

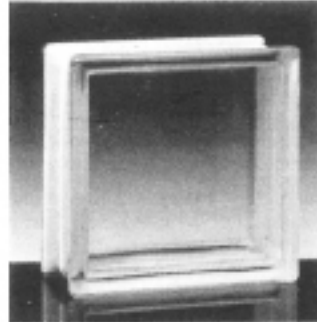
WECK®

Glass Blocks

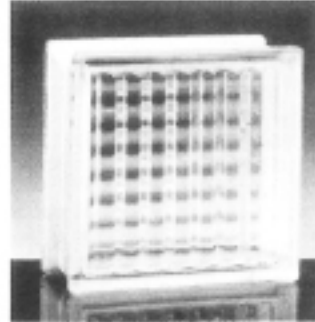
DESIGN GUIDE



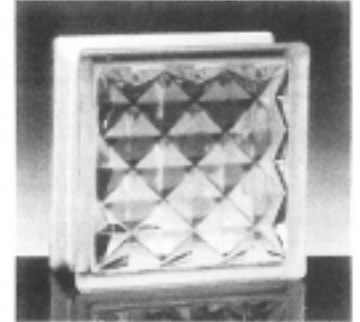
Nubio



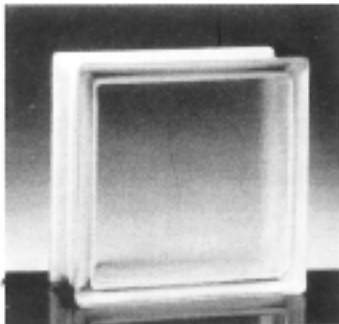
Clarity



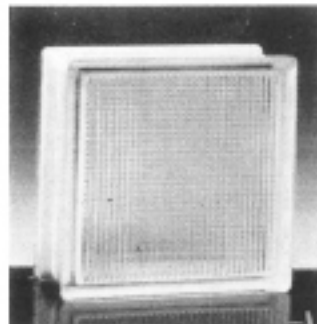
X-Rib



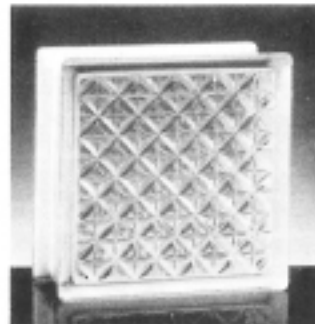
Regent



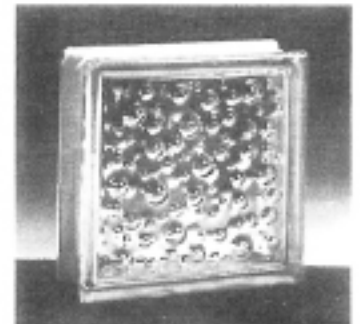
Arctic



Spray



Aktis



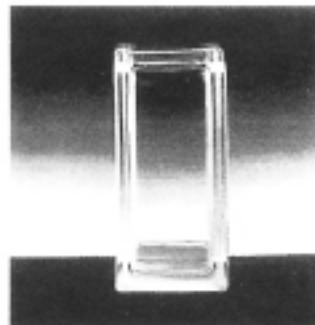
Pearl



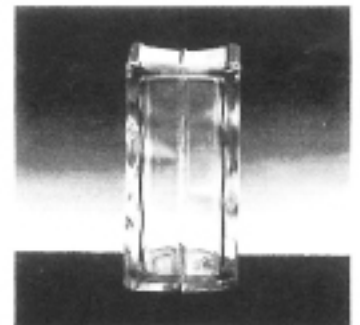
AllBend



AllBend Top



4x8x4 Top



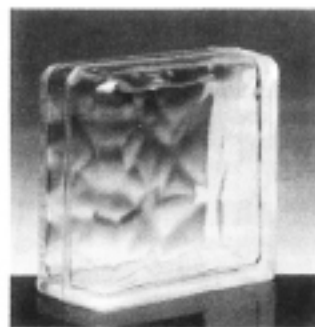
4x8x4 WeckEnd



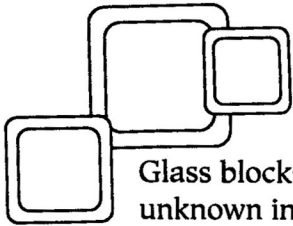
Corner Block



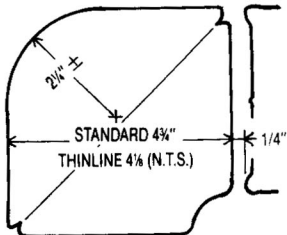
8x8x4 WeckEnd



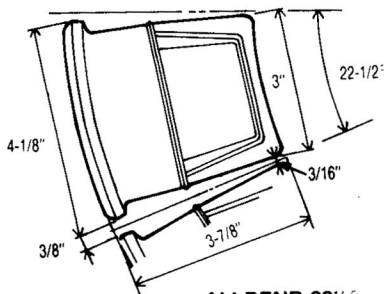
8x8x4 DoubleEnd



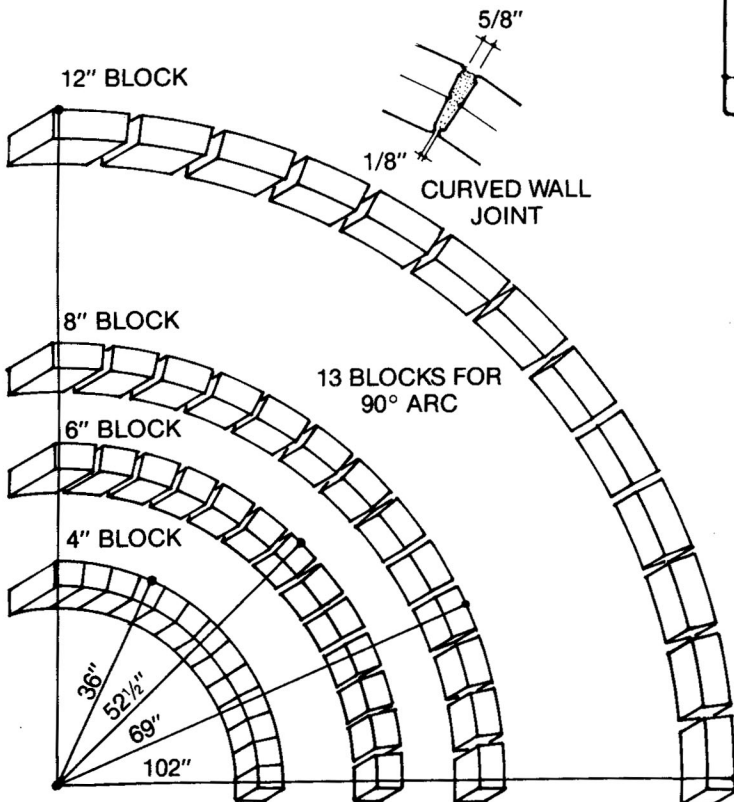
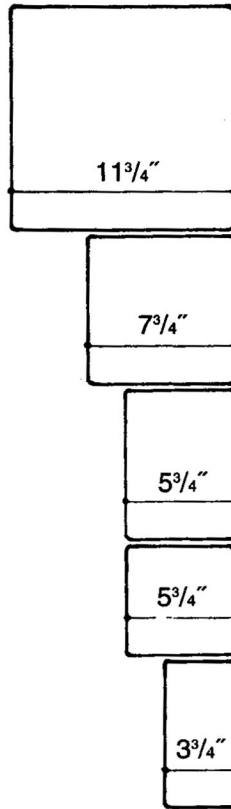
Glass blocks from the World-renowned **WECK®** Glassworks offer design options heretofore unknown in America. Designer Shape selection includes AllBend, AllBend Top, 8x8 WeckEnd, 4x8 Top, 8x8 DoubleEnd and 90° Corners. More special shape options than any other glass block manufacturer and more to be introduced. Blue, Gray, Peach, Green, and Goldtone are now available in the color assortment.



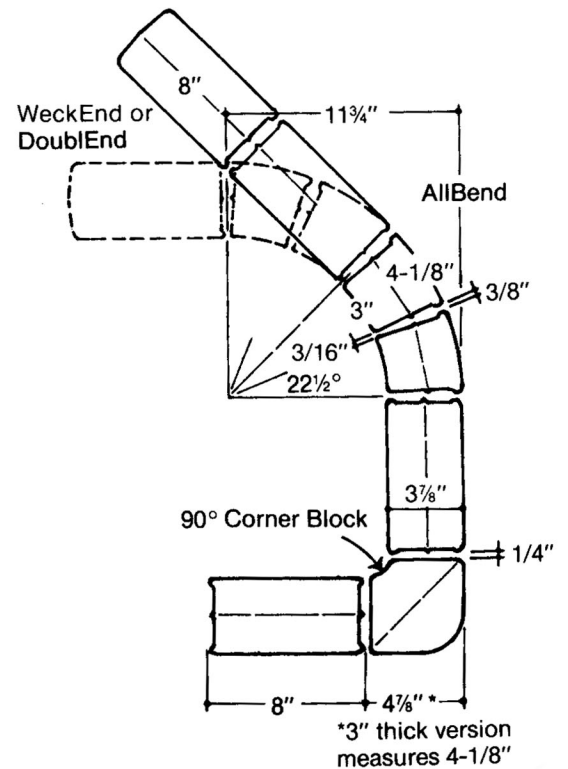
CORNER BLOCK



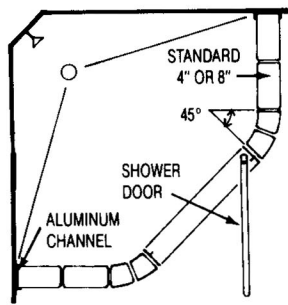
ALLBEND 22 1/2°



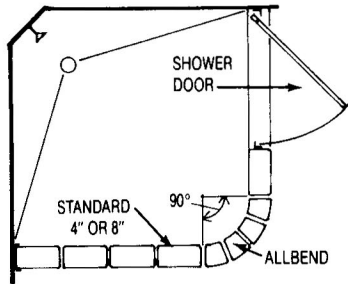
TYPICAL DIMENSIONS FOR CURVED WALL



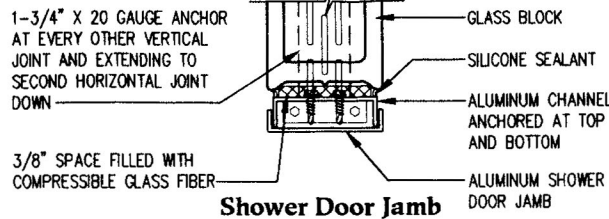
TYPICAL DIMENSIONS FOR 22 1/2°, 45°, 67 1/2° and 90° CORNERS



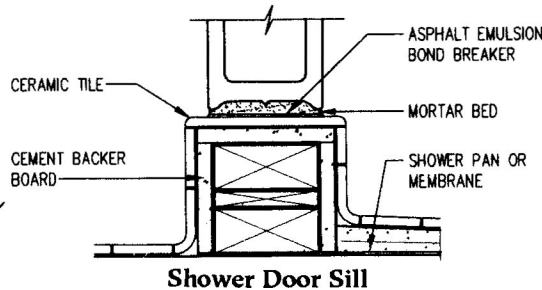
SHOWER COMPARTMENT



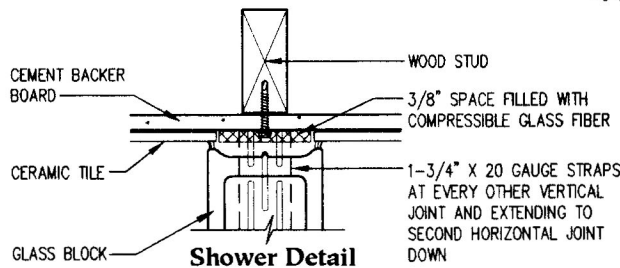
SHOWER COMPARTMENT



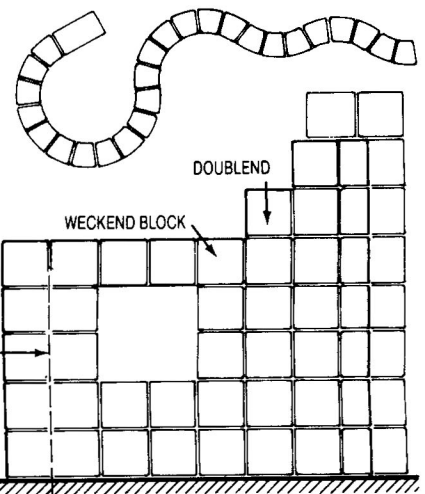
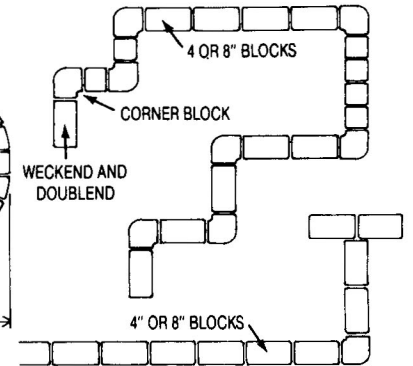
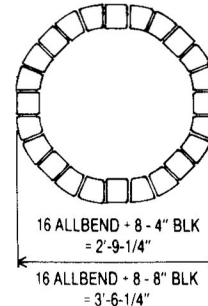
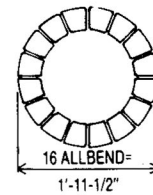
Shower Door Jamb



Shower Door Sill



Shower Detail



Designer Shapes Specifications

	Thickness	Sizes
AllBend	4"	8" high
AllBend Top	4"	8" high
Top	4"	4" x 8"
WeckEnd	4"	4" x 8"
WeckEnd	4"	8" x 8"
DoublEnd *	4"	4" x 8"
DoublEnd	4"	8" x 8"
Corner	4"	8" high
Corner	4"	6" high
Corner	3"	8" high

NOTES:

- All Dimensions nominal
- Designer Shapes available in Nubio & Clarity
- 3" thick corner also available in Nubio Goldtone

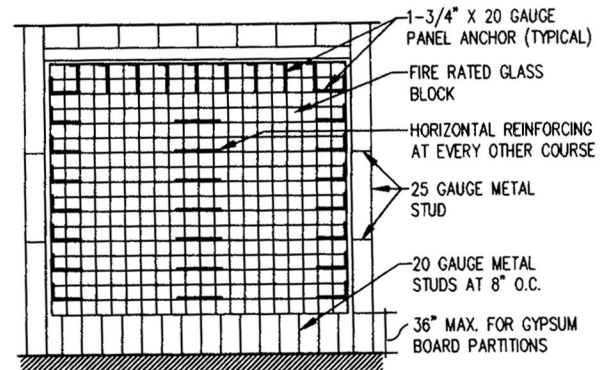
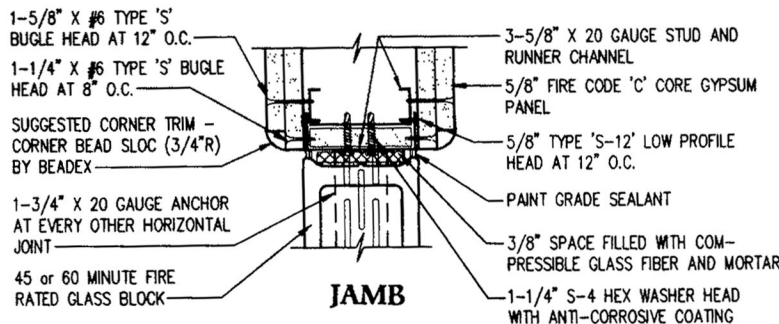
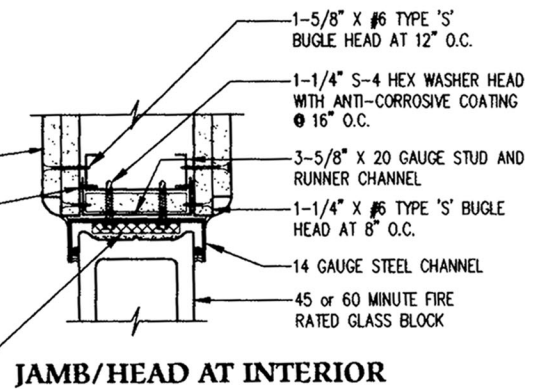
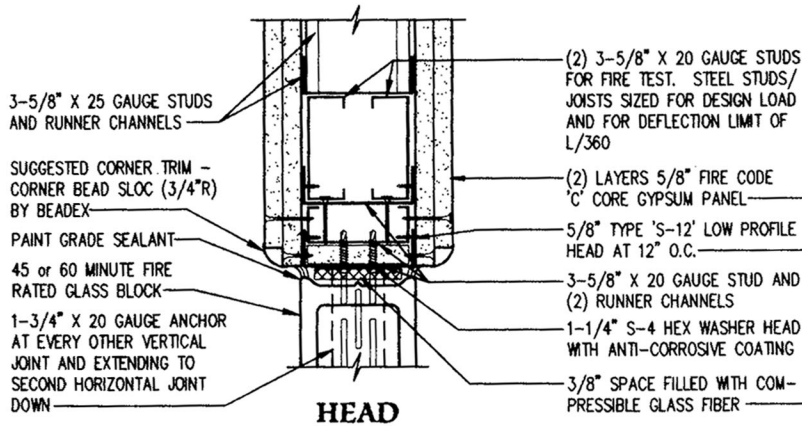
* available late 1998

Radius Options	AllBend	Outside Radius inches
1 piece 4" x 8" per	4	14.5
1 piece 4" x 8" per	2	16.7
1 piece 8" x 8" per	4	17.5
1 piece 4" x 8" per	1	21.6
1 piece 8" x 8" per	2	21.7
1 piece 8" x 8" per	1	31.9
2 pieces 4" x 8" per	1	32.5

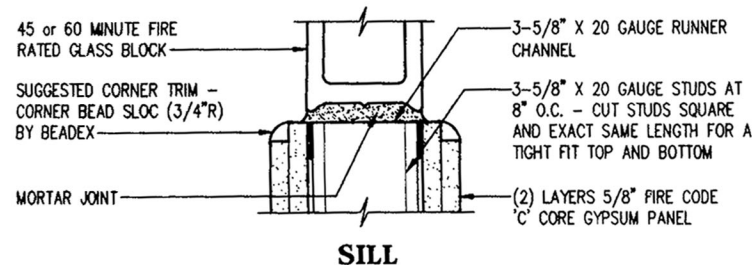
TYPICAL DETAILS AND CODE LIMITATIONS

- Hollow glass blocks, Standard Series — 3/8" thick, Thinline Series — 3/8" thick and special shapes. All blocks are designed for a modular face dimension of 4", 6", 8" and 12" using 1/4" thick mortar joints.
- Mortar shall conform to ASTM C270 Type 'S' for maximum bond strength.
- Horizontal reinforcing for Standard Series to be 2" wide of two 9 gauge parallel wires with cross ties at 8" o.c. Reinforcing for Thinline Series to be 1 1/2" wide. All reinforcing to have hot dipped zinc coating. Horizontal reinforcing to have a maximum spacing of 18" o.c., i.e. every third joint at 6" block, every other joint at 8" block and every joint at 12" block.
- Panel anchors to be 1 1/4" x 24" x 20 gauge steel with elongated perforations and hot dipped zinc coating. Locate panel anchors in same joint as horizontal reinforcing. Panel anchor to be installed in horizontal joint of masonry wall if possible and embedded 12". For alternate connection, return panel anchor up face of jamb and add two 1/4" Ø anchors with washers just above bend of anchor. Anchors to be in horizontal alignment.
- Aluminum channels with panel anchors are an acceptable alternate.
- Head and jamb channel to be 1 1/2" x 4 1/2" x 14 gauge for Standard Series and 1 1/2" x 3 1/4" x 14 gauge for Thinline Series. Channels used for exterior installations should have hot dipped zinc coating.
- All glass block panels to be non-load bearing and isolated from surrounding structures/walls with 3/8" thick glass fiber or white polyethylene foam expansion strips at jambs and head. Sill to be coated with asphalt emulsion to serve as a bond breaker.
- Structural members around glass block panels shall be limited to a deflection of L/600.
- Provide for vertical expansion joints where straight walls and curved walls (radius larger than 24") intersect or at a reversal of the curved wall.
- Expansion material at jambs may be omitted for panels with areas of 25 sq. ft. or less. Expansion joint at head must be maintained.
- All steel on the outside, within the wall system and adjacent to wall on inside should have a coating of hot dipped zinc to minimize rust staining.
- Silicone sealant may be used in lieu of mortar in which the exposed joints are approximately 1/8" thick and panels are limited to 25 square feet on exterior and 85 square feet on interior installations.
- Limitation of panel sizes:
 - Exterior wall panels using Standard Series (3/8" thick) block exposed to 20 lbs./square foot wind load to be limited to 144 square feet when supported on all four sides. Area may be increased to 250 square feet when an intermediate stiffener is incorporated as an additional supporting member near the middle of the panel and span is not longer than 10 feet. Maximum height to be 20 feet and maximum width to be 25 feet except the Uniform Building Code limits height and width to 15 feet.
 - Interior wall panels using Standard Series (3/8" thick) block to be limited to 250 square feet. Max. height to be 25 feet and max. width to be 25 feet except the Uniform Building Code limits height and width to 15 feet.
 - Exterior or interior wall panels using Thinline Series (3/8" thick) block, exposed to 20 lbs./square foot wind load or less to be limited to 85 square feet when supported on all four sides. Area may be increased to 150 square feet when an intermediate stiffener is incorporated as an additional supporting member near the middle of the panel. Maximum height is limited to 10 feet for exterior and 20 feet for interior installations. Maximum width is limited to 25 feet for exterior and interior.
 - Check governing building code for additional details.
- Contact Glashauss Inc. for design of glass block panels subjected to a wind load greater than 20 lbs./sq. ft. or for design of free standing exterior panels.

FIRE RATINGS – GYPSUM BOARD CONSTRUCTION

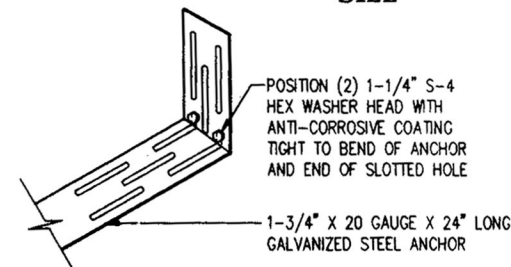


ELEVATION
(Fire rated Gypsum Board Partition)



Gypsum Board Construction				
FIRE RATING ¹	BLOCK THICKNESS ²	ANCHORAGE CONSTRUCTION	MAX. DIMENSION	MAX. SQ. FT.
45	3"	CHANNEL	10'-9"	94
45	4"	CHANNEL	10'-9"	94
60	4"	CHANNEL	10'-9"	94
45	3"	PANEL ANCHOR	10'-9"	94
45	4"	PANEL ANCHOR	10'-9"	94
60	4"	PANEL ANCHOR	10'-9"	94

¹ CORNER BLOCKS, END BLOCKS AND 12 X 12 SIZES ARE NOT FIRE RATED.
² SEE TABLE 1 FOR APPLICABLE BLOCK DESIGNS AND SIZES.



PANEL ANCHOR DETAIL

GLASS BLOCK IN NON-MASONRY WALLS WITH PANEL ANCHOR CONSTRUCTION

Rating: 45 or 60 minutes

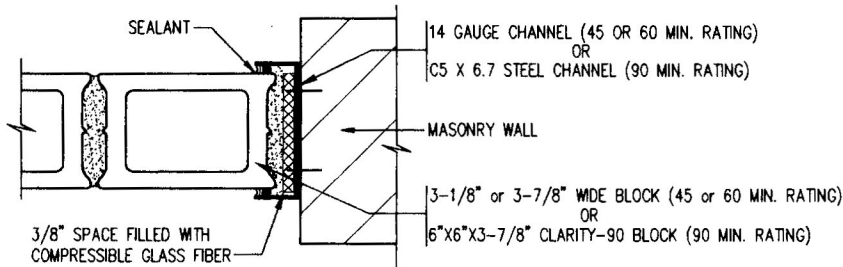
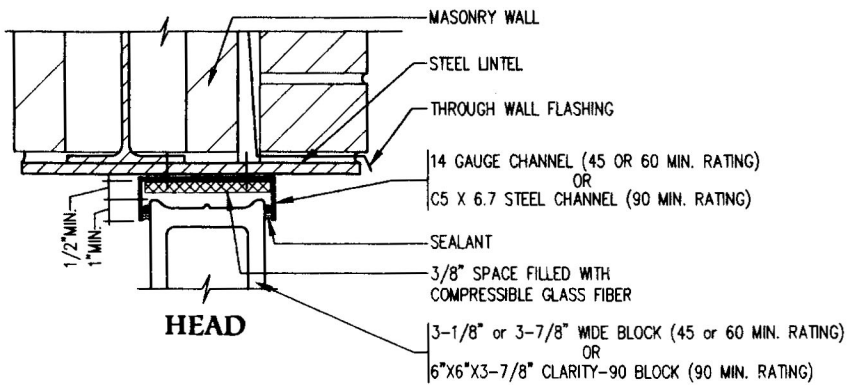
1. Steel studs below sill to be 3-5/8" x 20 gauge @ 8" o.c. (Max. length of 36") with a 3-5/8" x 20 gauge runner channel to create base for glass block.
2. Each jamb to be 3-5/8" x 20 gauge steel stud and runner channel. Gypsum board to be installed between stud and runner channel.
3. Head to be (2) 3-5/8" x 20 gauge studs with (2) runner channels.
4. Panel anchors to be 1-3/4" x 20 gauge x 24" long galvanized steel. Locate above first course and in every other joint above. Do not locate in joint below top course. If necessary, locate in second joint below top course. Secure panel anchor with (2) self drilling, self tapping screw fasteners. Fasteners to be located at the top of slots and immediately above bend of the panel anchor. Install panel anchors at head in every other vertical mortar joint.
5. Horizontal mortar joints with panel anchors to be reinforced with 9 x 14 AWG galvanized wire. Overlap panel anchor a minimum of 6". Use Type S mortar.
6. Fill space between glass block and channel with glass fiber, mineral wool or polyethylene and seal with silicone caulk.
7. Accuspeed or A.B. Kreuz spacers may be used to install Weck Glass Block.

GLASS BLOCK IN NON-MASONRY WALLS WITH CHANNEL CONSTRUCTION

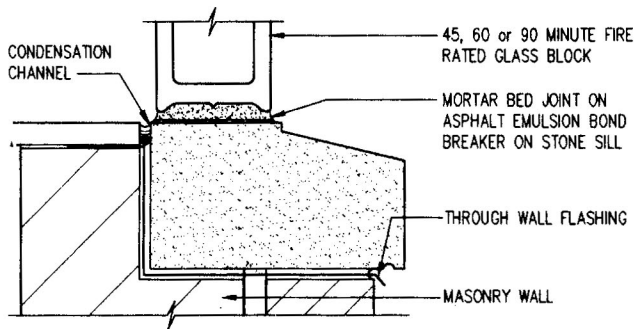
Rating: 45 or 60 minutes

1. Steel studs below sill to be 3-5/8" x 20 gauge @ 8" o.c. (Max. length of 36") with a 3-5/8" x 20 gauge runner channel to create base for glass block.
2. Each jamb to be 3-5/8" x 20 gauge steel stud and runner channel with 14 gauge channel secured @ 16" o.c..
3. Head conditions similar to jamb for interior installations. Channel at sill is optional.
4. Horizontal reinforcing for Standard Series block (3-7/8" thick) to be 2" wide consisting of two 9 gauge parallel wires with cross ties @ 8" o.c.. Reinforcing for Thinline Series block to be 1-5/8" wide. All reinforcing to have hot dipped zinc coating. Horizontal reinforcing to have a minimum spacing of 18" o.c., i.e. Every third joint at 6" block and every other joint at 8" block.
5. Glass block to be placed 1" deep into recess. Recess to be formed of 1-3/4" deep steel channel. Steel channel to be 14 gauge hollow metal. Do not use channel at sill for exterior installations.
6. Fill space between glass block and channel with glass fiber, mineral wool or polyethylene and seal with silicone caulk.
7. Accuspeed or A.B. Kreuz spacers may be used to install Weck Glass Block.

FIRE RATINGS – MASONRY CONSTRUCTION



(Masonry Jamb Steel Channel)



Masonry Construction

FIRE RATING ¹	BLOCK THICKNESS ²	ANCHORAGE CONSTRUCTION	MAX. DIMENSION	MAX. SQ. FT.
45	3" or 4"	CHANNEL	12'-0"	120
60	4"	CHANNEL	10'-0"	100
90	4"	CHANNEL	10'-0"	100
45	3" or 4"	PANEL ANCHOR	10'-9"	94
60	4"	PANEL ANCHOR	10'-9"	94

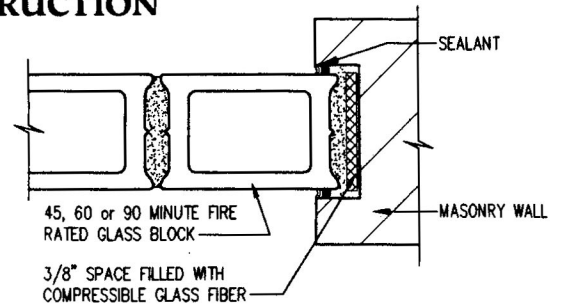
¹CORNER BLOCKS, END BLOCKS AND 12 X 12 SIZES ARE NOT FIRE RATED.

²SEE TABLE 1 FOR APPLICABLE BLOCK DESIGNS AND SIZES.

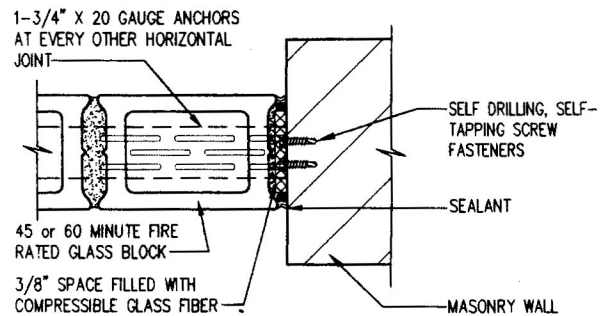
GLASS BLOCK IN MASONRY WALLS WITH PANEL ANCHOR CONSTRUCTION

Rating: 45 or 60 minutes

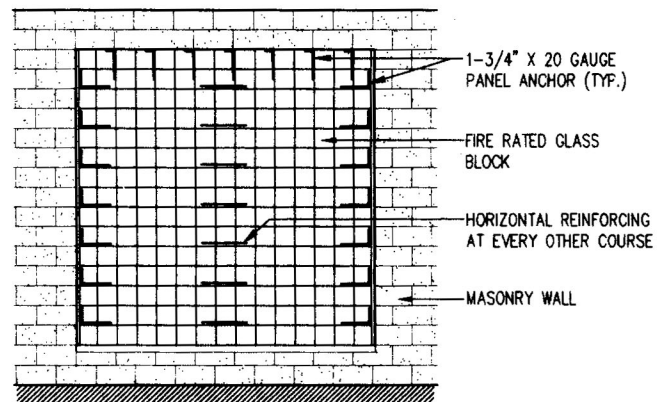
1. Panel Anchors to be 1-3/4" x 20 gauge x 24" long galvanized steel. Locate above first course and in every other joint above. Secure panel anchor with (2) self drilling, self tapping screw fasteners. Fasteners to be located at top of slots and immediately above the bend of the panel anchor. Install panel anchors at head in every other vertical mortar joint.
2. Horizontal mortar joints with panel anchors to be reinforced with 9 x 14 AWG galvanized wire except below first course or above top course. Overlap panel anchor a minimum of 6". Use type S mortar.
3. Sill to be coated with asphalt emulsion to serve as bond breaker.
4. Fill space between glass block and channel with glass fiber, mineral wool or polyethylene and seal with silicone caulk.
5. Accuspeed or A.B. Kreuz spacers may be used to install Weck Glass Block.



(Masonry Jamb with Recess)



(Masonry Jamb/Head with Anchor Strap)



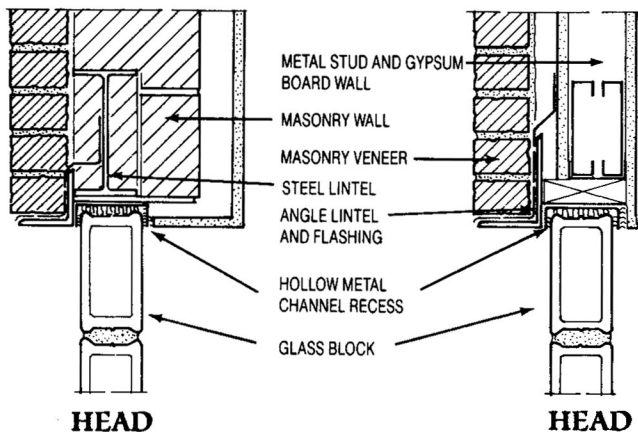
(Rated Masonry Partition)

GLASS BLOCK IN MASONRY WALLS WITH CHANNEL CONSTRUCTION

Rating: 45, 60 or 90 minutes

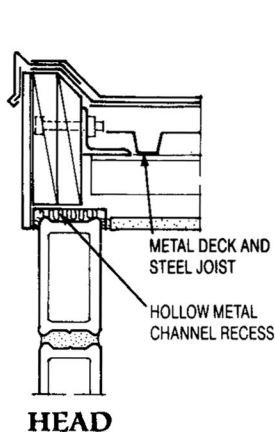
1. Horizontal reinforcing for Standard Series block (3-7/8" thick) to be 2" wide consisting of two 9 gauge parallel wires with cross ties @ 8" o.c.. Reinforcing for Thinline Series block to be 1-5/8" wide. All reinforcing to have hot dipped zinc coating. Horizontal reinforcing to have a minimum spacing of 18" o.c., i.e. Every third joint at 6" block and every other joint at 8" block. All mortar shall be Type S.
2. Glass block at head and jamps to be placed 1" into 1-1/2" deep recess. Recess to be formed of masonry or 1-3/4" deep steel channel. Steel channel to be 14 gauge hollow metal for 45 or 60 minute openings and steel channel (C5x6.7) for 90 minute openings. Do not use channel at sill for exterior installations. Sill to be coated with asphalt emulsion to serve as bond breaker.
3. Fill space between glass block and channel with glass fiber, mineral wool or polyethylene and seal with silicone caulk.
4. The installation of glass block will be more easily accomplished if the lintel is not installed until the top course of glass block has been installed.
5. Accuspeed or A.B. Kreuz spacers may be used to install Weck Glass Block.

TYPICAL WALL DETAILS

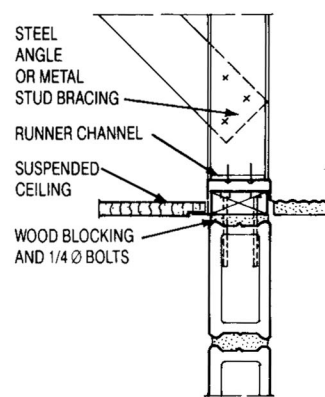


HEAD

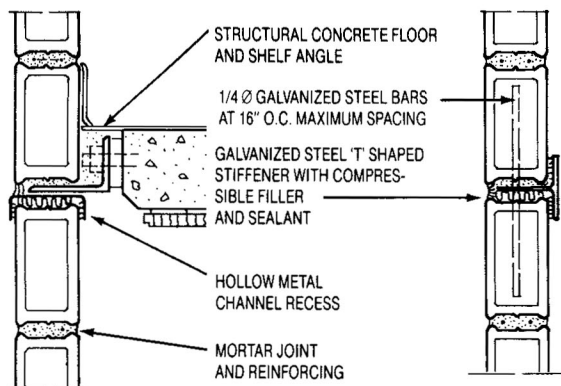
HEAD



HEAD

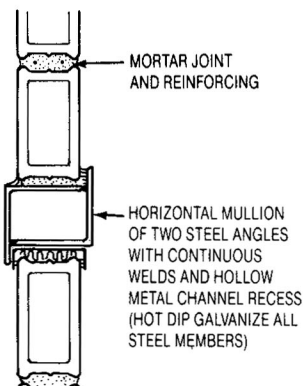


INTERIOR PARTITION SUPPORT

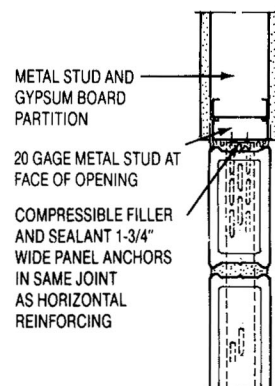


SPANDREL

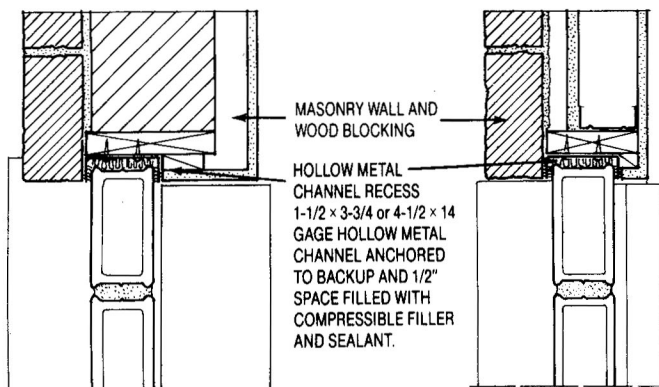
VERTICAL MULLION



HORIZONTAL MULLION

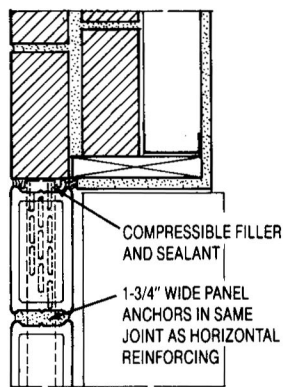


JAMB AT INTERIOR PARTITION

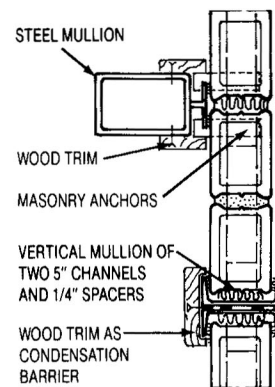


JAMB

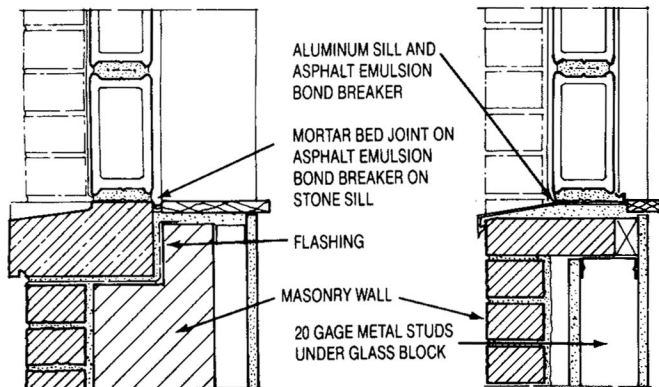
JAMB



JAMB

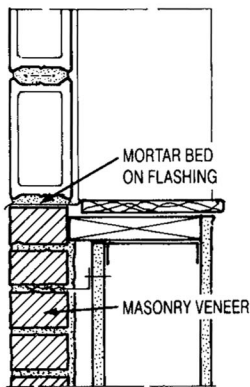


MULLION

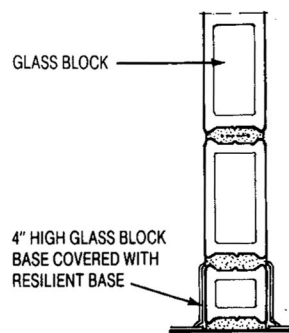


SILL

SILL



SILL



BASE

WECK GLASS BLOCK DESIGNS

Aktis

Elegant crystalline pattern provides privacy and good light transmission, at reasonable cost. Smooth exterior surface

Arctic

Frosted glass appearance yields excellent privacy without pattern. Texture is on inside faces of glass for easy cleaning. Rain will not change the translucent effect.

Spray

Grid pattern offers privacy, reduces glare.

Nubio

Intersecting random wave pattern, provides an attractive appearance and excellent privacy. Smooth exterior surface for easy cleaning.

Matching designer shapes provide beauty and flexibility to create angles, curves or finished jambs and/or heads. 45 and 60 minute fire ratings are available.

Regent

Multifaceted diamond pattern for strong sundappled shadows and a sparkling effect in bright sunlight.

Clarity

This see-through block provides a dramatic grid effect, undistorted vision and maximum light transmission.

Matching designer shapes provide beauty and flexibility to create angles, curves or finished jambs and/or heads. 45, 60, and 90 minute fire ratings are available.

X-Rib

Vertical ribs on one face and horizontal on the other for excellent privacy.

Pearl

Various sized bubbles for privacy. Looks great near showers and fountains.

Notes:

1. Face dimensions of blocks are nominal. Actual dimensions are 1/4" smaller than stated.
2. Thickness indicated is nominal. 3" thick is 3-1/8" and 4" thick is 3-7/8".
3. Dimensions shown for Corner Blocks and AllBends are height and thickness only.

Block Dimensions Design/Color	Fire Rating Minutes	U/R Values	Light Transmission Percent	Shading Coefficient Percent	Sound Loss Decibels	Weight per Block	Installed Wt. (lbs.) (per sq. ft.)
8x8x3 Nubio, Clarity, Aktis, X-Rib, Regent, Pearl	45	.53/1.89	77	.66	41	5.4	15.9
8x8x3 Goldtone Nubio	45	.53/1.89	52	.52	41	5.4	15.9
6x8x3 Nubio, Clarity, Aktis	45	.53/1.89	77	.66	41	4.5	17.9
6x8x3 Goldtone Nubio	45	.53/1.89	52	.52	41	4.5	17.9
6x6x3 Nubio, Clarity, Aktis	45	.53/1.89	77	.66	40	3.1	17.2
6x6x3 Goldtone Nubio	45	.53/1.89	52	.52	40	3.1	17.2
4x8x3 Nubio, Clarity, Aktis	45	.53/1.89	77	.66	41	2.9	18.6
4x8x3 Goldtone Nubio	45	.53/1.89	52	.52	40	2.9	18.6
8x8x4 Nubio, Clarity, Aktis, X-Rib, Regent, Arctic	45	.50/2.00	75	.65	41	6.4	19.5
8x8x4 Spray	45	.50/2.00	58	.41	42	6.4	19.5
8x8x4 Goldtone Nubio, Clarity	45	.50/2.00	52	.52	41	6.4	19.5
8x8x4 Fortress Nubio, Clarity, Arctic, Ribbed	60	.48/2.08	50	.54	48	11.2	30.6
8x8x4 60 minute Nubio, Clarity	60	.48/2.08	57	.55	42	7.7	22.7
6x8x4 Nubio	45	.50/2.00	75	.65	41	4.9	20.1
6x6x4 Nubio, Clarity, X-Rib	45	.50/2.00	75	.65	41	3.5	20.8
6x6x4 90 minute Clarity	90	.31/3.23	50	.43	48	7.8	37.8
4x8x4 Nubio, Clarity	45	.50/2.00	75	.65	41	3.5	20.8
12x12x4 Nubio, Clarity, X-Rib, Regent, Arctic		.50/2.00	75	.63	42	15.3	18.7
12x12x4 Goldtone Nubio		.50/2.00	52	.52	42	15.3	18.7
8x3 Corner Nubio, Clarity		.53/1.89	32	.30	39	3.9	17.9
8x3 Corner Goldtone Nubio		.53/1.89	29	.30	39	3.9	17.9
8x4 Corner Nubio, Clarity		.50/2.00	32	.30	39	4.1	18.1
6x4 Corner Nubio, Clarity		.50/2.00	32	.30	39	3.4	20.2
8x8x4 WeckEnd Nubio, Clarity			75		42	6.2	19.1
8x8x4 DoubleEnd Nubio, Clarity			75		42	6.2	19.1
8x4 AllBend Nubio, Clarity		.50/2.00	70	.65	41	3.6	23.8
8x4 AllBend Top Nubio, Clarity			70		41	3.6	23.8
6x8x4 Top Nubio			70		41	4.9	20.1
4x8x4 Top Nubio, Clarity			70		41	3.6	20.8
4x8x4 WeckEnd Nubio, Clarity			70		41	3.6	20.8
4x8x4 DoubleEnd Nubio,			70		41	3.6	20.8

Five patterns of block are available in WECK's new 2" thick series.

Seven colors (Blue, Green, Peach, Gray, Turquoise, Violet, Cobalt Blue) are available in metric dimensions.

Information is available from WECK distributors or Glashaus.

SPECIFICATIONS

PART 1 GENERAL

1.01 WORK INCLUDED

- A. WECK GLASS BLOCKS
- B. WECK GLASS BLOCKS with (45, 60 or 90) minute listed U.L. fire rating.
- C. Integral joint reinforcing.
- D. Mortars and sealants.

1.02 RELATED WORK

- A. Section (_____ - _____) Masonry.
- B. Section (_____ - _____) Lintels.
- C. Section (_____ - _____) Sealants.

1.03 REFERENCES

- A. ASTM C153B2, Hot Dipped Zinc Coating.
- B. ASTM C144, Aggregate for Masonry.
- C. ASTM C150, Portland Cement.
- D. ASTM C207, Hydrated Lime for Masonry.
- E. ASTM C207, Mortar for Unit Masonry.
- F. Underwriters Laboratories Building Materials Directory, 1998 Edition

1.04 SUBMITTALS

- A. Submit WECK Catalogue.
- B. Submit _____ WECK GLASS BLOCK of each type for approval.

1.05 ENVIRONMENTAL REQUIREMENTS

- A. Maintain materials and ambient air temperatures to a minimum of 40°F. prior to, during and 48 hours after completion of work.
- B. Protect WECK GLASS BLOCK from moisture prior to construction.

WARRANTIES AND REMEDIES LIMITATIONS

The products shall be free from defects relating to production for a period of 5 years after the date of purchase, but this warranty shall not extend to installation workmanship, accessory materials, or conditions of application, or the performance or results of an installation containing the product. The warranty described in this paragraph shall be IN LIEU OF any other warranty, express or implied, including but not limited to any implied warranty of MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The buyer's sole and exclusive remedy against Glashaus Inc. and/or J. Weck GmbH u. Co. shall be for the replacement, but not installation, of defective products; Glashaus Inc. will also deliver the replacement products to the location where the defective products were originally purchased. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales or injury to person or property) shall be available to the buyer, regardless of the theory of liability upon which any such damages are claimed. This warranty supersedes all prior warranties and representations regarding Weck Glass Block.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. J. WECK GmbH u. Co.

2.02 GLASS UNITS

- A. _____ x _____ x _____ Inch.
- B. _____ x _____ x _____ Inch with (45, 60 or 90) minute listed U.L. fire rating.
- C. Color (Cleartone or Goldtone) _____
- D. Pattern _____
- E. Edge Coating — White latex based paint.

2.03 ACCESSORIES

- A. Joint Reinforcing: Ladder type, hot dipped galvanized, 2-8 gauge parallel longitudinal wire at 2" o.c. for 3 1/4" wide block or 1 1/2" for 3 1/2" wide block and cross rods welded at 8" o.c.
- B. Panel Anchors: 20 gauge x 1 1/2" x 24" hot dipped galvanized steel with staggered perforations.
- C. Perimeter Chase: Masonry recess, aluminum channel or steel channel.
- D. Asphalt Emulsion: Karnac 100 or equal.
- E. Expansion Strips: 3/8" x 3 1/2" polyethylene plastic or glass fiber.
- F. Sealant: Silicone Type _____ Color.
- G. Backer Rod: As recommended by sealant supplier.

2.04 MORTAR MATERIALS

- A. Shall be prepared according to ASTM C270 for Type S Mortar. Mortar to have 1 part Portland Cement (Type 1), 1 part lime and 4 1/2 to 6 parts of fine sand passing No. 20 sieve and free of iron compounds to avoid stains. Use white Portland Cement and silica sand for white joints. Mix mortar drier than normal and only an amount that will be used in 1/2 to 1 hour. Glass block will not absorb water the same as brick. Do not use retempered mortar. Do not use anti-freeze compounds or accelerators.
- B. Add _____ mortar color per manufacturer's instructions. Side walls of WECK GLASS BLOCK must be same color as mortar. If mortar is not white, strip paint and repaint with colored latex paint.
- C. Add Laticrete 8510 to increase water-proofing qualities of mortar and/or rake joint and apply silicone sealant.

PART 3 EXECUTION

3.01 PREPARATION

- A. Verify that pocket recesses or chases provided under other sections are accurately located and sized.
- B. Establish and protect lines, levels and coursing.

3.02 INSTALLATION

- A. Arrange coursing pattern to provide consistent joint work throughout.
- B. Locate and secure perimeter metal chase.
- C. Coat sill under units with asphalt emulsion as a bond breaker.
- D. Mortar joints must be solid. Furrowing not permitted. Neatly tool surface to a concave joint.
- E. Place panel reinforcing in horizontal joint above first course of block and not more than 18" o.c. for Standard Series, every other course for Thinline Series and every course for Fire Stop Series. Panel anchors if used shall be installed in the same joints as reinforcing.
- F. Isolate panel from adjacent construction on sides and top with expansion strips. Keep expansion joint voids clear of mortar.
- G. Maintain uniform joint width of 1/4" ± 1/8".
- H. Maximum variation from plane of unit to next unit — 1/32".
- I. Maximum variation of panel from plane — 1/16".
- J. Do not use retempered mortar.
- K. Do not tap glass block with steel tools.
- L. When mortar has set, pack backer rod in jamb and head channels. Recess to allow for sealant.
- M. Apply sealant.

3.03 CLEANING

- A. Remove excess mortar from glass surfaces with a damp cloth before set occurs.
- B. Number 4 steel wool can be used to remove remaining mortar.

NOTES:

CAD details on disk are available for AutoCAD R12 or higher. The disk also contains our Specifications in word processing formats.

Drawings and information on CD-ROM from SweetSource or <http://www.glashaus.com>.

Design information for BlokUp (a mortarless system) is available from your local dealer or Glashaus. Information is also available at <http://www.blokup.com>.