MEMORANDUM

Date: October 10, 2018

To: Community Development Committee

From: Tia Braseth, Community Development Coordinator

Re: Community Development Committee Meeting on October 16

The next meeting of the Community Development Committee is Tuesday, October 16 at 2:30 in the City Commission Room at the **old** Fargo City Hall. If you are not able to attend, please contact the office at 701.241.1474. Thank you.

COMMUNITY DEVELOPMENT COMMITTEE
Tuesday, October 16 – 2:30 p.m.
City Commission Room
AGENDA

1. Welcome
2. Approve Minutes
3. 16 8th Street South (Moler Barber College) - Storefront Rehab
4. Neighborhood Concerns
    a. Code Enforcement/Inspections
    b. Code Enforcement Task Force
5. Working Group for CD Grants
6. Emergency Homeless Sheltering Preparations
7. Staff Updates
    a. 506 Broadway North (Cowboy Jacks) – Storefront Rehab: Withdrawn
8. Special Assessment Assistance
9. Public Comment
10. Other business
11. Adjourn

Community Development Committee meetings are broadcast live on cable channel TV Fargo 56 and can be seen live by video stream on www.FargoND.gov/streaming. They are rebroadcast each Monday at 10:30 a.m. and Thursday at 2:30 p.m.

People with disabilities who plan to attend the meeting and need special accommodations should contact the Planning Department at 701.241.1474 or TDD at 701.241.8258. Please contact us at least 48 hours before the meeting to give our staff adequate time to make arrangements.

Meeting minutes are available on the City of Fargo website at www.FargoND.gov/communitydevelopmentcommittee.

COMMUNITY DEVELOPMENT COMMITTEE
MINUTES

Regular Meeting: **Tuesday, August 21, 2018**

The Regular Meeting of the Community Development Committee of the City of Fargo, North Dakota, was held in the City Commission Room at City Hall at 2:30 p.m., Tuesday, August 21, 2018.

The Community Development Committee Members present or absent were as follows:

Present: Commissioner John Strand, Linda Klebe, Michael Redlinger, Shara Fischer, Matthew Pike, Ken Enockson, Thomas Hill (United Way), Melissa Rademacher (DCP)

Absent: Mayor Tim Mahoney, Sami Eidenschink (FM HBA), Samantha McDonald

Item 1. Welcome
Chairperson Strand welcomed Members to the meeting and introductions were made.

Item 2. Approval of Minutes: Regular Meeting of May 15, 2018
Fischer moved the minutes of the May 15, 2018 Community Development Committee meeting be approved. Second by Hill. All Members present voted aye and the motion was declared carried.

Item 3. 402 Broadway North – Storefront Rehab
Assistant Planner Jasmine Markusen presented a background of the storefront rehab program and the application. She noted the application was already approved by the Fargo Historic Preservation Commission.

Jamie Hager, Metro Plains Management, and Jared Jensen, Schultz + Associates Architects, spoke on behalf of the application.

Member Klebe moved to approve the Community Development Block Grant for Storefront Rehab at 402 Broadway North as presented. Second by Member Hill. On call of the roll Members Fischer, Hill, Pike, Enockson, Rademacher, Klebe, and Strand voted aye. Absent and not voting: Members McDonald, Mahoney, Eidenschink, and Redlinger. The motion was declared carried.

Item 4. Consolidated Annual Performance and Evaluation Report (CAPER)
Nicole Crutchfield, Planning Director, noted that the Consolidated Annual Performance and Evaluation Report (CAPER) will be reported to HUD, United States Department of Housing and Urban Development, at the end of the month, and it will be heard as a public hearing item at City Commission meeting on Monday, August 27, 2018.

Ms. Crutchfield noted that this report is being presented to the Community Development Committee to be received and filed on record.

Item 5. Presentation: Immigrant Development Center & Somali Community Development of North Dakota
Ms. Crutchfield provided a brief background of the presentation.

Fowzia Adde, Executive Director Immigrant Development Center, and Abdiwali Sharif-Abdinasir, Executive Director Somali Community Development of North Dakota, gave a presentation about the background, purpose, and mission of their programs.

Member Redlinger present.

Discussion was held on the cultural hurdles regarding housing and starting businesses.

Members Klebe, Strand, and Pike noted interest in an informal meeting with City Administration and Ms. Adde and Mr. Sharif-Adbinasir.

Item 6. Presentation: Churches United and Winter Overflow
Ms. Crutchfield provided background of the homeless crisis last winter.

Lisa Richmond, Members Relations Director Churches United, gave a presentation on the homeless situation and plan for the Fargo-Moorhead area.

Member Rademacher Absent

Item 7. Updates on CLT
Tim Beaton, FM Area Foundation, gave a history of the FM Area Foundation and provided an update on the developing Cass-Clay Community Land Trust.

This update will be submitted for the August 27, 2018 City Commission meeting.

Member Redlinger absent.

Item 8. Discussion: 2018 Social Service Funds, application process
Ms. Crutchfield provided an update on changes regarding separation of the Social Services funds from the HUD funds.

Item 9. Public Comments
No public comment was given.

Item 10. Adjourn
The time at adjournment was 3:55 p.m.

COMMUNITY DEVELOPMENT COMMITTEE
MINUTES

Regular Meeting: **Tuesday, September 18, 2018**

The Regular Meeting of the Community Development Committee of the City of Fargo, North Dakota, was held in the City Commission Room at old City Hall at 2:30 p.m., Tuesday, September 18, 2018.

The Community Development Committee Members present or absent were as follows:

Present: Commissioner John Strand, Jim Johnson, Michael Redlinger, Ken Enockson, Sami Eidenschink (FM HBA), Matthew Pike

Absent: Thomas Hill (United Way), Mayor Tim Mahoney, Shara Fischer, Linda Klebe, Melissa Rademacher (DCP), Samantha McDonald

Item 1. Welcome
Chairperson Strand welcomed Members to the meeting and introductions were made.

Item 2. Approval of Minutes: Regular Meeting of August 21, 2018
Due to the lack of a quorum, the minutes from the August 21, 2018 Community Development Committee meeting could not be approved.

Item 3. 506 Broadway North – Storefront Rehab: CONTINUED
Planning Director Nicole Crutchfield shared that the proposed storefront rehabilitation application for 506 Broadway North was continued at the Historic Preservation Commission meeting that morning; therefore, this item will be continued to the next Community Development Committee meeting.

Item 4. Community Development Overview (Staff Presentation)
Ms. Crutchfield provided handouts to the Board and gave a presentation on the current structure, purpose, and function of the Community Development Committee. She noted that the policy and procedures for the Board need updating and that staff is looking to work with the Board to develop by-laws and ordinances.

Member Pike present.

Discussion was held on the tentative timeline and the current application process for community development funding, which includes Social Service funds and Community Development Block Grant (CDBG)/HOME funds.

In addition, discussion continued regarding housing strategies, neighborhood stabilization and preservation, department staff duties, and bridging the gap between boards and commissions.

Item 5. Staff Updates
Ms. Crutchfield shared that the Social Service Fund applications should be ready for distribution soon, with a 30-day outreach campaign to follow.

She also highlighted that the FM Area Foundation is supporting and endorsing a Community Land Trust to be named the Cass-Clay Community Land Trust as an approach to affordable housing.

Item 6. Public Comments

In response to Item 3 on the agenda regarding the proposed storefront rehabilitation project for Cowboy Jack's, located at 506 Broadway North, the following residents expressed their concerns:

Arlette Preston, 505 Broadway North, shared concerns of noise issues in the residential areas of the DMU, Downtown Mixed-Use zoning district, regarding open rooftop venues in the commercial areas of this zoning district.

Greg Danz, Zandbroz Variety, located at 420 Broadway North, noted concerns about regulating the noise ordinance and how it is enforced.

BruceTaralson, 608 Main Avenue, shared information about past noise concerns surrounding his property, how noise was measured, and how the issue was resolved.

Discussion was held on the review process for Storefront Rehabilitation Grant applications.

Item 7. Other Business

No other business was presented.

Item 8. Adjourn

The time at adjournment was 3:32 p.m.

STOREFRONT REHAB & DOWNTOWN PROJECT APPLICATION

PRIMARY CONTACT INFORMATION FOR THIS APPLICATION			
Name	Joel & Christine Jaeger / 16 8th Street South LLC (owned by Harvest Capital LLC)		
Address	PO Box 1285 | Fargo, ND 58107		
Phone	651.323.7757	**Fax**	
E-mail	joel@jaegerfarms.com		
Property Address	16 8th Street South | Fargo, ND 58103		
Applicant Name & DUNS number	Harvest Capital LLC (name of person/entity to receive grant)	025084201 (Enter DUNS number here)	
Architect/Firm	(all applicants must use an architect for project design)		
Property Owner	Harvest Capital LLC (owner of 16 8th Street South LLC)		
Mailing Address	PO Box 1285 | Fargo, ND 58107		

Description of Property			
☒ **Current Commercial Tenants**			
Business Name	Business Owner	Address	Current sq. ft. occupied
Moler Barber College	Mary Cannon	**16 8th Street S**	2,500+/-
☐ **Current Residential Tenants**		**# occupied**	**# vacant**
Tenant Name	Unit #	Mailing Address	

STOREFRONT REHAB & DOWNTOWN PROJECT APPLICATION

Building History (if available)

Originally constructed in 1912, the subject property has long been a fixture of Historic 8th Street South—perhaps the oldest street in Fargo. The property was originally built for the Northwestern Telephone Exchange Company and was commonly referred to as the Dakota Building.

The property was once home to Kayes Modern duplicating—a participant in Fargo's early printing industry. Since 1965 it has been home to the Moler Barber College. (Parenthetically, the Moler Barber College is the longest opeating Barber College in North Dakota and will celebrate its 95th anniversary this year having originally opened around the corner on Main Avenue in 1923.)

Notable and ornate masonry adorns the façade facing 8th Street. The property is, and for a hundred plus years has been, a focal point as you enter downtown from the beautiful Hawthorne neighborhood to the south.

Total Cost of façade renovation	$29,847	**Amount of CDBG Funding Requested**	$14,923.50

Is the exterior renovation part of a larger project?

☐ Yes ☒ No, the exterior rehab is the only work I am doing

If yes, please describe comprehensive project.

*While not part of this project, we have previously renovated the four apartments that make up the second and third stories of the property (in addition to several other commercial and retail spaces on the block).

STOREFRONT REHAB & DOWNTOWN PROJECT APPLICATION

Summary of Existing Condition of Exterior (please attach pictures – Attachment 1)
Masonry structure that at some point had 1960s era "show case" style window cabinets installed in addition to a faux rock veneer half wall on both sides of the entrance. In addition, a large and dated sign presently covers the original metal I-beam and upper tier of storefront windows. All these items are a significant (and we feel negative) aesthetic change from the original / historic appearance of the property

Summary of Proposed Scope of Work (materials, color schemes, etc.) Please attach colorized drawings that include pre- and post-rehab detail, indicating specifically what will be modified and how (Attachment 2). *Note – to receive historic preservation approval, projects **cannot** submit plans that include the use of "anodized" aluminum. If window replacement is proposed, applicant must provide manufacturer's window specifications.*
In short, we plan to restore the look of the storefront to its original luster. Remove 1960s era glass encasements. Remove faux rock façade. Remove signage to reveal original architecture. Restore northern most door to the original location and install new glass as shown in Attachment 2 such that glass spans the full height from "knee wall" to I-beam. We would install black/antique bronze frames. Non-anodized. Clear glass throughout.
How will proposed project affect the historic character of the property? Project will return the property to a state similar to its historical appearance.

STOREFRONT REHAB & DOWNTOWN PROJECT APPLICATION

How will your project complement downtown redevelopment efforts?
Project will restore property to an aesthetic that compliments the overall renaissance of Downtown while retaining the boutique look and feel of the block. In so doing, the project will make a significant improvement to the appearance of an important entry point into Downtown while creating an environment that will add to the overall walkability of the area and mix of businesses in the downtown area.
For more information on completing this application, please refer to the following website: www.FargoND.gov/storefrontdowntowngrants.

STOREFRONT REHAB & DOWNTOWN PROJECT APPLICATION

ATTACHMENT 1: PHOTOS

1954 Picture Believe to be Original:

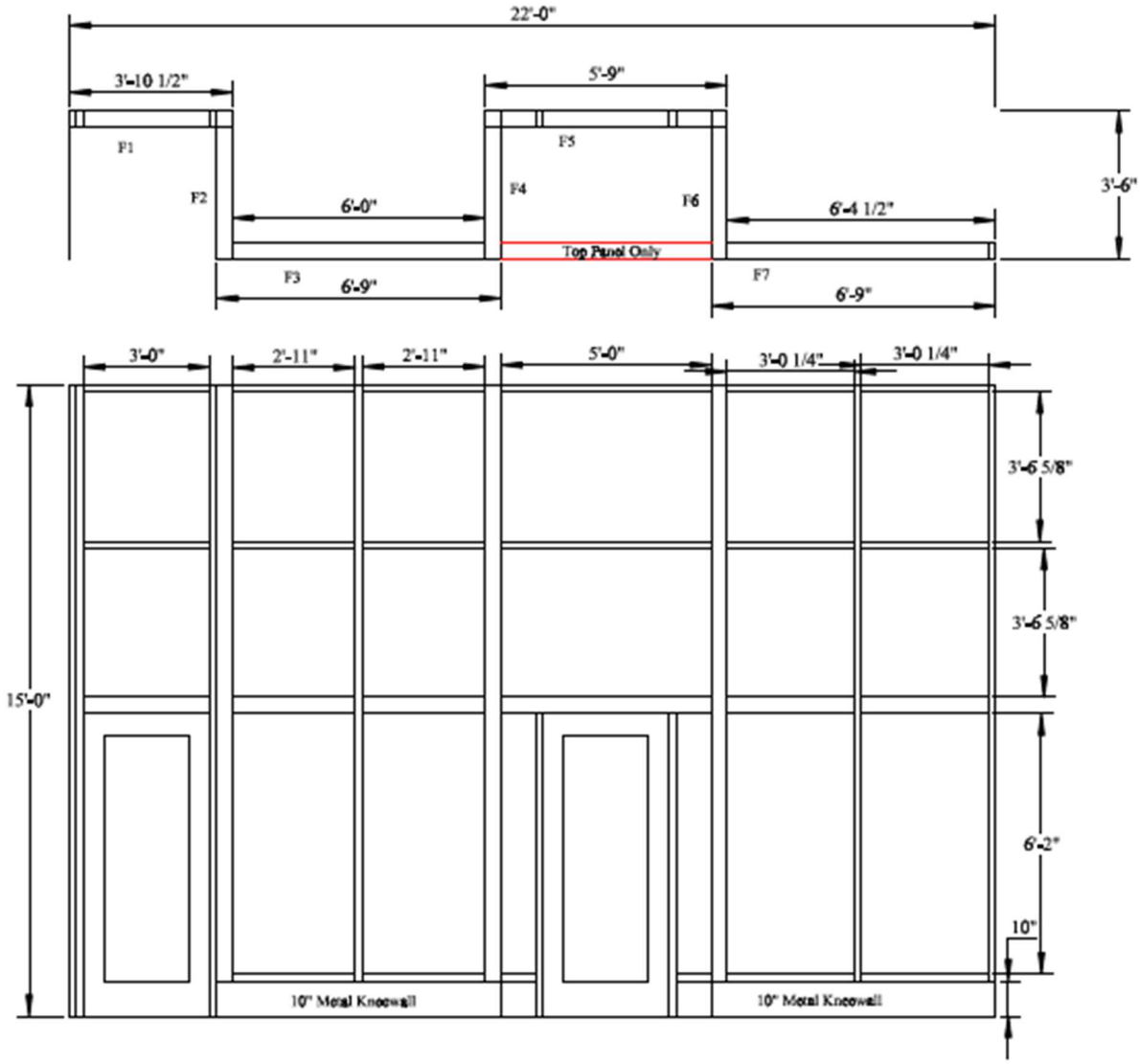
Present:

STOREFRONT REHAB & DOWNTOWN PROJECT APPLICATION

ATTACHMENT 2 – DRAWINGS PRE AND POST

Conceptually, the below illustration will provide non-technical perspective.

STOREFRONT REHAB & DOWNTOWN PROJECT APPLICATION



Davtech Window Services
1418 5th Ave NE
West Fargo, ND 58078

STOREFRONT REHAB & DOWNTOWN PROJECT APPLICATION

1418 5th Ave NE, West Fargo ND, 58078
701-353-2735 * Dave@davtechwindows.com

Name	Phone	Date
Joel Jeager		10/3/2018
Address	Job Name	16 8th St So.
City, State, zip	Location	
Fargo, ND	Fargo	

We propose to furnish and install:

Remove Moeler Signage	$ 3,600.00
Remove Existing Storefront, knee walls	
(Allowance includes 48 hours labor and dump fees)	incl
Prep concrete for new storefront (if needed)	Cost plus
Aluminum Windows, Doors, Hardware, Installation	$ 26,247.00

Trifab® VG (VersaGlaze®)

Trifab VG 450, 451 & 451T (Thermal) Framing Systems

Design Versatility with Unmatched Fabrication Flexibility

Preston Pointe, Louisville, KY
Architect: Potter & Associates Architects PLLC, Louisville, KY
Glazing Contractor: Kentucky Mirror & Plate Glass Company, Louisville, KY

Trifab® VG (VersaGlaze) is built on the proven and successful Trifab platform – with all the versatility its name implies. Trifab set the standard and Trifab® VG improves upon it. There are enough fabrication, design and performance choices to please the most discerning building owner, architect and installer. Plus the confidence a tried and true framing system instills. Select from four glazing applications, four fabrication methods and multiple infill choices. Consider thermal options and performance, SSG and Weatherseal alternatives and your project takes an almost custom shape whether your architecture is traditional or modern and the building is new or retrofitted.

Aesthetics

Trifab® 450 has 1-3/4" sight lines and both Trifab® 451 and Trifab® 451T have 2" sight lines, while all three have a 4-1/2" frame depth. Designers can not only choose front, center or back glass planes, they can now add the versatility of multi-plane glass applications, thus allowing a greater range of design possibilities for specific project requirements and architectural styles. Structural Silicone Glazing (SSG) and Weatherseal options further expand the designer's choices.

KAWNEER
AN ALCOA COMPANY

Trifab® VG can be used on almost any project due to virtually seamless incorporation of Kawneer entrances, Sealair® windows or GLASSvent™ for visually frameless ventilators. These framing systems can also be packaged with Kawneer curtain walls and overhead glazing, thereby providing owner, architect and installer with proven, tested and quality products from a single source supplier.

Economy

Trifab® VG offers four fabrication choices to suit your project:

- **Screw Spline** – for economical continuous runs utilizing two piece vertical members. Provides the option to pre-assemble units with controlled shop labor costs and smaller field crews for handling and installation.
- **Shear Block** – for punched openings or continuous runs using tubular moldings. Provides the option to pre-assemble multi-lite units using shear block clips under controlled shop labor conditions. Clips provide tight joints for transporting large units. Less field time is necessary to fill large openings.
- **Stick** – for fast, easy field fabrication. Field measurements and material cuts can be done when metal is on the job.
- **Type B** – for multi-lite punched openings. Provide option for pre-assembled units for installation into single openings and controlled shop labor costs. Head and sill running through provide fewer joints and require less time to fill large openings.

Brighton Landing, Cambridge, MA
Architects: ADD Inc., Cambridge, MA
Glazing Contractors: Ipswich Bay Glass Company,Inc., Rowley, MA

Trifab® VG 450, 451 and 451T can be flush glazed from either the inside or outside. The Weatherseal option provides an alternative to the structural silicone glazed vertical mullions. This ABS/ASA rigid polymer extrusion allows complete inside glazing and creates a flush glass appearance on the building exterior, without the added labor of scaffolding or swing stages. Optional patented HP Flashing™ and HP Interlock clip are engineered to eliminate the perimeter sill fasteners and their associated blind seals and are compatible with all glass planes.

Performance

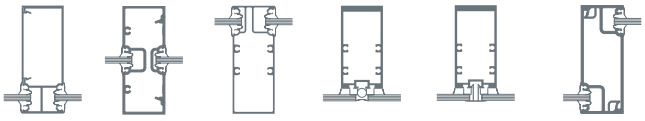
Kawneer's IsoLock™ Thermal Break option is available on Trifab® VG 451T. This process creates a composite section and prevents dry shrinkage.

U-factor, CRF values and STC ratings for Trifab® VG vary depending upon the glass plane application. Project specific U-factors can now be determined for each individual project. (See Kawneer Architectural Manual or Website for additional information)

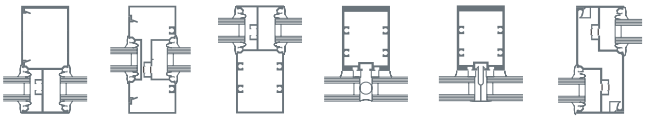
Performance Test Standards

Air Performance	ASTM E 283
Water	AAMA 501 and ASTM E 331
Structural	ASTM E 330
Thermal	AAMA 1503
Thermal Break	AAMA 505 and AAMA TIR-A8
Acoustical	AAMA 1801 and ASTM E 1425

Trifab VG 450



Trifab VG 451/451T



Finishes

Permadonic Anodized finishes are available in Class I and Class II in seven different colors.

Painted Finishes, including fluoropolymer that meet or exceed AAMA 2605, are offered in many standard choices and an unlimited number of specially-designed colors.

Solvent-free powder coatings add the "green" element with high performance, durability and scratch resistance that meet the standards of AAMA 2604.

Kawneer Company, Inc.
Technology Park / Atlanta
555 Guthridge Court
Norcross, GA 30092

kawneer.com
770 . 449 . 5555

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AN ALCOA COMPANY

Trifab™ 451UT Framing System

Features

- Trifab™ 451UT is 4-1/2" (114.3) deep with a 2" (50.8) sightline
- Center Plane glass applications
- Flush glazed from either the inside or outside
- Screw Spline fabrication
- Dual IsoLock™ lanced and debridged thermal break
- Infill options up to 1-1/8" (28.6) thickness
- High performance sill flashing
- Permanodic™ anodized finishes in seven choices
- Painted finishes in standard and custom choices

Optional Features

- Acoustical rating per AAMA 1801 and ASTM E 1425
- Project specific U-factors (See Thermal Charts)
- Integrates with Versoleil™ SunShade Outrigger System and Horizontal Single Blade System

Product Applications

- Storefront, Ribbon Window or Punched Openings
- Single-span
- Integrated entrance framing allowing Kawneer standard entrances or other specialty entrances to be incorporated
- Kawneer windows, GLASSvent™ UT windows are easily incorporated

For specific product applications,
Consult your Kawneer representative.

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LAWS AND BUILDING AND SAFETY CODES GOVERNING THE DESIGN AND USE OF GLAZED ENTRANCE, WINDOW, AND CURTAIN WALL PRODUCTS VARY WIDELY. KAWNEER DOES NOT CONTROL THE SELECTION OF PRODUCT CONFIGURATIONS, OPERATING HARDWARE, OR GLAZING MATERIALS, AND ASSUMES NO RESPONSIBILITY THEREFOR.

Metric (SI) conversion figures are included throughout these details for reference. Numbers in parentheses ( ) are millimeters unless otherwise noted.

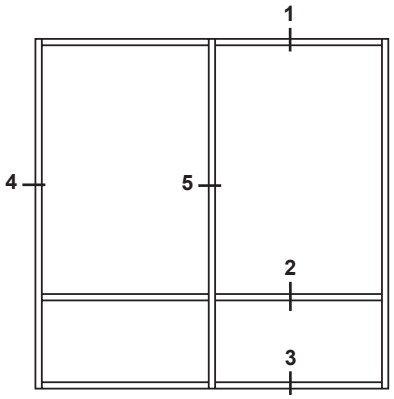
The following metric (SI) units are found in these details:

m – meter
cm – centimeter
mm – millimeter
s – second
Pa – pascal
MPa – megapascal

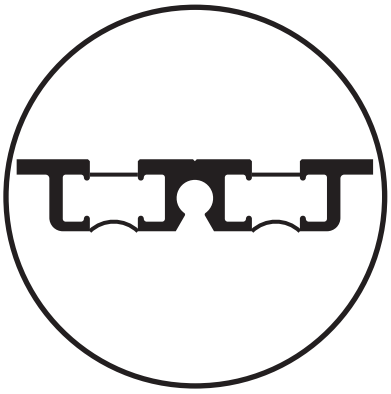
Trifab™ 451UT Framing System

BASIC FRAMING DETAILS (CENTER - Outside Glazed)

SCALE 3" = 1'-0"

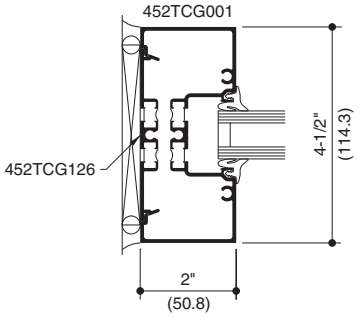


ELEVATION IS NUMBER KEYED TO DETAILS



DUAL IsoLock™ THERMAL BREAK

SCREW SPLINE



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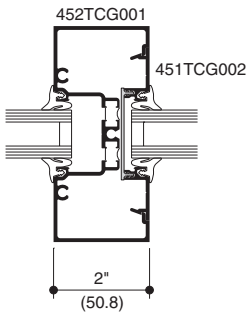
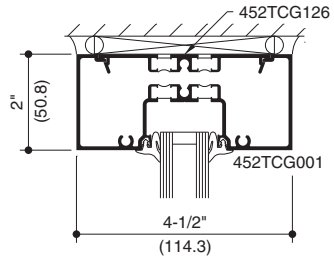


5
VERTICAL

1
HEAD



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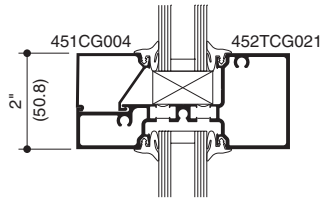
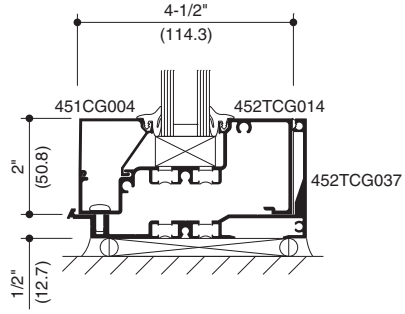
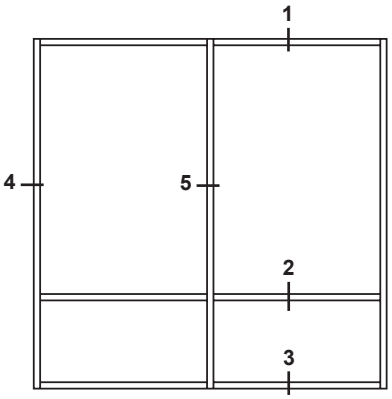


3
SILL



Trifab™ 451UT Framing System

SCALE 3" = 1'-0"



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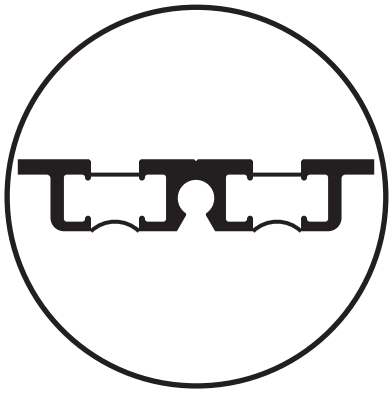
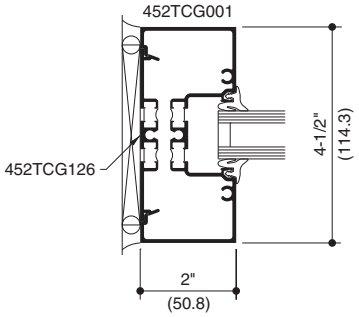


DUAL IsoLock™ THERMAL BREAK

SCREW SPLINE



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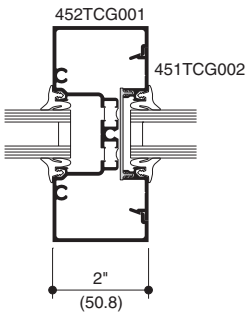
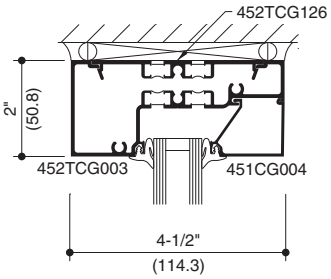


5
VERTICAL

1
HEAD



2
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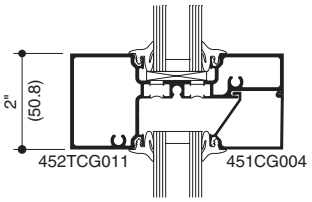
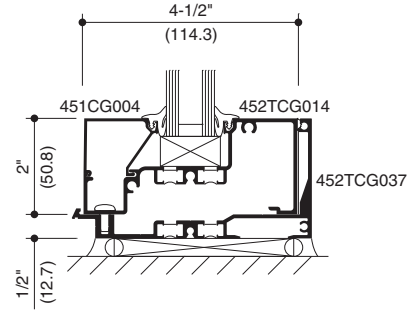
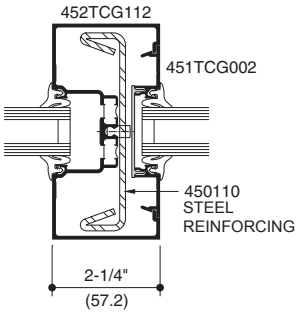


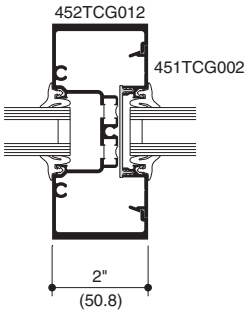
3
SILL



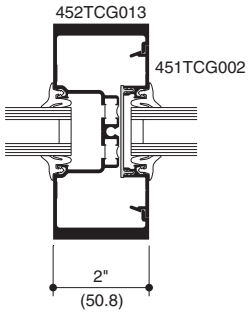
SCALE 3" = 1'-0"



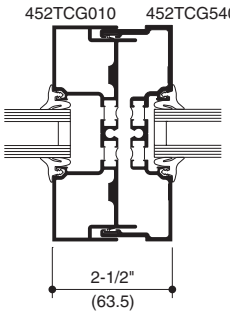
2-1/4" (57.2) MULLION W/ STEEL



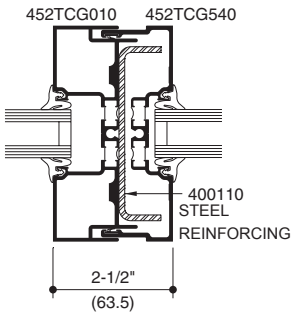
MEDIUM WEIGHT MULLION



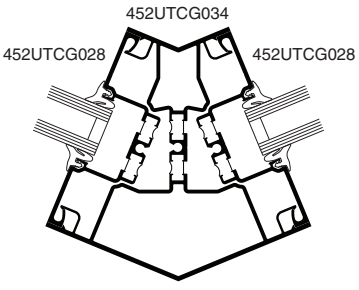
HEAVY WEIGHT MULLION

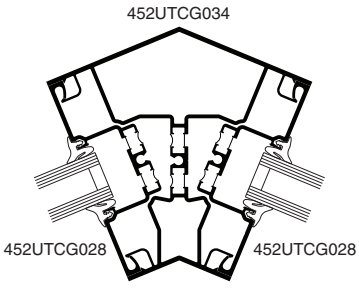


TUBULAR EXPANSION MULLION



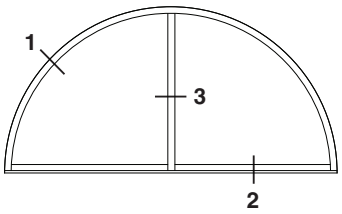
TUBULAR EXPANSION MULLION WITH OPTIONAL STEEL





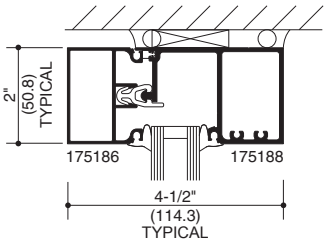
135° CORNER (THERMAL)

SCALE 3" = 1'-0"

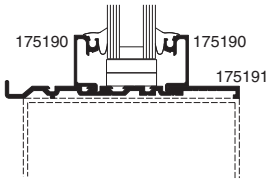


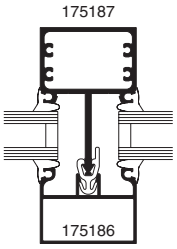
CURVING DETAILS
(Center Plane Only)

1



2





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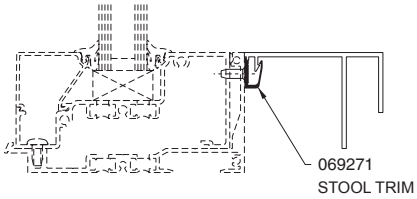
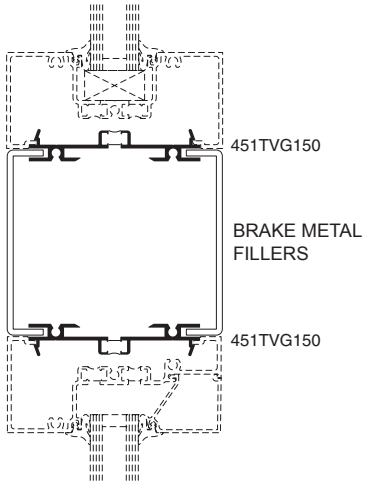
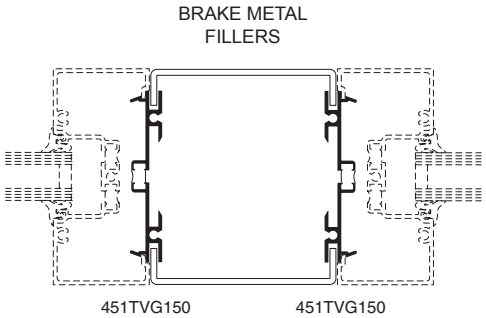


STOOL TRIM CLIP WITH HIGH PERFORMANCE FLASHING

Seal over Stool Trim fasteners to prevent water infiltration.



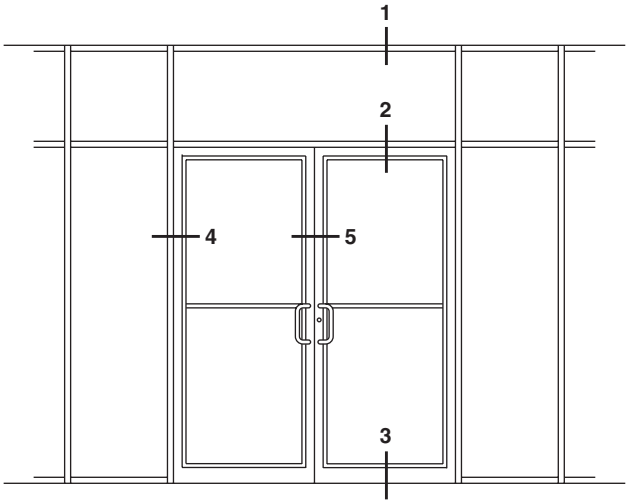
BRAKE METAL ADAPTOR AT HORIZONTAL



BRAKE METAL ADAPTOR AT VERTICAL

SCALE 3" = 1'-0"

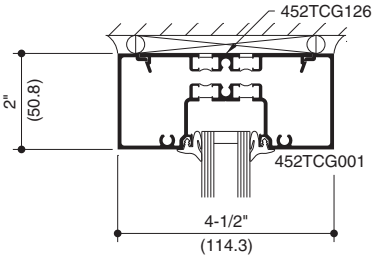
Trifab™ VG 451T CENTER DOOR FRAMING SHOWN.
OTHER FRAMING OPTIONS AVAILABLE.
CONSULT YOUR KAWNEER REPRESENTATIVE.



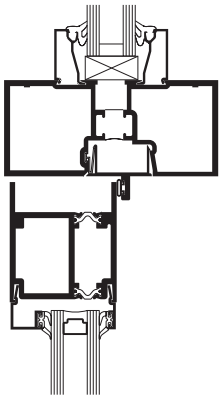
ELEVATION IS NUMBER KEYED TO DETAILS.

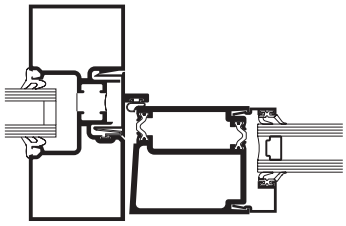
NOTE: Butt Hung or Offset Pivot Doors Only.

1 HEAD



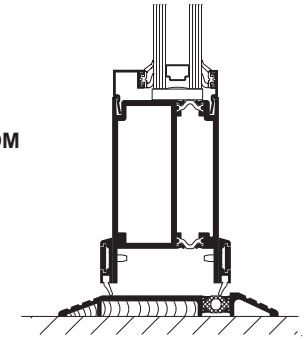
2 TRANSOM BAR

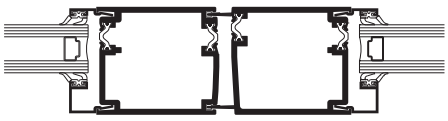




4 DOOR JAMB

3 BOTTOM RAIL





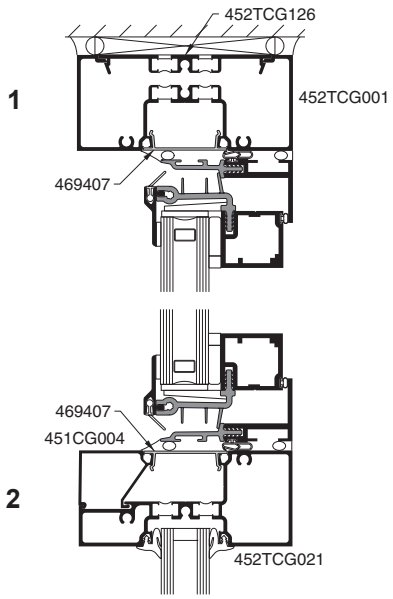
5 MEETING STILES

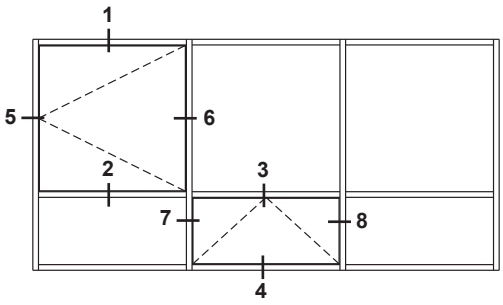
AA™ 250/425 THERMAL DOOR

SCALE 3" = 1'-0"

Trifab™ 451UT FRAMING SHOWN.
OTHER FRAMING OPTIONS AVAILABLE.
CONSULT YOUR KAWNEER REPRESENTATIVE.

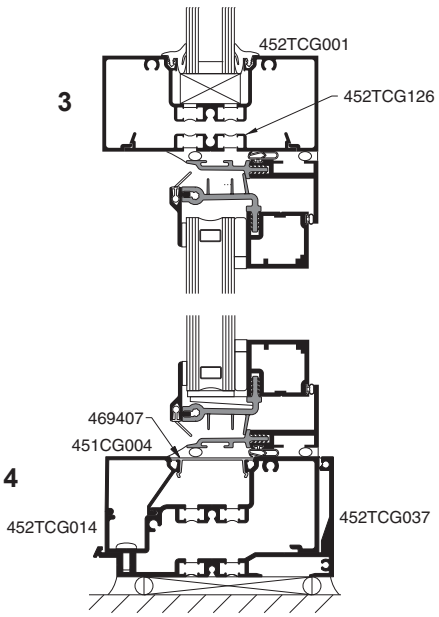
OUTSWING CASEMENT VERTICAL SECTION



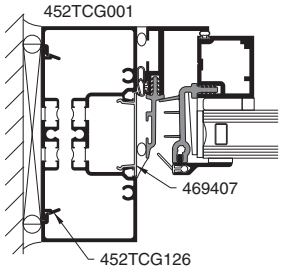


ELEVATION IS NUMBER KEYED TO DETAILS

PROJECT-OUT VERTICAL SECTION



OUTSWING CASEMENT HORIZONTAL SECTION



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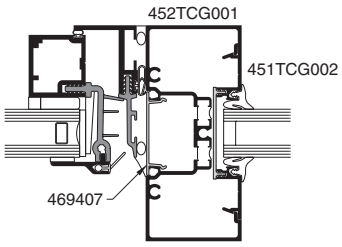
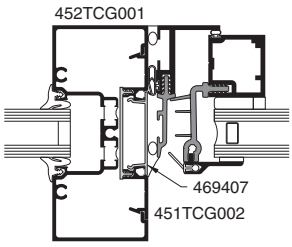


6

PROJECT-OUT HORIZONTAL SECTION



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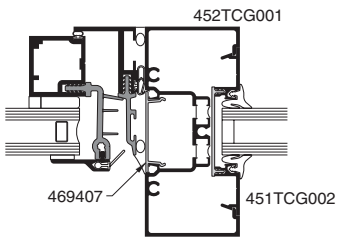


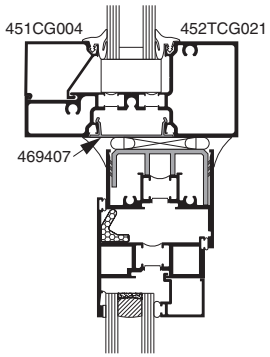
8

NOTE: Black spacer is recommended when 1" (25.4) insulating glass is used.

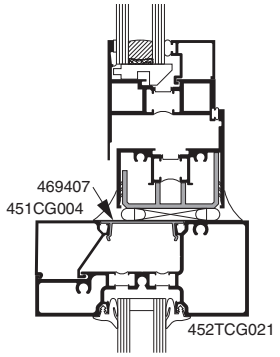
SCALE 3" = 1'-0"

PROJECT-OUT VERTICAL SECTION

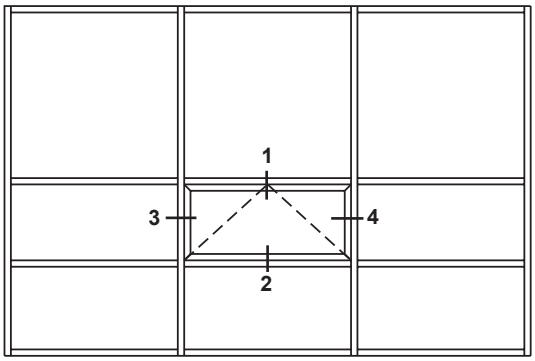
1



2

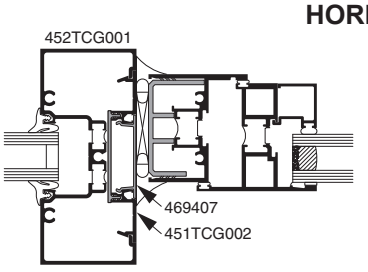


8225TL THERMAL WINDOWS SHOWN
NOTE: OTHER VENT TYPES CAN BE ACCOMMODATED, CONSULT YOUR KAWNEER REPRESENTATIVE FOR OTHER OPTIONS

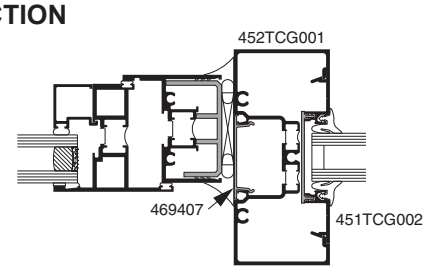


ELEVATION IS NUMBER KEYED TO DETAILS

PROJECT-OUT HORIZONTAL SECTION



3



4

WIND LOAD CHARTS

Mullions are designed for deflection limitations in accordance with AAMA TIR-A11 of L/175 up to 13'-6" and L/240 +1/4" above 13'-6". These curves are for mullions WITH HORIZONTALS and are based on engineering calculations for stress and deflection. Allowable wind load stress for ALUMINUM 15,152 psi (104 MPa), STEEL 30,000 psi (207 MPa). Charted curves, in all cases are for the limiting value. Wind load charts contained herein are based upon nominal wind load utilized in allowable stress design. A conversion from Load Resistance Factor Design (LRFD) is provided. To convert ultimate wind loads to nominal loads, multiply ultimate wind loads by a factor of 0.6 per ASCE/SEI 7. A 4/3 increase in allowable stress has not been used to develop these curves. For special situations not covered by these curves, contact your Kawneer representative for additional information.

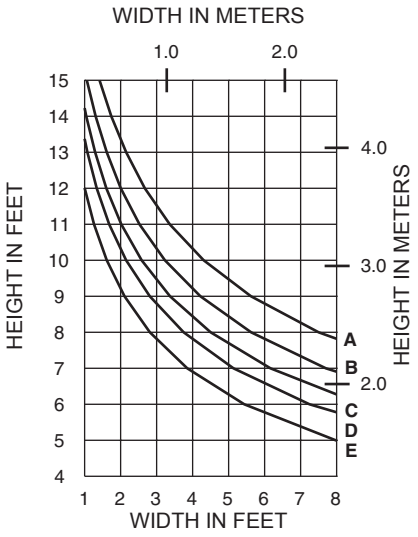
If the end reaction of the mullion [mullion spacing (ft.) times height (ft.) times specified wind load (psf) divided by two] is more than 500 lbs., the optional Mullion Anchors must be used. Consult Application Engineering. *(Mullion Anchor not used with Lightweight Receptor.)*

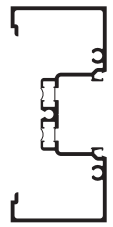
DEADLOAD CHARTS

Horizontal or deadload limitations are based upon 1/8" (3.2), maximum allowable deflection at the center of an intermediate horizontal member. The accompanying charts are calculated for 1" (25.4) thick insulating glass or 1/4" (6.35) thick glass supported on two setting blocks placed at the loading points shown.

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	15 PSF (720)	25 PSF (1200)
B =	20 PSF (960)	33 PSF (1580)
C =	25 PSF (1200)	42 PSF (2000)
D =	30 PSF (1440)	50 PSF (2400)
E =	40 PSF (1920)	67 PSF (3200)

WITH HORIZONTALS

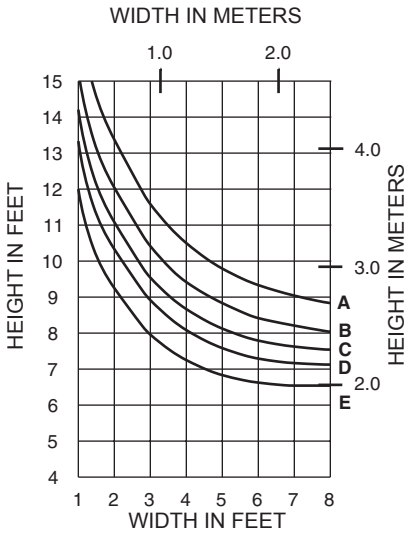




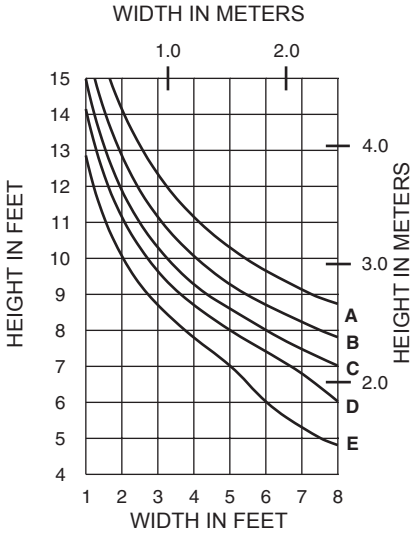
452TCG001

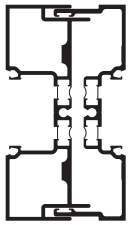
WINDLOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

WITHOUT HORIZONTALS



WITH HORIZONTALS

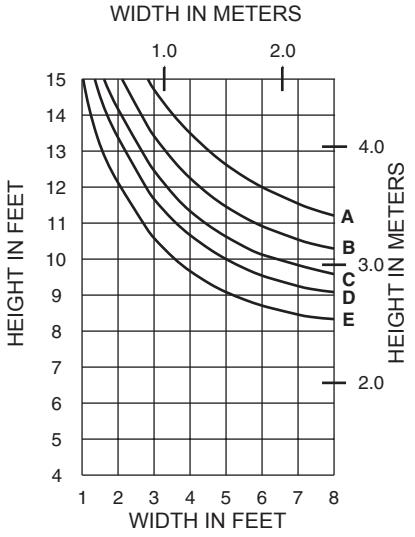




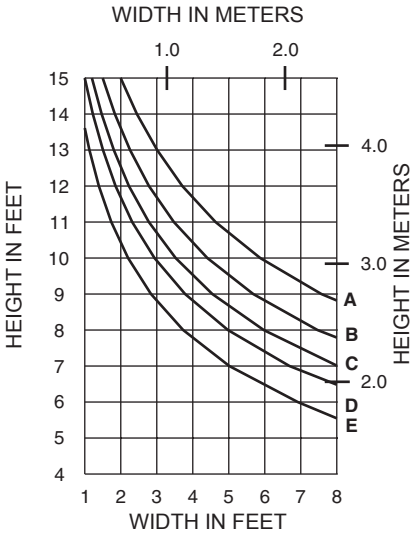
452TCG010 / 452TCG540

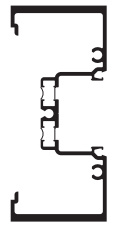
WINDLOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

WITHOUT HORIZONTALS



WITH HORIZONTALS

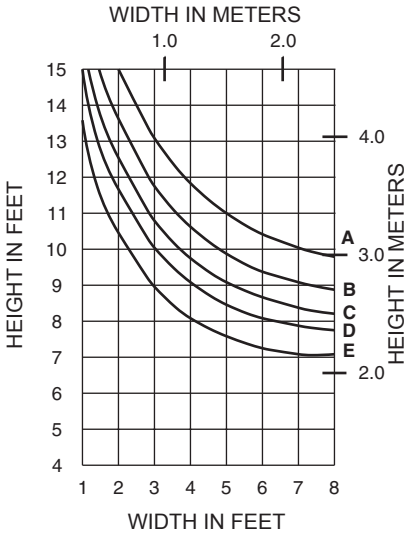




452TCG012

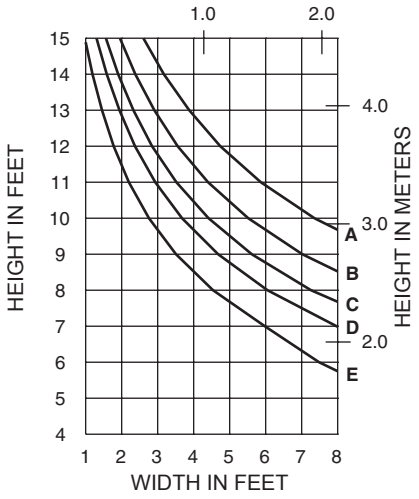
WINDLOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

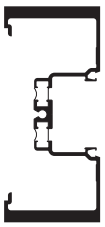
WITHOUT HORIZONTALS



	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	15 PSF (720)	25 PSF (1200)
B =	20 PSF (960)	33 PSF (1580)
C =	25 PSF (1200)	42 PSF (2000)
D =	30 PSF (1440)	50 PSF (2400)
E =	40 PSF (1920)	67 PSF (3200)

WITH HORIZONTALS

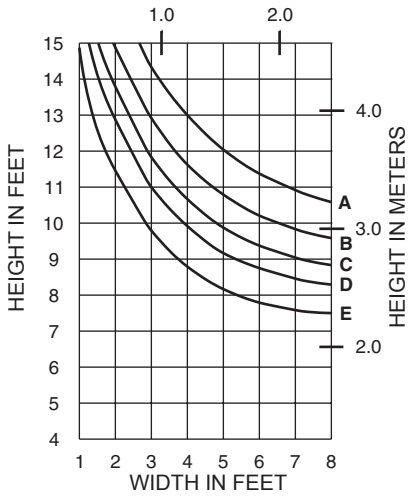




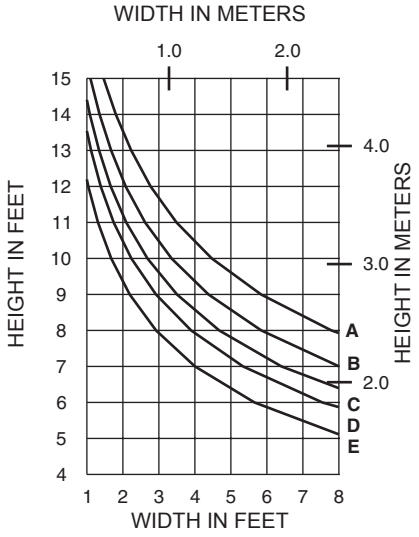
452TCG013

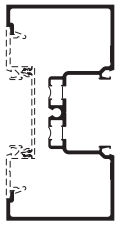
WINDLOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

WITHOUT HORIZONTALS



WITH HORIZONTALS

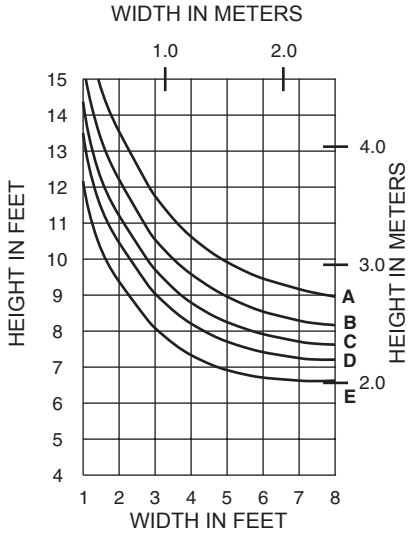




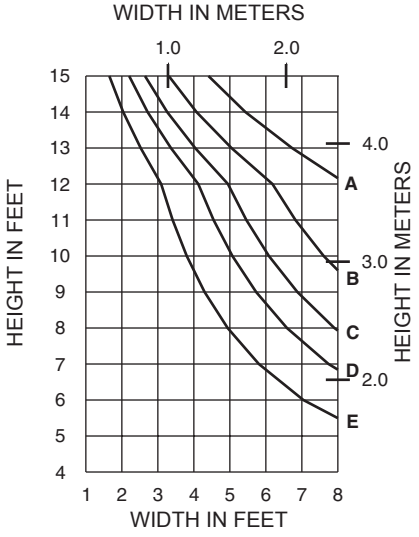
452TCG112

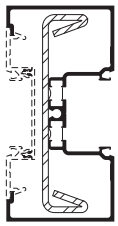
WINDLOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

WITHOUT HORIZONTALS



WITH HORIZONTALS

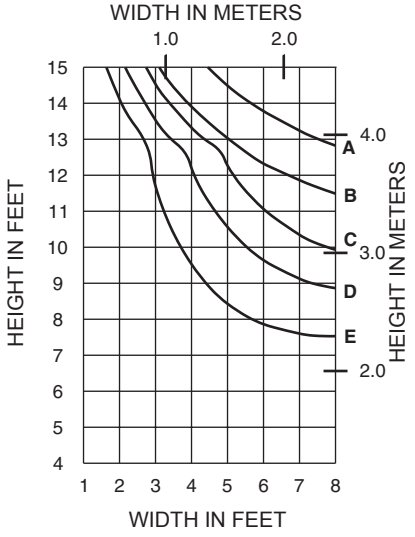




452TCG112
with 450110 STEEL

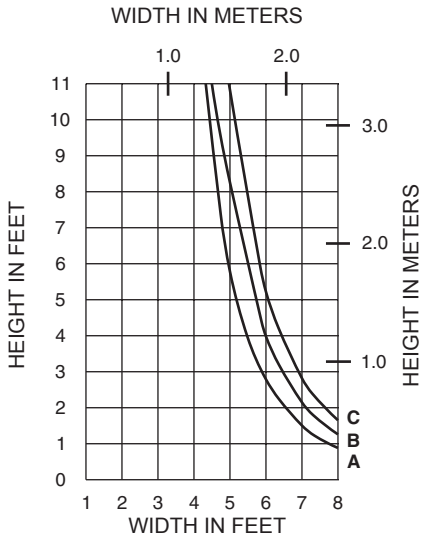
WINDLOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

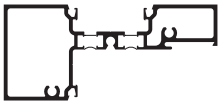
WITHOUT HORIZONTALS



A = (1/4 POINT LOADING)
B = (1/6 POINT LOADING)
C = (1/8 POINT LOADING)

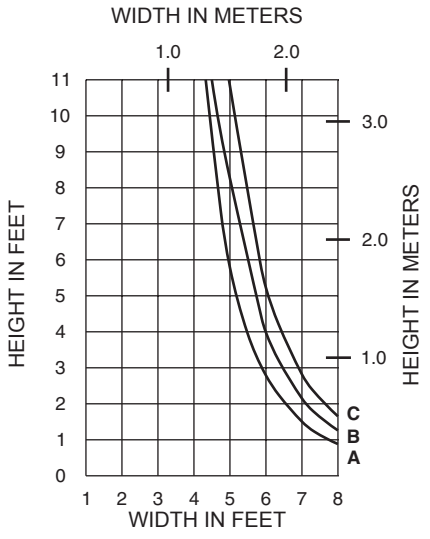
WITH HORIZONTALS

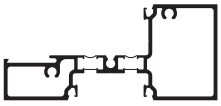




452TCG011

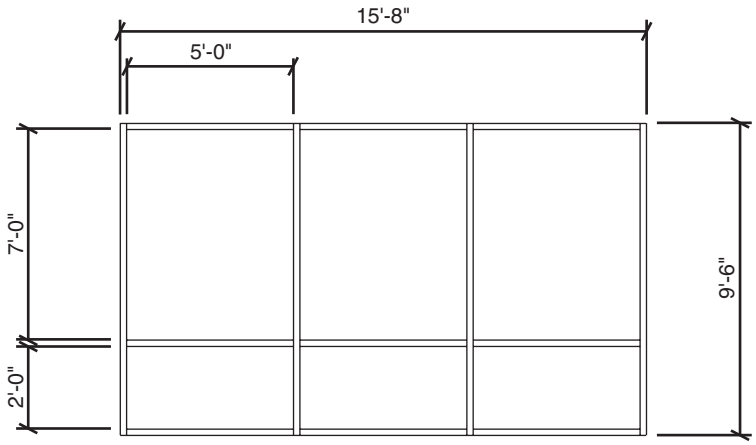
WITH HORIZONTALS





452TCG021

Generic Project Specific U-factor Example Calculation
(Percent of Glass will vary on specific products depending on sitelines)



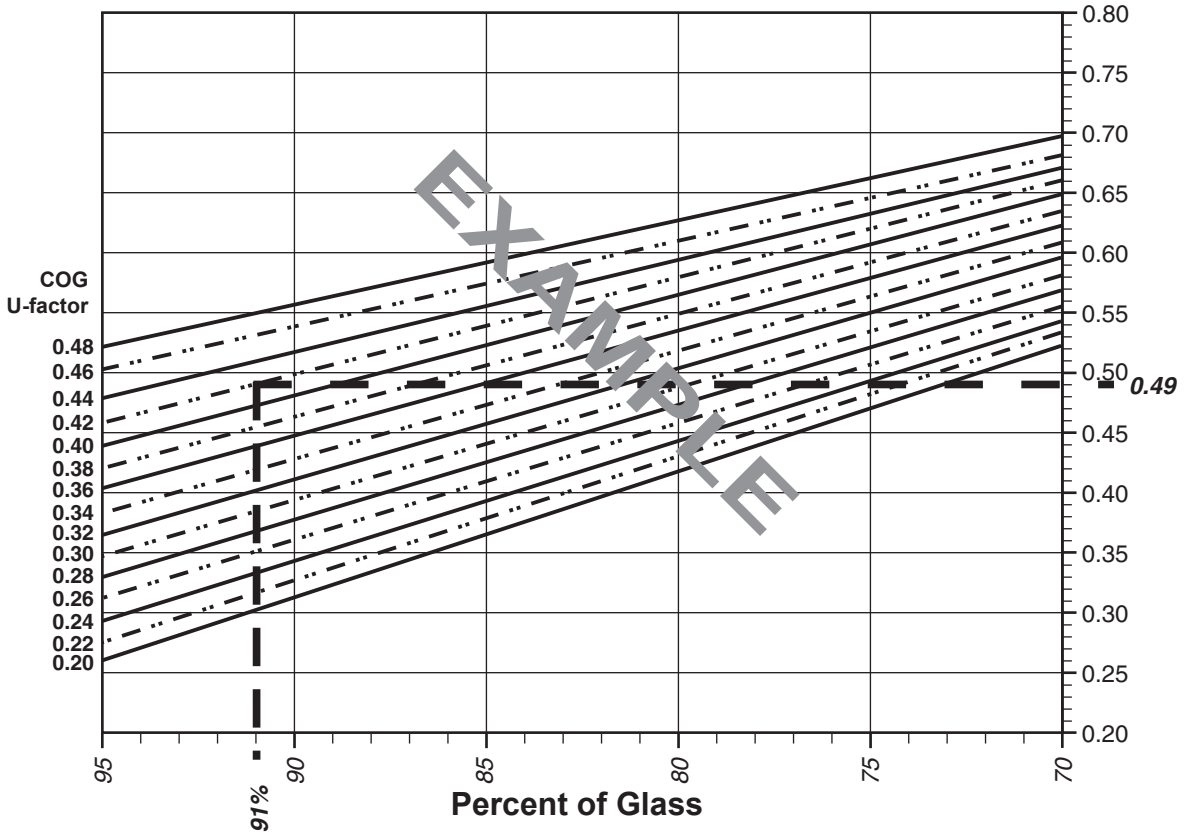
Example Glass U-factor = 0.42 Btu/hr·ft²·°F

Total Daylight Opening = 3(5' x 7') + 3(5' x 2') = 135ft²

Total Projected Area = (Total Daylight Opening + Total Area of Framing System)
= 15'-8" x 9'-6" = 148.83ft²

Percent of Glass = (Total Daylight Opening ÷ Total Projected Area)
= (135 ÷ 148.83)100 = 91%

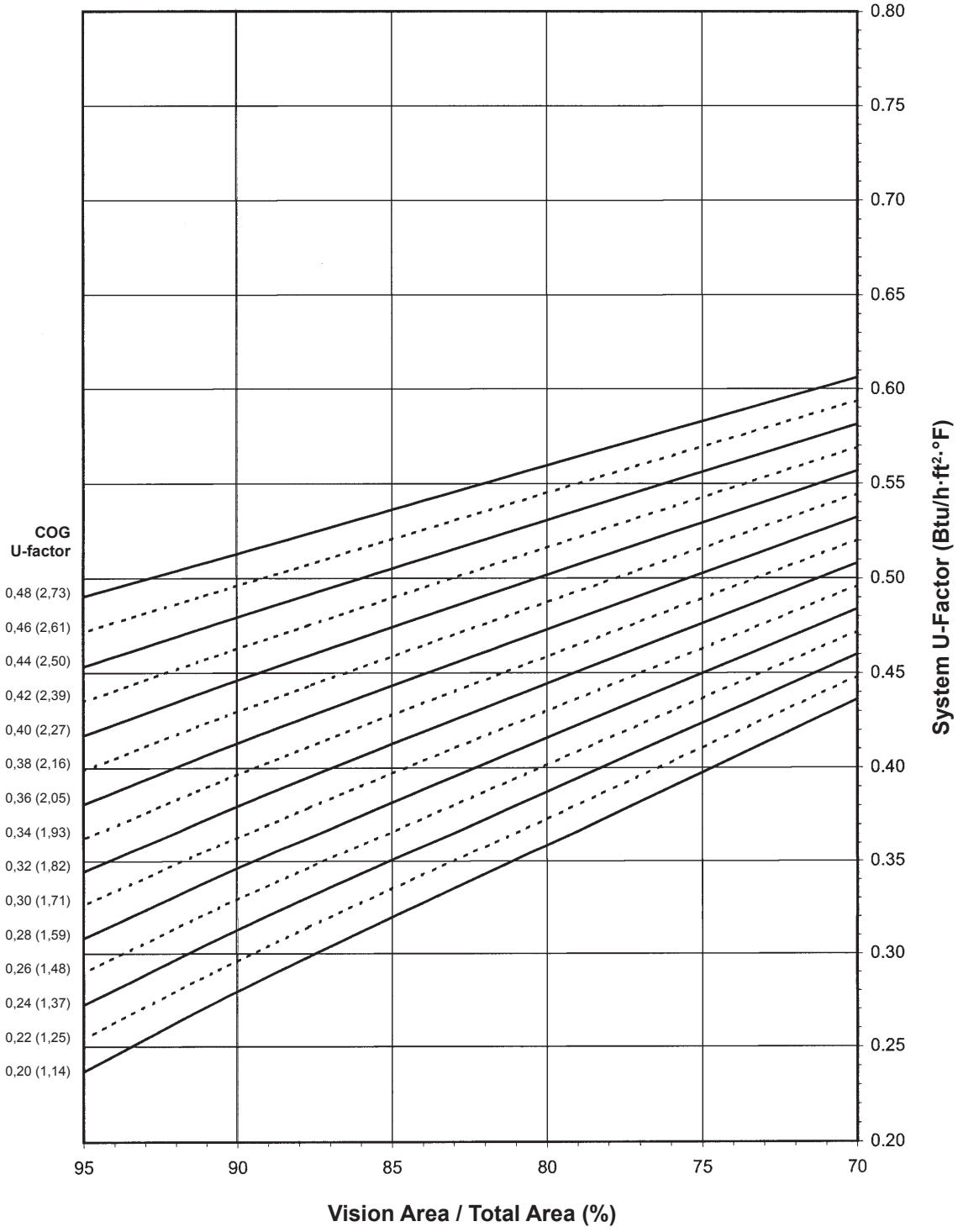
System U-factor vs Percent of Glass Area



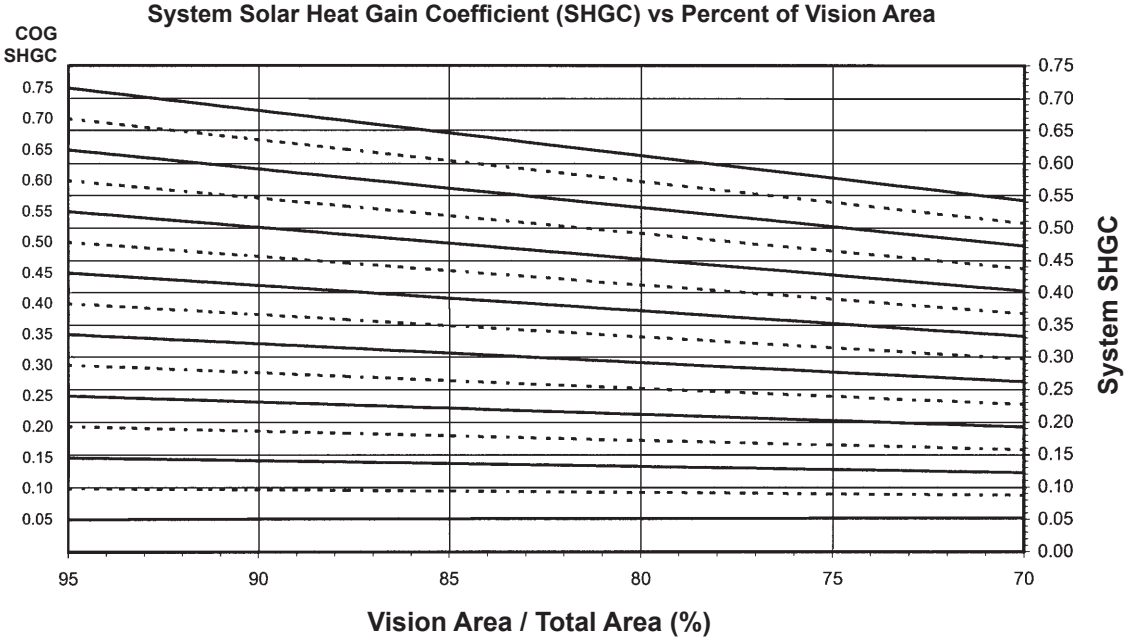
Based on 91% glass and center of glass (COG) U-factor of 0.42
System U-factor is equal to 0.49 Btu/hr x ft² x °F

Note:
Values in parentheses are metric.
COG=Center of Glass.
Charts are generated per AAMA 507.

System U-Factor for Vision Glass

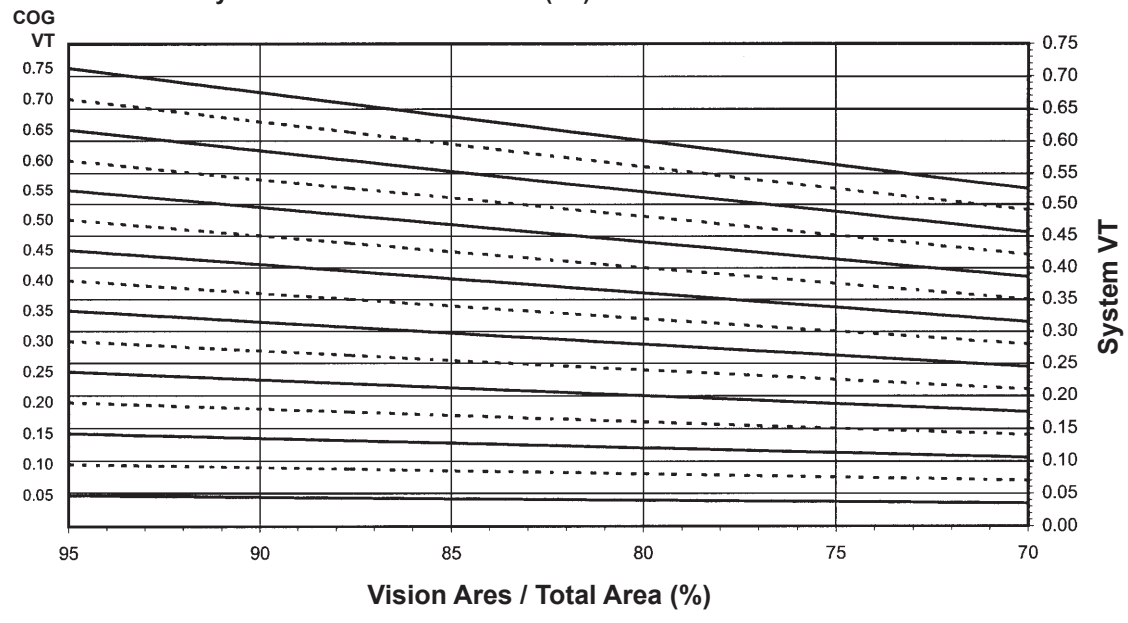


System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



Charts are generated per AAMA 507.

System Visible Transmittance (VT) vs Percent of Vision Area



Charts are generated per AAMA 507.

Thermal Transmittance [1] (BTU/hr • ft [2] • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.48	0.52
0.46	0.51
0.44	0.49
0.42	0.48
0.40	0.46
0.38	0.44
0.36	0.43
0.34	0.41
0.32	0.39
0.30	0.38
0.28	0.36
0.26	0.35
0.24	0.33
0.22	0.31
0.20	0.30

Trifab™ 451UT

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 2,000 mm wide by 2,000 mm high (78-3/4" by 78-3/4").

SHGC Matrix [2]

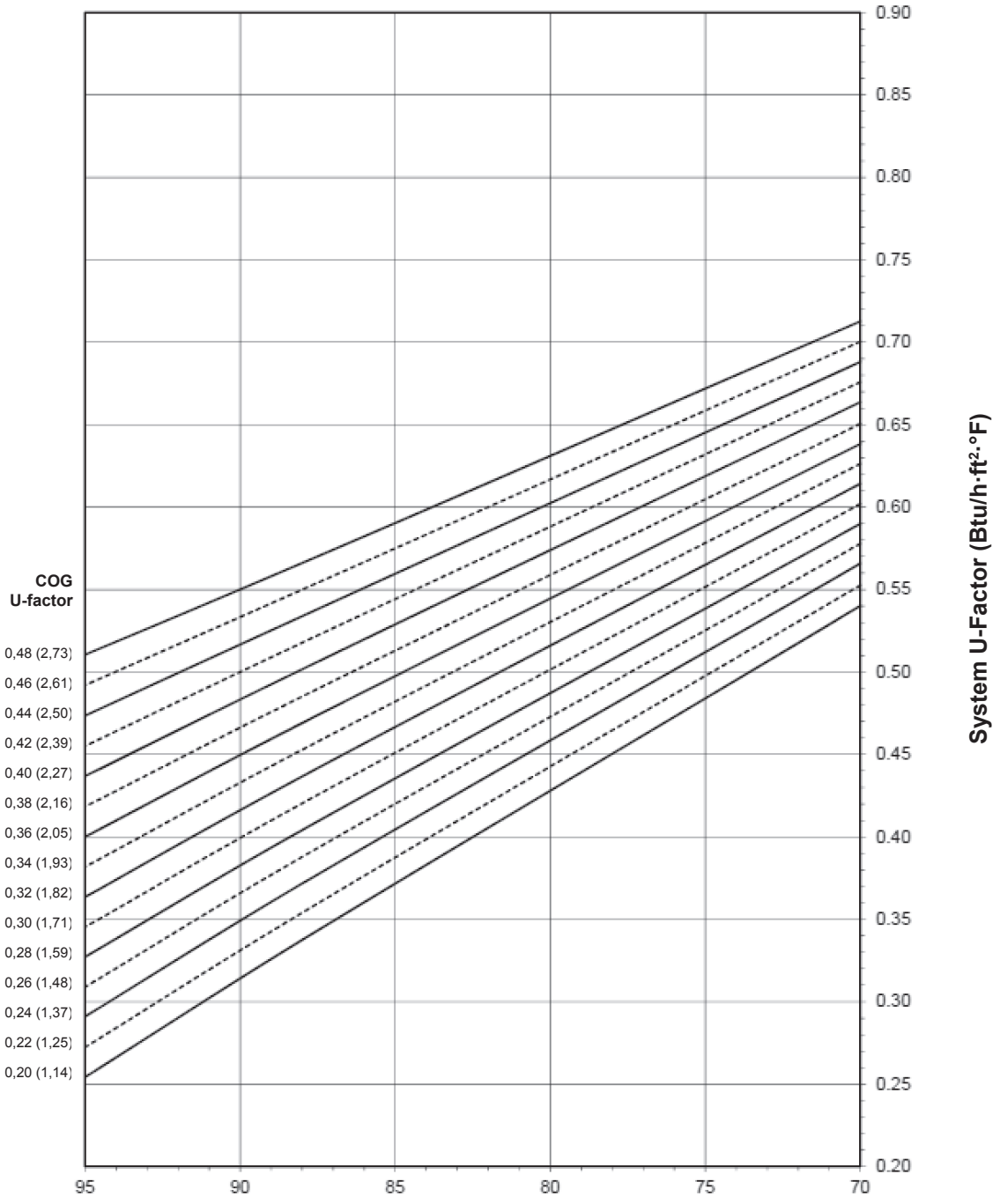
Glass SHGC [3]	Overall SHGC [4]
0.75	0.66
0.70	0.62
0.65	0.58
0.60	0.53
0.55	0.49
0.50	0.45
0.45	0.40
0.40	0.36
0.35	0.31
0.30	0.27
0.25	0.23
0.20	0.18
0.15	0.14
0.10	0.09
0.05	0.05

Visible Transmittance [2]

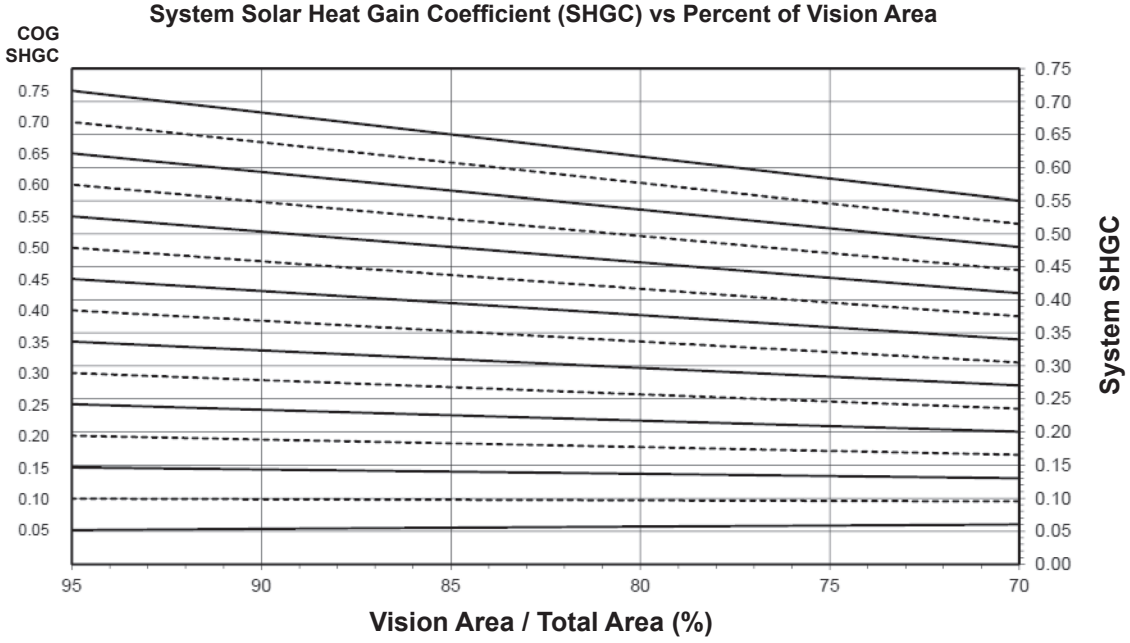
Glass VT [3]	Overall VT [4]
0.75	0,66
0.70	0,61
0.65	0,57
0.60	0,53
0.55	0,48
0.50	0,44
0.45	0,39
0.40	0,35
0.35	0,31
0.30	0,26
0.25	0,22
0.20	0,18
0.15	0,13
0.10	0,09
0.05	0,04

Note:
Values in parentheses are metric.
COG=Center of Glass.
Charts are generated per AAMA 507.

System U-Factor for Vision Glass

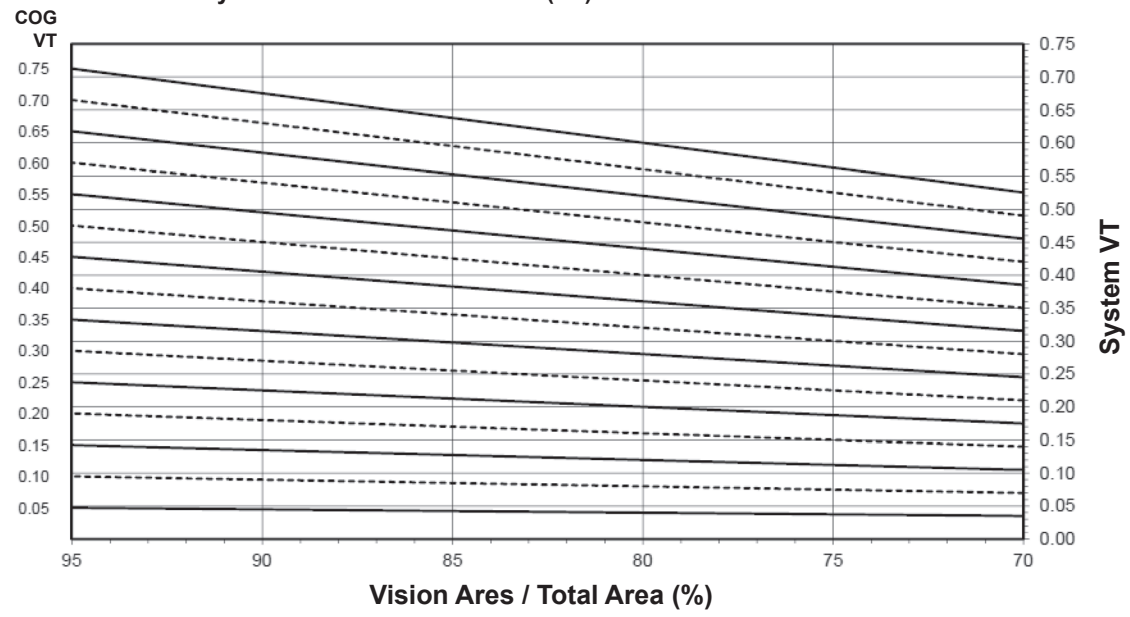


System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



Charts are generated per AAMA 507.

System Visible Transmittance (VT) vs Percent of Vision Area



Charts are generated per AAMA 507.

Trifab™ 451UT with Steel

Thermal Transmittance [1] (BTU/hr • ft [2] • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.48	0.57
0.46	0.56
0.44	0.54
0.42	0.53
0.40	0.51
0.38	0.49
0.36	0.48
0.34	0.46
0.32	0.45
0.30	0.43
0.28	0.41
0.26	0.40
0.24	0.38
0.22	0.36
0.20	0.35

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 2,000 mm wide by 2,000 mm high (78-3/4" by 78-3/4").

SHGC Matrix [2]

Glass SHGC [3]	Overall SHGC [4]
0.75	0.66
0.70	0.62
0.65	0.58
0.60	0.53
0.55	0.49
0.50	0.45
0.45	0.40
0.40	0.36
0.35	0.32
0.30	0.27
0.25	0.23
0.20	0.19
0.15	0.14
0.10	0.10
0.05	0.05

Visible Transmittance [2]

Glass VT [3]	Overall VT [4]
0.75	0.65
0.70	0.61
0.65	0.57
0.60	0.52
0.55	0.48
0.50	0.44
0.45	0.39
0.40	0.35
0.35	0.30
0.30	0.26
0.25	0.22
0.20	0.17
0.15	0.13
0.10	0.09
0.05	0.04