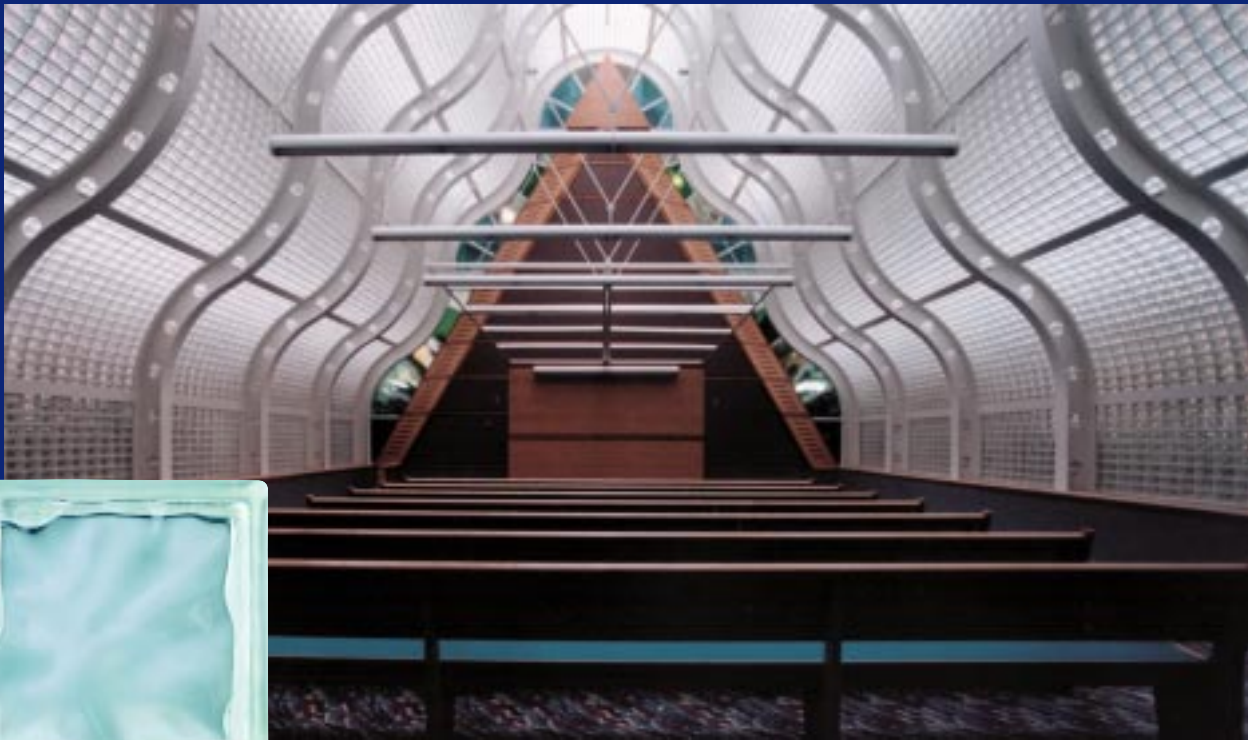


# Glass Block Products

## ARCHITECTURAL PRODUCTS

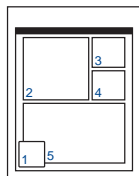


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*The comprehensive variety of patterns, styles, and sizes available have been designed to work together in your projects as a total system. Pittsburgh Corning stands behind all its glass block when used exclusively with Pittsburgh Corning accessory products by offering a limited five-year warranty. ISO 9002 Certification assures that Pittsburgh Corning is committed to quality innovation.*



**ON THE COVER:**

1. DECORA® Pattern
2. Ronald Reagan Washington National Airport, Washington, D.C.  
Architect: Hartman-Cox Architects (In association with HNTG Corporation.)  
DECORA®, ESSEX® AA and VUE® Patterns
3. Lawrence College, Appleton, WI  
VUE® Pattern
4. Combined Operations Center Heathrow, Heathrow Airport, U.K.  
Architect: Nicholas Grimshaw & Partners  
VUE® Pattern
5. Veteran's Administration Hospital Chapel, Detroit, MI  
Architect: Smith, Hinchman & Grylls, Inc.  
DECORA® Pattern



6



1. Indian Ridge Country Club, Palm Desert, CA  
Architect: McLarand Vasquez & Partners  
DECORA® Pattern with "LX" Fibrous Glass Insert

2. Liberty Center, Troy, MI  
Architect: Rosetti Associates  
VUE® and ESSEX® AA Patterns

3. University of New Hampshire  
DECORA® Pattern

4. Indian Ridge Country Club, Palm Desert, CA  
Architect: McLarand Vasquez & Partners  
DECORA® Pattern with "LX" Fibrous Glass Insert

5. Regional Transit District Station, Denver, CO  
VISTABRIK® Solid Glass Block, VUE® Pattern

6. University of Toledo – Nitschke Auditorium  
ARGUS® & VUE® Pattern

7. Missouri Court of Appeals, Kansas City, MO  
Architect: Abend Singleton Associates, Inc.  
DECORA® Pattern

8. Perry High School, Pittsburgh, PA  
VISTABRIK® Solid Glass Block, VUE® Pattern

9. Zcon Builders Building, Oakland, CA  
Architect: Sandy & Babcock Architects  
VUE® Pattern

10. Stockley Park Building, London, U.K.  
Architect: E. P. Associates  
VUE® "LX" Pattern

11. Metropolitan Toronto Police Headquarters,  
Toronto, Ontario, Canada  
Architects: Shore Tilbe Henschel Irwin Peters  
Architects and Engineers and Mathers and  
Haldenby, Incorporated  
DECORA® Pattern

12. Lake Dallas High School  
Architect: DMS Architects  
Design Architect: Stephen Darrow, NCARB, AIA  
VUE® Pattern



7



8



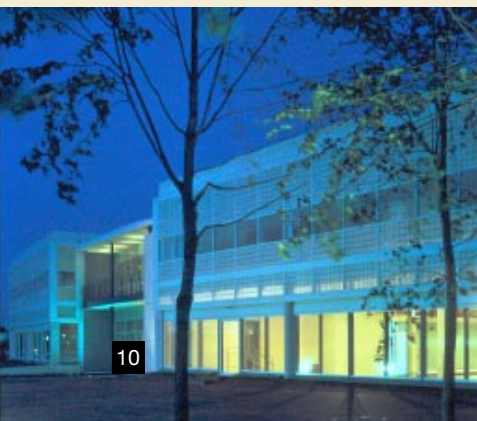
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# Pittsburgh Corning Glass Block Products

## Premiere Series Glass Block

Pittsburgh Corning's *Premiere Series* Glass Block exhibit a multifaceted character that begins with the transparent/translucent sparkling beauty of glass itself. The wide range of glass block provide proven performance, and the best selection of types, thickness, sizes, shapes and patterns; plus a variety of installation methods to allow you truly unique executions of your most exciting ideas...your inspired designs.

**Thinline™ Series Glass Block** is for limited areas in interior and exterior residential applications and light commercial applications.



13



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15



16

13. AT&T Information Systems, Weston, MA  
Designer: Hugh Stubbins & Associates  
VUE® Pattern

14. Hillman Cancer Center, Pittsburgh, PA  
Architect: IKM Incorporated – Photo courtesy of Pittsburgh Post-Gazette. All rights reserved.  
VUE® Pattern

15. Office Reception Area, Dallas, TX  
Architect: JRH Architects  
DECORA® Pattern

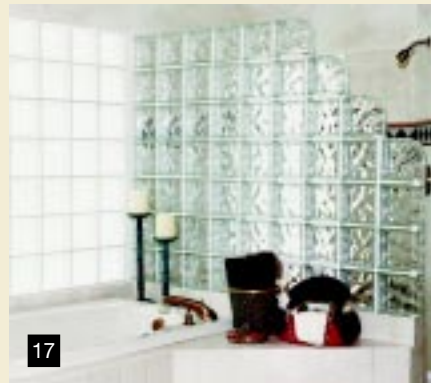
16. Swindon Market – Swindon, Wiltshire, U.K.  
Architect: Harrison Patience, Architect  
VUE® Pattern

17. Homearama 1994, Cincinnati, OH  
DECORA® Pattern with "LX" Filter and ENCURVE® Finishing Unit

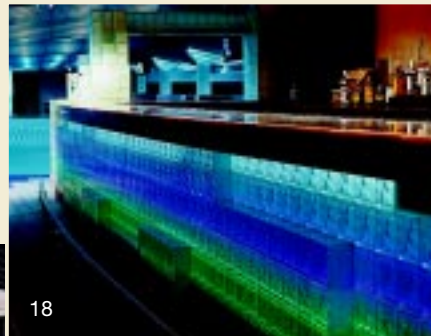
18. Scioto Downs, Columbus, OH  
Architect: Kellam and Associates, Inc.  
DECORA® Pattern

19. North Hollywood Police Station, N.Hollywood, CA  
Architect: Meyer & Allen Associates  
ARGUS® Pattern and HEDRON® Corner Block

20. Lloyd Hall, Philadelphia, PA  
Architect: Armstrong Kaulbach Architects  
VISTABRIK® Solid Glass Block, VUE® Pattern



17



18



19



4



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**ARGUS® Pattern**  
Rounded perpendicular flutes. Maximum light transmission/medium degree of privacy.



**ARGUS® Parallel Fluted Pattern**  
Rounded parallel flutes on each face complements SPYRA® Pattern. Maximum light transmission/medium privacy.



**DECORA® Pattern**  
Distinctive wavy undulations. Maximum light transmission/subtle distortion.



**DECORA® Pattern "LX" Filter**  
Fibrous glass insert adds thermal and light characteristics. Maximum privacy. Other DECORA® Pattern sizes and HEDRON® Corner Block available with "LX" Filter.



**ESSEX® AA Pattern**  
A fine grid of closely spaced ridges. Moderate light transmission/maximum privacy. Provides 60-minute fire rating.



**IceScapes® Pattern**  
Non-directional pattern lets light in without sacrificing privacy. Maximum light transmission/maximum privacy.



**SPYRA® Pattern**  
Complements a variety of glass block patterns. Many options for decorative designs. Maximum light transmission/minimal privacy.



**VUE® Pattern**  
Smooth, undistorted faces allow maximum light transmission and ultimate visibility.



**THICKSET® Block**  
Cutaways show the greater face thickness of the THICKSET® Series Block. THICKSET® 60 Block on left vs. the THICKSET® 90 Block on right.



**THICKSET® 60 Block**  
Thick-faced block that provides 60-minute fire rating. Available in both DECORA® and VUE® Patterns.



**THICKSET® 90 Block**  
Thick-faced block that provides 90-minute fire rating. Available in DECORA®, VUE® and ENDURA® Patterns.



**THICKSET® 90 Block, ENDURA™ Pattern**  
Narrow flutes provide moderate light transmission/maximum privacy. Available only in the THICKSET® 90 Block.



**ARQUE® Block, DECORA® and IceScapes® Patterns**  
Allows for construction of smooth, tightly curved walls with consistent mortar joints.



**ENCURVE® Finishing Unit, DECORA® and IceScapes® Patterns**  
Arched, soft edges to round out your design options or finish panels. Use with the 8" x 8" EndBlock™ Finishing Unit for a stepped panel.



**EndBlock™ Finishing Unit, DECORA® and IceScapes® Patterns**  
Available in 6" x 8" and 8" x 8" for finishing horizontal or vertical edges of panels.



**HEDRON® Corner Block, DECORA® and IceScapes® Patterns**  
Hexagonal corner unit allows you to form 90° corners resulting in a gently rounded continuous glass face. The block can be used in combination with any other finishing unit.



**TRIDRON 45° Block® Unit, DECORA® and IceScapes® Patterns**  
Create angles or configurations from 45 to 360° for columns, alcoves and undulating panels.



**VISTABRIK® Solid Glass Block**  
Three inches of solid glass. High impact strength provides enhanced vandal resistance. Excellent light transmission/good visibility. Also available in 3" x 8" and 4" x 8" sizes.

**VISTABRIK® Solid Glass Block, Stipple Finish**  
Solid three-inch thickness of glass with a stippled finish to add privacy. Good light transmission/medium privacy.

**VISTABRIK® Solid Glass 45°/90° Corner Block**  
Slight radius for corners or angles.

**VISTABRIK® Solid Glass Paver Unit**  
One and a half inches of solid glass. Clear, durable, low maintenance. Excellent light transmission. For horizontal applications only. Size: 8" x 8" x 1 1/2".

## Thinline™ Series



**DECORA® Pattern**  
Distinctive wavy undulations. Maximum light transmission/subtle distortion.



**DELPHI® Pattern**  
Prismatic diamond design offers moderate light transmission/maximum privacy.



**IceScapes® Pattern**  
Non-directional pattern lets light in without sacrificing privacy. Maximum light transmission/maximum privacy.



**EndBlock™ Finishing Unit, DECORA® Pattern**  
For finishing horizontal or vertical edges of panels.

## SPECIAL ORDER



**PC® Custom Signature Block**  
Custom manufactured with your corporate logo or other design pressed into one or both inside surfaces of an eight inch square, standard unit.



**SRT™ Block, Clear and Wavy Patterns — Brown Edge Coating**  
Reflective coating reduces solar heat gain. (Actual metric size: 190 x 190 x 95mm.)

# Premiere Series Glass Block Products

Pattern	Nominal Size <sup>1</sup> (mm) (Actual size is 1/4" less than nominal)	Weight/ft <sup>2</sup> installed with mortar	Heat Trans- mission <sup>2</sup> U Value (Btu/hr ft <sup>2</sup> °F)	Thermal Resis- tance <sup>2</sup> R Value (hr ft <sup>2</sup> °F/Btu)	Visible Light Trans- mission <sup>3</sup> (%)	Shading Coef. <sup>5</sup>	Sound Trans- mission S.T.C.	Impact Strength (in-lbs)
<b>Standard Premiere Series Block — Nominal Thickness = 4"; Actual Thickness = 3/8" (98mm)</b>								
ARGUS®	6" x 6" (146mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65	37	50-60
	8" x 8" (197mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65	39	50-60
	12" x 12" (299mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65	35	50-60
ARGUS® Parallel Fluted	8" x 8" (197mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65	39	50-60
DECORA®	6" x 6" (146mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65	37	50-60
	8" x 8" (197mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65	39	50-60
	12" x 12" (299mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65	35	50-60
	4" x 8" (95 x 197mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65		50-60
	6" x 8" (146 x 197mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65		50-60
ESSEX® AA	8" x 8" (197mm)	20 lb/ft <sup>2</sup>	0.51	1.96	50 <sup>4</sup>	0.45 <sup>4</sup>	39	50-60
IceScapes®	8" x 8" (197mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65	39	50-60
	4" x 8" (95 x 197mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65		50-60
	6" x 8" (146 x 197mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65		50-60
SPYRA®	8" x 8" (197mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65	39	50-60
VUE®	6" x 6" (146mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65	37	50-60
	8" x 8" (197mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65	39	50-60
	12" x 12" (299mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65	35	50-60
	4" x 8" (95 x 197mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65		50-60
	6" x 8" (146 x 197mm)	20 lb/ft <sup>2</sup>	0.51	1.96	75	0.65		50-60
DECORA® "LX" Filter	6" x 6" (146mm)	20 lb/ft <sup>2</sup>	0.48	2.06	50-55 <sup>4</sup>	0.45 <sup>4</sup>		50-60
	8" x 8" (197mm)	20 lb/ft <sup>2</sup>	0.48	2.06	50-55 <sup>4</sup>	0.45 <sup>4</sup>	40	50-60
	12" x 12" (299mm)	20 lb/ft <sup>2</sup>	0.48	2.06	50-55 <sup>4</sup>	0.45 <sup>4</sup>		50-60
<b>THICKSET® Block — Nominal Thickness = 4"; Actual Thickness = 3/8" (98mm)</b>								
THICKSET® 60 Block — DECORA® & VUE®	8" x 8" (197mm)	25 lb/ft <sup>2</sup>	0.51	1.96	75 <sup>4</sup>	.65	48	50-60
THICKSET® 90 Block — DECORA®	6" x 6" (146mm)	30 lb/ft <sup>2</sup>	0.51	1.96	75 <sup>4</sup>	.65	50	60-80
THICKSET® 90 Block — DECORA® & VUE®	8" x 8" (197mm)	30 lb/ft <sup>2</sup>	0.51	1.96	75 <sup>4</sup>	.65	50	60-80
THICKSET® 90 Block — ENDURA™	8" x 8" (197mm)	30 lb/ft <sup>2</sup>	0.51	1.96	75 <sup>4</sup>	.65	50	60-80
<b>VISTABRIK® Solid Glass Block — See Nominal/Actual Sizes Listed</b>								
VISTABRIK® Solid Glass Block	8" x 8" x 3" Nominal 7 5/8" x 7 5/8" x 3" Actual (197mm x 197mm x 76mm)	40 lb/ft <sup>2</sup>	0.87	1.15	80		53	Exceeds <sup>7</sup> 150
	3" x 8" x 3" Nominal 3" x 7 5/8" x 3" Actual (76mm x 197mm x 76mm)	40 lb/ft <sup>2</sup>	0.87	1.15	80			Exceeds <sup>7</sup> 150
	8" x 8" x 1 1/2" Nominal 7 5/8" x 7 5/8" x 1 1/2" Actual (197mm x 197mm x 38mm)	40 lb/ft <sup>2</sup>	0.87	1.15	80			Exceeds <sup>7</sup> 150
STIPPLE Finish	8" x 8" x 3" Nominal 7 5/8" x 7 5/8" x 3" Actual (197mm x 197mm x 76mm)	40 lb/ft <sup>2</sup>	0.87	1.15	80		53	Exceeds <sup>7</sup> 150
<b>1/8" FLAT SHEET GLASS COMPARISON</b>			1.04	0.96	90	1.00	28	

# Fire Ratings

	Masonry Wall Construction		Non-Masonry Wall Construction		Channel Framing/ Panel Anchor Framing
	Max Area /Panel (ft²)	Max Ht or Width (ft)	Max Area /Panel (ft²)	Max Ht or Width (ft)	
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■ ▲
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	■ 100 ▲ 100 ● 0	■ 10 ▲ 10 ● 0	■ 94 ▲ 94 ● 0	■ 10.75 ▲ 10.75 ● 0	■ ▲ ●
	100	10	■ 94 ▲ 94 ● 0	■ 10.75 ▲ 10.75 ● 0	■ ▲ ● <sup>9</sup>
	100	10	■ 94 ▲ 94 ● 0	■ 10.75 ▲ 10.75 ● 0	■ ▲ ● <sup>9</sup>
	100	10	■ 94 ▲ 94 ● 0	■ 10.75 ▲ 10.75 ● 0	■ ▲ ● <sup>9</sup>
	100	10	■ 94 ▲ 94 ● 0	■ 10.75 ▲ 10.75 ● 0	■ ▲ ● <sup>9</sup>
	100	10	■ 94 ▲ 94 ● 0	■ 10.75 ▲ 10.75 ● 0	■ ▲ ● <sup>9</sup>
	100	10	94 ■ ▲	10.75	■ ▲ ● <sup>9</sup>

■ 45 Min  
▲ 60 Min  
● 90 Min

Footnotes on Page 9  
Continued on next page

## Fire Resistance

All sizes (exceptions listed below) of the *Premiere Series* and *ThinLine™* Series glass block in panels up to 120 sq. ft. in masonry walls or 94 sq. ft. in non-masonry walls are classified by Underwriters Laboratories® for use as 45-minute-rated window assemblies. The Uniform Building Code (U.B.C) limits the area of 45-minute-rated window assemblies to 84 sq. ft. with no dimension exceeding 12 feet. These panels are usually acceptable as window assemblies for use in fire separation walls that are rated one hour or less.

THICKSET® 60 Block is listed for use as 45- or 60-minute fire rated window assemblies in panels up to 100 sq. ft. THICKSET® 90 Block and VISTABRIK® Solid Glass Block are all listed for use as 45-, 60- or 90-minute fire rated window assemblies in panels up to 100 sq. ft.

Refer to the latest issue of UL® Fire Resistance – Volume 3 Directory as well as your local building codes.

- Underwriters Laboratories® Classification: R2556 (For Glass Block)
- Underwriters Laboratories® of Canada Guide Number 23017 (For Glass Block)
- U.L. Classification: R18572 (For Plastic Spacers)
- In accordance with NFPA 80, Chapter 14

## Fire Rated Glass Block Window Assemblies

Pittsburgh Corning Glass Block listed above have been tested and classified by Underwriters Laboratories® (UL®) for use as fire-rated window assemblies to panel sizes and dimension limitations listed below:

Where permitted by Building Codes, glass block fire-rated window assemblies having a fire resistance rating of not less than 45 minutes, may be used as “opening protectives” and to not exceed 25% of the wall areas separating a tenancy from a corridor or a corridor from an enclosed vertical opening or one fire-rated area from another fire-rated area.

**Exception:** Although glass block masonry have been tested as window assemblies (not wall assemblies), they may be used as a one hour fire partition as required for corridors in the enclosure of atriums only when sprinkler protection is provided on occupied sides.

**45- and 60- Minute Rated Construction:** All 45- and 60- minute rated Pittsburgh Corning Glass Block may be used in both masonry and non-masonry (steel or wood stud gypsum board) walls. These rated glass block windows may be framed and anchored with either PC® Panel Anchor construction or channel-type restraints. The use of a fire retardant type sealant for head and jamb locations is required. Specifications and construction details of such panels are as per Pittsburgh Corning Corporation recommendations.

Non-masonry, fire-rated steel stud/ gypsum board walls must conform to UL® listed wall assembly #U465. Framing and support of the rated glass block window assembly shall be provided with double-studding at the jamb locations with height of supporting wall limited to no more than 3 feet.

**90-Minute Rated Construction:** Where permitted by building codes, all 90-minute rated Pittsburgh Corning Glass Block may be used in masonry walls only; framed and anchored with 1/4" thick steel (not aluminum) channel-type restraints or masonry chases. *The use of panel anchor construction is not permitted.* Specifications and construction details of such panels are as per Pittsburgh Corning Corporation recommendations.

**Exception:** In 90- minute rated glass block window assemblies, twice the thickness (3/4 in. total) of expansion material is required at head and jamb locations, as well as the use of a fire retardant type sealant.

**45-Minute Rated Curved Construction:** The glass blocks noted under 90- minute “rating” and those 8" x 8" x 4" sized glass block noted under 45- minute “rating” are classified for use in masonry walls as curved window assemblies provided that the radius of the assembly is at least twice the opening width (i.e. chord length).

**Pittsburgh Corning Glass Block that are not fire-rated:**

- All 12" x 12" Sizes
- All DELPHI® pattern block
- All HEDRON® Corner Block, TRIDRON 45° Block® units, EndBlock™, ENCURVE® and ARQUE® finishing units
- All paver units
- VISTABRIK® Corner Block

UL® Refer to the latest issue of UL® Canada and UL® Fire Resistance Directory – Volume 3 as well as your local building codes and officials.

**City Code Approvals:**

- New York City Materials and Equipment Acceptance MEA 406-90-M. Vol. IV
- Los Angeles Research Report RR-24486
- San Francisco General Approval 177P59.1
- Eugene, OR, “Approved Glass Products, Storm Windows, and Insulated Window Units”
- Dade County Acceptance
- Texas Dept. of Insurance WIN #'s 62, 63, and 64

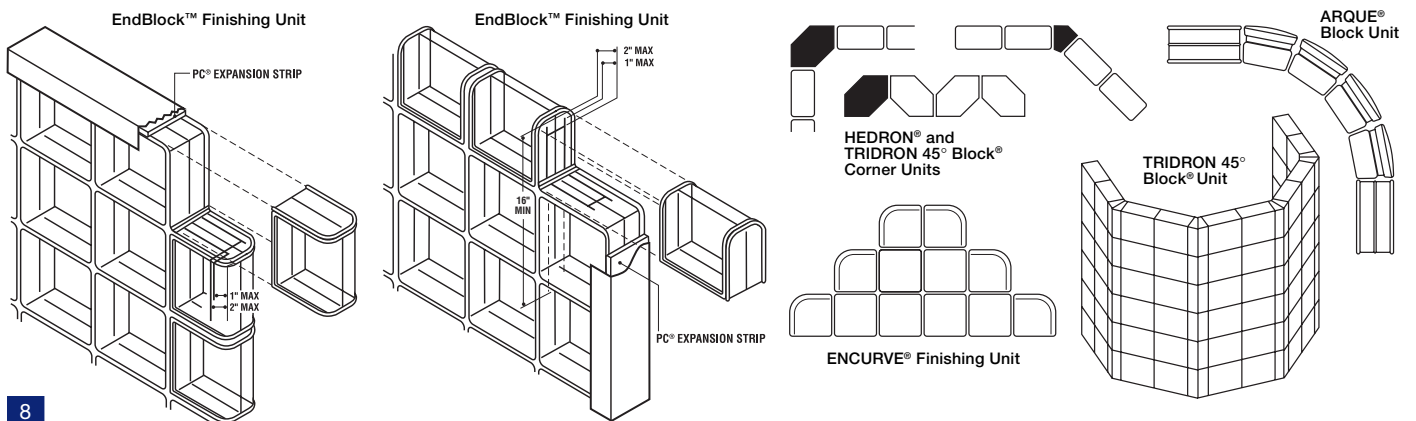
**Building Code and National Standards References:**

- The BOCA National Building Code (N.B.C.)
- The Standard Building Code (SBCCI)
- The Uniform Building Code (U.B.C.)
- International Building Code (IBC)
- Canadian Standards Association (CSA) A371-94 “Masonry Construction for Buildings”
- Canadian Standards Association (CSA) S304.1-94 “Masonry Design for Buildings”
- ACI 530/ASCE 5/TMS 402 “Building Code Requirements for Masonry Structures”
- ISO 9002 Certification: Manufacture test and distribution of Pittsburgh Corning Glass Block products.

# Pittsburgh Corning Glass Block Products *Continued*

Pattern	Nominal Size <sup>1</sup> (mm) (Actual size is 1/4" less than nominal)	Weight/ft <sup>2</sup> installed with mortar	Heat Trans- mission <sup>2</sup> U Value (Btu/hr ft <sup>2</sup> °F)	Thermal Resis- tance <sup>2</sup> R Value (hr ft <sup>2</sup> °F/Btu)	Visible Light Trans- mission <sup>3</sup> (%)	Shading Coef. <sup>3</sup>	Sound Trans- mission S.T.C.	Impact Strength (in-lbs)
<b>Thinline™ Series Block — Nominal Thickness = 3"; Actual Thickness = 3 1/8" (79mm)</b>								
<b>DECORA®</b>	6" x 6" (146mm)	16 lb/ft <sup>2</sup>	0.57	1.75	75	0.65		40-50
	8" x 8" (197mm)	16 lb/ft <sup>2</sup>	0.57	1.75	75	0.65	31°	40-50
	4" x 8" (95 x 197mm)	16 lb/ft <sup>2</sup>	0.57	1.75	75	0.65		40-50
	6" x 8" (146 X 197mm)	16 lb/ft <sup>2</sup>	0.57	1.75	75	0.65		40-50
<b>IceScapes®</b>	6" x 6" (146mm)	16 lb/ft <sup>2</sup>	0.57	1.75	75	0.65		40-50
	6" x 8" (146 X 197mm)	16 lb/ft <sup>2</sup>	0.57	1.75	75	0.65		40-50
	8" x 8" (197mm)	16 lb/ft <sup>2</sup>	0.57	1.75	75	0.65	31°	40-50
<b>DELPHI®</b>	6" x 6" (146mm)	16 lb/ft <sup>2</sup>	0.57	1.75	75	0.65		40-50
	8" x 8" (197mm)	16 lb/ft <sup>2</sup>	0.57	1.75	75	0.65	31°	40-50
	4" x 8" (95 x 197mm)	16 lb/ft <sup>2</sup>	0.57	1.75	75	0.65		40-50
	6" x 8" (146 X 197mm)	16 lb/ft <sup>2</sup>	0.57	1.75	75	0.65		40-50
<b>1/8" FLAT SHEET GLASS COMPARISON</b>			1.04	0.96	90	1.00	28	

<b>Premiere Series Finishing Units</b>						
EndBlock™ Finishing Units		HEDRON® Corner Unit	TRIDRON 45° Block® Unit	ENCURVE® Finishing Unit	ARQUE® Block Unit	
<b>DECORA® &amp; IceScapes® Patterns</b> 8" High 6 lbs 2.72 (kg) <i>Premiere Series</i>	<b>DECORA® &amp; IceScapes® Patterns</b> 8" High 4.3 lbs 1.95 (kg) <i>Premiere Series</i>	<b>DECORA® &amp; IceScapes® Patterns</b> 8" High 6 lbs 2.72 (kg) <i>Premiere Series</i>	<b>DECORA® &amp; IceScapes® Patterns</b> 8" High 2.9 lbs 1.28 (kg) <i>Premiere Series</i>	<b>DECORA® &amp; IceScapes® Patterns</b> 8" High 5.7 lbs 2.57 (kg) <i>Premiere Series</i>	<b>DECORA® &amp; IceScapes® Patterns</b> 8" High 5.4 lbs 2.43 (kg) <i>Premiere Series</i>	





	Masonry Wall Construction		Non-Masonry Wall Construction		Channel Framing/ Panel Anchor Framing
	Max Area /Panel (ft <sup>2</sup> )	Max Ht or Width (ft)	Max Area /Panel (ft <sup>2</sup> )	Max Ht or Width (ft)	
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■
	120	12	94	10.75	■

■ 45 Min  
▲ 60 Min  
● 90 Min

**Footnotes for Charts on Pages 6-9**

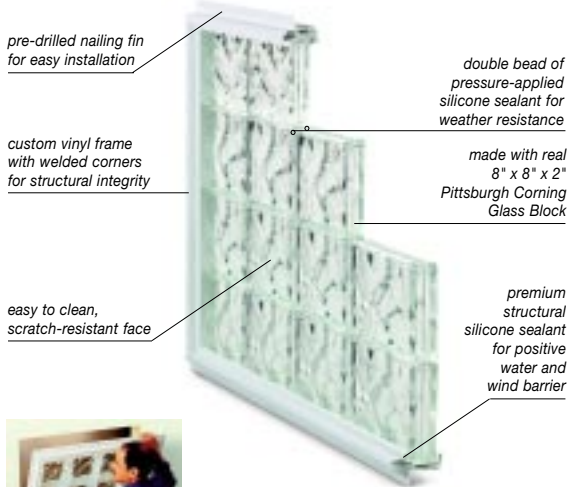
- <sup>1</sup> Size—Block are manufactured to a ± 1/16" (2mm) tolerance.
- <sup>2</sup> Heat Transmission/Thermal Transmission—Winter night values. To calculate instantaneous heat gain through glass panels, see ASHRAE HANDBOOK OF FUNDAMENTALS, 1997, Section 29.26.
- <sup>3</sup> Light Transmission—Values ±5%.
- <sup>4</sup> Light Transmission/Shading Coefficient—Estimated figures based on accumulated data.
- <sup>5</sup> Shading Coefficient—Based on 8"-sq. units; ratio of heat gain through glass block panels vs. that through a single light of double-strength sheet glass under specific conditions.
- <sup>6</sup> Sound Transmission—Assembly construction with KWik'N EZ® Silicone System.
- <sup>7</sup> Impact Strength—Produces surface mar only.
- <sup>8</sup> Channel/Panel Anchor Framing—Panel anchor framing construction is not permitted in window assemblies for 90- minute fire ratings.

## Pittsburgh Corning Glass Block Product Specifications

A Pittsburgh Corning Architectural Binder is available through your local territory representative. Pittsburgh Corning Glass Block product specifications data is also stored electronically on CD-ROM and is available through SweetSource directly or via our website [www.pittsburghcorning.com](http://www.pittsburghcorning.com).

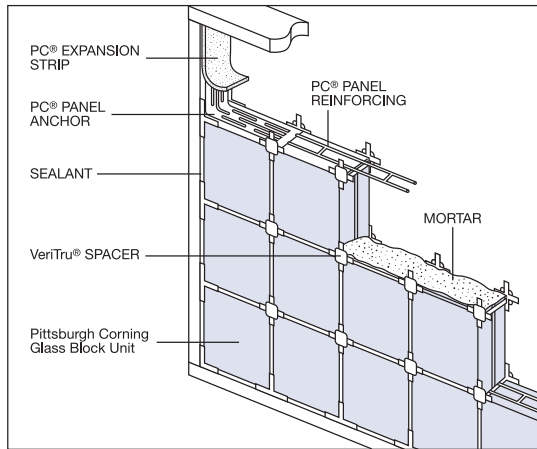


gives you the beauty and durability of real glass block with less installation hassle.

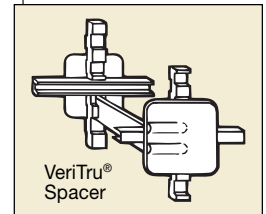


This new, lighter weight design (2" thick glass block), means LightWise® Windows are even easier to install: just place in the opening and fasten along the built-in nailing fins.

## Panel Construction Using VeriTru® Spacers



The one-piece, all plastic VeriTru® Spacer speeds construction, assures uniform placement and helps keep panel flush. Can now be used in fire-rated panels.



Special spacers are available for the VISTABRIK® and ARQUE® Block.

## PC® Panel Reinforcing, Panel Anchors & Expansion Strips



**PC® Panel Reinforcing (top)**—used in panels over 25 sq. ft. in area—is embedded horizontally in the mortar joints between every other course. Panel Reinforcing is formed of two, parallel wires, either 1 5/8" on-center (for use with Thinline™ Series Glass Block or VISTABRIK® Units) or 2" on-center (for use with *Premiere Series* Glass Block), with butt-welded cross-wires at regular intervals; 4' and 10' lengths are available.

**PC® Panel Anchors (middle)** are used to tie Pittsburgh Corning Glass Block panels into the surrounding framework when channels are not used. Formed from 20 gauge perforated-then-galvanized steel strips, panel anchors are available in 1 3/4" widths x 24" lengths.

**PC® Expansion Strips (bottom)**, made of white polyethylene, are inserted at the head and jamba. The strips replace mortar at these points to cushion the glass block and allow the panel to expand and contract freely. For metal channel or masonry chase construction, PC® Expansion Strips are available 3/8" thick x 4" wide x 24" long. For panel anchor construction, standard 4" wide strips are easily cut to 3" width, for 3 7/8" *Premiere Series* block; and to 2 1/4" width, for 3 1/8" Thinline™ Series Block.

## The New KWik'N EZ® Rigid Track Silicone System



The new KWik'N EZ® Rigid Track spacer design allows you to easily install glass block in many areas. Precision cut vertical spacers combine with the horizontal spacers to make installing your Pittsburgh Corning Glass Block panel quicker and easier than ever before. Rigid Track spacers available for use with either Thinline™ Series or *Premiere Series* Glass Block. The components of the KWik'N EZ® Rigid Track Silicone System include the following:

- 36" Horizontal Rigid Track Spacers
- 7 3/4" Vertical Rigid Track Spacers
- 48" Perimeter Channel
- Pittsburgh Corning Glass Block Sealant

The KWik'N EZ® Rigid Track Silicone System Kit includes the following:

- 3 - 36" Pieces Rigid Track Horizontal Spacer
- 12 - 7 3/4" Pieces Rigid Track Vertical Spacer
- 1 - tube Pittsburgh Corning Glass Block Sealant
- 1 - Striking Tool
- 1 - Installation Instructions

Additional component items are sold in bulk to supplement the KWik'N EZ® Rigid Track Silicone System Kit.

### Other Accessories

Additional materials—such as premixed mortar, channels or framing, packing, sealants and asphalt emulsion are available from other manufacturers.

# Physical & Design Data

## Maximum Panel Dimensions\*

	Premiere Series			Thinline™ SERIES			VISTABRIK®		
	Area (Sq. Ft.)	Height (Ft.)	Width (Ft.)	Area (Sq. Ft.)	Height (Ft.)	Width (Ft.)	Area (Sq. Ft.)	Height (Ft.)	Width (Ft.)
EXTERIOR**	144	20	25	85	10	15	100	10	10
INTERIOR	250	20	25	150	10	15	150	10	15

\* Uniform Building Code (UBC) limits exterior height and width to 15 feet.  
 \*\*All exterior areas and dimensions are based on 20 psf design windload with 2.7 safety factor.

## Seismic Forces Design

Pittsburgh Corning Glass Block meets the requirements of Section 1630.2, (Vol. 2) of the 1994 Uniform Building Codes which governs seismic design of nonstructural components supported by structures.

## Mortar Mix and Estimating Tables

An optimum mortar mix for installing Pittsburgh Corning Glass Block is:

Portland Cement	Lime	Sand
1 Part	½ Part	3.4 Parts
1.0 cubic foot (1 bag/94 lbs)	0.5 cubic foot (20 lbs)	3.4 cubic feet (240 lbs)

## No. of Block for 100 Sq. Ft. Panel

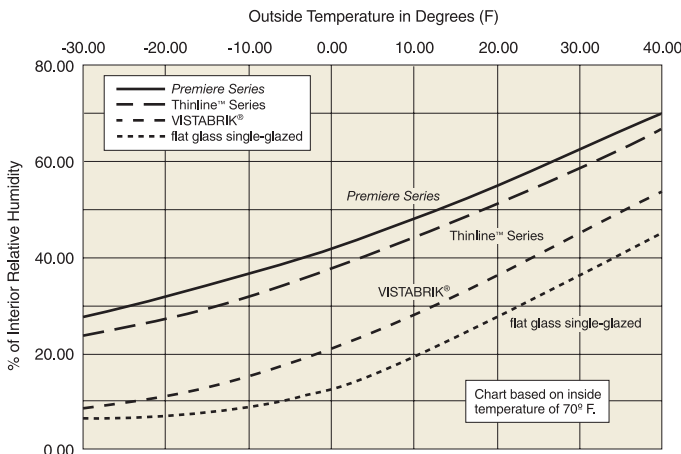
Block Sizes (Nominal)	6"	8"	12"	4" x 8"	6" x 8"
No. of Block	400	225	100	450	300

## Cu. Ft. of Mortar\* for 100 Sq. Ft. Panel

Block Sizes (Nominal)	6"	8"	12"	4" x 8"	6" x 8"
Premiere Series Glass Block (3 7/8")	5.4	4.0	2.7	6.1	4.7
VISTABRIK® Solid Glass Block (3")	—	2.3**	—	—	—
Thinline™ Series Glass Block (3 1/8")	4.3	3.3	—	4.9	3.8

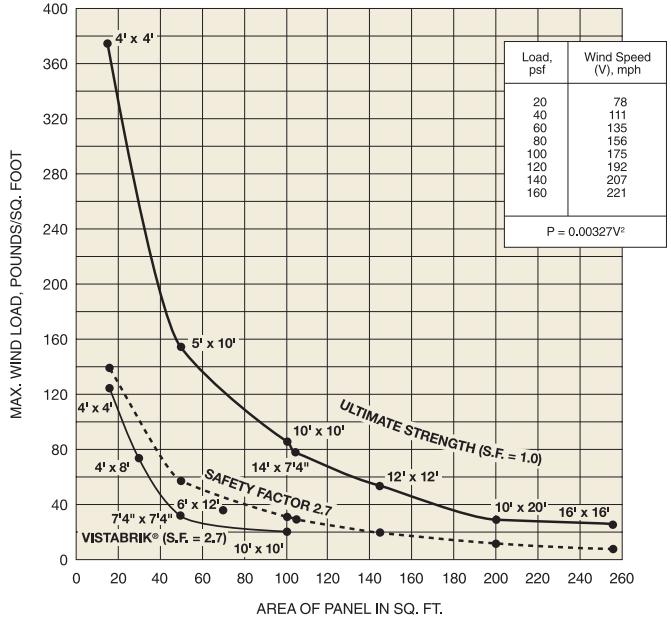
\* Based on a 1/4" exposed mortar joint.  
 \*\* Based on a 3/8" exposed mortar joint.

## Resistance to Surface Condensation

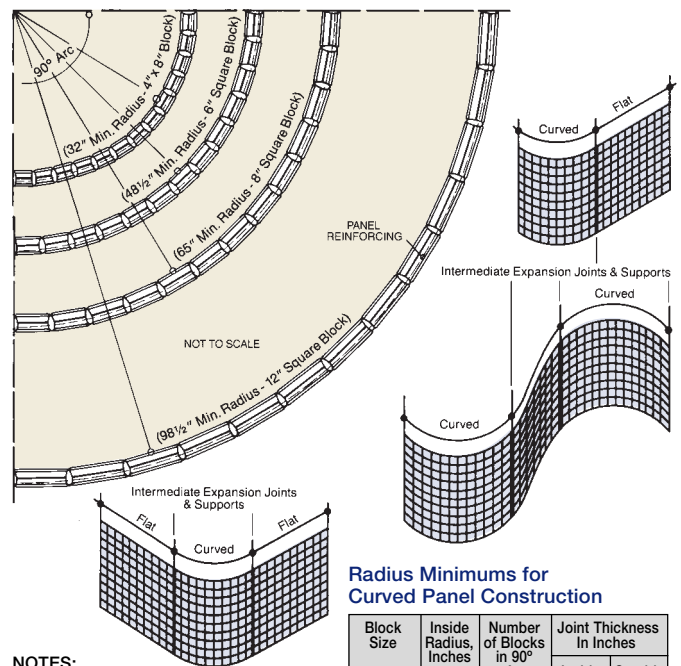


Example: At a relative humidity of 40%, an outside temperature of approximately -3°F will cause condensation on *Premiere Series* glass block or approximately 3°F above zero on *Thinline™* Series block. Under the same conditions, condensation will form on a single-glazed flat glass window at 34°F above zero.

## Wind Load Resistance (Based on Standard Nominal 4" Thick Premiere Series Block)



## Inside Radius Minimums for Curved Panel Construction

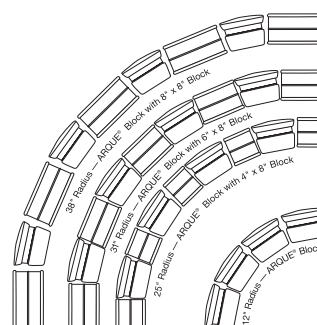


### NOTES:

- It is suggested that curved areas be separated from flat areas by intermediate expansion joints and supports, as indicated in these drawings.
- When straight, ladder-type reinforcing is used on curved walls, the innermost parallel wire may be cut periodically and bent to accommodate the curvature of the wall.

## Radius Minimums for Curved Panel Construction

Block Size	Inside Radius, Inches	Number of Blocks in 90° Arc	Joint Thickness in Inches	
			Inside	Outside
4" x 8"	32	13	1/8	5/8
6" x 6"	48 1/2	13	1/8	5/8
8" x 8"	65	13	1/8	5/8
12" x 12"	98 1/2	13	1/8	5/8



ARQUE® Block used along with other Pittsburgh Corning Block sizes, allows you to form consistent curves of various radii.

Radii shown above are to inside face of curve.

# Design Information

## Pittsburgh Corning Glass Block Physical & Design Data

**Installed Panel Weight.** Refer to Table on pages 6 and 8 for weight of panels installed with mortar. Glass block panels installed with the KWIK'N EZ® Rigid Track Silicone System are up to 25% lighter (weigh 25% less per square foot) than panels installed with mortar. Local building codes should be checked for any limits on panel sizes or installation details.

**Thermal Expansion Coefficient.** The thermal expansion coefficient of glass block is  $47 \times 10^{-7}$  (°F).

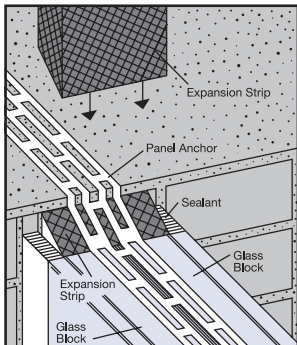
**Non-Load Bearing.** Glass block panels are non-load bearing; adequate provision must be made for support of construction above these panels. Panels are mortared at the sill, with jamb and head details designed to provide for building movement and lintel deflection. The compressive strength (for information purposes only) of all hollow glass block is 400 to 600 psi.; of all THICKSET® Series Glass Block is 2500 psi.; and of all VISTABRIK® Series is 80,000 psi.

**Detailed Drawings.** Structural members illustrated on page 11 indicate principles of construction. Member size should be determined by structural analysis to avoid excessive deflections. Maximum deflection should not exceed  $L/600$ .

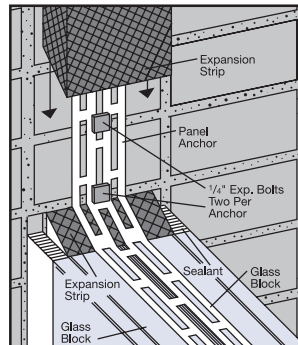
**Premiere Series and Thinline™ Series.** All glass block illustrated are *Premiere Series* Glass Block, the 4" nominal thick products. Modify as necessary for *Thinline™* Series, the 3" nominal thick units or VISTABRIK® Solid Glass Block, 3" actual thickness. Pittsburgh Corning recommends that the use of the *Thinline™* Series units be limited to light commercial and residential applications.

## Panel Anchor Details

Panel anchors providing lateral support for Pittsburgh Corning Glass Block panels are restricted only by building code requirements and the directions of the architect. Where panel anchors are forbidden, channel-type construction shall be used. When required, install Panel Anchors as shown on the drawings. All panel anchors must be bent within the expansion joint and shall generally be placed 16 inches apart occurring in the same joint as the panel reinforcing and must be completely embedded in the mortar joint of the glass block panels extending a minimum of 12 inches into the joint.



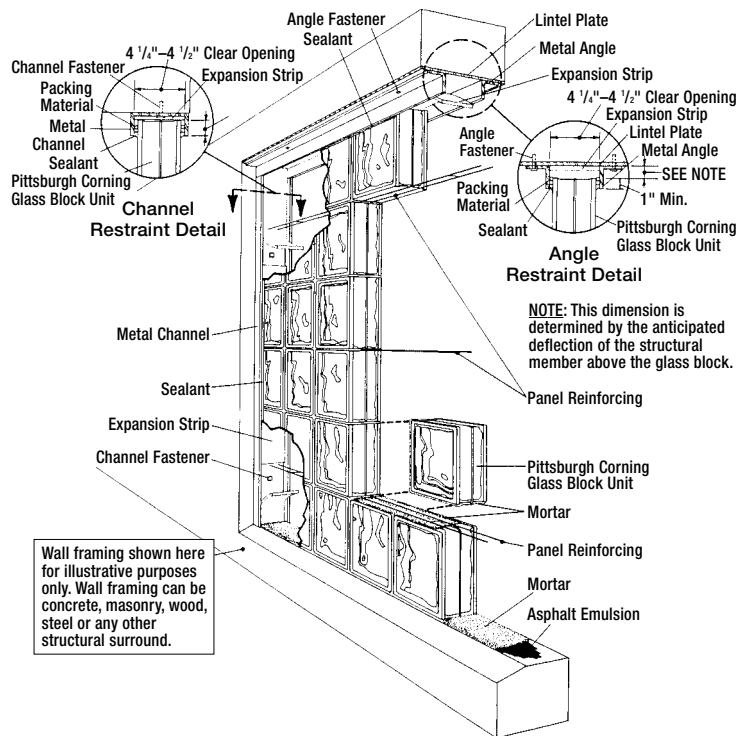
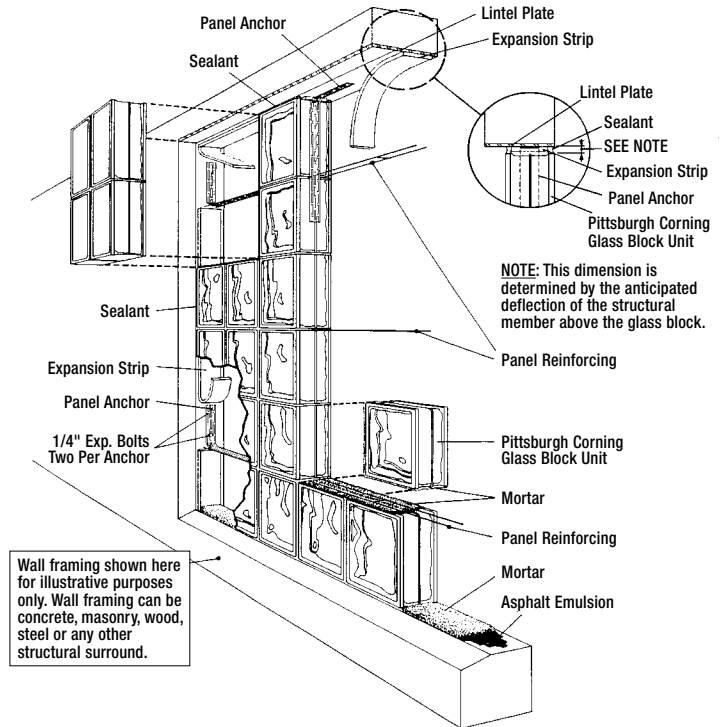
New Construction



Existing Construction

# Typical Construction Details

## Panel Anchor Construction



# Glossary of Terms

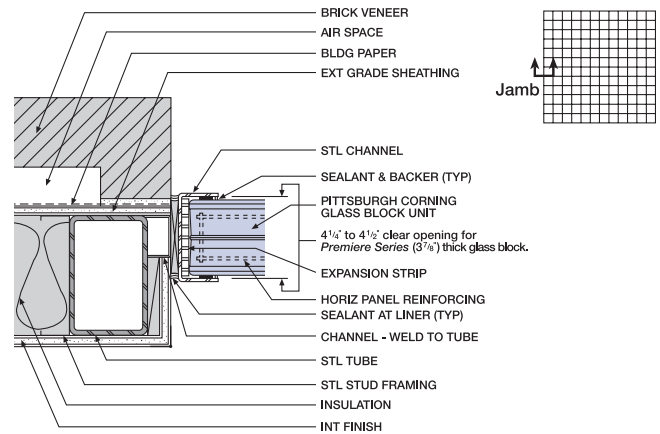
## Detail Drawings pages 12-17

- |  |  |
|--|--|
| <b>BLDG</b> – Building   | <b>TYP</b> – Typical (detail)                                  |
| <b>CMU</b> – Concrete Masonry Unit (concrete block)                                | <b>CLG</b> – Ceiling   |
| <b>CONT STL</b> – Continuous Steel (used to reinforce wall)                        | <b>CONC</b> – Concrete   |
| <b>ELEV</b> – Elevation (side view of building)                                    | <b>EIFS</b> – Exterior Insulation Finishing System             |
| <b>GYP BD</b> – Gypsum Board   | <b>EXT</b> – Exterior  |
| <b>HM</b> - Hollow Metal (door frame)  | <b>HEAD</b> – Top of Panel                                     |
| <b>INT</b> – Interior  | <b>HORIZ</b> – Horizontal                                      |
| <b>MAX HT</b> – Maximum Height (for Pittsburgh Corning Glass Block panel 20ft./6m) | <b>JAMB</b> – Side of Panel                                    |
| <b>SILL</b> – Bottom of Panel  | <b>PLAN</b> – View of Building from above, typically the floor |
|  | <b>STL</b> – Steel   |
|  | <b>WD</b> – Wood   |

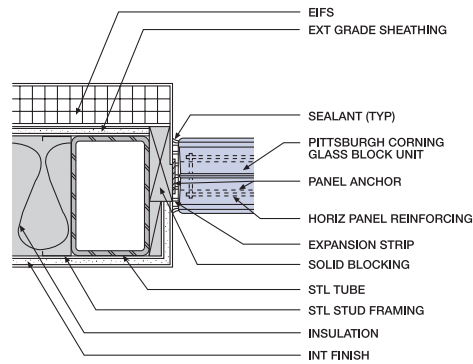
Materials shown other than glass block are for illustration purposes only as examples of typical construction details.

# Typical Jamb Details

## Exterior Openings



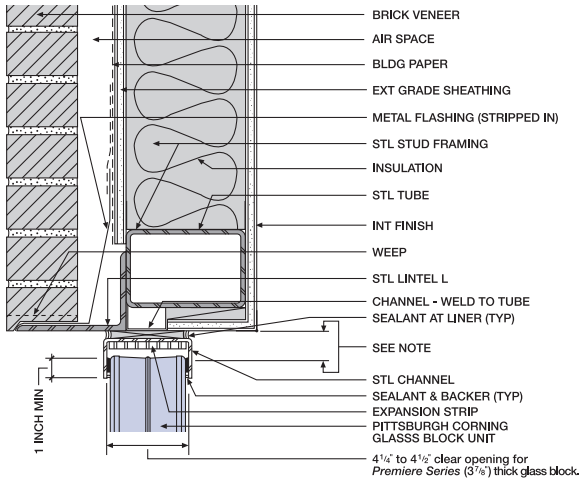
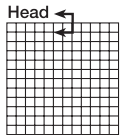
**(PCD 062) Jamb – Glass Block in Steel Stud Wall with Brick Veneer**



**(PCD 032) Jamb – Glass Block in Steel Stud Wall with Synthetic Plaster Finish**

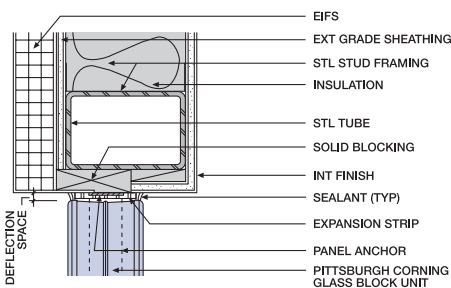
# Typical Head Details

## Exterior Openings



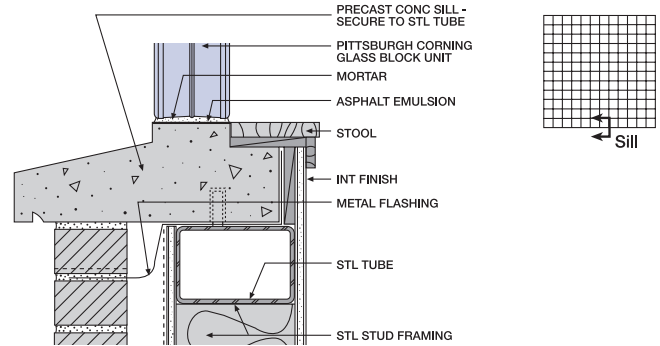
NOTE: This dimension is determined by the anticipated deflection of the structural member above the glass block.

**(PCD 061) Head – Glass Block in Steel Stud Wall with Brick Veneer**

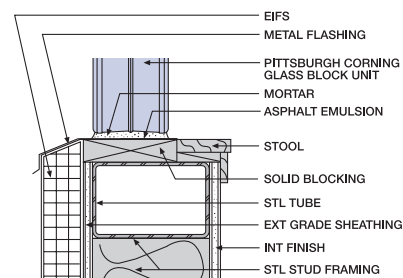


**(PCD 031) Head – Glass Block in Steel Stud Wall with Synthetic Plaster Finish**

# Typical Sill Details (Exterior Openings)



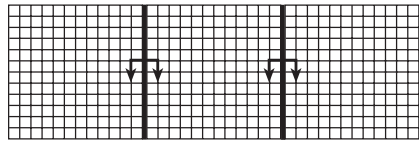
**(PCD 063) Sill – Glass Block in Steel Stud Wall with Brick Veneer**



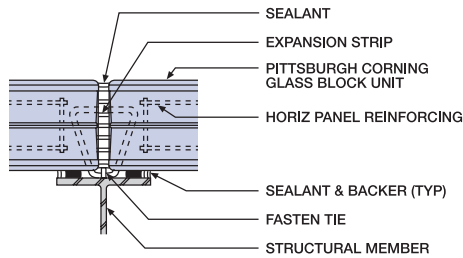
**(PCD 033) Sill – Glass Block in Steel Stud Wall with Synthetic Plaster Finish**

# Typical Stiffener Details

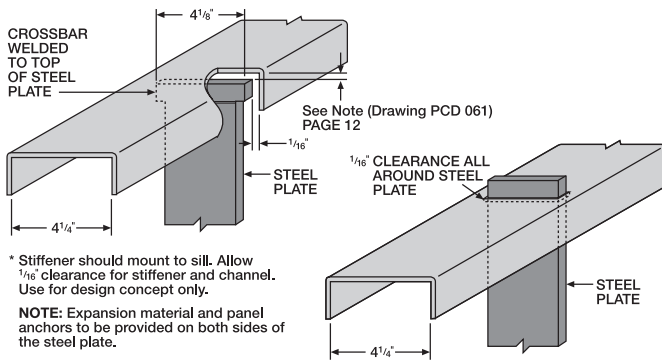
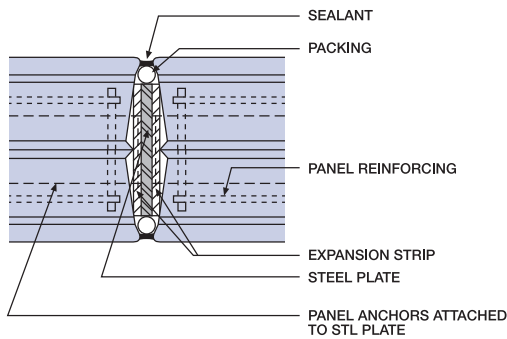
Continuous Panels ≤ 144 Sq. Ft. Each



Vertical Stiffener

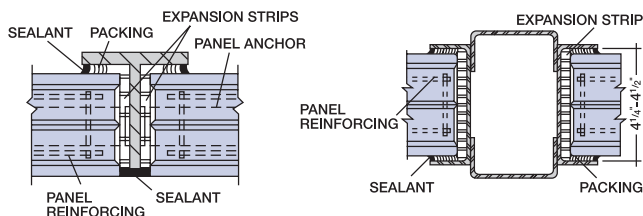


**(PCD 132A) Intermediate Vertical Support in Multiple Horizontal Panels**



**(PCD 132B) Intermediate Support in Multiple Horizontal Panels**

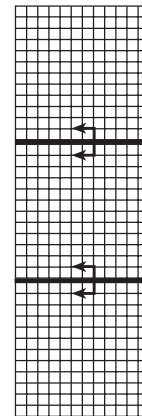
NOTE: Panels with an expansion joint stiffener incorporating a vertical hidden plate should be limited to a maximum 10' in height.



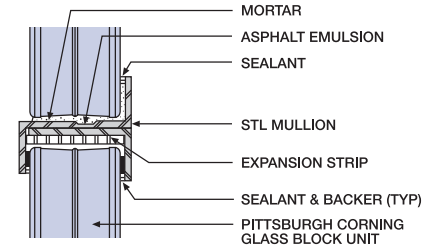
**(PCD 132C & D) Intermediate Support in Multiple Horizontal Panels**

# Typical Shelf Angle Details

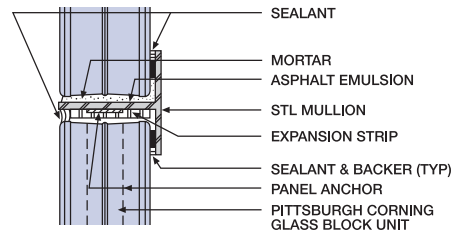
Continuous Panels ≤ 144 Sq. Ft. Each



Horizontal Stiffener

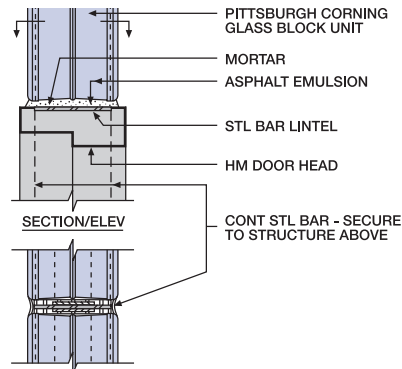


**(PCD 128) Intermediate Horizontal Support in Multiple Vertical Panels**

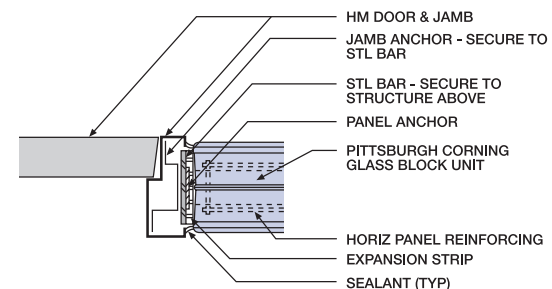


**(PCD 129) Intermediate Horizontal Support in Multiple Vertical Panels**

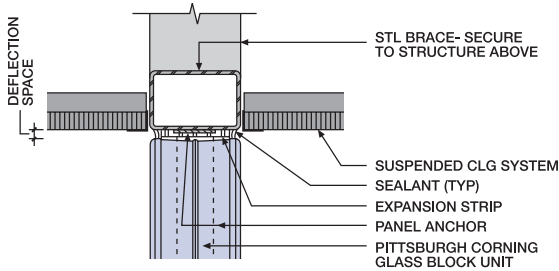
# Hollow Metal Door Frame Details



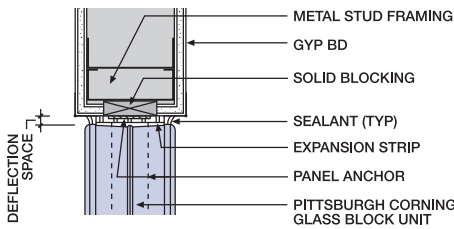
**(PCD 153) Head - Hollow Metal Door Frame at Glass Block**



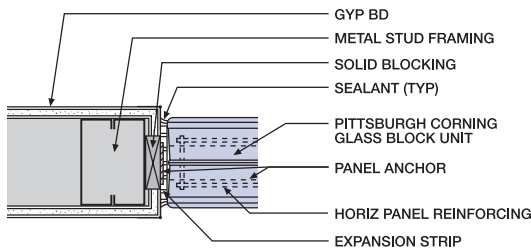
**(PCD 154) Jamb - Hollow Metal Door Frame at Glass Block**



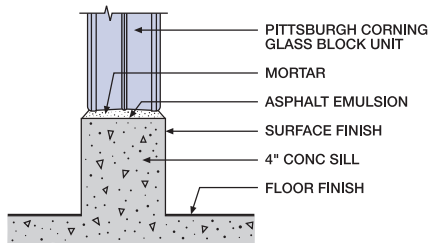
**(PCD 148) Head – Glass Block in Suspended Ceiling**



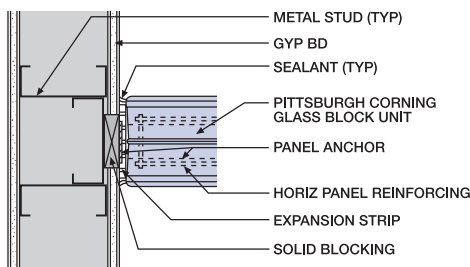
**(PCD 149) Head – Glass Block in Partition**



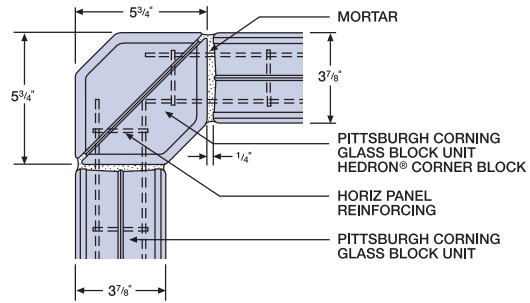
**(PCD 150) Jamb – Glass Block in Partition**



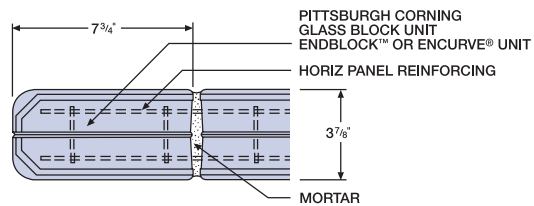
**Sill – Interior Concrete Floor Slab**



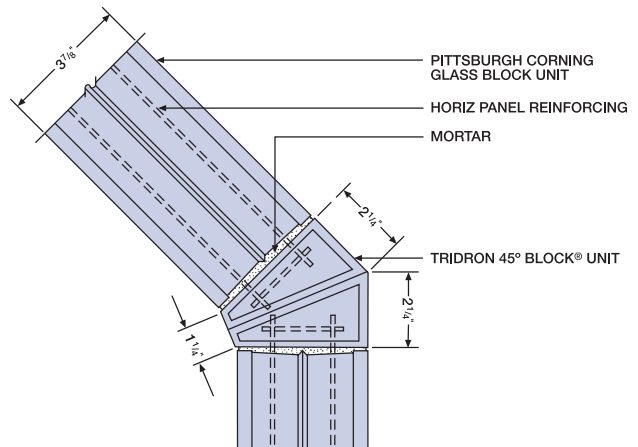
**(PCD 151) Jamb – Glass Block Perpendicular to Partition**



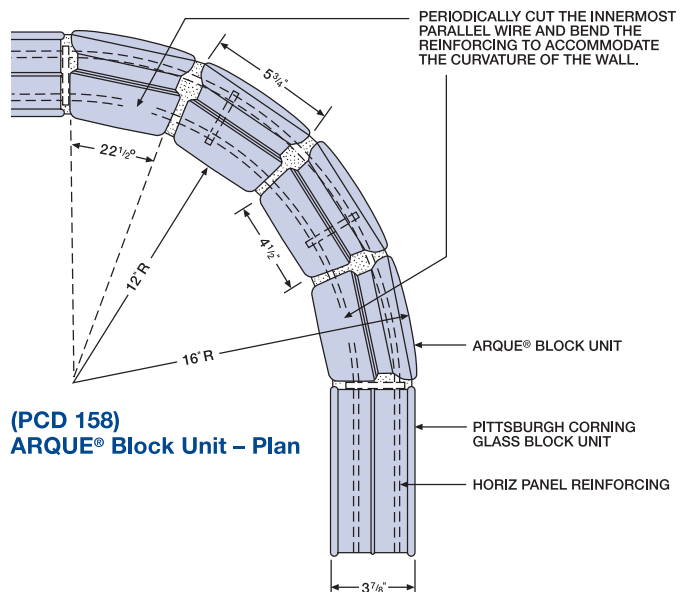
**(PCD 155) Glass Block at Corner – Plan**



**(PCD 156) EndBlock™ or Encurve® Finishing Block – Plan**

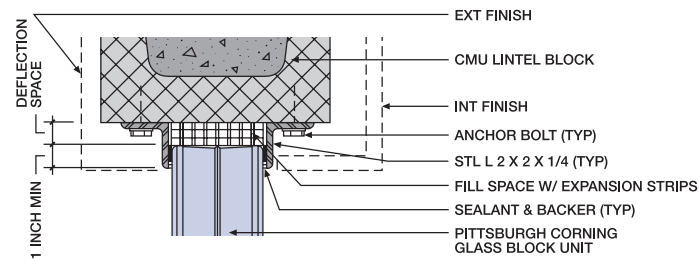


**(PCD 157) TRIDRON 45° Block® Unit – Plan**

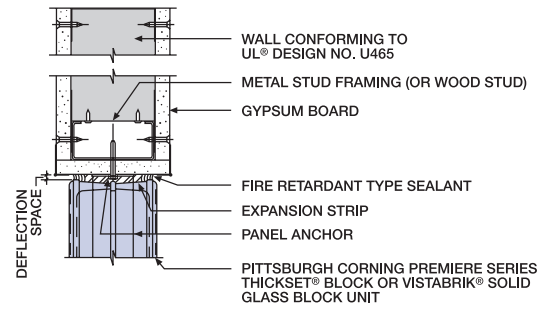


**(PCD 158) ARQUE® Block Unit – Plan**

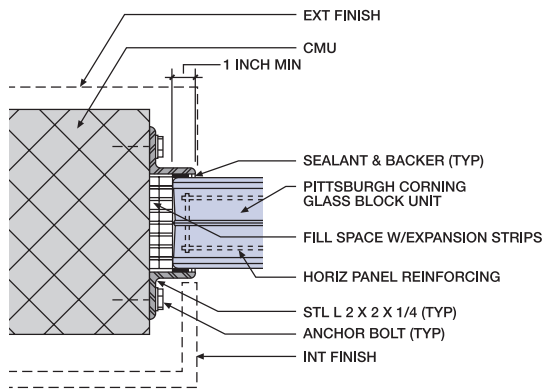
# Fire Rated Details



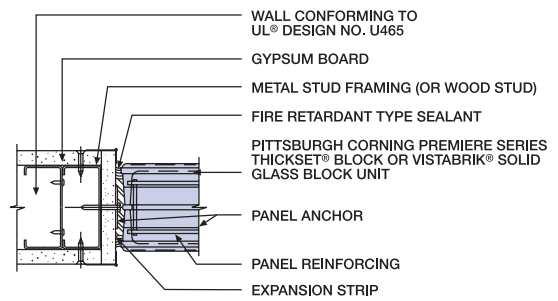
**(PCD 004) Head – Glass Block in CMU Wall Fire Rated**



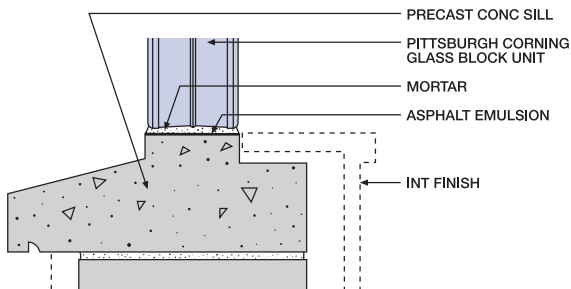
**(PCD 159) Head – 60 Minute Fire Rated Glass Block Panel**



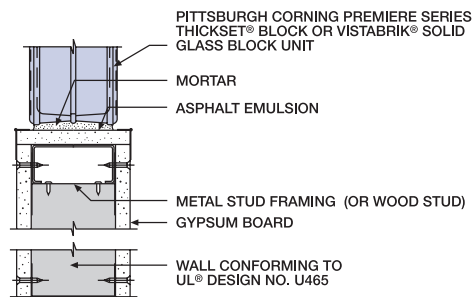
**(PCD 005) Jamb – Glass Block in CMU Wall Fire Rated**



**(PCD 160) Jamb – 60 Minute Fire Rated Glass Block Panel**

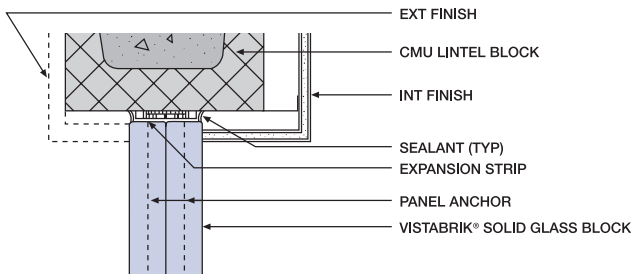


**(PCD 006) Sill – Glass Block in CMU Wall Fire Rated**

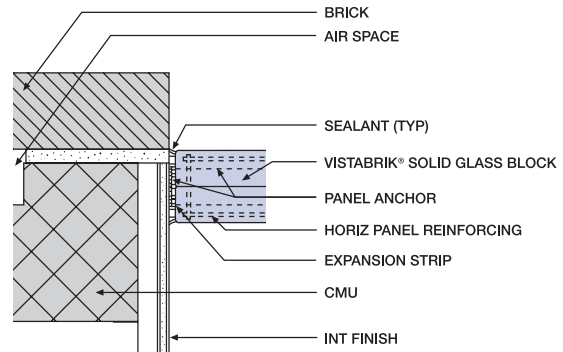


**(PCD 161) Sill – 60 Minute Fire Rated Glass Block Panel**

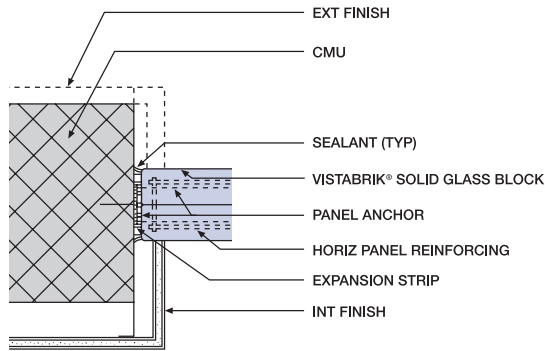
# VISTABRIK® Solid Glass Block Details



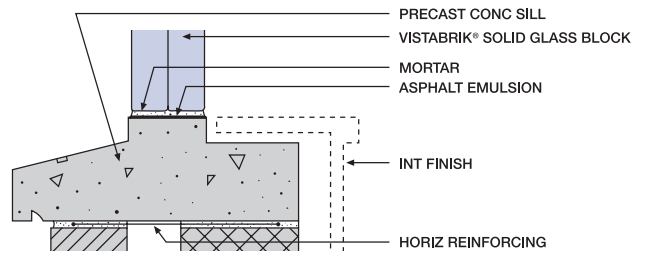
**(PCD 037) Head – Solid Glass Block in CMU Wall**



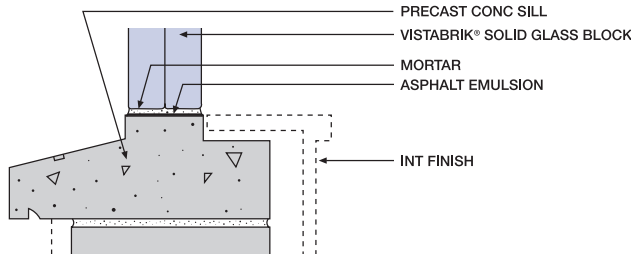
**(PCD 041) Jamb – Solid Glass Block in Brick Masonry Cavity Wall**



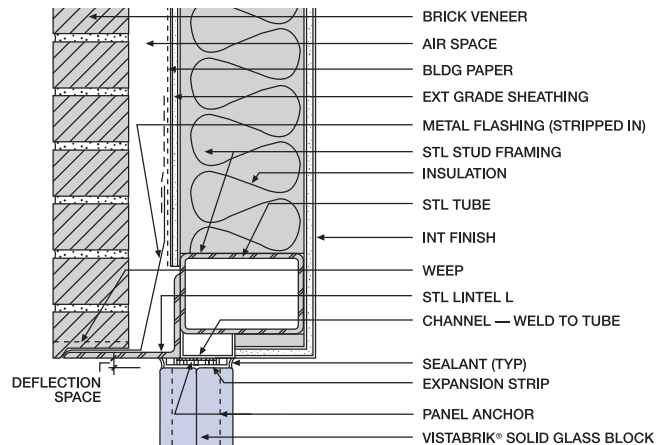
**(PCD 038) Jamb – Solid Glass Block in CMU Wall**



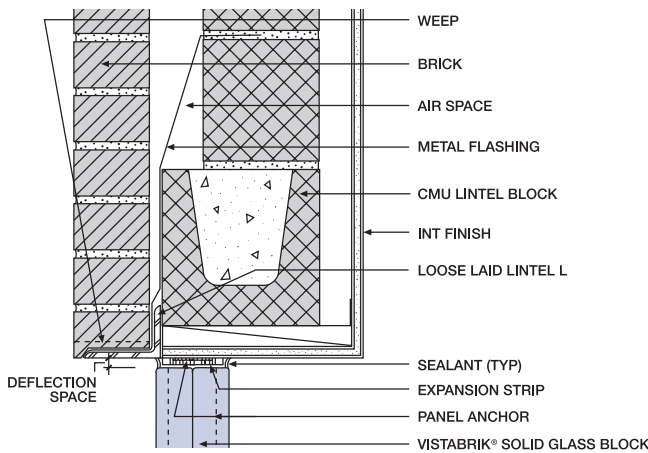
**(PCD 042) Sill – Solid Glass Block in Brick Masonry Cavity Wall**



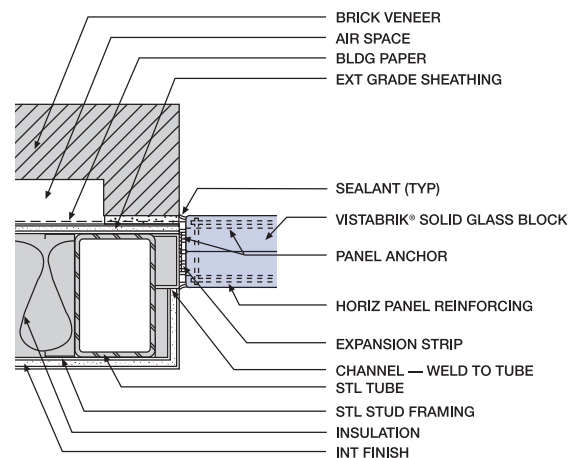
**(PCD 039) Sill – Solid Glass Block in CMU Wall**



**(PCD 043) Head – Solid Glass Block in Steel Stud Wall with Brick Veneer**



**(PCD 040) Head – Solid Glass Block in Brick Masonry Cavity Wall**

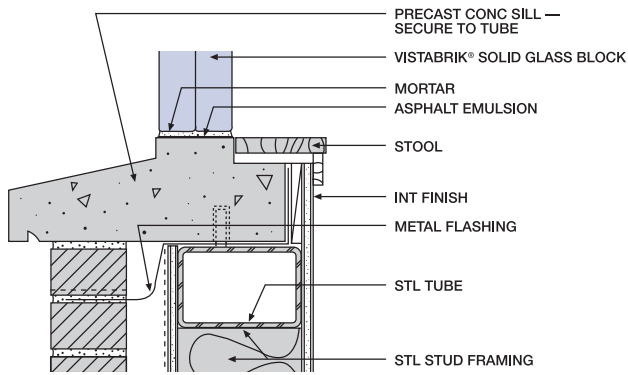


**(PCD 044) Jamb – Solid Glass Block in Steel Stud Wall with Brick Veneer**

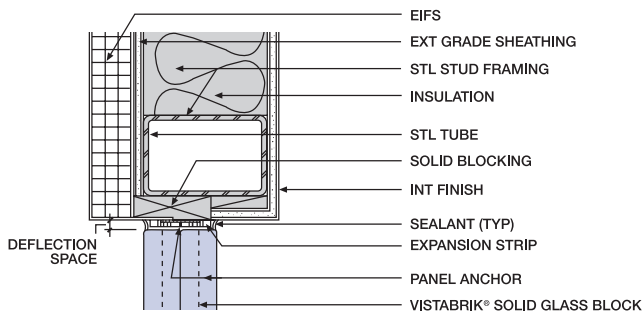


# Typical Shelf Angle Details

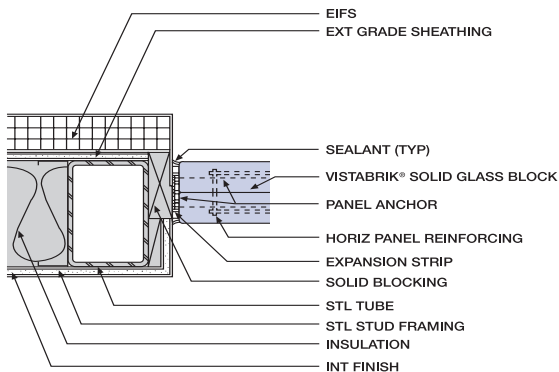
Continuous Panels ≤ 100 Sq. Ft. Each



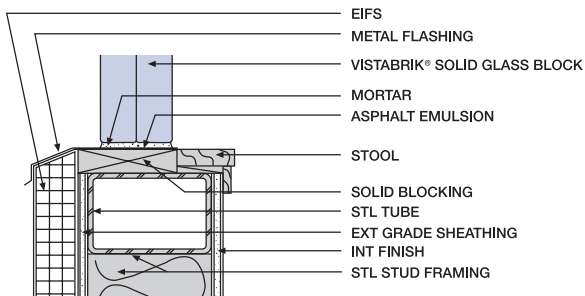
**(PCD 045) Sill – Solid Glass Block in Steel Stud Wall with Brick Veneer**



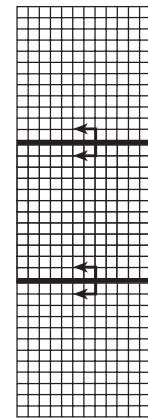
**(PCD 049) Head – Solid Glass Block in Steel Stud Wall with Synthetic Plaster Finish**



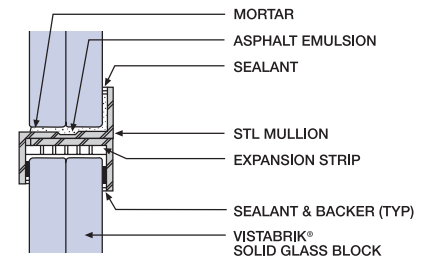
**(PCD 050) Jamb – Solid Glass Block in Steel Stud Wall with Synthetic Plaster Finish**



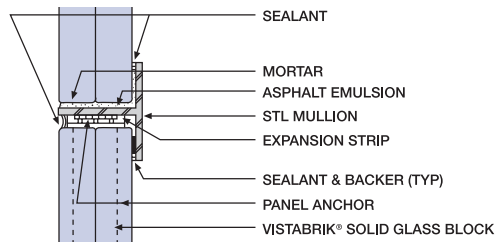
**(PCD 051) Sill – Solid Glass Block in Steel Stud Wall with Synthetic Plaster Finish**



Horizontal Stiffener



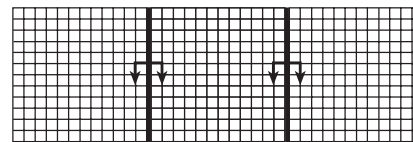
**(PCD 130) Intermediate Horizontal Support in Multiple Vertical Panels**



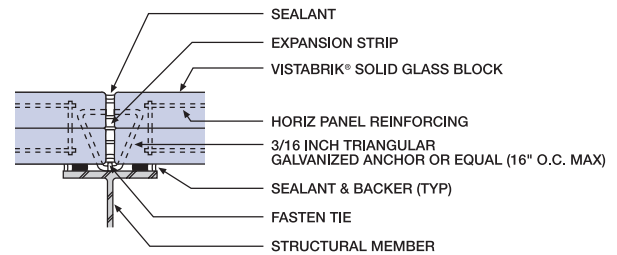
**(PCD 131) Intermediate Horizontal Support in Multiple Vertical Panels**

# Typical Stiffener Details

Continuous Panels ≤ 100 Sq. Ft. Each



Vertical Stiffener



**(PCD 133) Intermediate Vertical Support in Multiple Horizontal Panels**

# Standard Specifications

## Division 4 – Masonry, Section 04270 Glass Unit Masonry

### PART 1 – GENERAL

#### 1.01 Summary

This specification has been prepared by Pittsburgh Corning Corporation using generally accepted and appropriate technical information but is not intended to be solely relied upon for the specification design or technical applications. Having no control over the elements of design, installation, workmanship or site conditions, Pittsburgh Corning assumes that the actual design choices and installation will be made by persons trained and qualified in the appropriate disciplines. Therefore, Pittsburgh Corning disclaims all liability potentially arising from the use or misuse of this specification.

#### 1.02 Section Includes

- A. Glass Block Units, hollow or solid
- B. Integral Joint Reinforcement
- C. Mortar

#### 1.03 Related Sections

- A. Steel Channels
- B. Sills, lintels, jambs
- C. Sealant (caulk)
- D. Packing Material

#### 1.04 References

- A. ASTM A82—Spec. for Cold Drawn Steel Wire
- B. ASTM A153—Class B-2, Spec. Zinc Coating (Hot dip) on iron and steel hardware (Canada same)
- C. ASTM C144, Spec. for Aggregate for Masonry (Canada – A179-94)
- D. ASTM C150, Spec. for Portland Cement (Canada – CAN/CSA-A5-93)
- E. ASTM E163, Fire Test of Window Assemblies (equivalent to UL® 9 and CAN 4-S106-M80)
- F. ASTM C207, Spec. for Hydrated Lime for Masonry Purposes (Canada same)
- G. ASTM C270, Spec. for Mortar for Unit Masonry (Canada – A179-94)
- H. ASTM D1187, Type II—Spec. for Asphalt-Base Emulsions (For Metal Surfaces)
- I. ASTM D1227, Type III—Spec. for Emulsified Asphalt (For Porous Surfaces)

#### 1.05 System Description

Knowledge of the following basic information is essential for proper installation of Pittsburgh Corning Glass Block units:

1. Glass block panels shall not be designed to support structural loads.
2. Maximum deflection of structural members supporting glass block panels shall not exceed L/600
3. Sills of all panels must be painted with a heavy coat of asphalt emulsion and must dry for two hours before first mortar bed is placed.
4. Provision for expansion and movement must be made at jambs and heads of all panels. Mortar must not bridge expansion spaces.
5. Mortar should be mixed and applied in accordance with the recommendations of Pittsburgh Corning Corporation. See Materials.

#### 1.06 Submittals

- A. Product Data
  - Submit two (2) copies of manufacturer's literature and two (2) copies of manufacturer's installation instructions.
- B. Samples
  1. Submit two (2) glass block units of each type specified, showing size, design and pattern of faces.
  2. Submit representative samples of (panel reinforcing), (panel anchors), (expansion strips), and (sealant).

#### C. Test Reports —

##### Fire Tests

Submit documents verifying glass block units are classified for a ¾, 1 or 1½-hour fire exposure according to ASTM E163, Underwriters Laboratories of Canada CAN 4-S106-M80 or UL® 9 "Fire Tests of Window Assemblies." All such glass block unit cartons shall carry appropriate UL® labels.

#### 1.07 Storage and Protection

- A. Store unopened cartons of glass block in a clean, cool, dry area.
- B. Protect opened cartons of glass block against windblown rain or water run-off with tarpaulins or plastic covering.

#### 1.08 Project/Site Conditions

- A. Do not install glass block units when temperature is 40°F (4°C) and falling. Maintain the temperature of glass unit masonry above 40°F (4°C) for the first 48 hours after construction.

#### 1.09 Warranty

- A. Pittsburgh Corning Corporation offers a limited 5-year warranty on Pittsburgh Corning Glass Block units. See warranty statement.

### PART 2 – PRODUCTS

#### 2.01 Acceptable Manufacturers

- A. The drawings and specifications are based on catalog data, specifications and products of Pittsburgh Corning Corporation and designate the type and quality of work intended under this section.
  1. Products of other manufactures proposed as equivalent quality must be submitted through the bidding contractors for written approval of the architect ten days prior to the bid date.
  2. Supporting technical data, samples, published specifications and the like must be submitted for comparison.
  3. Contractor shall warrant that proposed substitutions, if accepted, will provide performance equivalent to the materials specified herein.
  4. These specifications have been developed by Pittsburgh Corning Corporation based on extensive tests of panels composed of Pittsburgh Corning Glass Block masonry units manufactured by Pittsburgh Corning Corporation. These specifications do not apply to panels made from glass block masonry units produced by any other manufacturer.

#### 2.02 Glass Block Units

- A. Glass block units, nominally \_\_\_\_ inch x \_\_\_\_ inch x \_\_\_\_ inch thick shall be partially evacuated hollow units made of clear, colorless glass with a polyvinyl butyral edge coating.  
Pattern type: \_\_\_\_\_.
- B. Solid glass units, nominally \_\_\_\_ inch x \_\_\_\_ inch x \_\_\_\_ thick made of clear colorless glass with a polyvinyl butyral edge coating.  
Pattern type: VISTABRIK® solid glass block.

NOTE: Pittsburgh Corning Corporation offers a polyvinyl butyral edge coating for better bonding and to provide for an expansion/contraction mechanism for each block.

#### 2.03 Accessories

- A. Panel Reinforcing: two parallel 9 gauge wires either 1⅝ inch or 2 inch on center with electrically butt-welded crosswires spaced at regular intervals, hot dipped galvanized after welding, by Pittsburgh Corning Corporation.
- B. Panel Anchors: 20 gauge perforated steel strips 24 inches long by 1¾ inches wide, hot dipped galvanized after perforation, by Pittsburgh Corning Corporation.
- C. Expansion Strips: made of polyethylene foam with a thickness of ⅜ inch, by Pittsburgh Corning Corporation.
- D. Asphalt Emulsion: a water-based asphalt emulsion, by Karnak Chemical Corp. (Karnak 100, 1-800-526-4236), or equal.

- E. Sealant (caulk): non-staining, waterproof mastic, (silicone), (urethane), ( \_\_\_\_\_ ) type.

Below is a list of the toll-free telephone numbers of the Technical Departments of the following sealant manufacturers:

- Dow Corning Corporation, 1-800-248-2481 in Midland, MI
  - General Electric, 1-800-255-8886, in Waterford, NY
  - Sonneborn Building Products, 1-800-243-6739 in Minn., MN
  - Tremco Incorporated, 1-800-321-7906 in Beachwood, OH
- Below is the name of the fire retardant sealant used on glass block fire tests:
- Fyre-Sil Silicone Sealant, by Tremco, Inc. (1-800-321-7906)

- F. Packing (Backer Rods): polyethylene foam, neoprene, fibrous glass or equal as approved by sealant manufacturer.

## 2.04 Mortar Materials

- A. Mortar: Type S in accordance with ASTM C270. Mortar shall be 1 part Portland Cement, 1/2 part lime, and sand equal to 2 1/4 to 3 times the amount of cementitious material (cement plus lime), all measures by volume. (For exterior glass block panels, an integral type waterproofer should be added to the mortar mix.) **No antifreeze compounds or accelerators allowed.**

**NOTE: All model building codes also accept the use of Type N mortar.**

1. Portland Cement: Type 1 in accordance with ASTM C150. If a waterproof Portland Cement is used, the integral type waterproofer shall be omitted. (Masonry Cement is not recommended.) Color: \_\_\_\_\_
2. Lime: Type S, in accordance with ASTM C207. Shall be a pressure-hydrated dolomitic lime, provided that not less than 92% of all the active ingredients are completely hydrated.
3. Sand: A clean, white quartzite or silica type, essentially free of iron compounds, in accordance with ASTM C144, not less than 100% passing a No. 8 sieve.
4. Integral Type Water-repellent: Stearate type by Sonneborn Building Products (Hydrocide Powder, 1-800-243-6739), or equal. Note: Add hydrocide powder to dry mortar mix. Do not add powder to wet mortar mix.
5. External Type Water proofer: Water based silane sealer type by Sonneborn Building Products (HYDROZO ENVIROSEAL™ 20, 1-800-243-6739). Note: Remove excess sealer from glass surfaces soon after application.

## PART 3 – EXECUTION

### 3.01 Preparation

- A. Verify that (channels), (panel anchors) have been provided at head and jambs for the purpose of providing panel support within the opening.
- B. Mix all mortar components to a consistency that is drier than mortar for ordinary masonry. Retempering the mortar after it has taken its initial set shall not be permitted. **Do not use antifreeze compounds or accelerators.**
- C. **Freshly mixed mortar may create skin irritation. Avoid direct contact where possible and wash exposed skin areas promptly with water. If any mortar gets into the eyes, rinse immediately with water and get prompt medical attention.**

### 3.02 Installation

- A. Cover sill area with a heavy coat of asphalt emulsion. Allow emulsion to dry at least 2 hours before placing mortar.
- B. Where panel anchors are used at jambs and heads in lieu of channel or chase surrounds, install panel anchors in the same joints (16 inches o.c. maximum) where panel reinforcing will be laid.
- C. Place or adhere expansion strips to jambs and head. Make certain expansion strip extends to sill and covers leg of panel anchor which is attached to jambs and head.
- D. Set a full mortar bed joint, applied to sill.
- E. Set lower course of block. Maintain a uniform joint width of 1/4 to 3/8 inch plus or minus 1/8 inch. All mortar joints must be full and not

furrowed. Steel tools must not be used to tap blocks into position. (Place a rubber crutch tip on end of trowel to tap block into position.) Do not realign, tap or otherwise move block after initial placement. For VISTABRIK® Solid glass block units, typical mortar joint is 3/8 inch. Special VISTABRIK® spacers that provide a 3/8 inch thick mortar joint are available.

- F. Install panel reinforcing every 16 inches o.c. maximum in the horizontal mortar joint and in joints immediately above and below all openings within panels. Run reinforcing continuously from end to end of panels. Lap reinforcing not less than 6 inches whenever it is necessary to use more than one length. NOTE: In corrosive atmospheres, (i.e. saline air, chlorine air, etc.), the use of stainless steel channels, reinforcing and panel anchors should be considered. For VISTABRIK® solid glass block, use 1 5/8 inch wide reinforcing (same as Thinline™ Series glass block). Do not bridge expansion joints with reinforcing. Install reinforcing as follows:
- **Place lower half of mortar in bed joint. Do not furrow.**
  - **Press panel reinforcing into place.**
  - **Cover panel reinforcing with upper half of mortar bed and trowel smooth. Do not furrow.**
- G. Place full mortar bed for joints not requiring panel reinforcing – do not furrow. Maintain uniform joint width.
- H. Set succeeding courses of block. Space at head of panel and jambs must remain free of mortar for caulking with sealant.
- I. Use only wooden or rubber tipped tools when tapping glass blocks into place.
- J. Strike joints smooth while mortar is still plastic and before final set. Remove surplus mortar from faces of glass blocks and wipe dry. (See Section 3.03). Tool joints smooth and concave before mortar takes final set. (Remove wedges from lower courses of VISTABRIK® solid glass blocks and point the voids with mortar.) At this time, remove and clean out all excess mortar from jamb, head and other locations.
- K. After final mortar set (approximately 24 hours), install packing tightly between glass block panel and jamb and head construction. Leave space for sealing.
- L. Apply sealant evenly to the full depth of recesses as indicated on the drawings and in accordance with the manufacturers application manual and instructions.
- M. *All exterior glass block panels shall be well sealed to prevent water entry.*

### 3.03 Cleaning

- A. Remove surplus mortar from the faces of the glass block at the time joints are struck or tooled. **Mortar should be removed while it is still plastic** using a clean, wet sponge or an ordinary household scrub brush with stiff bristles.
- B. **Do not use harsh cleaners, acids (of any strength), abrasives or alkaline materials while cleaning glass block. Never use a wire brush to remove mortar from glass block surfaces.**
- C. Final mortar removal is accomplished with a clean, wet sponge or cloth. Rinse sponge or cloth frequently in clean water to remove abrasive particles **that could scratch glass surfaces.** Allow any remaining film on the block to dry a powder.
- D. After all organic sealants, caulking, etc., have been applied, remove excess caulking materials with commercial solvents such as xylene, toluene, mineral spirits or naphtha and follow with normal wash and rinse. Be careful not to damage caulking by overgenerous application of strong solvents. Comply with solvent manufacturers directions on label for toxicity and flammability warnings.
- E. Final cleaning of glass block panels is accomplished after they are completely installed. Wait until panels are not exposed to direct sunlight. Start at the top of the panel and wash with generous amounts of clean water. Dry all water from the glass block surface. Change cloth frequently to eliminate dried mortar particles or aggregate **that could scratch the glass surface.** To remove the dry powder from the glass surfaces, use a clean, dry, soft cloth. For stubborn or hard to remove powder or stains, the use of an "extra fine" steel wool (grades 000 or 0000) is suggested. Try this first in an unobtrusive area.



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**AMERICA**

## Pittsburgh Corning Project Design Assistance

### Unmatched Service.

When specifying Pittsburgh Corning Glass Block, you receive a level of technical support and guidance unavailable from any other glass block producer.

### Pittsburgh Corning Representative & Distributor Assistance.

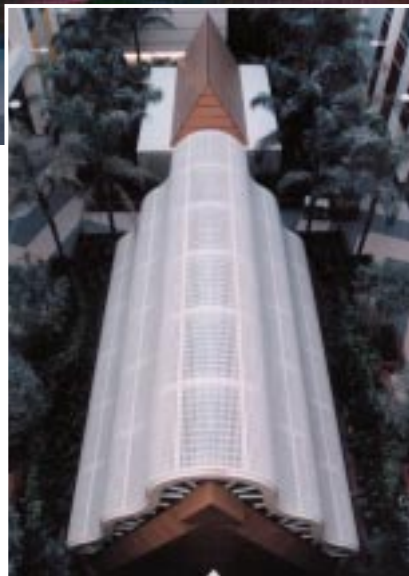
Services are available through your local Pittsburgh Corning Representative and Distributor. They will arrange for drawing review and technical guidance, full sample selection, professional installation, on-site assistance, and provide technical support after the job is completed, if needed.

### Technical Service Department.

Our Technical Service Department, located in Pittsburgh, is available for technical advice, project design assistance, and plan review. Please call the Pittsburgh Corning Glass Block Resource Center.

### Pittsburgh Corning Glass Block Resource Center.

From your first inquiry, information is readily available to you, toll-free from anywhere in the continental United States and Canada. Our Resource Center, 1-800-624-2120, is your initial channel for literature requests and answers to technical questions.



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in our literature, please  
send to: Marketing  
Dept., Pittsburgh Corning  
Corporation.

#### Five-Year Limited Warranty

Pittsburgh Corning Corporation ("PC"), promises to replace any glass blocks that are found to be defective within five years from the date of purchase. We will not replace blocks damaged as a result of faulty installation. Upon discovery of any defect, you should send written notice to Pittsburgh Corning Corporation, 800 Presque Isle Drive, Pittsburgh, PA 15239 attention: Pittsburgh Corning Glass Block Customer Service Department, or telephone 724/327-6100. A proof of purchase and a sample or photograph of the block(s) in question will be required. PC will review your claim and replace any block(s) found to be defective.

Your sole remedy in replacement of defective blocks, excluding labor, and PC will not be liable for any incidental or consequential damages relating to your purchase or use of Pittsburgh Corning Glass Block. All implied warranties are also limited to a duration of five years from the date of your purchase of Pittsburgh Corning Glass Block products. Some states do not allow the exclusion or limitation of incidental or consequential damages, or the limitation on how long an implied warranty lasts, so the above limitations may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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Our website, [www.pittsburghcorning.com](http://www.pittsburghcorning.com), features application photos, product information, specifications, installation details, literature, continuing education, case histories, and much more information on how to design with Pittsburgh Corning Glass Block products.

## Pittsburgh Corning Glass Block Resource Center:

# 1-800-624-2120

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