solution neader neight of 0-10 77 (2050) except for 1-5 and calculated using a header height of 8' (2438).
Dimensions in parentheses are in millimeters or square meters.
Meet or exceed clear opening area of 5.7 sq. ft. or 0.53 m², clear opening width of 20" (508) and clear opening height of 24" (610).
*Calculated based upon a structural header height of 8' (2438).

TILT-WASH DOUBLE-HUNG FULL-FRAME WINDOWS

Custom Sizes and Specification Formulas



Available in 1/8" (3) increments between minimum and maximum widths and heights. Some restrictions apply; contact your Andersen supplier. For minimum rough opening dimensions for joined windows, see specific joining instruction guides. Measurement guide for custom-size windows can be found at andersenwindows.com/measure.

Tilt-Wash Double-Hung Windows



Tilt-Wash Transom Windows Tilt-Wash Picture Windows to 67 5/16" 21 5/8" to 75 5/16" 12" (1710) (1837) (305) (549) **CUSTOM WIDTHS CUSTOM WIDTHS** to 76 7/8" (1953) to ^{39 5/16}". (999) CUSTOM HEIGHTS HEIGHTS 48 7/8 (1241) CUSTOM 12" (305) Minimum R.O. **Unobst. Glass** with - window width + 1/2" (51) Picture Window Transom Window Height = window height + 0 Math = window width - 4.924" (125) wate - window width - 6.625" (168) + Height - window height - 7.531" (191)

Dimensions in parentheses are in millimeters.

• Clear Opening formulas provide dimensions for determining area available for egress. Vent Opening formulas provide dimensions for determining area available for passage of air. Minimum R.O. (minimum rough opening) formulas provide minimum rough opening width and height dimensions. Unobst. Glass (unobstructed glass) formulas provide dimensions for determining area available for passage of light.

Height - window height - 6.625" (168)



Grille Patterns

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Specified equal light and custom patterns are also available. For more grille options, see page 14 or visit andersenwindows.com/grilles.

Tilt-Wash Double-Hung Window Details





Light-colored areas are parts included with window. Dark-colored areas are additional Andersen* parts required to complete window assembly as shown.

• Minimum rough openings may need to be increased to allow for use of building wraps, flashing, sill panning, brackets, fasteners or other items. See installation information on pages 210-211. • Details are for illustration only and are not intended to represent product installation methods or materials. Refer to product installation guides at andersenwindows.com.

Dimensions in parentheses are in millimeters.

Pella[®] Lifestyle Series

Clad/Wood

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





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.¹

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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 2022.

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.³

Popular features and options

Low-maintenance aluminum-clad exteriors. Factory prefinish with a choice of several paints and stains, or choose primed or unfinished. Several grille types and patterns and high-transparency screens are also available.

Intentional design for improved durability

Intentional jamb/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 joint

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

Low-maintenance exteriors

Aluminum-clad exteriors with EnduraClad® finish resists fading and chalking. It is applied in an overlapping fashion for exceptional protection.

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.

Best limited lifetime warranty⁴

Pella Lifestyle Series products are covered by the best limited lifetime warranty in the industry for wood windows and patio doors.⁴

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.

Available in these window and patio door styles:5



Product Specifications

			022507			Performance Values			
Window & Patio Door Styles	Min. Width	Min. Height	Max. Width	Max. Height	Class & Grade	U-Factor	SHGC	STC	
Awning Dual-pane vent	21*	17*	59"	59*	LC30	0.25-0.35	0.19-0.51	25-28	
Awning Triple-pane vent	21*	17*	59*	59*	LC25-CW50	0.12-0.19	0.24-0.56	31-37	
Casement Dual-pane vent	17*	17*	35*	73*	LC30-LC50	0.25-0.35	0.19-0.51	25-31	
Casement Triple-pane vent	17*	17*	35*	73"	R20-CW50	0.20-0.25	0.17-0.46	31-37	
Fixed Casement Dual-pane	17*	17*	73*	73*	LC30-LC50	0.23-0.50	0.19-0.66	29-32	
Fixed Casement Triple-pane	17*	17*	73*	73*	R20-CW50	0.19-0.24	0.17-0.46	33-37	
Double-Hung Dual-pane vent	21*	35*	41.5"	77*	LC30-LC50	0.19-0.66	0.20-0.56	27-31	
Hinged Patio Door Dual-pane single door	30*	80*	38*	96*	LC50	0.25-0.29	0.18-0.48	31	
Hinged Patlo Door Triple-pane single door	30*	80*	38*	96*	LC55	0.22-0.26	0.14-0.38	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 single-door fixed (O)	31*	80*	49*	96*	CW50	0.24-0.33	0.18-0.51	27	
Sliding Patio Door Triple-pane single-door fixed (O)	31*	80*	49*	96*	CW60	0.21-0.27	0.17-0.45	33-36	
Sliding Patio Door Dual-pane double-door vent (OX or XO)	60.	80*	95*	96*	R20-LC50	0.24-0.33	0.18-0.51	29-32	
Sliding Patio Door Triple-pane double-door vent (OX or XO)	60*	80*	95"	96*	R25-LC60	0.21-0.27	0.17-0.45	33-36	

Window sizes available in 1/4" increments

ion 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 Finishes: Fold-away Cam-Action Lock

Champagne

Satin Nickel

White

Satin Brass

Patio Door Hardware

Essential Elevate your style and transform a home with elegant selections. Collection

Crank





Matte Black



Added Peace of Mind

Integrated Security Sensors

Integrated wireless security sensors maintain aesthetics, streamline security installation and ensure no warranty loss is caused by post-installation drilling. Sensors can be monitored via the free Pella* Insynctive* App and are compatible with major security panel systems.' For more information, go to connectpella.com.

Performance Packages

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.

Most Efficient 2022

Pella® Lifestyle Series offers products awarded ENERGY STAR® Most Efficient for 2022.²

Base	Performance 71% More Energy Efficient ^a + 34% Noise Reduction ³	Sound Control 52% Noise Reduction ³	Energy Efficiency 83% More Energy Efficient ⁸	Ultimate Performance 79% More Energy Efficient ⁸ + 52% Noise Reduction ³
Low-E Clear	Low-E Clear Clear	Low-E Clear Clear	Low-E Hard Cost Clear	Low-E Hard Cost Clear
Advanced Low-E	Advanced Low-E SunDefense Low-E or NaturalSun Low-E	Advanced 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.

Patented triple-pane glass design gives flexibility to add integrated blinds or shades without impacting performance.

Grilles

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





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.⁴

- 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.
- ² Some Pella products may not meet ENERGY STAR certification in Canada. For more information, contact your local Pella sales representative or go to mrcan.gc.ca/energy/products/categories/fenestration/13739.
- ³ 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.
- ⁴ 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.
- ⁵ Double-hung windows available in dual-pane only.

Available with triple-pane products only.

- ⁷ Requires the Insynctive App on a smart device, an Insynctive Bridge and a wireless home router with internet connection.
- ⁸ 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.
- Appearance of exterior grille color may vary depending on the Low-E insulating glass selection.



301 W. MAIN • OWOSSO, MICHIGAN 48867-2958 • (989) 725-0599 • FAX (989) 723-8854

DATE:	12.20.23
TO:	Historic District Commission
FROM:	City Manager
SUBJECT:	$219\ N\ Ball\ St-Notice\ to\ Proceed-Window\ Replacement$

HISTORY:

Philips & Taylor Jitney services (the forerunner of the Indian Trails Bus Company) services were located here in 1900. Wiley Oldsmobile showroom in 1950's. Boat dance Studios, 1970's & 1980's.

BACKGROUND:

The building department received a request to replace windows at 219 N Ball St on December 4, 2023 from owner Randy Smith. The scope of work includes removing and disposing of existing windows, install 19 new windows, and insulate/seal round openings. The applicant presents 3 options for replacement windows:

- 1. Aluminum exterior clad Pella Architect Series windows (\$34,025)
- 2. Vinyl exterior clad Anderson windows (\$29,830)
- 3. Aluminum exterior clad Pella Lifestyle Series windows (\$unknown)

RECOMMENDATION:

The Design Guidelines do not allow for metal or vinyl clad windows within the district. However, there are examples of such windows that were approved on other properties – albeit under specific circumstances. An example of this is 114 W Main Street which received a federal grant to rehab the façade to include SHPO approved metal clad windows. In reviewing the minutes from the 6.13.19 HDC meeting, the commission voted to allow those windows because SHPO had approved them through the grant process.

You can either issue a notice to proceed for the aluminum-clad windows for 219 N Ball or deny the application or require non-clad wooden windows.

Examples of buildings in historic district with metal clad windows (not an exhaustive list): Armory (2018), 114 W Main St (2019), City Hall (date unknown)

HISTORIC DISTRICT COMMISSION RESOLUTION NO. 2023-____

RESOLUTION APPROVING NOTICE TO PROCEED FOR WINDOW REPLACEMENT AT 219 N BALL ST

WHEREAS, the Historic District Commission of Owosso, Michigan, has received a proposed plan from the property owner to replace the windows at 219 N Ball; and

WHEREAS, the Commission was established to preserve the historic nature of district using the guidelines set forth by the United State Secretary of the Interior; and

WHEREAS, the building at 219 N Ball St is a contributing structure according to the 2010 Historic District Report; and

WHEREAS, the Owosso Downtown Historic District Commission finds that the proposed exterior improvements at 219 N Ball Street do not meet the Secretary of the Interior's Standards and are inappropriate for the district, but recognize that the following condition(s) prevail:

Conditions:_____

NOW THEREFORE BE IT RESOLVED by the Historic District Commission of the City of Owosso, Shiawassee County, Michigan that:

FIRST: That a Notice to Proceed is hereby approved based on the aforementioned prevailing conditions.

Moved: _____

Supported: _____

Owosso Downtown Historic District Design Guidelines

City of Owosso Downtown Historic District Commission

August 17, 2022



Provided by:



Certificate

If you plan to make any changes to the exterior of your building located with the Historic District, you will need to get a Certificate of Appropriateness (CofA)

BEFORE BUYING MATERIALS OR BEGINNING WORK:

- 1. <u>CALL</u> the Building Department administrator to confirm the project is in the historic district, and to determine if the property is contributing or non-contributing. This will direct you to the proper guideline, and determine if you qualify for an administer review, or if you need to appear at a meeting.
- 2. <u>**READ**</u> the guidelines in this document for the type of improvements you are proposing so you are prepared.
- 3. <u>COMPLETE</u> the application and meet with the Historic District Staff liaison to assure the application is complete. If the application is complete, Historic District Commission (HDC) may deny or table the application causing delays.
- 4. Make sure you application is complete with drawings or samples if necessary.
- 5. The HDC review each application as an individual case and determines if the proposed improvements meet the Historic District Guidelines and *The Secretary of the Interior's Standards for Rehabilitation*.
- If you have a complex project, it is recommended that your contractor or architect attend the meeting with you. This assures that all questions can be answered and all participants understand what is proposed & approved.



- 7. If your application is denied, you may work with staff to make changes that may be more appropriate to the district.
- 8. If the application is denied, you may file an appeal to the State Historic Preservation Review Board within 60 days after the date you received the written decision of the denial.

THE APPLICATION FOR A CERTIFICATE OF APPROPRIATENESS CAN BE FOUND ON THE CITY OF OWOSSO WEBSITE AT:

HTTP://WWW.CI.OWOSSO.MI.US/GOVERNMENT/DOWNTOWN-HISTORIC-DISTRICT-COMMISSION PLEASE CONTACT NATHAN HENNE AT 989.725.0568 FOR FURTHER INFORMATION.

Why Preservation?



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The Benefits of Preservation

• Our Cities are like tapestries - their history, character, and individuality are the fabric which they are woven. Buildings provide a wonderful sense of place; their beauty and scale inspire and connect us to our past, and they are invaluable cultural, aesthetic, and educational resources. Preservation ensures that future generations will have the opportunity to appreciate the legacy of Owosso's rich past. And you have the bonus of knowing that your downtown is protected and cherished as well.

• Historic buildings are intrinsically "green," as reusing an existing building has substantially lower environmental impact than building a new one. Preservation and rehabilitation minimize the wasteful loss of materials while maintaining a distinctive sense of place for the entire district.

• Traditional materials tend to reduce associated landfill waste and replacement costs, as well as potentially increasing a property's value associated with authentic, fighter quality construction.

• The historic building or structure already exists, and the energy required to fabricate the lumber, bricks, windows and doors was expanded long ago.

• New construction often includes demolition of an existing building (construction waste comprises approximately 25% to

30% of landfills), in addition to the fabrication of new construction materials creating additional waste, while the preservation of an existing building conserves landfill space.

- The most appropriate materials for the majority of preservation projects are often historic materials rather then non-biodegradable manufactured products, such as vinyl and/or plastics.
- While some of the recommendations in these *Guidelines* do not represent the least expensive options, the HDC strongly believes that selecting a better quality option will be less costly in the long-term.
- An immediate benefit is that using traditional materials and construction methods tends to be more historically appropriate and sustainable. Another benefit is that traditional materials generally have a longer life-cycle because they are appropriate for the local climate, requiring less frequent replacement.
- In making improvements and carefully maintaining your historical building, you are participating in preservation. Not only of your own property, but the entire district. As you proceed through the planning process for improvements consider these issues:
 - What makes it special and how can I preserve the historic sense of place?
 - What are my surroundings? What impact will my plans have on the integrity of the surrounding area?
 - Identify and think about how important the proposed adaptations are to the continuing use of the property.
 - Can I make repairs or is replacement the only option?

What's the difference?

CONTRIBUTING RESOURCES:

Resources which contribute to the historic charter of the district (most of which will be over 50-years old) may be described by:

- 1. The original design is largely intact, with its original ornament and detail. Maintenance and repair may be needed, but new design work is not necessary; or
- The original design can be discerned, but some elements have been removed or replaced with later designs. If early photographs or architectural drawings are available, exact reconstruction of missing details will be possible. Otherwise, new but compatible designs may be necessary.
- 3. The Secretary of the Interior's Standards for Rehabilitation should be followed. The guidelines in this document provide greater detail, but are consistent with Secretary's Standards. For these <u>contributing resources</u>, the guidelines in this document provide the detail you need for planning and fulfilling the fantastic goal of preserving the historic character of your Downtown.



On contributing structures, owners will be encouraged to retain historic features, use original materials and repair rather than replace when feasible. Maintenance is paramount to preservation.

NON-CONTRIBUTING RESOURCES:

These are resources that do not contribute because they are:

- Over 50-years old but original design has been significantly altered. Even when documentation of the original design and detail is available, the Commission must decide if enough remains to justify restoration to the original design. <u>The guidelines for additional and new construction will be</u> <u>applied</u>.
- 2. Less than 50-years old but are of good architectural quality for the period in which they were built, and they have become important parts of the context of the contributing resources in the district. Proposed <u>changes should be judged against the standards of the period of the building</u>. Changes should be consistent with the structure's own style, form, scale, relationship of the openings, selection of materials, details and other features.
- 3. Other less than 50-years old and are of less than exemplary architectural design. <u>The guidelines</u> for additions and new construction will be applied.

Non-contributing resources are not held to the same standards and guidelines for contributing resources and allow for more flexibility.

Secretary of Interior's

Standards for Rehabilitation

From The National Park Service US Department of the Interior <u>www.nps.gov/history</u>

1. RECOGNIZE APPROPRIATE USE

• A property shall be used for its historic purpose or shall be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

2. RETAIN HISTORIC CHARACTER

• The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

3. AVOID CONJECTURE

• Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding a conjectural feature or architectural elements from other historic buildings, shall not be undertaken.

4. MAINTAIN SIGNIFICANT ALTERATIONS

• Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. PRESERVE CHARACTER DEFINING FEATURES AND WORKMANSHIP

• Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.

6. REPAIR BEFORE YOU REPLACE MATERIALS

Deteriorated historic features shall be repaired rather than replaced. Where the severity of
deterioration requires replacement of a distinctive feature, the new feature will match the old in
design, color, texture, and other visual qualities, and, where possible, materials. Replacement of
missing features will be substantiated by documentary, physical, or pictorial evidence.

7. Avoid DAMAGING TREATMENTS

 Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

8. CONSIDER ARCHAEOLOGICAL RESOURCES

• Significant archaeological resources affected by a project shall be protected. If such resources must be disturbed, mitigation measures shall be undertaken.

9. MAKE ADDITIONS AND ALTERATIONS COMPATIBLE

 New additions, exterior alterations, or related new construction shall not destroy historic materials which characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect historic integrity of the property and its environment.

10. MAKE ALTERATIONS REVERSIBLE

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

General Considerations

Throughout these many pages of guidelines, you will find specific statements about parts of a historic resource, but remember, these general guidelines apply as well.

Your historic bustling is like a baby. It needs lots of care and attention to stay healthy. Look past the peeling paint to identify and think about the elements and characteristics which are original, and those that are later but contribute to its history or architectural significance. <u>With preservation, the details</u> <u>do matter.</u>

You should try to preserve all features, components and details which are original to the building to retain authenticity. They should not be covered with signs or new material. Features which are damaged should be repaired whenever possible and practical.

When a wood feature is missing it should be replaced with a new feature based on accurate documentation of the original design OR a new design compatible in scale, size, and material with the historic building and district. If a detail of a painted metal feature such as a decorative cornice is missing or deteriorated, replacement in kind may not be feasible, and the replication of the detail in fiberglass, wood or aluminum may be appropriate.

Look around you, at the character of the surroundings and think about the impact of the proposed changes on the integrity of the surrounding area.

Think about how important the proposed adaptations are to continue the use of new use.

Exterior materials should be cleaned with the gentlest method possible. Sand blasting and power washing or the use of torches can seriously damage materials.

The guidelines do not recommend the use of substitute siding or trim in any form on an existing building. It rarely replicates the dimensions or appearance of original materials. The application must show the following:

- The substitute material will replace other substitute material on the structure; and/or
- The cost of restoring the original material is unreasonable, judged in relation to the finished value of the property; or
- The original materials (or other suitable alternatives), or skills necessary to apply those materials are unavailable; or
- There is an emergency (probably temporary) need to provide the material in a time period which does not allow use of the original material (or other suitable alternative).

The use of vinyl or aluminum is not permitted on new construction or as a first time application on existing structures.

The Commission does NOT review appropriateness of colors, however colors that are historically associated with period are recommended.



Masonry

The cleaning of masonry of a historic structure may be appropriate with care taken that the cleaning technique used will not cause damage to the surface. The natural weathering and discoloration or patina of masonry materials is to be respected as the appearance was achieved as a result of the original designer's selection of material. The use of cleaning technique that would totally remove this natural patina should be avoided.

Red clay brick and Waverly stone in particular have soft and delicate texture that require gentle methods of cleaning.

Masonry repairs should retain the original or existing appearance of the masonry. If masonry is to be replaced, the new material should match the original or existing material in color, texture and hardness. Mortar should replicate the original or existing mortar in color, consistency, design and hardness. For example, older brick walls were often laid with mortar of a higher lime content then is now common, and sometimes with dark gray or black mortar and finished with recessed joints.



Previously unpainted masonry should not be painted. Sealants should not be used unless necessary to protect from water. The use of sealants is subject to review by the Commission.

Unless old paint or other coatings can be removed without damage to the masonry a painted surface should be repainted rather than stripped of old paint.

Primary chimneys should be retained, even if their function is eliminated by modern utilities. Smaller secondary chimneys not so visually important and removal may be considered by the commission.

The Secretary of Interior's Standard for Rehabilitation and Guidelines for Rehabilitation Historic Buildings recommends in part:

- Identifying, retaining, and preserving masonry features that are important in defining the overall
 historic character of a building such as walls, brackets, railings, cornices, window architraves, door
 pediments, steps and columns, and details such as tooling and bonding patterns, coating and color.
- Protecting masonry by providing proper drainage so that water does not stand on flat, horizontal surfaces or accumulate in curved decorative features.
- Cleaning with the gentlest method possible, such as low pressure water, detergent and natural bristle brushed.

Preservation Briefs #1,2, and 6. (see resources page 18)

Windows and Doors

Identifying, retaining, and preserving windows and their functional and decorative features are important in defining the overall historic character of a building. Features such as frames, sashes, munitions, glazing sills, paneled or decorative jambs, moldings, and interior and exterior shutters and blinds add to the definition.

Appearance of the finished window or door is the paramount consideration. Steel, vinyl, aluminum or fiberglass seldom match the appearance of wood, and do not lend themselves to the application of added detailing. Exterior metal, vinyl, or fiberglass shutters blinds, or awnings which are historically inappropriate will not be approved.



City of Owosso Historic District Guidelines:

- Windows and doors contribute to the overall historic character of a building should be retained and repaired as needed, including their overall functional and decorative features, such as frames, sash, munitions, sills, heads, moldings, surrounds, hardware, shutter, glazing, panels sidelights, fanlights, and thresholds.
- If replacement of an entire window unit is necessary, replace the unit in kind, matching the design, dimension, panels, pane configuration, architectural trim, detail, munitions and material. If the replacement has insulating glass, the appropriate munition patten should be permanently applied with munitions not wider than 7/8-inch, as well as with spacer bars internal to the insulated glass. There shall be no flat munition grids, nor removable munition grids applied to the inside or outside of the glass panes.
- Replacement windows and doors should fit the opening to the original, and be consistent in glass size and with the existing trim and other features the building. Transom and sidelights should be preserved.



- The use of glass block fill in openings is generally not appropriate. unless it was part of the style and period of the structure.
- Installation of metal storm windows and doors which have a painted or baked enamel finish may be approved when they do not alter of destroy the original structure and trim of the opening. Replacement, repair, or installation of wood storm or screen door and which are painted or stained to match the building or trim may also be approved.

The application for window or door replacement should include at a minimum a sketch or depiction of the proposed windows or door detailing a cross section of the existing and proposed dimensions of meeting rails, sash, and munitions.

Today, any people want to replace historic windows with more energy efficient windows. However, windows are responsible for minor energy loss. Only 10-12% of the total air infiltration is through windows. The cold is actually transferred through the roof, walls, and sill. Properly repairs historic windows can be just as energy efficient, while at the same time preserving historic detail. See resource page 23.

Storefronts

STOREFRONTS:

the storefront is usually the most prominent feature of a historic commercial building, playing a crucial role in a store's advertising and merchandising strategy. Although a storefront normally does not extend beyond the first story, the rest of the building is often related to it visually through a unity of form and detail. Planning should always consider the entire building; window patterns on the upper floors, cornice elements, and other decorative features should be carefully retained, in addition to the



storefront itself.

The earliest extant storefronts in the U.S., dating from the late 18th and early 19th centuries, had bay or oriel windows and provided limited display space. The 19th century witnessed the progressive enlargement of display windows as pale glass became available in increasingly larger units. The use of cast iron columns and lintels at ground floor level permitted structural members to be reduced in size. Recessed entrances provided shelter for sidewalk patrons and further enlarged display areas. In the 1920s and 1930s, aluminum, colored structural glass, stainless steel, glass block, neon, and other new materials were introduced to create Art Deco storefronts.

City of Owosso Historic District Guidelines:

Functional and decorative features that are important in defining the overall historic character of a storefront, such as display windows, signs, doors, transoms, kick plates, corner posts, and entablatures should be preserved.

Storefronts should be repaired as needed, which may include replacement in kind or with compatible substitute material of these extensively deteriorated or missing parts of storefronts where there are surviving prototypes such as transoms, kick plates, pilasters or signs.

When a storefront is being built new or extensively renovated the following characteristics of typical storefronts should be considered:

- Roofs are relative flat and never prominent.
- Facades that stretch across more than one business are normally articulated with a strong vertical element at each division space.
- Parapet walls are used on the facade facing the street, and sometimes on other walls.
- Storefront glass is a major element of the main facade of a commercial retail commercial building, taking up most of the length of the facade. The bottom of the glass is normally within 2-feet of the walking surface, and the top at least as high as the top of the door. Glass transom wings are often place above the windows or doors. The glass should be clear not tinted or mirrored.
- Entries are recessed to create a visual indicator of their importance, and to keep out swing doors from striking pedestrians passing by.
- A two or more story building should have a clear demarcation between stories.
- Canopies or awnings are encouraged, and placed for a comfortable human scale beneath. Fabric awnings may be considered if historically appropriate and compatible with the storefront in scale, form ad material. They should be triangular in form, and not back-lit. They should be 7 and 10 feet above the sidewalk and a maximum of 1 foot above the storefront windows (not including transoms).
- Awning should only be attached to wood or mortar joints, not to the masonry.
- Historic of iconic signs should be preserved.

Signs and lighting

MOST SIGNS AND LIGHTING CAN GENERALLY BE APPROVED ADMINISTRATIVELY - SAVING YOU TIME.

BUILDING MOUNTED SIGNS:

- A sign should be consistent in size, type, materials, color, and type of supporting device with the architectural characteristics of the building upon which it is placed or within which it is placed for the purpose of being viewed from the exterior.
- A sign should not in any way obstruct or destroy unique architectural features of the building or surrounding buildings. Signs attached to masonry should only be attached into the mortar joints and not the masonry or brick.
- The preferred location for the main business sign is flush mounted below the cornice line of a single story building, or the area between the storefront windows and second story windows on a two or more story building. If there is a separate cornice above the storefront, the sign should be on or below the cornice line. Another acceptable business sign is on the storefront glass, where painted or stenciled letters may be placed.



- New signs are also regulated by City Ordinance No. 802
- If the Historical District Commission determines that an existing sign is iconic or of historic significance, it should be retained. Its repair or restoration may be allowed whether or not it meets the guidelines in this section, and whether or not it meets the limitations in Ordinance No. 802 on zoning.
- Sign materials which were not used when the structure was built may be permitted contingent upon the durability, permanency, appearance, and appropriateness in relation to the building and the district.
- Flags, banners, and buntings and other hanging objects which are not permanently affixed to the structure do not need approval from the Commission. (A building permit may be required.) Any of the above that becomes unsightly because of deterioration must be removed or replaced.
- Internally lit signs are generally not appropriate, except neon.

FREE STANDING SIGNS:

• The size of free standing signs appropriate for the district are 2-feet by 4-feet sandwich board signs. Other forms of free standing signs are generally not appropriate.

LIGHTING:

Exterior lighting, including the lighting of signs, should be consistent with the historical period of the





When possible a historic light fixture should be retained. If fixtures are missing or beyond repair, they may be replaced by reproduction fixtures. Contemporary fixtures that are inconspicuous of that complement the structure may be selected.

Additions/New Construction

ADDITIONS:

New additions within the historic district can be appropriate if they do not destroy historic features, materials, and spatial relationships of the original building and site.

The location, size, height, scale, design and materials should be compatible with the original structure. The commission may make recommendations to the Planning Commission and/or Board of Appeals concerning placement of additions on the lot.

A new addition should be designed and located so that significant site features including mature trees are not lost.

New additions should be designed in such a manner as to make clear what is historic and what s new. They should be constructed so that they can be removed in the future without damage to the building.

It is not appropriate to construct an addition that significantly changes the proportion of built mass to open space on the individual site.

New Construction:

With new structures of renovations which totally change the facade, the appearance of the streetscape as a while should be respected. Facades for new structures should be compatible with the overall design and appearance for the surrounding streetscape in its design and appearance.

New structures need not replicate existing styles. They may be honest modern or contemporary adaptations or reflections of traditional styles, or they may be totally new, distinctive structures which are nevertheless compatible with the district's character.

<u>Compatibility of siting and massing</u>: the historic relationship between building, landscape features and open space should be retained. The siting should be reviewed based on existing district setbacks, orientation, spacing and the distance between adjacent buildings.

The height and bulk of a new building shall be compatible with its surroundings and shall in no event exceed that of existing buildings in the Historic District.

If there is significant variation in siting or in height or bulk for the immediate surrounding buildings which creates a material adverse impact on the character of that area, the commission may make recommendations to the Planning Commission and/or Board of Appeals concerning height, massing and placement on the lot of the new construction.

In addition to the scale of the structure, details such as roof lines, materials, the size, type, and placement of windows, doors, porches, fences, chimneys, and garages should be considered in assessing compatibility of the new structure with the existing streetscape. Especially in commercial areas, the scale of architectural elements should provide comfortable surroundings for pedestrians. That applies especially to heights of canopies or awnings, and heights of doors and windows.

New buildings should be designed so that they are compatible with, but discernible from adjacent historical buildings.



Demolition or Removal

THIS SECTION ONLY APPLIES TO CONTRIBUTING STRUCTURES.

Demolition or removal of structures which are contributing resources in a historic is prohibited.

An exception may be made for the demolition or removal of a resource only through issuance of a "notice to proceed" by the Commission is any of the following conditions prevail:

- 1. The resource constitutes a hazard to the safety of the public or occupants and if, in the opinion of the Commission, the proposed demolition is the only reasonable way to improve or correct this condition.
- 2. The resource is a deterrent to a major improvement program which will be of substantial benefit to the community and which outweighs the benefit to the public interest and the general welfare of the citizens of the city derived from the historic, architectural or contextual significance of the structure.
- 3. Retention of the structure would cause undue financial hardship to the owner, provided that any hardship or difficulty claimed by the owner is not self-created or is not result of failure to maintain the property in good repair, which itself is not the result of financial hardship of the owner. All feasible alternatives to eliminate the financial hardship, which may include offering the property for sale at its fair market value, or moving the resource to a vacant site within a historic district, should have been attempted and exhausted by the owner.



4. Retention of the structure would not be in the best interest of the community.

Conditions for Relocation:

Before permitting relocation of a contributing resource, the Commission should determine whether the structure is threatened with demolition, whether relocation is the only alternative, and whether the structure is sound enough to survive the move.

If it is proposed to relocate a structure in a historic district, the Commission should only permit it if is determined to architecturally compatible with the adjacent buildings according to the guidelines for new construction.

With relocation of a structure in a historic district, significant site features of the new context should be protected, and the building should be situated on the site according to the guidelines for new construction.

Glossary

ALTERATION: work that changes the details of a structure but retains its basic shape or size

<u>CERTIFICATE OF APPROPRIATENESS</u>: the written approval of a project application for work that is appropriate and that does not adversely affect a structure and consistent with the purposes of this chapter. An applicant will need to have this certificate <u>BEFORE</u> applying for any necessary building permits. A certificate may be approved with specific conditions.

CONTRIBUTING RESOURCES: Resources which contribute to the historic character of the district (most of which will be over 50-years old) may be described by:

- 1. The original design is largely intact, with its original ornament and detail. Maintenance and repair may be needed, but new design work is not necessary; or
- 2. The original design can be discerned, but some elements have been removed or replaced with later designs. If early photographs or architectural drawings are available, exact reconstruction of missing details will be possible. Otherwise, new but compatible designs may be necessary.

FALSE HISTORY: Is to introduce wood or metal details to a historic building in an attempt to create a false history. This practice is to be avoided.

<u>NEED FOR CHANGES:</u> To identify and think about how important the proposed adaptations are to continuing the same use, or allowing adaptive reuse.

NON-CONTRIBUTING RESOURCES: These are resources that do not contribute because they are:

- Over 50-years old but the original design has been significantly altered. Even when documentation
 of the original design and details is available, the Commission must decide if enough remains to
 justify restoration to the original design. <u>The guidelines for additions and new construction will be
 applied.</u>
- Less than 50-years old but are good architectural quality for the period in which they were built, and they have become important parts of the context of the contributing resources in the district. Proposed <u>changes should be judged against the standards of the period of the building</u>. Changes should be consistent with the structure's own style, form, scale, relationship of openings, selection of materials, details and other features.
- 3. Others less than 50-years old and are of less than exemplary architectural design. <u>The guidelines</u> for additions and new construction will be applied.

NOTICE TO PROCEED: Written permission to use a permit for work that is inappropriate and adversely affects a structure.

ORDINARY MAINTENANCE OR MAINTENANCE: Keeping a structure unimpaired and in good repair through ongoing minor intervention, undertaken from time to time, in its exterior condition. Ordinary maintenance does not change the external appearance of the structure except through the elimination of the usual and expected effects of weathering. Ordinary maintenance does not constitute "work".

PRESERVATION: The act of identifying and giving consideration to the elements and characteristics which are original to the resource, and this that are later but contribute to its history or architectural significance. The act of retaining all features, components, and details. Proper maintenance is key to preservation. Repair is always preferred over replacement.

REASONABLE: Technical and economic feasibility are considered, but preservation remains the goal.

Glossary cont.

<u>REPAIR:</u> To restore a damaged or decayed resource to good and sound condition by any process. A repair that changes the external appearance of a resource constitutes "work".

<u>STRUCTURE</u> Any human-made structure including commercial structures, houses, garages, carriage barns, storage sheds.

WORK: Means construction, addition, alteration, repair, moving, excavation or demolition.

- Work: Without Review:
 - Minor repairs, color schemes, roof color, flags and banners (may require a building permit), repairs to awnings and shutters with like material/appearance, rain gutters, repairs to retaining walls, and normal routine maintenance.
- Work: Administrative approvals are done by staff in the office and include:
 - *Replacement of signage* provided that: 1) the new sign fits within an existing frame or replaces a sign in the exact location and with the same size, lighting, and material of the existing sign or 2) that the sign fits within the existing sign panel provided that the materials do not detract from historic features and that the signage is generally congruous with adjacent signage.
 - Replacement of the fabric of existing canvas awnings provided that the new canvas is not plastic or vinyl coated and does not appear to be so.
 - Replacement of existing fencing provided that: 1) the fence is in the same location and is
 composed of the same or more historically appropriate material; 2) the fence is the same height;
 and 3) it is a chain link, wrought iron, or flat board fence. Chain link or metal security type fences
 may not be installed in the front open space or within the side open space on the street side of
 corner lots.
 - Installation of glass blocks to replace basement windows provided that: 1) the glass block is recessed in the opening to the location of the existing window; 2) screening or grates are installed on the exterior to cover the glass block; 3) the windows are no larger than 36" wide and 24" high; and 4) the windows are located on the sides and rear of the property.
 - *Removal of dead, diseased, hazardous or damaged trees* provided that: a written statement by a professional is provided documenting the condition and that the trees are not savable, or it is an emergency situation as determined by the building official.
 - *Replacement of gutters and downspouts* provided that: the size, materials, configuration, and placement match the existing.
 - Replacement of roofs provided that: the materials, color, and roofline match the existing.
 - *Replacement of existing windows* that are deteriorated beyond repair and that match the existing in size, type, location, material and muntin pattern; bare metal finishes (except for aluminum cladding), Low "E" reflective or tinted glazing are not permitted unless they match the existing.
 - Installation of new storm windows and storm doors that match the opening size and are not bare metal; that mullions and meeting rails of storm windows match the prime windows; and the design of the storm door is similar in style to the prime door.
 - Replacement of non-original windows or doors; or windows or doors in non-contributing resources; with new windows or doors that are an accurate restoration using historical, pictorial, and physical documentation, or a new design that is compatible with the openings and historic character of the building.

Glossary cont.

- Installation of new skylights or solar panels on non-character defining roof surfaces not visible from the street provided the skylights are flat, do not extend more than 8 inches above the roof surface, are similar to the color of the roof material and cover not more than 10% of the roof surface on which they are located; bare metal finishes, bubble or domed skylights are permitted only on flat or rear-facing roofs.
- Installation of new wood clapboard siding or artificial siding that replicates clapboard where the
 existing siding is artificial and provided the exposed vertical dimension of the new "clapboard" is
 no more than five inches or within one inch of the missing or covered original; no new material
 may cover nor require the removal of any original trim or architectural detail such as ornamental
 shingles, carved brackets, window hoods and the like.
- Removal of artificial siding to repair and restore original siding.
- Cleaning of masonry provided the application meets the requirements in Preservation Briefs 1: Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings and Preservation Briefs 6: Dangers of Abrasive Cleaning to Historic Buildings. Sandblasting or the use of any other abrasive processes is strictly prohibited in the district.
- *Reconstruction of masonry* to exactly match the existing in color, size, texture, coursing, mortar profile, color, composition, and joint width.
- The installation of satellite dishes or antenna, provided the location is not visible from the street or sidewalk in the front, or if a corner lot, the street or sidewalk on the side.
- Installation of new handrails that match the existing balustrade may be added to porch steps, or the replacement of non-original handrails with replicas of documented original handrails, or new compatible handrails.
- Re-construction of existing fire escapes in a matching or smaller size.
- The replacement of existing on-grade walkways, stairways, retaining walls and driveways in the same location in matching or compatible materials.
- *Replacement of concrete basement walls* provided that the exterior of the portions of the walls above grade are finished in a material matching the original or with a smooth parge coat.
- *Window and door boarding* provided that the boarding-up is temporary and for the protection of the building; and the boarding is painted to look like windows or a dark color such as black or brown. Boarding used for ventilation techniques allowing air flow into the building should be similarly painted a dark color.
- *Reconstruction of existing historic porches* or porch elements provided the materials and design exactly match the existing materials and design.
- Reconstruction of existing non-historic porches to match the existing design or the historic design that is documented using historical, pictorial, or physical documentation, or a new design that is compatible with the historic character of the building.
- Replacement of non-original garage doors and overhead doors with new doors that are compatible with the design of the garage and/or structure and are located within the existing or historic opening.
- Installation of air conditioning or mechanical equipment provided that the equipment is not visible from the street or sidewalk and does not destroy historic features.

Glossary cont.

- *Replacement of internal and external lighting on signs,* provided the replacement matches the same in materials, intensity, placement, and configuration.
- The replacement of existing decks in the same location in a matching or smaller size; or the expansion of decks on non-contributing resources provided the expansion does not negatively impact historic resources.
- The replacement of existing public or other right-of-way features such as signs, planters, lighting and other objects in the same general location and in matching or improved materials and configuration.
- The addition of permanent or temporary public or other right-of-way features such as signs, construction materials, lighting, barricades, and other objects that are required in relation to a public works project, a traffic control order, or other public need.
- Removal of materials that are not historic in nature such as awnings, signs, etc.
- Work: Reviewed by the Historic District Commission:
 - New construction and additions, changes to windows or siding, brick repair/replacement. alterations and/or removal of any archeological significant features, and any other work not exempt from review.



The Commission and Meetings

APPLICATIONS ARE REVIEWED INDIVIDUALLY DURING A PUBLIC MEETING.

EACH PROPERTY, EACH SETTING, EACH SITUATION IS UNIQUE.

 The staff liaison for the Historic District Commission presents basic information about the project. A meeting packet with all supporting documentation is emailed in advance to the commissioners and to the applicant.



2. The applicant or their representative in invited to address the Commission by describing the project in detail. The commissioners will have questions for the applicant and owner. A discussion then takes place with the commissioners who question the staff and the applicant. <u>This discussion can be spirited to make sure that everybody understands exactly what is proposed, why it is important, and the standards are properly applied.</u> <u>Please expect the commissioners to ask about alternatives to your proposal.</u>

3. At this point the meeting is closed to discussion and the commission begins deliberation. A commissioner will propose a motion.

4. Further discussion may continue and eventually a vote is taken. A motion requires a quorum of the appointed members (four or more) to pass. A quorum of members present is sufficient for administrative decisions.

5. If the application is approved or approved with conditions, the applicant will receive a Certificate of Appropriateness within ten days.

6. A decision on the application may be postponed for more information. The letter to the applicant will specify the additional materials or information required before the Commission will place the application back on the agenda.

If the application is denied, the applicable Secretary of Interior's Standard is cited. In the letter of denial, the applicant will receive information on alternate work plans for the project, which may be

acceptable to the Commission. The letter will also be included information on how the denial can be appealed to the State Historic Preservation Review Board as PA 169.

required by city ordinance and



Link and Resources

PRESERVATION BRIEFS: a series of easy to read guides on preserving, rehabilitating, and restoring historic buildings. See all 47 at: <u>www.nps.gov/tps/how-to-preserve/briefs.htm</u>

MICHIGAN HISTORIC PRESERVATION NETWORK: has tons of links and information at: www.mhpn.org

THE SECRETARY OF INTERIOR'S STANDARDS FOR REHABILITATION: link to documentation at: https://www.nps.gov/tps/standards/treatment-guidelines-2017.pdf



