



# ESTATE COLLECTION®

Impact Resistant Windows & Doors



IF IT'S WORTH *protecting* IT'S WORTH  
THE ESTATE COLLECTION.

EVERYWHERE QUALITY, BEAUTY *and* STRENGTH MATTER



*Tests have proven that many of our products withstand winds of nearly 300 MPH.*

CGI windows and doors exude quality without compromise. As the premier manufacturer of impact resistant windows and doors, our products offer superior strength, energy efficiency and beauty. Every detail reflects our commitment to exceptional quality, from our strong commercial-grade aluminum frames to impact resistant



*Images featured on pages 1 and 2 courtesy of © Edward Butera | ibi designs inc. | Boca Raton | Florida*

glass options and finest hardware components.

The best choice for hurricane prone coastal regions, the CGI Estate Collection exceeds the Miami-Dade county and Florida building codes, considered some of the most rigorous in the industry and assures best-in-class

performance against high winds and violent storms. Found in many of the most prestigious residential homes, office buildings and resorts, including the historic Breakers Hotel in Palm Beach, Florida, CGI windows and doors are everywhere quality, beauty and strength matter.

## A PERFECT COMBINATION *of* FORM AND FUNCTION



Unparalleled elegance is the first impression, and a lasting one. CGI impact resistant windows and doors capture the look you desire, from traditional to contemporary. The sheer beauty is matched by remarkable

functionality. Our windows and doors protect and insulate against every imaginable external event, from hurricanes to UV protection, outside noise and forced entry. Add in the finest selection of glass and colors, including a variety



of Aspen wood grain finishes and it is no wonder top designers and architects prefer the CGI Estate Collection for their most upscale projects and exclusive homes.



*Our aluminum frames are up to 100% thicker than competitors and are the most sensible choice for coastal areas.*

## LARGER STAINLESS STEEL FASTENERS



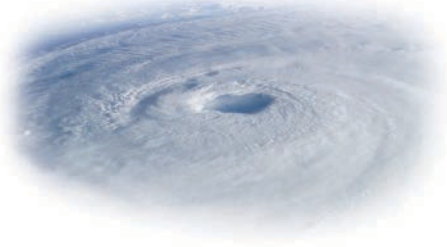
### ESTATE

We use #10-1 1/4 inch stainless steel fasteners in each window frame corner. Bigger, longer screws means more frame strength, greater longevity and better hurricane resistance.

### Theirs

Others use #8-1-inch galvanized screws in each corner.

## OVER 100% HIGHER DESIGN PRESSURES



### ESTATE

The higher the max design pressure the more resistant to hurricane strength winds. Our design pressure max is +110/-195.

### Theirs

Max design pressure is only +70/-90.

## THICKER LAMINATED GLASS



Our glass thickness- 7/16"



Their glass thickness- 5/16"

### ESTATE

Most Estate products use thicker glass.

### Theirs

Typically use thinner glass.

## THE DIFFERENCE SUPERIOR ENGINEERING



# ENGINEERING *makes* IS CRYSTAL CLEAR



## DISTINCTIVE MUNTIN/GRID DETAILS



Ogee



Triangular

### ESTATE

*Our highly contoured muntin provides a fashionable look.*

### Theirs

*Some competitors offer basic, less contoured muntins that lack real style.*

## ATTRACTIVE GLAZING BEAD TRIM



Ogee



Square

### ESTATE

*Designed to look like wood. Square is also available.*

### Theirs

*Only available in square.*

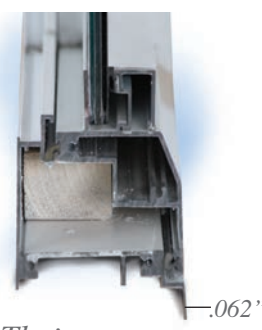
## THICKER ALUMINUM FRAME



.090"

### ESTATE

*Strength starts with an aluminum extrusion. At .090 ours is 45% thicker.*



.062"

### Theirs

*Standard aluminum thickness is just .062".*

## ESTATE *gives* YOU MAXIMUM PROTECTION

Aluminum frames that are up to 100% thicker than competitors and windows that withstand winds of nearly 300 mph is just the beginning of the Estate Collection story. It also exceeds the Florida Building Code and the Miami-Dade



County protocols, considered among the toughest in the industry.

Distinctive sightlines and beautiful designs are two of the reasons it's the choice of the most demanding architects. Premium components, expert engineering, along with years of research and development, have enabled us to develop impact resistant windows and doors that not only look great, but outperform their competitors in quality and value.

A wide selection of energy efficient glass options are available with each of our product lines to provide you with both energy savings and the strength homeowners and architects have come to expect from CGI.

## ESTATE *offers* LARGER SIZES

The Estate Collection offers so much strength and durability that we can offer windows, sliding glass doors and entry doors in heights of up to 10 feet tall. It's the perfect choice

for homeowners that desire beautiful, unobstructed views without sacrificing protection. 10 foot tall windows are a tall order for other manufacturers to meet.



10'



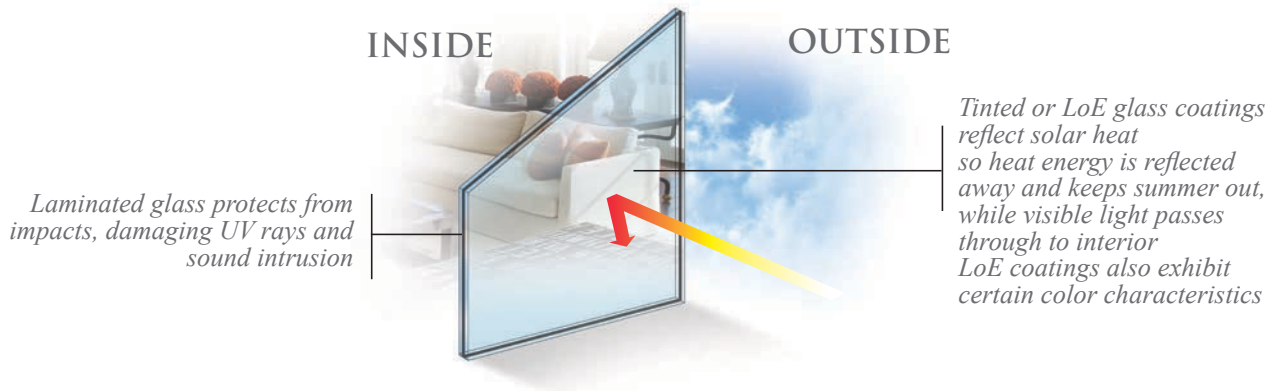


## ESTATE *offers* ENERGY EFFICIENCY

By combining the advantages of impact protection and energy savings, you can achieve greater energy efficiency and meet your budget requirements based on the glass you choose. The most cost effective impact resistant glazing option, for example, is tinted laminated glass. Laminated

glass or insulated laminated glass with a LoE coating is another choice. Both options represent higher costs but with the best energy efficiency. These advanced glass options are more appropriate for cooler climates.

### *Why* LAMINATED GLASS



### HOW *to* SELECT GLASS

#### **Step 1: Select between laminated glass or insulated laminated glass**

**Laminated Hurricane Impact Resistant Glass** is comprised of two sheets of glass bonded together with a protective interlayer. Laminated glass is the primary hurricane barrier used in impact resistant windows. Laminated glass is also used in the windshields of cars.

**Insulated Laminated Glass** adds an extra single pane of glass to the laminated glass unit with a sealed air space (or gas filled space) in between. This glass is generally more expensive but offers enhanced energy performance. Although it is more useful in colder climates, it does improve the performance of LoE coatings and in some cases architects or local building departments are requiring its use.

#### **Step 2: Decide whether to use a LoE coating or glass tints.**

**Tinted Glass** - Tinted glass is typically the most cost effective solution combining cost reductions with energy efficiency. Tinted glass absorbs incoming solar radiation

through the glass thereby reducing the heat and light transfer into a room. Clear glass is also available, although without special coatings or tints heat transfer is not minimized and may not meet code requirements.

**LoE Glass** - LoE coatings are applied to the internal glass surface to separate heat energy (long wave) and light energy (short wave). The heat energy (long wave) is reflected back to the heat source and the short wave can pass through the coating. CGI offers high performance coatings on its insulated laminated products and certain laminated products. LoE coatings also exhibit certain color characteristics depending on viewing angles, reflected light and time of day.

**With all of these options of tints, LoE and Insulated Glass, how do I decide?** - In warm tropical climates if you are cost conscious, avoid insulated glass if not required by codes. Suggest tinted glass or clear glass with LoE. If you want the best energy performance, consider insulated laminated glass with a LoE coating. Also, discuss with your dealer to ensure that you are in compliance with building code requirements.

WE TAKE PRIDE IN OUR



*Our impact resistant windows  
and doors also provide 24/7  
intruder protection.*

SUPERIOR QUALITY, CRAFTSMANSHIP *and* FIT AND FINISH



Photograph by The Greg Wilson Group | Architect: Jonathan Parks, AIA

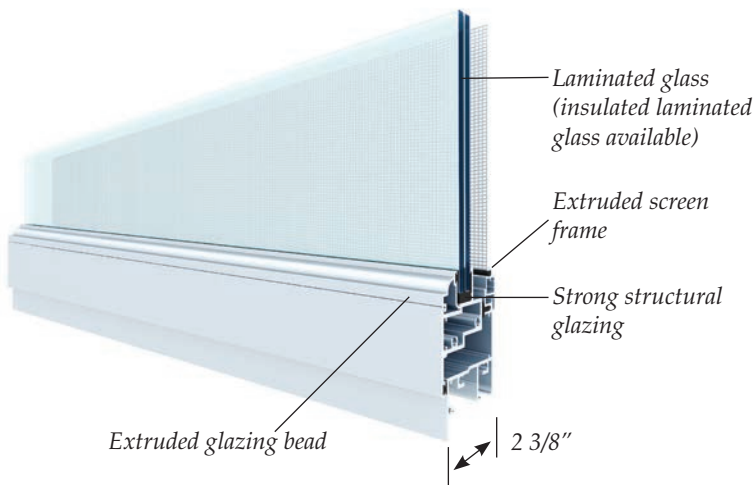


CGI's Estate Collection combines the advantages of impact protection, aesthetics, security and energy savings. Built to the most exacting specifications, every window and door reflects the highest quality standards. From superior

engineering to fit, finish and handcrafted detailing, we take pride in creating quality products that are as resistant to impact from storms as they are stunningly beautiful.

## 238 CASEMENT WINDOW

Industry leading casement with design pressures up to +110/-195 PSF, Ogee glazing beads and muntins, standard stainless steel package, multipoint locks and matching sightlines to the fixed and project out windows.



### Available Finishes

White, Bronze, Bone White Kynar or equivalent, Class I Clear Anodized, Aspen Wood Grain Finishes, Custom Colors

### Standard Glass Colors

Clear, Gray, Dark Gray (Turtle Code), Bronze, Solexia Green, Azuria Blue, White Interlayer, Mist (Pattern 62), Rain

### Glass Types

- 7/16" Laminated
- 3/4" Insulated Laminated

### Glass Coatings

- Energy Efficient LoE Coatings

### Standard Hardware

- Single arm stainless steel roto operator and nesting crank handle
- Stainless steel operator track
- Pair of stainless steel 4 bar concealed hinges
- All stainless steel multipoint lock bars
- Snubber blocks
- Small operator on units less than 24", Large operator on units 24" or more

### Standard Features

- Extruded screen frame with Super-View™ screen fiberglass mesh
- Extruded snap on glazing beads (in contoured ogee or contemporary square profiles)
- Stainless steel assembly screws and corner keys
- Double Weatherstripping
- 1/2" exterior flange frame

### Optional Items

- Limit opening devices
- Hinges with washability feature (for high-rise use)
- Custodial type locks (for institutional use)
- Equal leg frames
- Square glazing beads
- Extruded double applied raised profile 1" and 3 1/2" muntins (not applicable with insulated glass)
- Muntin grids inside insulated glass (GBGs)



### SIZE LIMITATIONS (In inches)

Minimum	Size	Maximum	Size
Minimum Width	18	Maximum Width	42
Minimum Height	17	Maximum Height	84

### MODULAR SIZES (In inches)

20 x 24	24 x 24	28 x 24	30 x 24	32 x 24	36 x 24
20 x 30	24 x 30	28 x 30	30 x 30	32 x 30	36 x 30
20 x 36	24 x 36	28 x 36	30 x 36	32 x 36	36 x 36 e
20 x 42	24 x 42	28 x 42	30 x 42 e	32 x 42 e	36 x 42 e
20 x 48	24 x 48	28 x 48 e	30 x 48 e	32 x 48 e	36 x 48 e
20 x 54	24 x 54	28 x 54 e	30 x 54 e	32 x 54 e	36 x 54 e
20 x 60	24 x 60	28 x 60 e	30 x 60 e	32 x 60 e	36 x 60 e
20 x 66	24 x 66	28 x 66 e	30 x 66 e	32 x 66 e	
20 x 72	24 x 72	28 x 72 e	30 x 72 e	32 x 72 e	
20 x 78	24 x 78	28 x 78 e			
20 x 84	24 x 84				

All window dimensions shown are tip to tip of exterior 1/2" flange on frame.

e = Indicates windows that comply with egress (emergency escape) opening requirements when properly located on wall opening.

### COMMODITY SIZES (In inches)

19 1/8 x 17	26 1/2 x 17	37 x 17
19 1/8 x 26	26 1/2 x 26	37 x 26
19 1/8 x 38 3/8	26 1/2 x 38 3/8	37 x 38 3/8 e
19 1/8 x 50 5/8	26 1/2 x 50 5/8 e	37 x 50 5/8 e
19 1/8 x 63	26 1/2 x 63 e	37 x 63 e
19 1/8 x 72	26 1/2 x 72 e	37 x 76 e

### PERFORMANCE RESULTS

Maximum Water Resistance		16.5 PSF
Large Missile Laminated Glass	26 1/2" x 50 5/8" Window (Ann/Ann or HS/HS Glass) 37" x 63" Window (Ann/Ann or HS/HS Glass) 37" x 76" Window (Ann/Ann or HS/HS Glass)	+110 /-195 PSF +110 /-120 PSF +56.3/-56.3 PSF
Large Missile Insulated Laminated Glass	26 1/2" x 50 5/8" Window (Temp-Air-Ann/Ann Glass) 37" x 63" Window (Temp-Air-Ann/Ann Glass) 37" x 76" Window (Temp-Air-Ann/Ann Glass) 26 1/2" x 50 5/8" Window (Temp-Air-Temp/Temp Glass) 37" x 63" Window (Temp-Air-Temp/Temp Glass)	+99.7 /-104.3 PSF +60 /-60 PSF +56.3/-56.3 PSF +110 /-195 PSF +110 /-117 PSF
Forced Entry Test (AAMA 1302.5)		Passed

\* Performance values for small missile are also available.

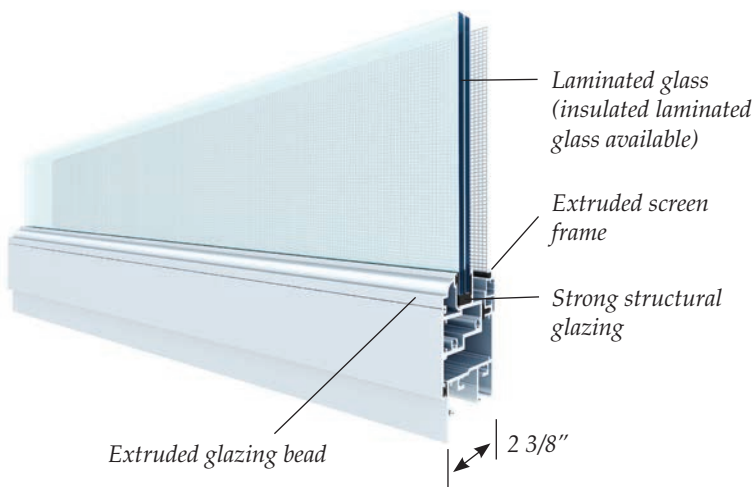
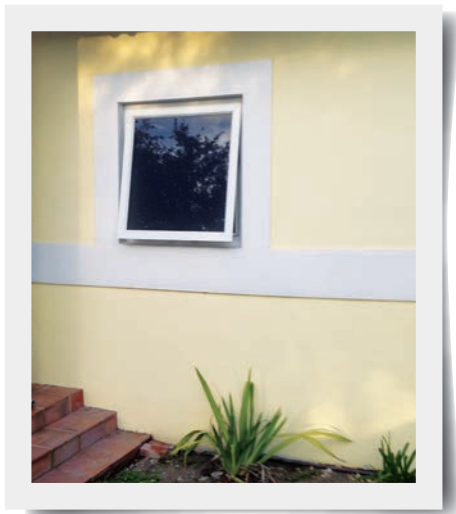
### ENERGY VALUES (NFRC Approved)

238 Casement	U-Factor	SHGC	VT
7/16" Laminated Gray	1.02	0.40	0.33
7/16" Laminated Clear	1.02	0.51	0.58
7/16" Laminated Clear LoE 366	1.02	0.26	0.40
3/4" Insulated Laminated Clear LoE 366	0.63	0.21	0.42
3/4" Insulated Laminated Clear LoE 270	0.63	0.27	0.46

\* For turtle code, please refer to center of glass values.

## 238 PROJECT OUT WINDOW

Industry leading Project Out with design pressures up to +110/-195 PSF, Ogee glazing beads and muntins, standard stainless steel package and matching sightlines to the fixed and casement windows.



### Available Finishes

White, Bronze, Bone White Kynar or equivalent, Class I Clear Anodized, Aspen Wood Grain Finishes, Custom Colors

### Standard Glass Colors

Clear, Gray, Dark Gray (Turtle Code), Bronze, Solexia Green, Azuria Blue, White Interlayer, Mist (Pattern 62), Rain

### Glass Types

- 7/16" Laminated
- 3/4" Insulated Laminated

### Glass Coatings

- Energy Efficient LoE Coatings

### Standard Hardware

- Dual arm stainless steel roto operator and crank handle
- Stainless steel operator track
- Pair of stainless steel 4 bar concealed hinges
- Pair of Cam locks
- Pair of stainless steel lock keepers
- Snubber blocks
- Small operator on units less than 32", Large operator on units 32" or more

### Standard Features

- Extruded screen frame with Super-View™ screen fiberglass mesh
- Extruded snap on glazing beads (in contoured ogee or contemporary square profiles)
- Stainless steel assembly screws and corner keys
- Double weatherstripping
- 1/2" exterior flange frame

### Optional Items

- Limit opening devices
- Custodial type locks (for institutional use)
- Equal leg frame
- Collapsible cranks
- Extruded double applied raised profile 1" and 3 1/2" muntins (not applicable with insulated glass)
- Muntin grids inside insulated glass (GBGs)



### SIZE LIMITATIONS (In inches)

Minimum	Size	Maximum	Size
Minimum Width	18	Maximum Width	72
Minimum Height	17	Maximum Height	72

Use of small arm operator will limit window opening (ventilation) to 2 3/4". Use of large arm operator will limit window opening (ventilation) to 8"

### MODULAR SIZES (In inches)

20 x 24	24 x 24	28 x 24	30 x 24	32 x 24	36 x 24	40 x 24	42 x 24	48 x 24	54 x 24	60 x 24	66 x 24	72 x 24
20 x 30	24 x 30	28 x 30	30 x 30	32 x 30	36 x 30	40 x 30	42 x 30	48 x 30	54 x 30	60 x 30	66 x 30	72 x 30
20 x 36	24 x 36	28 x 36	30 x 36	32 x 36	36 x 36	40 x 36	42 x 36	48 x 36	54 x 36	60 x 36		
20 x 42	24 x 42	28 x 42	30 x 42	32 x 42	36 x 42	40 x 42	42 x 42	48 x 42	54 x 42			
20 x 48	24 x 48	28 x 48	30 x 48	32 x 48	36 x 48	40 x 48	42 x 48	48 x 48				
20 x 54	24 x 54	28 x 54	30 x 54	32 x 54	36 x 54	40 x 54	42 x 54					
20 x 60	24 x 60	28 x 60	30 x 60	32 x 60	36 x 60							
20 x 66	24 x 66	28 x 66	30 x 66	32 x 66								
20 x 72	24 x 72	28 x 72	30 x 72	32 x 72								

All window dimensions shown are tip to tip of exterior 1/2" flange on frame.  
Do not use Project Out windows where Egress (Emergency Escape) is required.

### COMMODITY SIZES (In inches)

19 1/8 x 17	26 1/2 x 17	37 x 17	53 1/8 x 17
19 1/8 x 26	26 1/2 x 26	37 x 26	53 1/8 x 26
19 1/8 x 38 3/8	26 1/2 x 38 3/8	37 x 38 3/8	53 1/8 x 38 3/8
19 1/8 x 50 5/8	26 1/2 x 50 5/8	37 x 50 5/8	
19 1/8 x 63	26 1/2 x 63	37 x 63	
19 1/8 x 72	26 1/2 x 72		

### PERFORMANCE RESULTS

Maximum Water Resistance		16.5 PSF
Large Missile Laminated Glass	53 1/8" x 26" Window (Ann/Ann Glass) 54" x 24" Window (Ann/Ann Glass) 53 1/8" x 26" Window (HS/HS Glass) 54" x 24" window (HS/HS Glass)	+110 /-195 PSF +110 /-195 PSF +110 /-120 PSF +110 /-195 PSF
Large Missile Insulated Laminated Glass	53 1/8" x 26" Window (Ann-Air-Ann/Ann Glass) 54" x 24" Window (Ann-Air-Ann/Ann Glass) 53 1/8" x 26" Window (Temp-Air-Temp/Temp Glass) 54" x 24" Window (Temp-Air-Temp/Temp Glass)	+101.30 /-120 PSF +107.9 /-107.9 PSF +110 /-120 PSF +110 /-195 PSF
Forced Entry Test (AAMA 1302.5)		Passed

\* Performance values for small missile are also available.

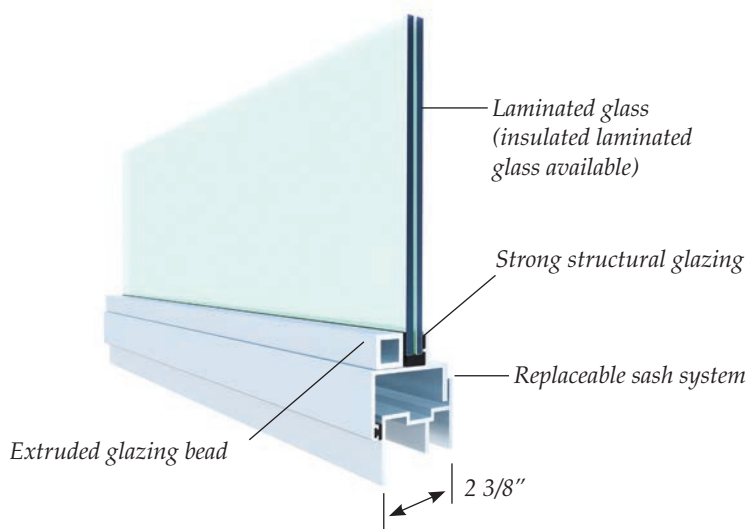
### ENERGY VALUES (NFRC Approved)

238 Project Out	U-Factor	SHGC	VT
7/16" Laminated Gray	1.05	0.40	0.33
7/16" Laminated Clear	1.05	0.51	0.58
7/16" Laminated Clear LoE 366	1.05	0.26	0.40
3/4" Insulated Laminated Clear LoE 366	0.63	0.21	0.42
3/4" Insulated Laminated Clear LoE 270	0.63	0.27	0.46

\* For turtle code, please refer to center of glass values.

## 238 FIXED AND DESIGNER FIXED WINDOW

Available up to 45 Sq ft, architecturally correct sightlines, sash and frame construction allowing for easy sash replacement and install.



Designer window shown. See profile of casement for rectangular fixed windows.

### Available Finishes

White, Bronze, Bone White Kynar or equivalent, Class I Clear Anodized, Aspen Wood Grain Finishes, Custom Colors

### Standard Glass Colors

Clear, Gray, Dark Gray (Turtle Code), Bronze, Solexia Green, Azuria Blue, White Interlayer, Mist (Pattern 62), Rain

### Glass Types

- 7/16" Laminated
- 3/4" Insulated Laminated

### Glass Coatings

- Energy Efficient LoE Coatings

### Standard Features

- Extruded glazing beads (contoured ogee for rectangular window, and contemporary square bead for designer)
- Stainless steel assembly screws
- Corner keys for rectangular units and welded corner in designer units
- Double Weatherstripping
- 1/2" exterior flange frame

### Optional Items

- Decorative screw covers for rectangular fixed window
- Square glazing beads
- Equal leg frame (rectangular fixed only)
- Extruded double applied raised profile 1" and 3 1/2" muntins (not applicable with insulated glass)
- Muntin grids inside insulated glass (GBGs)

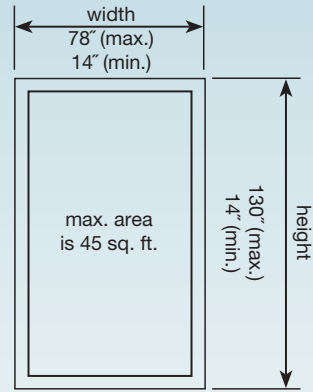


– See page 29 for some of our Designer Fixed configurations.



## SIZE LIMITATIONS ON RECTANGULAR FIXED WINDOW

- Visible glass area (daylight dimension) equals window “width” or “height”- 7”
- Maximum area 25 square feet for insulated laminated glass
- Overall square footage area not to exceed 45 square feet for laminated glass
- Maximum window width is 130” (Maximum height at this width is 48”)
- Minimum window width is 14”
- Please contact your CGI provider for Designer Fixed window size limitations



## PERFORMANCE RESULTS

### SERIES 238 RECTANGULAR FIXED WINDOW

Maximum Water Resistance		16.5 PSF
Large Missile Laminated Glass	26 1/2" x 50 5/8" Window (Ann/Ann or HS/HS Glass) 37" x 63" Window (Ann/Ann or HS/HS Glass) 48" x 72" Window (Ann/Ann or HS/HS Glass) 26 1/2" x 50 5/8" Window (HS/HS Glass) 48" x 72" Window (HS/HS Glass) 54" x 120" Window (HS/HS Glass)	+110 /-148.7 PSF +102.1/-111.3 PSF +85.5 /-85.5 PSF +110 /-195 PSF +90 /-90 PSF +50 /-50 PSF
Large Missile Insulated Laminated Glass	26 1/2" x 50 5/8" Window (Ann-Air-Ann/Ann Glass) 37" x 63" Window (Ann-Air-Ann/Ann Glass) 48" x 72" Window (Ann-Air-Ann/Ann Glass) 26 1/2" x 50 5/8" Window (Temp-Air-Temp/Temp Glass) 37" x 63" Window (Temp-Air-Temp/Temp Glass) 48" x 72" Window (Temp-Air-Temp/Temp Glass)	+110 /-139.4 PSF +74.9 /-74.9 PSF +53.7 /-53.7 PSF +110 /-147.2 PSF +110.2 /-110.2 PSF +90 /-90 PSF
Forced Entry Test (AAMA 1302.5)		Passed

\* Design Load Capacities with Reinforcement

## PERFORMANCE RESULTS

### SERIES 238 DESIGNER FIXED WINDOW

Maximum Water Resistance		16.5 PSF
Large Missile Laminated Glass	26 1/2" x 50 5/8" Window (Ann/Ann Glass) 37" x 63" Window (Ann/Ann Glass) 48" x 72" Window (Ann/Ann Glass) 26 1/2" x 50 5/8" Window (HS/HS Glass) 37" x 63" Window (HS/HS Glass) 48" x 72" Window (HS/HS Glass)	+110 /-147.2 PSF +110 /-110.2 PSF +83.9 /-83.9 PSF +110 /-169.7 PSF +110 /-120 PSF +90.0 /-90.0 PSF
Large Missile Insulated Laminated Glass	26 1/2" x 50 5/8" Window (Temp-Air-Ann/Ann Glass) 37" x 63" Window (Temp-Air-Ann/Ann Glass) 48" x 72" Window (Temp-Air-Ann/Ann Glass) 26 1/2" x 50 5/8" Window (Temp-Air-Temp/Temp Glass) 37" x 63" Window (Temp-Air-Temp/Temp Glass) 48" x 72" Window (Temp-Air-Temp/Temp Glass)	+110 /-133 PSF +72.9 /-72.9 PSF +52.9 /-52.9 PSF +110 /-169.7 PSF +110 /-120 PSF +90.0 /-90.0 PSF
Forced Entry Test (AAMA 1302.5)		Passed

\* Performance values for small missile are also available.

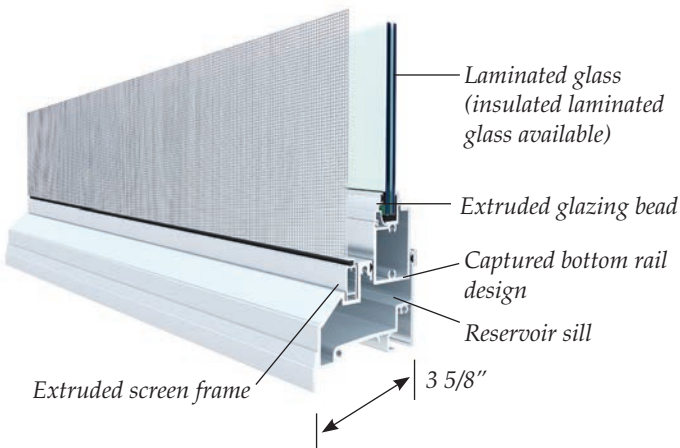
## ENERGY VALUES (NFRC Approved)

238 Designer/Fixed	U-Factor	SHGC	VT
7/16" Laminated Gray	0.99	0.46	0.38
7/16" Laminated Clear	0.99	0.58	0.68
7/16" Laminated Clear LoE 366	0.99	0.29	0.47
3/4" Insulated Laminated Clear LoE 366	0.52	0.23	0.49
3/4" Insulated Laminated Clear LoE 270	0.52	0.30	0.54

\* For turtle code, please refer to center of glass values.

## 360 SINGLE HUNG WINDOW

Industry leading single hung with design pressures up to +100/-210 PSF, available up to 42x120 or 54x96, Ogee glazing beads and muntins, standard stainless steel assembly screws, and clipless mullions.



### Available Finishes

White, Bronze, Bone White Kynar or equivalent, Class I Clear Anodized, Aspen Wood Grain Finishes, Custom Colors

### Standard Glass Colors

Clear, Gray, Dark Gray (Turtle Code), Bronze, Solexia Green, Azuria Blue, White Interlayer, Mist (Pattern 62), Rain

### Glass Types

- 5/16" Laminated
- 7/16" Laminated
- 13/16" Insulated Laminated

### Glass Coatings

- Energy Efficient LoE Coatings

### Standard Hardware

- Pair of CGI egress self closing locks (sill mounted). Note: one lock used on windows 28" wide or less
- Pair of concealed balances
- CGI Patented Carrier Slide System

### Standard Features

- Extruded screen frame with Super-View™ screen with fiberglass mesh
- Extruded snap on glazing beads
- Stainless steel assembly screws
- Double and triple Weatherstripping
- Standard 12 PSF water sill
- Balance covers and screen pocket covers

### Optional Items

- Small missile impact resistant option
- 15 PSF waterbar adapter
- Sweep lock, keeper, and lift/pull (available for 5/16" glass only)
- Clipless mullions
- Oriel/Proview (uneven size vent available)
- Extruded double applied 1" colonial muntins (in standard or custom grids) with Ogee glazing beads only (not applicable with insulated glass)
- Muntin grids inside insulated glass (GBGs)



### SIZE LIMITATIONS (In inches)

Minimum	Size	Maximum	Size
Minimum Width	18	Maximum Width	54
Minimum Height	24	Maximum Height	120

### MODULAR SIZES (In inches)

24 x 24	30 x 24	32 x 24	36 x 24	42 x 24	48 x 24	54 x 24
24 x 36	30 x 36	32 x 36	36 x 36	42 x 36	48 x 36	54 x 36
24 x 48	30 x 48	32 x 48	36 x 48	42 x 48	48 x 48	54 x 48
24 x 60	30 x 60	32 x 60	36 x 60	42 x 60 e	48 x 60 e	54 x 60 e
24 x 72	30 x 72	32 x 72	36 x 72 e	42 x 72 e	48 x 72 e	54 x 72 e
24 x 84	30 x 84 e	32 x 84 e	36 x 84 e	42 x 84 e	48 x 84 e	54 x 84 e
24 x 96	30 x 96 e	32 x 96 e	36 x 96 e	42 x 96 e	48 x 96 e	54 x 96 e
				42 x 120 e		

All window dimensions shown are tip to tip of exterior 1/2" flange on frame.

e = Indicates windows that comply with egress (emergency escape) opening requirements when properly located on wall opening.

### COMMODITY SIZES (In inches)

19 1/8 x 26	26 1/2 x 26	37 x 26	53 1/8 x 26
19 1/8 x 38 3/8	26 1/2 x 38 3/8	37 x 38 3/8	53 1/8 x 38 3/8
19 1/8 x 50 5/8	26 1/2 x 50 5/8	37 x 50 5/8	53 1/8 x 50 5/8
19 1/8 x 63	26 1/2 x 63	37 x 63 e	53 1/8 x 63 e
19 1/8 x 72	26 1/2 x 72	37 x 72 e	53 1/8 x 72 e
19 1/8 x 76	26 1/2 x 76	37 x 76 e	53 1/8 x 76 e

### PERFORMANCE RESULTS

Maximum Water Resistance	Without waterbar adapter With waterbar adapter	12.0 PSF 15.0 PSF
Large Missile Laminated Glass (5/16")	37" x 63" Window (Ann/Ann Glass) 54" x 96" Window (Ann/Ann Glass) 42" x 120" Window (Ann/Ann Glass) 37" x 63" Window (HS/HS Glass) 54" x 96" Window (HS/HS Glass) 42" x 120" Window (HS/HS Glass)	+100 /-154.9 PSF +68.9 /-68.9 PSF +66.4 /-66.4 PSF +100 /-210 PSF +100 /-120 PSF +100 /-120 PSF
Large Missile Insulated Laminated Glass	37" x 63" Window (Ann-Air-Ann/Ann Glass) 54" x 96" Window (Ann-Air-Ann/Ann Glass) 42" x 120" Window (Ann-Air-Ann/Ann Glass) 37" x 63" Window (HS-Air-HS/HS Glass) 54" x 96" Window (HS-Air-HS/HS Glass) 42" x 120" Window (HS-Air-HS/HS Glass)	+100 /-177.6 PSF +73.2 /-73.2 PSF +70.6 /-70.6 PSF +100 /-210 PSF +100 /-120 PSF +100 /-120 PSF
Forced Entry Test (AAMA 1302.5)		Passed

\* Performance values for small missile are also available.

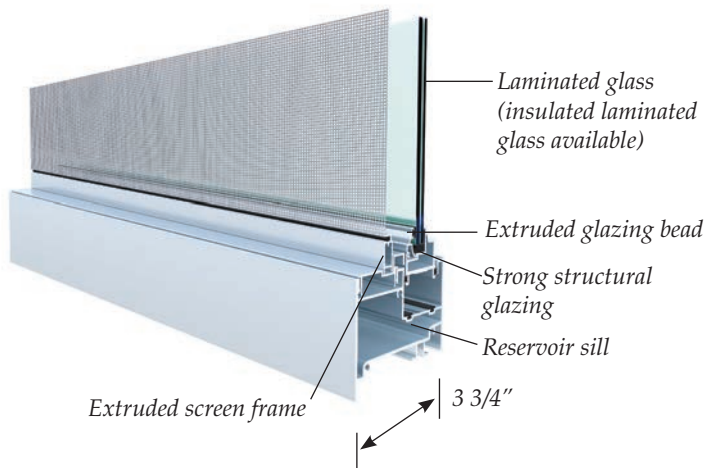
### ENERGY VALUES (NFRC Approved)

360 Single Hung	U-Factor	SHGC	VT
5/16" Laminated Gray	1.06	0.44	0.39
5/16" Laminated Clear	1.06	0.53	0.59
5/16" Laminated Clear LoE 366	1.07	0.25	0.42
13/16" Insulated Laminated Clear LoE 366	0.61	0.21	0.42
13/16" Insulated Laminated Clear LoE 270	0.61	0.27	0.46

\* For turtle code, please refer to center of glass values.

# 375 HORIZONTAL ROLLING WINDOW

Industry leading rolling window with design pressures up to +120/-147.7 PSF, patented ultra smooth rolling operation, available up to 74x76 in 2 panel and 111x76 in 3 panel configurations, Ogee glazing beads and muntins, standard stainless steel assembly screws, and clipless mullions.



## Available Finishes

White, Bronze, Bone White Kynar or equivalent, Class I Clear Anodized, Aspen Wood Grain Finishes, Custom Colors

## Standard Glass Colors

Clear, Gray, Dark Gray (Turtle Code), Bronze, Solexia Green, Azuria Blue, White Interlayer, Mist (Pattern 62), Rain

## Glass Types

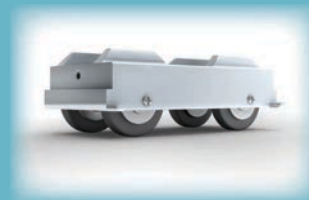
- 5/16" Laminated
- 7/16" Laminated
- 13/16" Insulated Laminated

## Glass Coatings

- Energy Efficient LoE Coatings

## Standard Hardware

- CGI egress lock
- Patented Quad Roller System



## Standard Features

- Extruded screen frame with Super-View™ screen with fiberglass mesh (retaining clips not required)
- Extruded snap on glazing beads
- Stainless steel assembly screws
- Double and triple Weatherstripping
- 1/2" exterior flange frame
- 2 and 3 panel configurations

## Optional Items

- 18 PSF waterbar adapter
- Small missile impact resistant option
- Uneven size vent windows
- Concealed aluminum reinforcing
- Clipless mullions
- Extruded double applied 1" colonial muntins (in standard or custom grids) with Ogee glazing beads only (Not applicable with insulated glass)
- Muntin grids inside insulated glass (GBGS)



## SIZE LIMITATIONS (In inches)

Minimum	Size	Maximum	Size
Minimum window (XO equal panel) width	24	Maximum available window width (XOX)	159 3/8
Minimum window (XO unequal panel) width	24	Maximum available window width (XO)	106 1/4
Minimum window (XOX equal panel) width	36	Maximum available window height	76
Minimum window (XOX unequal panel) width	36	Maximum over-all window area	58.6 Sq. Ft.
Minimum window height	24		

## MODULAR SIZES (2 equal size panels XO, OX- in inches)

24 x 24	36 x 24	48 x 24	60 x 24	72 x 24
24 x 36	36 x 36	48 x 36	60 x 36	72 x 36 e
24 x 48	36 x 48	48 x 48 e	60 x 48 e	72 x 48 e
24 x 60	36 x 60	48 x 60 e	60 x 60 e	72 x 60 e
24 x 72	36 x 72	48 x 72 e	60 x 72 e	72 x 72 e
24 x 76	36 x 76	48 x 76 e	60 x 76 e	72 x 76 e

## MODULAR SIZES (3 equal size panels XOX- in inches)

36 x 24	54 x 24	72 x 24	90 x 24	108 x 24
36 x 36	54 x 36	72 x 36	90 x 36	108 x 36 e
36 x 48	54 x 48	72 x 48	90 x 48 e	108 x 48 e
36 x 60	54 x 60	72 x 60	90 x 60 e	108 x 60 e
36 x 72	54 x 72	72 x 72	90 x 72 e	108 x 72 e
36 x 76	54 x 76	72 x 76	90 x 76 e	108 x 76 e

e = Indicates windows that comply with egress (emergency escape) opening requirements when properly located on wall opening.

## COMMODITY SIZES (2 equal size panels XO, OX- in inches)

26 1/2 x 26	37 x 26	53 1/8 x 26	74 x 26
26 1/2 x 38 3/8	37 x 38 3/8	53 1/8 x 38 3/8	74 x 38 3/8 e
26 1/2 x 50 5/8	37 x 50 5/8	53 1/8 x 50 5/8 e	74 x 50 5/8 e
26 1/2 x 63	37 x 63	53 1/8 x 63 e	74 x 63 e
26 1/2 x 72	37 x 72	53 1/8 x 72 e	74 x 72 e
26 1/2 x 76	37 x 76	53 1/8 x 76 e	74 x 76 e

## COMMODITY SIZES (3 equal size panels XOX- in inches)

53 1/8 x 26	74 x 26	106 1/4 x 26	111 x 26
53 1/8 x 38 3/8	74 x 38 3/8	106 1/4 x 38 3/8 e	111 x 38 3/8 e
53 1/8 x 50 5/8	74 x 50 5/8 e	106 1/4 x 50 5/8 e	111 x 50 5/8 e
53 1/8 x 63	74 x 63 e	106 1/4 x 63 e	111 x 63 e
53 1/8 x 72	74 x 72 e	106 1/4 x 72 e	111 x 72 e
53 1/8 x 76	74 x 76 e	106 1/4 x 76 e	111 x 76 e

## PERFORMANCE RESULTS

Maximum Water Resistance	Without waterbar adapter With waterbar adapter	12.0 PSF 18.0 PSF
Large Missile Laminated Glass (5/16")	2 equal panel 72" x 48" Window (Ann/Ann Glass) 3 equal panel 111" x 76" Window (Ann/Ann Glass) 2 equal panel 72" x 48" Window (HS/HS Glass) 3 equal panel 111" x 76" Window (HS/HS Glass)	+98.5 /-98.5 PSF +50 /-50 PSF +120 /-147.7 PSF +75 /-75 PSF
Large Missile Insulated Laminated Glass	2 equal panel 72" x 48" Window (Ann-Air-Ann/Ann Glass) 3 equal panel 111" x 76" Window (Ann-Air-Ann/Ann Glass) 2 equal panel 72" x 48" Window (Ann-Air-HS/HS Glass) 3 equal panel 111" x 76" Window (Ann-Air-HS/HS Glass)	+98.5 /-98.5 PSF +100 /-100 PSF +120 /-147.7 PSF +75 /-75 PSF
Forced Entry Test (AAMA 1302.5)		Passed

\* Performance values for small missile are also available.

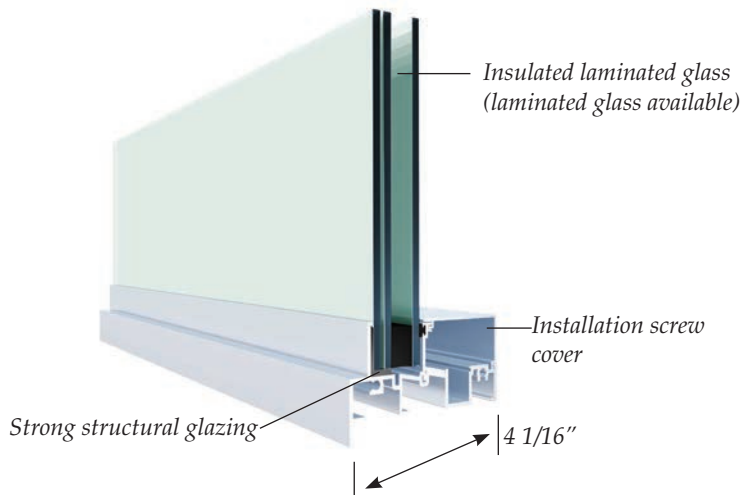
## ENERGY VALUES (NFRC Approved)

375 Horizontal Roller	U-Factor	SHGC	VT
5/16" Laminated Gray	1.09	0.45	0.40
5/16" Laminated Clear	1.09	0.54	0.60
5/16" Laminated Clear LoE 366	1.10	0.26	0.42
13/16" Insulated Laminated Clear LoE 366	0.64	0.21	0.42
13/16" Insulated Laminated Clear LoE 270	0.64	0.27	0.46

\* For turtle code, please refer to center of glass values.

## 410 FIXED WINDOW

Industry's largest fixed window available in sizes up to 6x10 (60 square feet), direct set frame design, removable interior glazing bead cover, stainless steel assembly screws and clipless mullions.



### Available Finishes

White, Bronze, Bone White Kynar or equivalent, Class I Clear Anodized, Aspen Wood Grain Finishes, Custom Colors

### Standard Glass Colors

Clear, Gray, Dark Gray (Turtle Code), Bronze, Solexia Green, Azuria Blue, White Interlayer, Mist (Pattern 62), Rain

### Glass Types

- 7/16" Laminated
- 1.2" Insulated Laminated

### Glass Coatings

- Energy Efficient LoE Coatings

### Standard Features

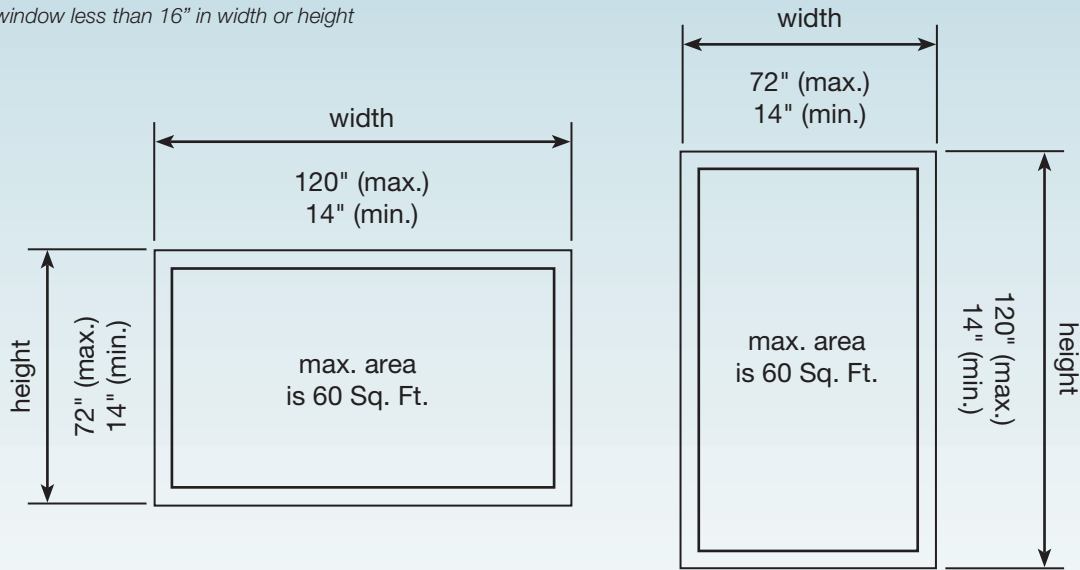
- Direct set frame design
- Stainless steel assembly screws
- Removable interior glazing bead and cover
- Concealed installation fasteners
- 1/2" exterior flange frame

### Optional Items

- Flat muntins
- Equal leg frame
- Clipless mullion
- Small missile impact resistant option

## SIZE LIMITATIONS

Avoid using window less than 16" in width or height



## PERFORMANCE RESULTS

Maximum Water Resistance		20 PSF
Large Missile Laminated Glass	63" x 48" Window (Ann/Ann Glass) 60" x 96" Window (Ann/Ann Glass) 72" x 120" Window (HS/HS Glass) 63" x 48" Window (HS/HS Glass) 60" x 96" Window(HS/HS Glass)	+91.1 /-91.1 PSF +51.8 /-51.8 PSF +75 /-75 PSF +133 /-150 PSF +103.6 /-103.6 PSF
Large Missile Insulated Laminated Glass	63" x 48" Window (Ann/Ann-Air-Ann Glass) 60" x 96" Window (Ann/Ann-Air-Ann Glass) 72" x 120" Window (HS/HS-Air-Temp Glass) 63" x 48" Window (HS/HS-Air-Temp Glass) 60" x 96" Window (HS/HS-Air-Temp Glass)	+88.4 /-88.4 PSF +50.3 /-50.3 PSF +75 /-75 PSF +133 /-150 PSF +106.2 /-106.2 PSF
Forced Entry Test (AAMA 1302.5)		Passed

\* Design Load Capacities with Reinforcement

\* Performance values for small missile are also available.

## ENERGY VALUES (NFRC Approved)

410 Fixed	U-Factor	SHGC	VT
7/16" Laminated Gray	1.04	0.48	0.40
7/16" Laminated Clear	1.04	0.61	0.70
7/16" Laminated Clear LoE 366	1.04	0.31	0.49
1.2" Insulated Laminated Clear LoE 366	0.48	0.31	0.50
1.2" Insulated Laminated Clear LoE 270	0.49	0.35	0.54

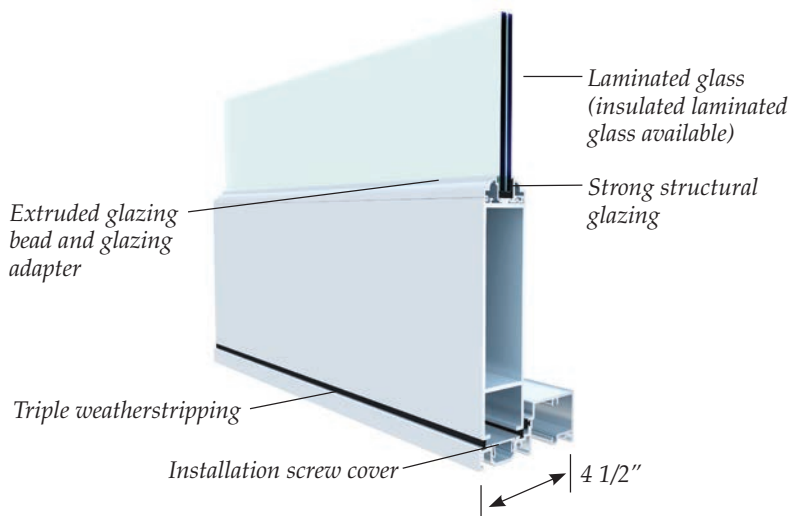
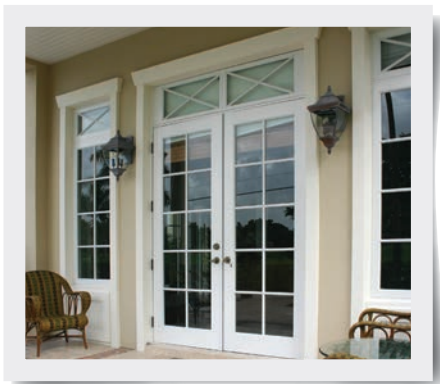
\* For turtle code, please refer to center of glass values.

## 450 FRENCH DOOR

Industry leading entry door system available in configurations up to 12'x10' (with matching sidelites), standard stainless steel package, patented 3 point lock and a variety of design options.



See our Estate Entrances brochure for additional entry door options



Outswing shown. Available in Inswing.

### Available Finishes

White, Bronze, Bone White Kynar or equivalent, Class I Clear Anodized, Aspen Wood Grain Finishes, Custom Colors

### Standard Glass Colors

Clear, Gray, Dark Gray (Turtle Code), Bronze, Solexia Green, Azuria Blue, White Interlayer, Mist (Pattern 62), Rain

### Glass Types

- 7/16" Laminated
- 1" Insulated Laminated

### Glass Coatings

- Energy Efficient LoE Coatings

### Standard Hardware

#### Residential

- 4 1/2" x 4" hinges (solid brass or stainless steel)
- Single cylinder deadbolt
- CGI patented three point lock mechanism
- Active and inactive door panels pre-bored for levers
- Flushbolts at inactive panel
- Available hardware finish: Satin Nickel PVD, Polished Brass PVD, Venetian Bronze

#### Commercial

- Commercial three point MS deadbolt lock
- Exterior cylinder/interior thumbturn
- Standard Push bar/Pull handle
- Flushbolts at inactive panel
- Available hardware finish: Clear (Silver) Aluminum

### Standard Features

- Outswing configuration
- 2" thick (nominal) door panels
- Complete frame, threshold and Weatherstripping
- Extruded snap on glazing beads (in contoured ogee or contemporary square profiles)
- Extruded astragal adapter
- Extruded installation screw covers
- Dummy handle on inactive panel

### Optional Items

- Panic hardware: Jackson series 2086 concealed vertical rod exit device
- In-swing configuration
- Extruded double applied raised profile 1" and 3 1/2" muntins (not applicable with insulated glass)
- True horizontal muntin (4 5/8" wide)
- 1/2" thick combinations aluminum/wood panel (in lieu of glass)
- Free-Standing and Self-Mating Sidelites and Transoms
- Residential Saddle or ADA Saddle thresholds (not rated for water resistance)
- Decorative aluminum panels
- Decorative wrought iron aluminum grills
- Muntin grids inside insulated glass (GBGs)



### SWING DOOR SIZES (In inches)

Code Size	Door Type	6' 8" high units	8' high units	9' high units	10' high units
2068 / 2080 / 2090 / 20100	single	26 9/16 x 80 3/4	26 9/16 x 96 3/4	26 9/16 x 108 3/4	26 9/16 x 120 3/4
2668 / 2680 / 2690 / 26100	single	32 9/16 x 80 3/4	32 9/16 x 96 3/4	32 9/16 x 108 3/4	32 9/16 x 120 3/4
2868 / 2880 / 2890 / 28100	single	34 9/16 x 80 3/4	34 9/16 x 96 3/4	34 9/16 x 108 3/4	34 9/16 x 120 3/4
3068 / 3080 / 3090 / 30100	single	38 9/16 x 80 3/4	38 9/16 x 96 3/4	38 9/16 x 108 3/4	38 9/16 x 120 3/4
4068 / 4080 / 4090 / 40100	pair	50 1/2 x 80 3/4	50 1/2 x 96 3/4	50 1/2 x 108 3/4	50 1/2 x 120 3/4
5068 / 5080 / 5090 / 50100	pair	62 1/2 x 80 3/4	62 1/2 x 96 3/4	62 1/2 x 108 3/4	62 1/2 x 120 3/4
5468 / 5480 / 5490 / 54100	pair	66 1/2 x 80 3/4	66 1/2 x 96 3/4	66 1/2 x 108 3/4	66 1/2 x 120 3/4
6068 / 6080 / 6090 / 60100	pair	74 1/2 x 80 3/4	74 1/2 x 96 3/4	74 1/2 x 108 3/4	74 1/2 x 120 3/4

Also available in wide configurations: 44 9/16 x 80 3/4, 44 9/16 x 96 3/4, 44 9/16 x 102 3/4, 86 1/2 x 80 3/4, 86 1/2 x 96 3/4, 86 1/2 x 102 3/4

### SELF-MATING SIDELITE SIZES (In inches. Has one full jamb and one jamb adapter, designed to mate with doors or a free-standing sidelite)

Code Size	Note	6' 8" high units	8' high units	9' high units	10' high units
1068 / 1080 / 1090 / 10100	1 3/4 stiles	13 1/4 x 80 3/4	13 1/4 x 96 3/4	13 1/4 x 108 3/4	13 1/4 x 120 3/4
1668 / 1680 / 1690 / 16100	1 3/4 stiles	19 1/4 x 80 3/4	19 1/4 x 96 3/4	19 1/4 x 108 3/4	19 1/4 x 120 3/4
2068 / 2080 / 2090 / 20100	5 1/2 stiles	25 1/4 x 80 3/4	25 1/4 x 96 3/4	25 1/4 x 108 3/4	25 1/4 x 120 3/4
2668 / 2680 / 2690 / 26100	5 1/2 stiles	31 1/4 x 80 3/4	31 1/4 x 96 3/4	31 1/4 x 108 3/4	31 1/4 x 120 3/4
2868 / 2880 / 2890 / 28100	5 1/2 stiles	33 1/4 x 80 3/4	33 1/4 x 96 3/4	33 1/4 x 108 3/4	33 1/4 x 120 3/4
3068 / 3080 / 3090 / 30100	5 1/2 stiles	37 1/4 x 80 3/4	37 1/4 x 96 3/4	37 1/4 x 108 3/4	37 1/4 x 120 3/4

### FREE-STANDING SIDELITE SIZES (In inches. Has full jambs on both sides and can be installed independently as a single unit.)

Code Size	Note	6' 8" high units	8' high units	9' high units	10' high units
1068 / 1080 / 1090 / 10100	1 3/4 stiles	14 3/8 x 80 3/4	14 3/8 x 96 3/4	14 3/8 x 108 3/4	14 3/8 x 120 3/4
1668 / 1680 / 1690 / 16100	1 3/4 stiles	20 3/8 x 80 3/4	20 3/8 x 96 3/4	20 3/8 x 108 3/4	20 3/8 x 120 3/4
2068 / 2080 / 2090 / 20100	5 1/2 stiles	26 3/8 x 80 3/4	26 3/8 x 96 3/4	26 3/8 x 108 3/4	26 3/8 x 120 3/4
2668 / 2680 / 2690 / 26100	5 1/2 stiles	32 3/8 x 80 3/4	32 3/8 x 96 3/4	32 3/8 x 108 3/4	32 3/8 x 120 3/4
2868 / 2880 / 2890 / 28100	5 1/2 stiles	34 3/8 x 80 3/4	34 3/8 x 96 3/4	34 3/8 x 108 3/4	34 3/8 x 120 3/4
3068 / 3080 / 3090 / 30100	5 1/2 stiles	38 3/8 x 80 3/4	38 3/8 x 96 3/4	38 3/8 x 108 3/4	38 3/8 x 120 3/4

### PERFORMANCE RESULTS

Maximum Water Resistance	Out-Swing Sill In-Swing Sill Saddle Thresholds	15 PSF 7.5 PSF Not Rated For Water
Large Missile Laminated Glass	3090 Door Panel (Ann/Ann Glass) 3686 Door Panel (Ann/Ann Glass) 30100 Door Panel (Ann/Ann Glass)	+100 /-110 PSF +70 /-70 PSF +70 /-70 PSF
Large Missile Insulated Laminated Glass	3090 Door Panel (Temp-Air-Ann/Ann Glass)* 3686 Door Panel (Temp-Air-Ann/Ann Glass)* 30100 Door Panel (Temp-Air-Ann/Ann Glass)*	+70 /-70 PSF +70 /-70 PSF +70 /-70 PSF
Forced Entry Test (AAMA 1302.5)		Passed

Performance values are for laminated glass with .090" Sentryglas Interlayer . Consult the NOA for values with PVB Interlayer.

\*Glass limited to 8/0 daylight opening. Panel sizes above 8/0 require true muntin.

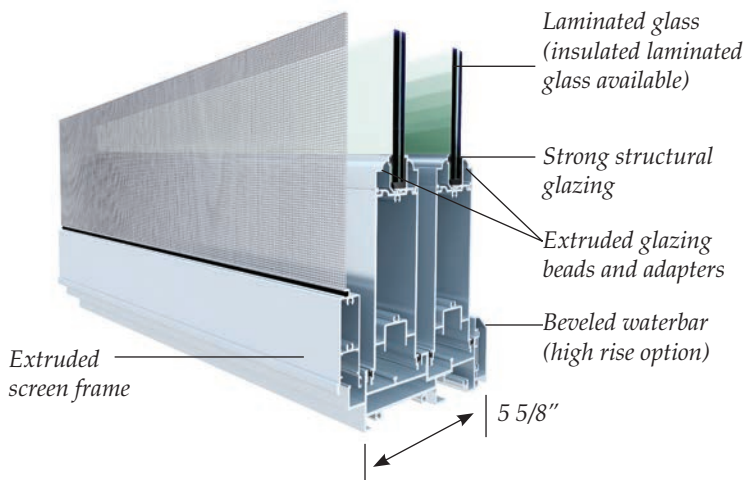
### ENERGY VALUES (NFRC Approved)

450 Swing Door	U-Factor	SHGC	VT
7/16" Laminated Gray	1.01	0.33	0.25
7/16" Laminated Clear	1.01	0.42	0.45
7/16" Laminated Clear LoE 366	1.05	0.23	0.31
1" Insulated Laminated Clear LoE 366	0.72	0.18	0.32
1" Insulated Laminated Clear LoE 270	0.73	0.23	0.34

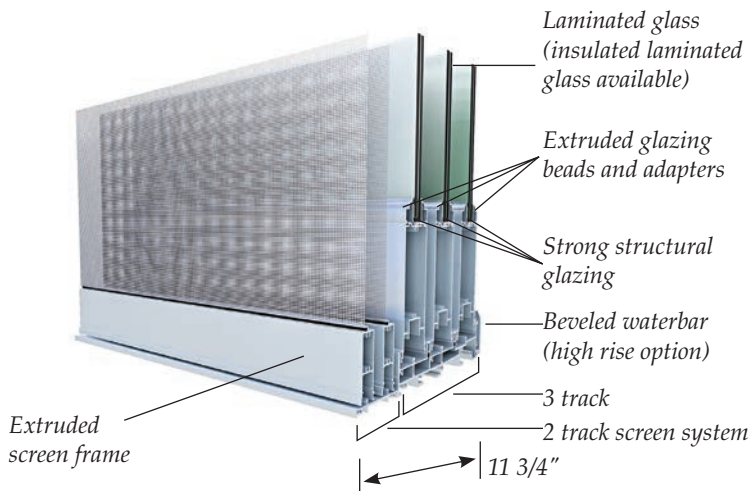
\* For turtle code, please refer to center of glass values.

# 560 ESTATE SLIDING GLASS DOOR

Industry leading sliding glass door system with design pressures up to +120/-167 PSF, available up to 30'x10' six panel configurations with standard stainless steel package and Ogee glazing beads and muntins. Available in two track, three track and pocket configurations.



3 TRACK WITH OPTIONAL 2 TRACK SCREEN SYSTEM



## Available Finishes

White, Bronze, Bone White Kynar or equivalent, Class I Clear Anodized, Aspen Wood Grain Finishes, Custom Colors

## Standard Glass Colors

Clear, Gray, Dark Gray (Turtle Code), Bronze, Solexia Green, Azuria Blue, White Interlayer, Mist (Pattern 62), Rain

## Glass Types

- 1/2" Laminated
- 1" Insulated Laminated

## Glass Coatings

- Energy Efficient LoE Coatings

## Standard Hardware

- Commercial grade maximum security hook bolt lock with all stainless steel mechanism
- Custom cast stainless steel HD keeper with three stainless steel screws
- Interior brass cylinder thumbturn
- 3/4" diameter back to back solid round pulls (10" center to center) with 1 1/2" x 12" escutcheon plate
- Tandem stainless steel rollers with precision bearings in a stainless steel housing (2 rollers per operable door panel)
- Heavy duty head mounted round door stop with rubber bumper
- Available hardware finishes: Satin Nickel PVD, Dark Bronze, White

## Standard Features

- 8 1/8" tall bottom rail sightline
- Stainless steel fasteners throughout
- Class I Clear Anodized tubular aluminum sill with internal drain chamber
- Interior sill face trim (waterbar) painted to match door frame for 9 or 12 PSF water resistance
- Extruded snap-on glazing beads (in contoured ogee or contemporary square profiles)

## Optional Items

- Small missile impact resistant option
- 15 and 18 PSF water resistant waterbar painted to match door frame
- Extruded frame screen up to 8' tall
- Heavy duty screen with extruded 1 3/4" vertical members for units above 8'
- Extruded double applied raised profile 1" and 3 1/2" muntins (not applicable on insulated glass)
- Concealed aluminum reinforcing
- Small missile impact resistant option
- Keyed cylinder (Satin Nickel or Dark Bronze)
- 2 track screen system for 3 track doors
- Muntin grids inside insulated glass (GBGs)

## SIZES (In inches)

### Estate 6'8", 8'0", 9'0", and 10'0" Sliding Glass Door Sizes (80", 96", 108", and 120" Frame Height)

	Configuration	Call Width	Frame Width		Configuration	Call Width	Frame Width
2 Track	OX, XO, XX, XX-R (2 panel)	4-0	48	3 Track	XXX,XXX-R, XXO, OXX (3 panel)	6-0	69 1/4
		5-0	60			7-6	87 1/4
		6-0	72			9-0	105 1/4
		8-0	96			12-0	141 1/4
		10-0	120			15-0	177 1/4
	OXO, OXO-R (3 panel)	6-0	73 1/2		XXXXXX, OXXXXO (6 panel)	12-0	137 1/2
		7-6	91 1/2			15-0	173 1/2
		9-0	109 1/2			18-0	209 1/2
		12-0	145 1/2			24-0	281 1/2
OXXO,XXXX (4 panel)	15-0	181 1/2		30-0	353 1/2		
	8-0	94 3/4					
	10-0	118 3/4					
	12-0	142 3/4					
	16-0	190 3/4					
	20-0	238 3/4					

**Pocket configurations available. Consult the factory.**

## TOP PERFORMANCE RESULTS

Maximum Water Resistance	2 1/2" standard sill riser 3 1/16" standard sill riser 3 11/16" hi-rise sill riser 4 1/4" hi-rise sill riser	9 PSF 12 PSF 15 PSF 18 PSF
Large Missile Laminated Glass	4' x 8' Door Panel (Ann/Ann Glass) 4' x 10' Door Panel (Ann/Ann Glass) 4' x 8' Door Panel (HS/HS Glass) 4' x 10' Door Panel (HS/HS Glass) 5' x 10' Door Panel (HS/HS Glass)	+83.5 /-83.5 PSF +70 /-70 PSF +120 /-167 PSF* +120 /-140 PSF* +90 /-90 PSF*
Large Missile Insulated Laminated Glass	4' x 8' Door Panel (Temp-Air-Ann/Ann Glass) 4' x 10' Door Panel (Temp-Air-Ann/Ann Glass) 4' x 8' Door Panel (Temp-Air-HS/HS Glass) 4' x 10' Door Panel (Temp-Air-HS/HS Glass) 5' x 10' Door Panel (Temp-Air-HS/HS Glass)	+83.5 /-83.5 PSF +70 /-70 PSF +120 /-167 PSF* +120 /-140 PSF* +90 /-90 PSF*
Forced Entry Test (AAMA 1302.5)		Passed

\* Design Load Capacities with Reinforcement

\* Performance values for small missile are also available.

## ENERGY VALUES (NFRC Approved)

560 Sliding Glass Door	U-Factor	SHGC	VT
1/2" Laminated Gray	1.06	0.39	0.32
1/2" Laminated Clear	1.06	0.50	0.57
1" Insulated Laminated Clear LoE 366	0.65	0.20	0.40
1" Insulated Laminated Clear LoE 270	0.65	0.26	0.44

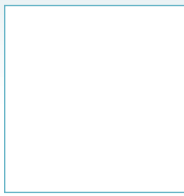
\* For turtle code, please refer to center of glass values.

## CHOOSE A FINISH *that* COMPLIMENTS YOUR HOME

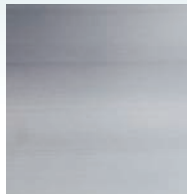
Our windows come in a host of standard and custom finishes. Choose from our standard white, bronze or upgrade to a variety of colors including our Aspen Wood Grain Finishes. Simulated wood grain finishes by nature are designed to imitate real wood, and therefore will exhibit color variability. This is not considered to be a defect in the product.\*



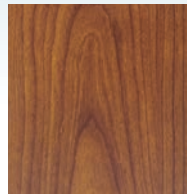
Bronze



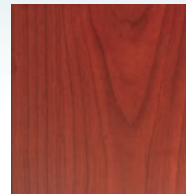
White/Bone White  
Kynar or equivalent\*



Class I Clear Anodized



Hazelnut Brown\*



Mahogany Red\*



Walnut Brown\*

\* Paint finish colors may not be accurate representations. Other custom colors and wood finishes available upon request subject to a minimum order size.

\*Note that white and bone white kynar are different

## ESTATE COLLECTION DOORS LEVER HARDWARE *finishes*

Offering inspired door hardware in highly crafted, rich finishes. The offered hardware is the beginning of a grand style that can be carried throughout the home with coordinating interior hardware, latches, and bath products.



Polished Brass



Satin Nickel



Venetian Bronze



Satin Nickel



Satin Nickel



Polished Brass



Satin Nickel



Venetian Bronze



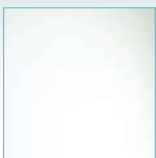
Venetian Bronze Deluxe Handleset



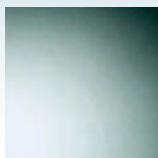
Satin Nickel Deluxe Handleset

## PICK A GLASS TINT *from* OUR WIDE SELECTION

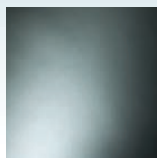
The Estate Windows Collection is available with impact and intruder resistant glass and a variety of thermally efficient glass types such as insulated glass with LoE coatings. Glass tint colors may not be accurate representations.



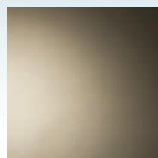
Clear



Gray



Dark Gray  
(Turtle Code)



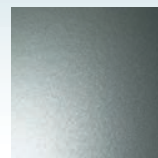
Bronze



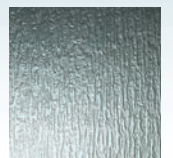
Solexia Green



Azuria Blue



Mist  
(Pattern 62)



Rain

\* LoE coatings exhibit certain color characteristics depending on viewing angles, reflected light and time of day. For example, Cardinal LoE 366 exhibits a greenish hue. When Clear glass is coupled with a LoE 366 coating, during certain times of the day the reflected color can appear green from the outside. This LoE 366 coating offers an excellent combination of thermal performance, visible light transmittance, and value.

## ASPEN WOOD *finishes*

CGI offers the highest quality wood grain finishes available in the market.

OURS



Finishes that look like real wood  
Super durable base coat

OTHERS



Appearance of painted aluminum  
Standard base coat



## VARIATION *is* PART OF THE NATURAL BEAUTY

### Process:

The Aspen Wood Grain Finishes are created with a three step process. The aluminum material is chemically pre-treated to prepare the surface for paint. Then, a base coat of paint is applied. Finally, a special ink pattern is applied through a sublimation process. The final result is an integrated color that mimics real wood finishes.

### Expectations:

Wood grain finishes are designed to mimic wood, consequently there will be color variations between extrusions, within extrusions and on the same projects just like wood. Additionally, wood grains follow the "long" dimension of the material. So, some products may have wood grain that runs in different directions like below (\*).

Additionally small blemishes may be touched up during the manufacturing process. Imperfections that are difficult to detect from 6 feet are not considered manufacturing defects.

### Maintenance:

Simulated wood grain finishes perform best when cleaned with soap and water. No solvents, glass cleaners, abrasive materials, etc. should be used.

Real Wood



*\*Real wood products have color variations between panels and frequently the grain will run in different directions.*



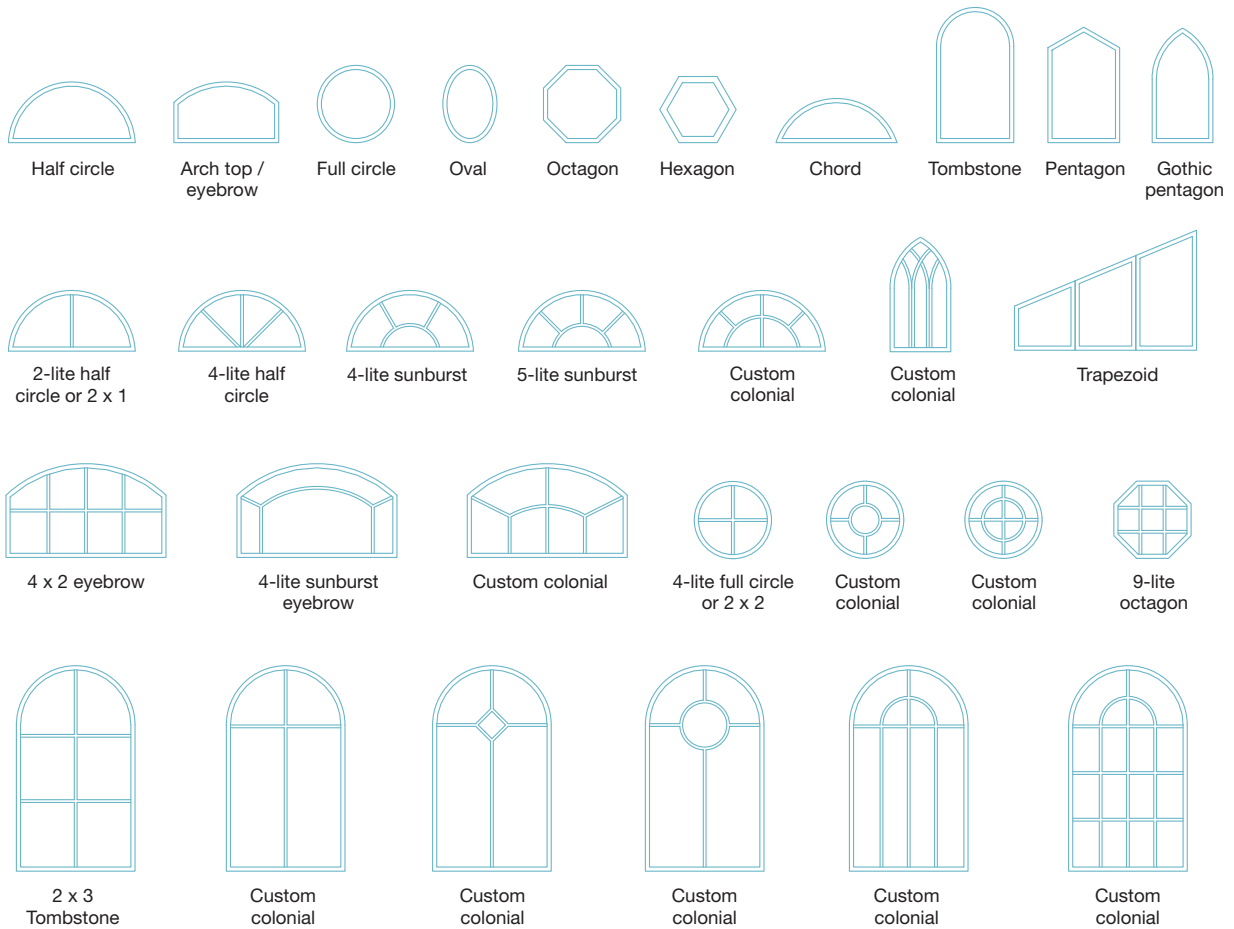
CGI Aspen wood grain finish

*\*Just like real wood, CGI's Aspen wood grain finishes will have some color variations and wood grain that runs in different directions.*



*CGI wood variation*

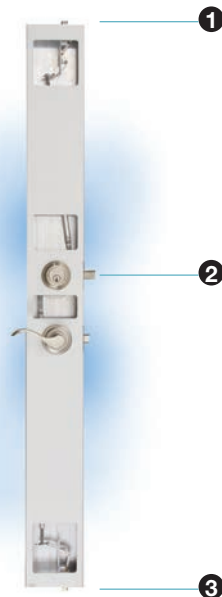
## SOME *of* OUR FIXED DESIGNER CONFIGURATIONS



## THE CGI *difference*



Our Super-View™ see-through screen material provides strong construction and clearer, unobstructed views. Our screens are constructed using a sturdy extruded frame design.



Three-point door lock is a CGI patented design.



Casement, Fixed and Project Out windows have matching profiles.

# DON'T FORGET TO ASK *about* OUR ESTATE ENTRANCE DOORS



## ESTATE ENTRANCES

Peace of mind has never looked so good

**Security, durability and beauty,  
the perfect combination!**

Estate Entrances from CGI Windows and Doors provide you with the beauty of wood and the security, durability, quality and strength of heavy-gauge aluminum. Our doors require minimal maintenance and will not swell or decay. The raised colonial muntins, painted wood grain finishes, custom colors, and the wide selection of glass and hardware options are elegant enhancements to any home.



EVERY ONE OF *our* ENTRANCE DOORS IS CUSTOM MADE,  
LIMITED ONLY BY YOUR IMAGINATION





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**ESTATE COLLECTION<sup>®</sup>**  
 Impact Resistant Windows & Doors

**Sentinel<sup>®</sup>**  
 by  Impact Resistant  
 Windows & Doors

**TARGA**  
 by  Impact Resistant  
 Windows & Doors

  
**ESTATE ENTRANCES**  
 Peace of mind has never looked so good

  
**Commercial Series<sup>®</sup>**  
 Impact Resistant Windows & Doors

  
**Impact Resistant  
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**WE'RE STRONGER<sup>™</sup>**

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