

# Single Hung Windows



## Commercial Single Hung Windows for Retrofit and New Construction



*(top)* The Banks, Cincinnati, OH - Series 500, Light Gray  
*(bottom)* The Paramount at Reston, Reston, VA - Series 500, Satin Gray

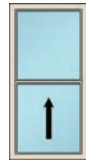
*(top)* Two Metropolitan Park, Arlington, VA - Series 500, Dark Gray  
*(bottom)* Avalon Mosaic, Fairfax, VA - Series 500, Black



# Product Selection Guide

## Single Hung Windows

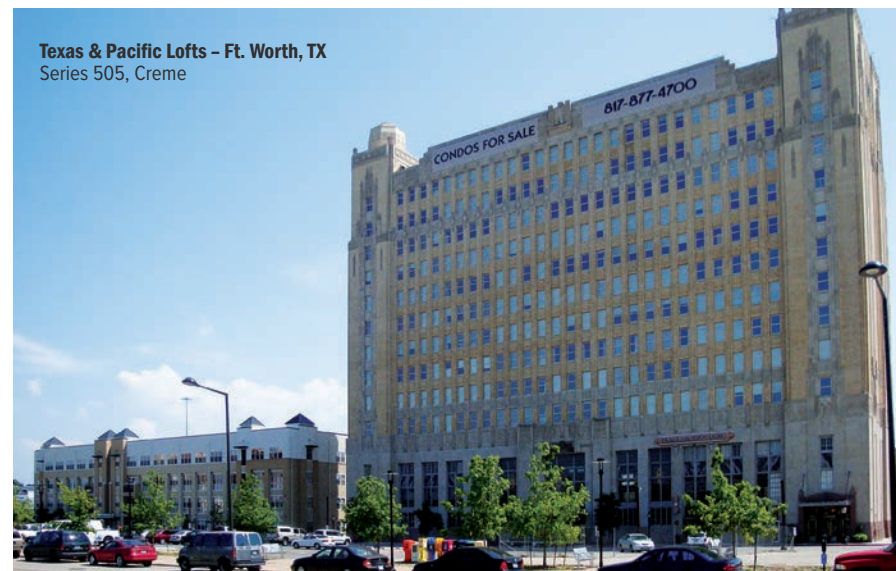
Series	Description	AAMA Rating	Uniform Structural Load (psf)	Air Infiltration (cfm/sq.ft.)	Water Resistance (psf)	U-factor <sup>1</sup>	STC Rating	Frame Depth	Max I.G. Thickness
500H	Single Hung Tilt ✓	CW30	45.11	.09	6.89	.47 / .39 / .39	34-36 ◇	2 <sup>5</sup> / <sub>8</sub> " or 3 <sup>1</sup> / <sub>4</sub> "	7 <sup>7</sup> / <sub>8</sub> " •
505	Single Hung Tilt ✓ FL	C60	90	.08	9	☒	30-36 ◇	2 <sup>5</sup> / <sub>8</sub> " or 3 <sup>1</sup> / <sub>4</sub> "	7 <sup>7</sup> / <sub>8</sub> " •
515	Single Hung Tilt ✓	CW50 Δ	50.13	.13	7.52	.47 / .39 / .39	30-36 ◇	2 <sup>5</sup> / <sub>8</sub> " or 3 <sup>1</sup> / <sub>4</sub> "	7 <sup>7</sup> / <sub>8</sub> " •
515B	Single Hung Tilt ✓	CW65	97.5	.02	9.75	.47 / .39 / .39	30-36 ◇	2 <sup>5</sup> / <sub>8</sub> " or 3 <sup>1</sup> / <sub>4</sub> "	7 <sup>7</sup> / <sub>8</sub> " •
515C	Single Hung Tilt ✓	AW50	75	.30	10	.47 / .39 / .39	30-36 ◇	2 <sup>5</sup> / <sub>8</sub> " or 3 <sup>1</sup> / <sub>4</sub> "	7 <sup>7</sup> / <sub>8</sub> " •
515D	Single Hung Tilt ✓	CW60	90	.08	9	.47 / .39 / .39	30-36 ◇	2 <sup>5</sup> / <sub>8</sub> " or 3 <sup>1</sup> / <sub>4</sub> "	7 <sup>7</sup> / <sub>8</sub> " •
4100	Single Hung Side Load ✓ FL	AW75	112.5	.29	12	.47 / .36 / .36	30-36 ◇	4"	1" •
4102	Single Hung Side Load ✓	AW80	120	.25	12	☒	34	4"	1" •



✓ Forced Entry Tested   f Fair Housing sill available   FL Florida approved   ☒ Tests Pending   ◇ Laminated glass   • Single Glazed available

<sup>1</sup> NFRC 100 simulation results from certified testing labs. First u-factor: Low-E / Clear insulated glass, aluminum spacer, no argon. Second u-factor: Low-E on two surfaces with warm-edge spacer and argon. Third u-factor: Low-E / Clear / Low-E triple-pane unit with warm-edge spacer and argon.

Due to the large number of glazing combinations available, please call our Contract Sales department at (800) 259-7580 for specific values.

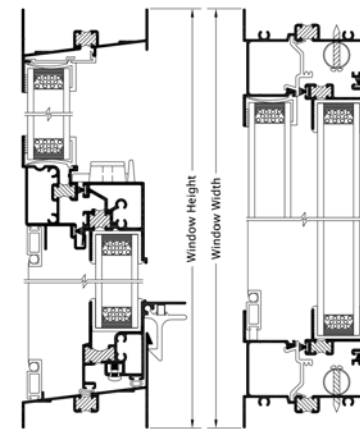


Texas & Pacific Lofts – Ft. Worth, TX  
Series 505, Creme

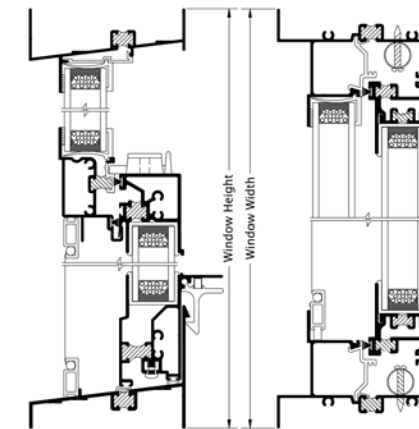


Series 500 Single Hung with nail fin,  
Bronze powder coat finish

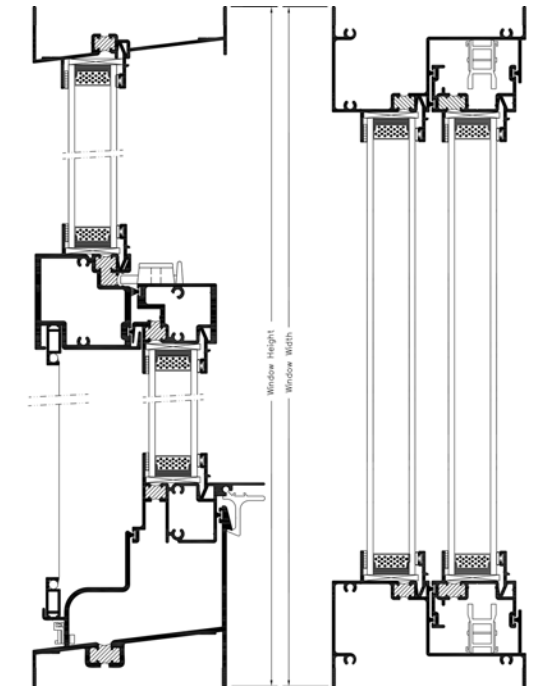
# Selected CAD Details\*



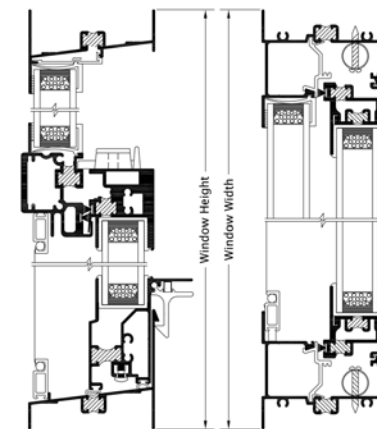
Series 500  
(Scale 1/4"=1")  
2<sup>5</sup>/<sub>8</sub>" frame depth shown



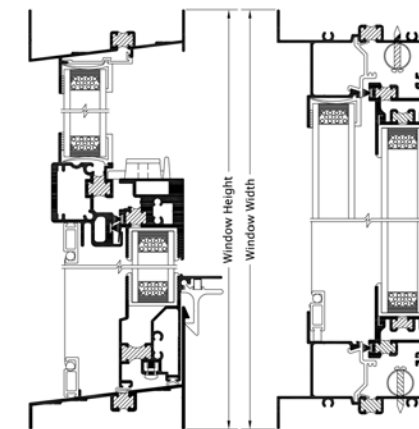
Series 505  
(Scale 1/4"=1")  
3<sup>1</sup>/<sub>4</sub>" frame depth shown



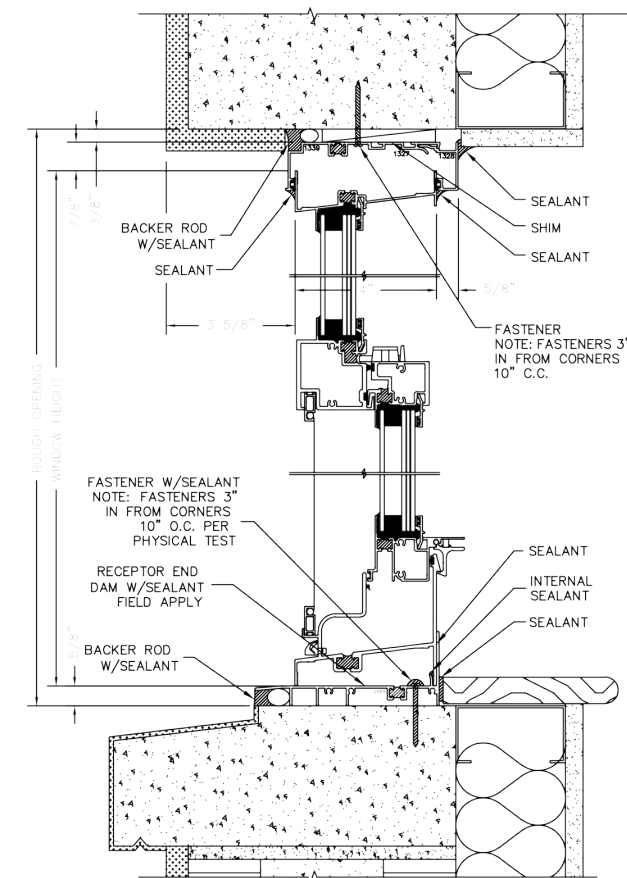
Series 4100  
(Scale 1/4"=1")  
4" frame depth



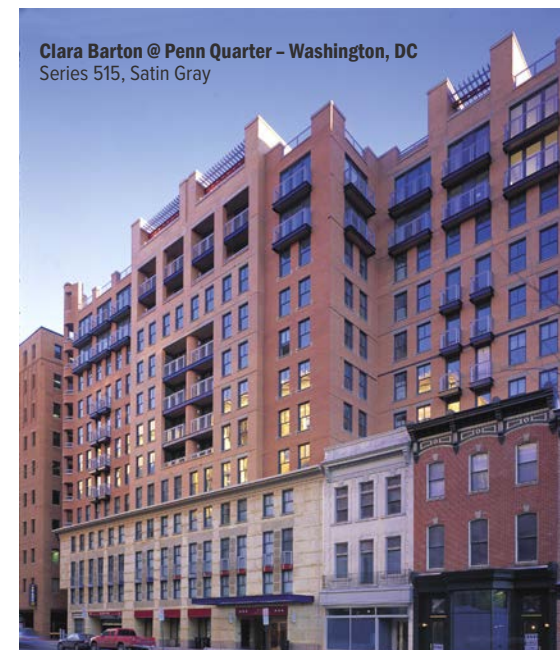
Series 515  
(Scale 1/4"=1")  
2<sup>5</sup>/<sub>8</sub>" frame depth shown



Series 515  
(Scale 1/4"=1")  
3<sup>1</sup>/<sub>4</sub>" frame depth shown



Series 4100 (Impact)  
Typical Installation



Clara Barton @ Penn Quarter – Washington, DC  
Series 515, Satin Gray

## Anti-Terrorism / Force Protection (ATFP) Products

Series	Description	AAMA Rating	Calculated Pressures	Meets UFC 4-010-01 and ASTM F2248-03*	ASTM 1642/ GSA Protection Level	Frame Depth
4100	Single Hung	AW75	144 psf / 1 psi	Yes	Minimal Hazard	4"

\* Per UFC 19 Jan '07 / ASTM 2248-03

## Hurricane / Impact Products

Series	Description	Rating / Test Size	Design Pressure (psf)	Uniform Structural Load (psf)	Water Resistance (psf)	Force Protection Qualified (UFC/ATFP)	Frame Depth	Maximum I.G. Thickness
4100	Single Hung Side Load Large and Small Missile (FL state approval #13988.1)	AW75 48" x 84"	+80/-100	+120/-150	12	Yes	4"	1" •

\* CAD files in DWG and PDF format and specifications for most products can be downloaded from [www.thermalwindows.com/cad](http://www.thermalwindows.com/cad)

# AAMA 2604 Powder Coat Finishes\*

## Tier 1 Colors<sup>1</sup>



White



Almond



Sandstone



Bronze

## Tier 2 Colors<sup>2</sup>



Light Green



Dark Green



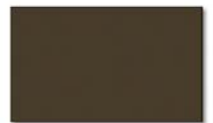
Medium Blue



Bone White



Brick Red



Medium Bronze



Dauphin Gray



Dark Gray



Black



Crema

\* AAMA 2605 finishes are also available.

Custom colors are available. Minimums apply - Contact us for details.

<sup>1</sup> No Minimum Volume Requirement applies to Tier 1 finishes.

<sup>2</sup> Minimum Volume Requirements Apply to Tier 2 finishes. 3,000 sq.ft. or more at standard pricing. Smaller quantities are available at an additional cost.

Hardware and vinyl colors are subject to manufacturer specifications. Colors shown are for general information only. It cannot be assumed that final finishes will match these examples.

## About Thermal Windows, Inc.

Thermal Windows, Inc. is celebrating over 40 years of quality window design and production. We manufacture energy efficient aluminum windows, sliding glass doors and terrace doors for commercial and residential retrofit and new construction. Founded by Bob G. Pool in 1979, the company has grown steadily to become one of the top window manufacturers in America. Sales and manufacturing operations in Tulsa, Oklahoma occupy over 300,000 sq.ft. There are company showrooms in Tulsa and Oklahoma City, as well as dealers in nearly every state.

Our in-house research, design and testing programs provide continuous quality assurance. Our testing equipment is calibrated by a certified AAMA laboratory. All testing is conducted by certified AAMA technicians. In manufacturing, we monitor quality in our powder coat, debridging and insulating glass facilities to maintain a high degree of control over critical areas of window production. Our insulating glass line consistently provides Class "A" certification I.G. units.

In addition to our commitment to testing and upgrading existing products, we continue to design new products to meet the fenestration needs of the residential, commercial and heavy commercial markets.



Corporate headquarters, manufacturing plant and showroom in Tulsa, Oklahoma



Our central location allows us to ship economically throughout the U.S.A.



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### Corporate Headquarters & Manufacturing Plant

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