

9.29 - 10.2.2025

NGA GLASS CONFERENCE™ ANN ARBOR

NGA NATIONAL
GLASS ASSOCIATION
with GANA

Meeting Book

NGA Core Purpose

NGA is the authority and resource for its members and the industry to grow successful businesses and to champion the benefits of glazing and glass building products.

NGA Vision Statement

We envision a future in which glass is the material of choice to enhance spaces where people live, play, learn, work and heal.

NGA Goals

Advocate: Be a strong advocate to promote and defend the glass industry.

Educate: Drive excellence, safety and results through education and training.

Workforce Development: Advance the industry as a viable, thriving and exciting career path.

Promote: Elevate the image of glass as a safe, healthy, sustainable and inspiring building product.

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NATIONAL GLASS ASSOCIATION with GANA



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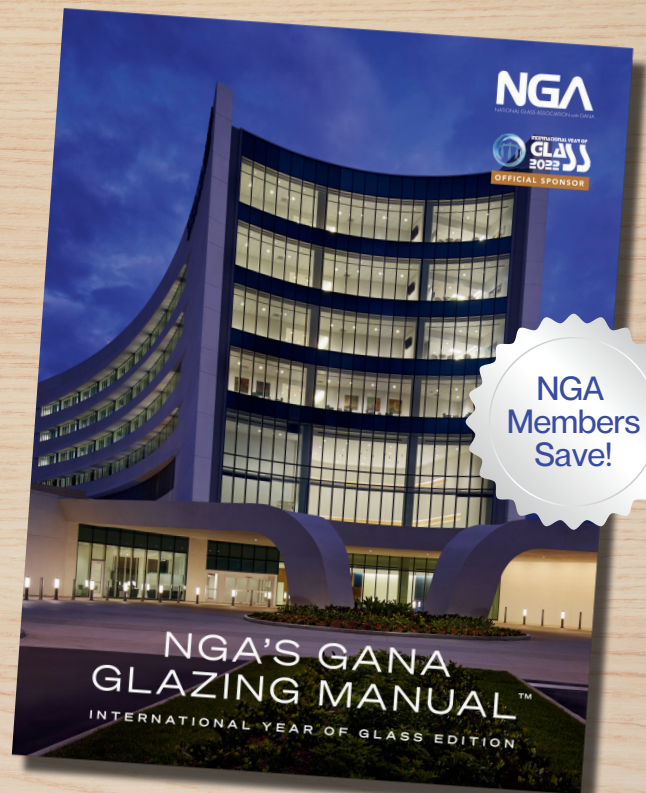


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Upcoming Events



GlassBuild America 2025

November 4-6, 2025 | Orange County Convention Center | Orlando, FL

BEC Conference 2026

March 1-3, 2026 | Omni Louisville Hotel | Louisville, KY

NGA Glass Fabricator Conference

April 26-29, 2026 | Radisson Blu Hotel | Chicago, IL



By registering, participating, attending, or speaking at the NGA Glass Conference, I agree that neither I nor my company/employer will transmit information or materials received at the NGA Glass Conference to other companies for their commercial use or to other associations with competing interests to NGA.

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NGA Glass Conference: Ann Arbor

Ann Arbor Marriott Ypsilanti at Eagle Crest

Schedule at a Glance

All times listed are Eastern Time Zone.

All conference participants and guests are invited & encouraged to participate in all sessions and meals.

Monday, September 29, 2025

		Location
4:00 pm – 6:00 pm	Registration Desk Open	Foyer of Roy E Wilbanks Ballroom
6:00 pm – 7:00 pm	Welcome Reception	Garden Marquee

Tuesday, September 30, 2025

7:30 am	Registration Desk Open	Foyer of Roy E Wilbanks Ballroom
8:00 am – 9:00 am	Networking Breakfast	Garden Marquee
9:00 am – 10:00 am	Orientation & Introductions	Roy E Wilbanks Ballroom
10:00 am – 11:30 am	NGA Fabricating Committee; Standards Update	
11:30 am – 12:00 pm	Pick up Box Lunch- <i>all conference participants</i> Load Bus for Tour – <i>pre-registered attendees only</i>	Foyer of Roy E Wilbanks Ballroom
12:45 pm – 4:30 pm	Tour: Guardian Glass <i>pre-registration required</i>	

Wednesday, October 1, 2025

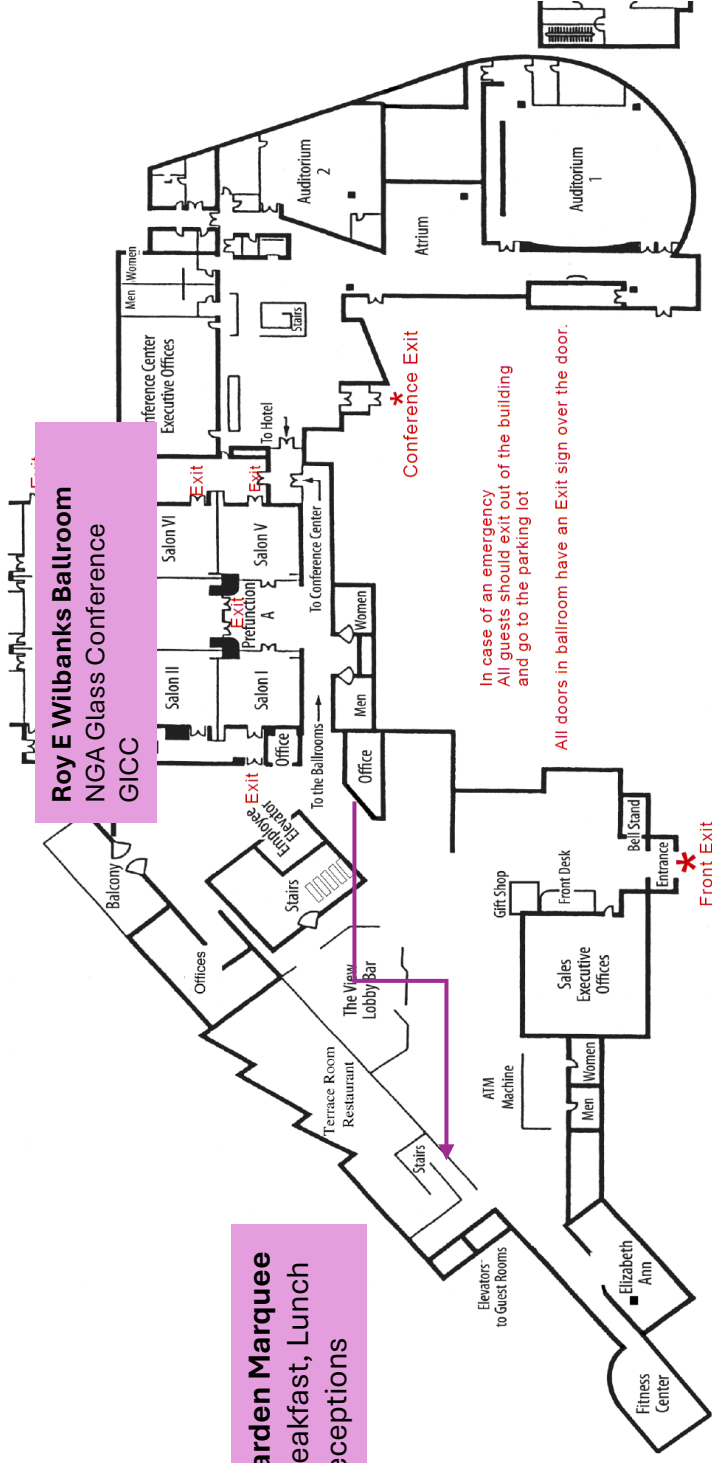
7:30 am	Registration Desk Open	Foyer of Roy E Wilbanks Ballroom
8:00 am – 9:00 am	Networking Breakfast	Garden Marquee
9:00 am – 12:00 pm	NGA Fabricating Committee; Key Industry Metrics; Insights from Glazing Failures Industry Collaboration	Roy E Wilbanks Ballroom
12:00 pm – 1:00 pm	Networking Lunch	Garden Marquee
1:00 pm – 3:00 pm	NGA Advocacy Committee; Sustainability Sub-Committee; Energy Code Update	Roy E Wilbanks Ballroom
3:15 pm – 3:45 pm	NGA Forming Committee	Roy E Wilbanks Ballroom
3:45 pm – 5:00 pm	Presentations: Ann Arbor A2Zero; Glass sustainability & transparency	Roy E Wilbanks Ballroom
5:00 pm – 6:00 pm	Networking Reception; <i>interactive demo from k-space</i>	Garden Marquee

Thursday, October 2, 2025

8:00 am	Registration Desk Open	Foyer of Roy E Wilbanks Ballroom
8:00 am – 9:00 am	Networking Breakfast	Garden Marquee
9:00 am – 12:00 pm	NGA Fabricating Committee; Presentations: Thin Glass <i>sponsored by Pilkington NSG</i> ; Fire & Structural Codes Update; Using AI to Optimize Work & Life	Roy E Wilbanks Ballroom
12:00 pm – 1:00 pm	Networking Lunch	Garden Marquee
1:00 pm – 3:00 pm	NGA Fabricating Committee	Roy E Wilbanks Ballroom
3:00 pm – 4:00 pm	Intro to Glazing Industry Code Committee	Roy E Wilbanks Ballroom
4:00 pm	Conference Conclusion	
4:00 pm – 5:00 pm	GICC Meeting <i>continues for GICC Members only</i>	



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Garden Marquee
Breakfast, Lunch
Receptions

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NGA Glass Conference: Ann Arbor

Ann Arbor Marriott Ypsilanti at Eagle Crest | General Session: Roy E Wilbanks Ballroom

| Meals: Garden Marquee

Note: All conference participants and guests are invited & encouraged to participate in all sessions and meals.
meals.

Monday, September 29, 2025

4:00 pm – 6:00 pm **Registration Desk Open**

6:00 pm – 7:00 pm **Welcome Reception**

Tuesday, September 30, 2025

7:30 am **Registration Desk Open**

8:00 am – 9:00 am **Networking Breakfast**

9:00 am – 10:00 am **NGA Glass Conference Orientation**

This interactive session facilitated by Karen Wegert, NGA, provides an overview of the conference program, NGA committee structure and resources. Find out what to expect at NGA Glass Conference and how to get involved as well as what's planned for future NGA conferences, including the new NGA Glass Fabricator's Conference (GFAB). Get to know NGA's new CEO, Lakisha Woods and meet your peers- all conference attendees will introduce themselves.

10:00 am – 11:30 am **NGA Fabricating Committee**

- The NGA Fabricating Committee meeting facilitated by Aaron Thompson, Viracon, Chair of NGA Fabricating Committee and Bobby Chestnut, Walker Glass, Vice-Chair of NGA Fabricating Committee, will begin with the Fabricating general business agenda.
- Learn how to influence the direction of industry codes and standards at the Industry Standards Update, presented by Urmilla Sowell, NGA Vice President of Advocacy & Technical Services.
- Welcome to Guardian Glass – tour overview and logistics – Jon Griggs, Guardian Glass LLC.

11:30 am – 12:00 pm **Pick up Box Lunch** – all conference participants
Load Bus for Tour – pre-registered tour attendees only

12:45 pm – 4:30 pm **Tour: Guardian Glass**

[Guardian Glass](#) invites NGA Glass Conference participants to a unique educational tour of the Guardian Glass Technology and Development Center as well as the Guardian Carleton Float Plant. Tour capacity is limited. Transportation to/from the Guardian site will be provided. Pre-registration with signed NDA and adherence to safety protocol is required.

Wednesday, October 1, 2025

7:30 am **Registration Desk Open**

8:00 am – 9:00 am **Networking Breakfast**

9:00 am – 12:00 pm **NGA Fabricating Committee, continued**

- NGA Fabricating general business agenda, continued.
- Katy Devlin, NGA Vice President of Content & Programming, will present key industry metrics to watch that will help companies navigate an uncertain environment.

NGA Glass Conference: Ann Arbor

Ann Arbor Marriott Ypsilanti at Eagle Crest | General Session: Roy E Wilbanks Ballroom

| Meals: Garden Marquee

Note: All conference participants and guests are invited & encouraged to participate in all sessions and meals.

- Tempering: MyGlassFab Tempering courses will be presented by Jenni Chase, NGA VP Workforce Development.
 - Presentation: Insights from Glazing Failures presented by Bill Lingnell, Lingnell Consulting Services



Bill Lingnell, Lingnell Consulting Services

- Laminating Liaison: Julie Schimmelpenningh, Eastman | Saflex: Vaughn Schauss, Kuraray will present a new standard for hydrostatic pressures.
- Industry Collaboration
 - Certification program updates for safety glazing (Safety Glazing Certification Council (SGCC)), insulating glazing (Insulating Glass Certification Council (IGCC)), Architectural Glass & Metal Technician (AGMT) Certification and ANSI will be presented by John Kent and Kristin Best of Administrative Management Systems, Inc. (AMS).
 - National Fenestration Rating Council updates will be presented by Tom Culp of Birch Point Consulting, NGA Codes Consultant.
 - Hear updates on Fenestration Glazing Industry Alliance (FGIA) activities from Amy Becker, FGIA.

12:00 pm – 1:00 pm

Networking Lunch

1:00 pm – 3:00 pm

NGA Advocacy Committee & Sustainability Sub-Committee

- NGA Advocacy Committee Chair Paul Bush, Vitro Architectural Glass, will facilitate discussions on NGA's advocacy efforts in 2025, including NGA's priority topic school security. An update on trade and tariffs will be provided by Laurie Purporo of K&L Gates.
- Legislative/Regulatory Update – Nick Resetar, Roetzel & Andress
- Sustainability Sub-Committee, chaired by Kayla Natividad, Pilkington | NSG:
 - Findings from the Purdue Senior Design Study will be presented by Georgia Oehler, NGA Senior Manager Technical Services & Sustainability.
 - NGA Code Consultant Tom Culp of Birch Point Consulting will present updates to the energy codes and green/stretch codes and standards and give an update on the Architectural Glass Circularity & End of Life project with Aluminum Extruders Council (AEC) and NGA.

3:15 pm – 3:45 pm

NGA Forming Committee

NGA Forming Committee Chair Steve Marino, Vitro Architectural Glass and Vice Chair Jon Griggs, Guardian Glass LLC will facilitate updates from the flat glass manufacturers.

NGA Glass Conference: Ann Arbor

Ann Arbor Marriott Ypsilanti at Eagle Crest | General Session: Roy E Wilbanks Ballroom

| Meals: Garden Marquee

Note: All conference participants and guests are invited & encouraged to participate in all sessions and meals.

3:45 pm – 5:00 pm

Educational Presentations

- Joe Lange, Senior Energy Analyst at the City of Ann Arbor's Office of Sustainability and Innovations will present the city's A2Zero building sustainability plan.
- Jeff Zeman, TrueNorth Collective, will lead a discussion on glass sustainability and transparency.



Joe Lange, City of Ann Arbor



Jeff Zeman, TrueNorth Collective

5:00 pm – 6:00 pm

Networking Reception with interactive demonstration from k-Space

Thursday, October 2, 2025

8:00 am

Registration Open

8:00 am – 9:00 am

Networking Breakfast

9:00 am – 12:00 pm

NGA Fabricating Committee, continued

- NGA Fabricating general business agenda, continued.
- Robert Hart, LBNL and Stephen Morse, Michigan Tech University will present Thin Glass, including fabrication and handling considerations, safety glazing testing and next steps, including certification implications from John Kent and Kristin Best of Administrative Management Systems, Inc. (AMS). *This presentation is sponsored by Pilkington | NSG.*



Thin Glass speakers Robert Hart, LBNL; Stephen Morse, Michigan Tech University; John Kent, AMS; Kristin Best, AMS

- Protective Glazing Liaison Vaughn Schauss, Kuraray: Get the latest updates on fire and structural building codes and standards and bird-friendly glazing legislation from Thom Zaremba and Nick Resetar of Roetzel & Andress, NGA Fire and Structural Codes Consultants. Thom Zaremba will present Architectural Glass Recycling. Julie Schimmelpenningh, Eastman | Saflex will give an

NGA Glass Conference: Ann Arbor

Ann Arbor Marriott Ypsilanti at Eagle Crest | General Session: Roy E Wilbanks Ballroom

| Meals: Garden Marquee

Note: All conference participants and guests are invited & encouraged to participate in all sessions and meals.

update on the development of a new ASTM standard for retrofit of existing school buildings using security glazing systems designed to resist forced-entry attacks.

- NGA Volunteer of the Year, Robert Carlson, Tristar Glass will present Using AI to Optimize Work and Life.

12:00 pm – 1:00 pm

Networking Lunch

1:00 pm – 3:00 pm

NGA Fabricating Committee, continued

- NGA Fabricating general business agenda, continued.
- Insulating Liaison Rob Carlson, Tristar Glass: Stephen Morse, Michigan Tech University will outline plans for VIG deflection testing under a joint FGIA/NGA project.
- Decorative Glazing Liaison Michael Saroka, Goldray Glass: task group updates and status of the new manual.
- Learn about opportunities to participate in joint NGA Fabricating & NGA Installing Committee activities.

3:00 pm – 4:00 pm – **Introduction to the Glazing Industry Code Committee (GICC)**

All conference attendees are invited to join GICC members and NGA Code Consultants to learn how to influence updates to the model building and energy codes. Meet the GICC Executive Committee- GICC Chair: Daniel Poling, SCHOTT; GICC Vice Chair: Kayla Natividad, Pilkington North America; and GICC Secretary/Treasurer: Marc Deschamps, Walker Glass Company.



Daniel Poling, SCHOTT, GICC Chair

4:00 pm – 5:00 pm – **GICC Meeting – open to current GICC members only**



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- Frameless Shower Enclosure
- Design & Installation
- Heavy Glass Door Design
- Laminated Glazing
- Project Manager's Reference
- Protective Glazing
- Bird-Friendly Glazing
- And more...



ARTICLE XV ANTI-TRUST COMPLIANCE

SECTION 1. POLICY

It is the undeviating policy of the Association to comply strictly with the letter and spirit of all federal, state and applicable international trade regulations and antitrust laws. Any activities of the Association or Association-related actions of its staff, members, officers, directors or chapter officials which violate these regulations and laws are detrimental to the interests of the Association and are unequivocally contrary to Association policy.

SECTION 2. IMPLEMENTATION

Implementation of the antitrust compliance policy of the Association shall include, but shall not be limited to, the following:

2.1 Association membership, directors and committee/alliance/division meetings shall be conducted pursuant to agendas distributed in advance to attendees; discussions shall be limited to agenda items; there shall be no substantive discussions of Association matters other than at membership, directors and committee/alliance/division meetings; minutes shall be distributed to attendees promptly.

2.2 All Association activities or discussions shall be avoided which might be construed as tending to: (1) raise, lower, or stabilize prices; (2) regulate production; (3) allocate markets; (4) encourage boycotts; (5) foster unfair trade practices; (6) assist monopolization; or in any way violate federal, state or applicable international trade regulations and antitrust laws.

2.3 No individual other than the Chair of the Board and Chief Executive Officer--whether staff, member, officer, director or committee/alliance/division official--is authorized to communicate on behalf of the Association to any person or firm outside the Association except with the explicit, unequivocal approval of the Chair of the Board or President. No such individual may bind or commit the Association to any offer, contract, policy, program, position or decision without that approval. And no such individual may hold out himself or herself, or willingly appear to do so, as representing the Association without that approval.

2.4 NGA legal counsel shall attend all NGA Board and membership meetings, either in person or via teleconference. Attendance of counsel at other meetings shall be at the discretion of the NGA Chair of the Board.

2.5 Association staff, members, officers, directors or committee/alliance/division officials who participate in conduct which the Board of Directors, by a two-thirds (2/3) majority vote, determines to be contrary to the Association anti-trust compliance policy shall be subject to disciplinary measures up to, and including, termination.



NATIONAL GLASS ASSOCIATION

CONFLICTS OF INTEREST POLICY

This Conflicts of Interest Policy applies to all National Glass Association (NGA) staff, members, officers, directors, chapter officials, and all members of a committee, division or task force of NGA as designated by the Board of Directors (“interested persons”).

As an interested person, I recognize that I owe duties of care and loyalty to NGA. One aspect of fulfilling those duties is to avoid conflicts of interest in which my allegiance might be split between my position with NGA and some other personal, professional, or volunteer position or responsibility. To help avoid conflicts, I will disclose other situations or areas in which it might even appear that I have interests conflicting with those of NGA. I invite any further review by the NGA of any aspects of these situations or areas which might be considered appropriate.

Using the NGA Conflicts of Interest Disclosure Form provided by NGA staff, I will disclose potential conflicts to the Chair of the Board (or in the case of the Chair, to the Treasurer) and/or to the members of any committees, divisions or task forces of NGA as designated by the Board annually and as they arise. For each interest disclosed, the Chair (or Treasurer) will determine whether to: (a) take no action; (b) assure full disclosure to the Board of Directors and/or the relevant committee, division, or task force; (c) ask for recusal from participation in related discussions or decisions; or (d) ask for voluntary resignation from the Board, or, potentially, removal in accordance with NGA’s removal procedures or voluntary resignation from the relevant committee, division or task force. NGA’s CEO will also monitor proposed and ongoing transactions for potential conflicts of interest.

Disclosure of interests:

Personal, professional, or volunteer positions or responsibilities, including those of mine and/or my family members, that might give rise to conflicts (examples include serving in a position of leadership for another association in the glass or residential window and door industry, or performing work for the NGA or another association in the glass or residential window and door industry).

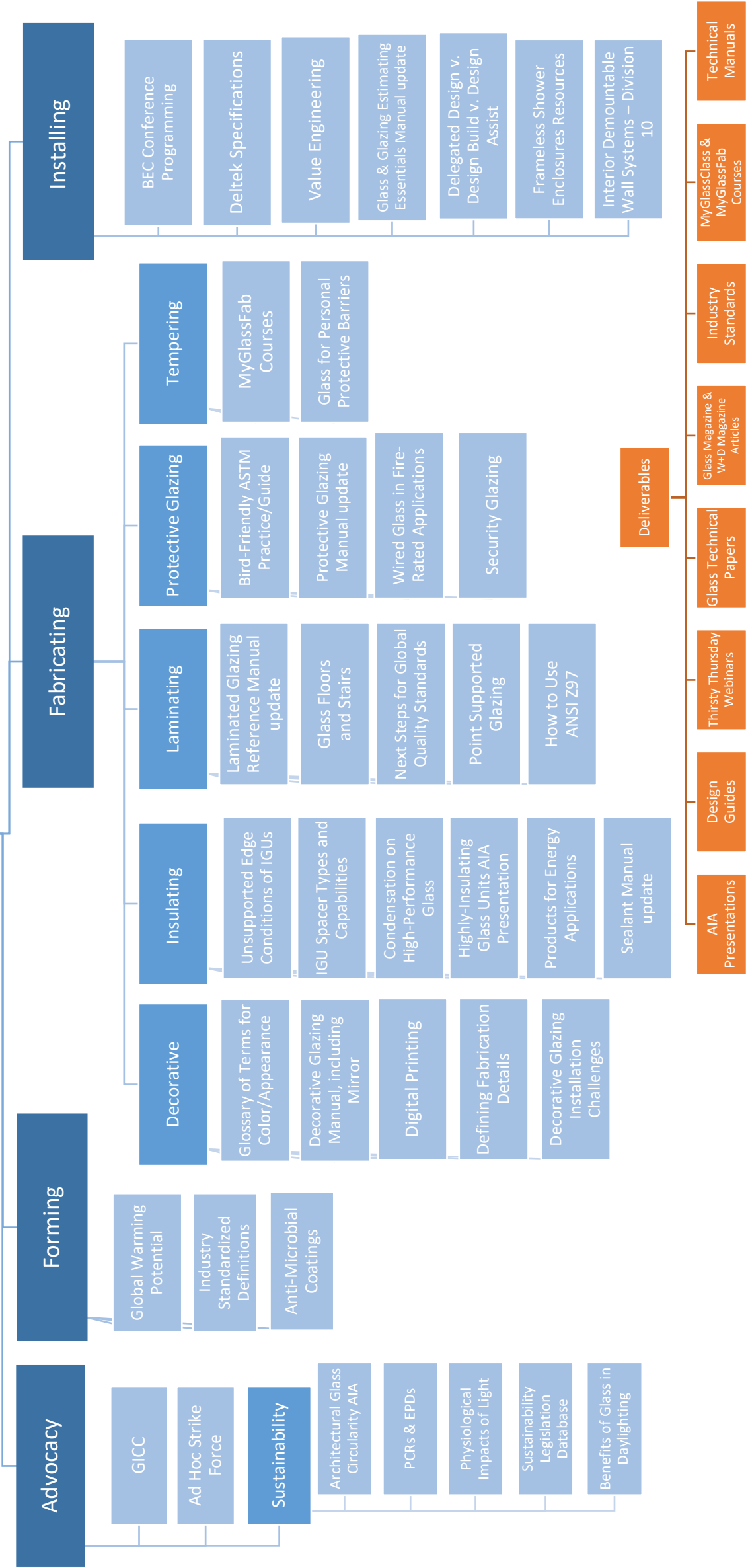
National Glass Association Board of Directors

LEGEND

Committee

Committee Liaisons

Active Task Groups



Committee Voting Protocol Parameters

	Advocacy	GICC (Regulatory)	Fabricating	Forming (Flat Glass Mfrs ONLY)	Installing
Members may select activity status as indicated.					
Member companies are required to ACTIVELY return ballots on time					
Operating Protocol	No	Yes	No	Yes	No
Voting/Balloting Each company shall have a primary and alternate voting member assigned	Yes	Yes	Yes	Yes	Yes
Number of votes per member company	ONE vote per company	ONE vote per company	ONE vote per company	ONE vote per company	ONE vote per company
Fee assessments	No	Yes	No	Yes	No
Voting/Balloting Period (duration) – Voting closes at 5 pm eastern time on closing day			21 business days		
Number of consecutively missed ballots per committee allowed after which loss of voting privileges on that committee will be in effect for three months	3	N/A	3	3	3
<ul style="list-style-type: none"> Repealed vote to be treated as corresponding member and get all notices and information from committee. Request for vote to be returned to a member will be addressed by Committee Chair with approval by BOD and must be submitted in writing. A new voting member must be named. 					
Voting Reminders (NGA to set up system to inform of ballot close) - only sent to those remiss					
Minimum ballot response rate (of the voting members) for ballot validity.	66%	51% or 75% - See GICC Operating Protocol	66%	66%	66%
Threshold for approval of all committee ballots. Abstentions are removed from count for simple majority	simple majority (51%)		simple majority (51%)	simple majority (51%)	simple majority (51%)
<p>Votes to be cast as one of the indicated choices.</p> <p>Negative votes must have comments. Comments must contain the following information to be considered:</p> <ul style="list-style-type: none"> Title of document being commented on Direct and clear reference of material being rejected (paragraph, line, table number, figure number etc.) Reason for rejection Suggested language or changes required to resolve negative. All properly submitted Negative comments from voting members must be considered. Other Negative comments (non-voting, submitted without suggested language for improvement, submitted without clear reference of material being rejected, etc.) may be taken up as new business or found non-persuasive at the discretion of the Chair. 			Approve	Approve with Comment Negative with Comment Abstain	

Chair: Paul Bush, Vitro Architectural Glass

NGA Antitrust Policy

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Committee Mission Statement

The NGA Advocacy Committee advocates on behalf of the glass and glazing industry to:

- Support the Glazing Industry Code Committee
- Educate stakeholders and consumers on the benefits of glass in the built environment
- Promote and protect the interests of the glass and glazing industry.

Agenda Items

1. Call to Order – *Chair Paul Bush, Vitro Architectural Glass*
2. Review of [Anti-Trust Statement](#) and [Conflict of Interest](#) Policies
3. Appointment of Recording Secretary – *Georgia Oehler and Amber Johnson, NGA*
4. [Minutes](#) of the Previous Meeting – February 5, 2025 at NGA Glass Conference: Carlsbad
5. Old Business
 - a. Update on 2025 NGA Glass & Glazing Advocacy Initiatives – *Urmilla Sowell, NGA*
 - i. School Security
 - ii. Tax credit 48 update – *Tom Culp, Birch Point Consulting, NGA Energy Code Consultant*
 - b. Energy Star Program – *Tom Culp, Birch Point Consulting, NGA Energy Code Consultant*
 - c. Legislative Bill Tracking (Ad hoc strike force team) – *Urmilla Sowell, NGA*
 - i. Utah School Security bill
 - d. Librarian legislative search – *Nick Resetar, Roetzel & Andress, NGA Code Consultant*
6. New Business
 - a. Trade and tariff update – *Laurie Purpuro, K&L Gates*
 - b. Legislative/Regulatory update – *Nick Resetar, Roetzel & Andress, NGA Code Consultant*
7. Sustainability Subcommittee – *Kayla Natividad, NSG | Pilkington North America*
 - a. Product Category Rules (PCR), Environmental Product Declarations (EPD) updates – *Urmilla Sowell, NGA*
 - b. NOIC Collaboration
 - c. Vinyl Recycling Program in Canada update – *Georgia Oehler, NGA*
 - d. Task Group Updates – *Kyle Sword, NSG | Pilkington North America*
 - i. New GTP AD01-25 [Overcoming Challenges of Circularity and Architectural Glass Recycling](#) – published
 - ii. FB40-25 [Recyclability of Architectural Glass Products](#) GTP – updated
 - iii. [World of Glass Map](#) – published with recycling locations
 - iv. Architectural Glass Circularity AIA presentation
 1. Call for volunteers
 - e. Systematic Reviews (5-year updates)
 - i. FM04-12 (2019) *Daylighting* – combined with FB53-17 (2024) *Benefits of Decorative Glass in Daylighting* to become new GTP *Benefits of Glass in Daylighting Applications* – at ballot

8. New Business

- a. Planning for future Glass & Glazing Advocacy Days
 - i. [High-Performance Windows Can Help Save the World \(tax credit\)](#)
 - ii. [School Security: Windows and Doors Respond First](#)
 - iii. [Training and Upskilling Workers to Meet Labor Demand](#)
 - iv. Other topics only if a bill is introduced
- b. [Tips](#) for communication with legislators

9. Presentations

- a. Purdue Senior Design Study – *Georgia Oehler, NGA Senior Manager, Technical Services & Sustainability*
- b. NGA Code Consultant Tom Culp of Birch Point Consulting will present updates to the energy codes and green/stretch codes and standards.

10. Adjournment

Next Events:

NGA Advocacy Days | Multiple Dates in 2025 | Washington, D.C.
[GlassBuild America](#) | November 4-6, 2025 | Orlando, FL
[BEC Conference](#) | March 1-3, 2026 | Louisville, KY
[NGA Glass Fabricator Conference](#) | April 26-29, 2026 | Chicago, IL



ADVOCACY COMMITTEE MINUTES

Feb. 5, 2025 | 9:30 am – 11:00 am

NGA Glass Conference: Carlsbad

Westin Carlsbad Resort

Chair: Paul Bush, Vitro Architectural Glass

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Committee Mission Statement

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- Support the Glazing Industry Code Committee
- Educate stakeholders and consumers on the benefits of glass in the built environment
- Promote and protect the interests of the glass and glazing industry.

Agenda Items

1. Call to Order –*Chair Paul Bush, Vitro Architectural Glass*
 - a. Called to order at 9:36 am PT
2. Review of [Anti-Trust Statement](#) and [Conflict of Interest](#) Policies
 - a. Reviewed
3. Appointment of Recording Secretary – *Georgia Scalfano/Amber Johnson, NGA*
4. [Minutes](#) of the Previous Meeting- August 7, 2024 NGA Glass Conference: Milwaukee
 - a. Approved unanimously
5. Old Business
 - a. [Recap](#) & [Follow-up](#) of 2024 NGA Glass & Glazing Advocacy Days event
 - i. Tax credit 48 update – *Tom Culp, Birch Point Consulting, NGA Energy Code Consultant*
 1. Asks during 2024 Advocacy Days were to extend the expiration of the tax credit and also expand the definition to include other high-performance window options. NGA will work to support it regardless of the definition expansion because it still benefits parts of the industry but will still push for the expansion.
 2. Next steps: Identify targets in congress that would be best to approach to champion a bill.
 - b. Legislative Bill Tracking (Ad hoc strike force team) – *Urmilla Sowell, NGA*
 - i. No new legislative items have been introduced in the last 18 months with leading up to the election. Past issues include Bird-Friendly and School Security.
 - ii. Volunteers for strike force team: James Wright
 - iii. Utah School Security bill
 1. Roetzel & Andress library software picked up Utah School Security Bill allowing NGA to submit comments during comment period.
 - c. Librarian legislative search – *Nick Resetar, Roetzel & Andress, NGA Code Consultant*
 - i. Will continue to monitor what may affect the industry. Anyone can email NGA with critical terms we should watch out for.
6. Sustainability Subcommittee – *Kayla Natividad, Pilkington North America*
 - a. Product Category Rules (PCR), Environmental Product Declarations (EPD) [updates](#) – *Urmilla Sowell, NGA*
 - i. Within the EPA grant, money is set aside for Flat Glass PCR and Processed Glass PCR update.
 1. Volunteers for Processed Glass PCR update: Rob Carlson, Tom Donovan, Aaron Thompson, Brad Begin, Matt Manning
 - b. Task Group - Sustainability & Recycling – *Kyle Sword, Pilkington North America – Task Group Chair*

- i. Glass Technical Paper (GTP) FB40-14 *Recyclability of Architectural Glass* update- at final ballot
 - 1. Passed final ballot, will be published later this month
 - ii. New GTP AD01-25 *Overcoming Challenges of Circularity and Architectural Glass Recycling*- at re-ballot
 - 1. Comments to review but no disapprovals. Will be sent to Final ballot once quorum is reached.
 - iii. World of Glass Map recycling data
 - 1. Relaunched in August 2024
 - 2. Buy Clean Initiatives map available on members only section of glass.org
 - 3. Updates for both sent via AT e-blast
 - c. Systematic Reviews (5-year updates)
 - i. FM04-12 (2019) *Daylighting*- to be combined with FB53-17 (2024) *Benefits of Decorative Glass in Daylighting* to become new GTP AD02-25 [Benefits of Glass in Daylighting Applications](#) – will go to ballot
- 7. New Business
 - a. Planning for 2025 Glass & Glazing Advocacy Days - Priority Topics for 2025 event – updating one-pagers with specific “asks” for legislators
 - i. [High-Performance Windows Can Help Save the World \(tax credit\)](#)
 - ii. [School Security: Windows and Doors Respond First](#)
 - iii. [Training and Upskilling Workers to Meet Labor Demand](#)
 - iv. Other topics only if a bill is introduced
 - 1. With the new administration, the focus for 2025 will be individual meetings instead of a fly-in with several members. These will provide more targeted meetings and allow us to use this year to rebuild our foundation.
 - 2. Next steps
 - a. Look at current one-pagers and adjust asks as necessary (Bird-Friendly should be included)
 - b. Utilize social media to get information out there; subscribe to AT e-blast to keep up-to-date on monthly activities
 - c. Create a letter template for members to use for their specific congressional person
 - d. Make a concrete plan for what 2025 Advocacy Days will look like
 - 3. Volunteers for Advocacy Committee: Doug Penn, Trulite
 - b. Potential for NGA to collaborate with Northwest Ohio Innovation Consortium (NOIC) to promote recyclability. NOIC is working on glass recycling and materials recovery facilities around Toledo area. Potential to create pilot programs to help improve recycling rates.
 - i. Volunteers: Stanley Yee
 - c. FGIA is looking to do a vinyl recycling program in the Midwest if any members are interested.
 - d. Recycling AIA presentation?
 - i. Not enough information at this point in time to create a presentation. Publish the new GTP first, then possibly do a FAQ, then look into making a presentation.
 - ii. Make sure to distinguish between recycling and downcycling
 - iii. Volunteers: Stanley Yee, Kayla Natividad, Jon Griggs
 - e. [Tips](#) for communication with legislators
- 8. Adjournment
 - a. Adjourned at 10:51 am PT

Next Events:

NGA Advocacy Days | Multiple Dates in 2025 | Washington, D.C.
 NGA Glass Conference: Ann Arbor | Sept. 29-Oct. 2, 2025 | Ann Arbor, MI

FABRICATING COMMITTEE AGENDA

Sept. 30, Oct. 1, Oct. 2, 2025

NGA Glass Conference: Ann Arbor

Ann Arbor Marriott Ypsilanti at Eagle Crest

Chair: Aaron Thompson, Viracon
athompson@viracon.com

Vice Chair: Bobby Chestnut, Walker Glass
bchestnut@walkerglass.com

NGA Antitrust Policy

It is the undeviating policy of the Association to comply strictly with the letter and spirit of all federal, state and applicable international trade regulations and antitrust laws. Any activities of the Association or Association-related actions of its staff, members, officers, directors or chapter officials which violate these regulations and laws are detrimental to the interests of the Association and are unequivocally contrary to Association policy. *Please refer to NGA Bylaws for SECTION 2. IMPLEMENTATION of the antitrust compliance policy of the Association.*

Tuesday, September 30

1. Call to Order – *Chair Aaron Thompson, Viracon*
2. Review of [Anti-Trust Statement](#) and [Conflict of Interest](#) Policies
3. Appointment of Recording Secretary – *Georgia Oehler/Amber Johnson, NGA*
4. [Minutes](#) of the Previous Meeting – Feb. 6, 2025 at NGA Glass Conference: Carlsbad
5. Committee Business – *Aaron Thompson, Viracon*

Presentation: Industry Standards Update – Urmilla Sowell, NGA

Presentation: Welcome to Guardian Glass – tour overview and logistics – Jon Griggs, Guardian Glass LLC

Adjourn until Wednesday, October 1

Wednesday, October 1

1. Call to Order – *Chair Aaron Thompson, Viracon*
2. Appointment of Recording Secretary – *Georgia Oehler/Amber Johnson, NGA*
3. Committee Business

Presentation: Key Industry Metrics to Watch – Katy Devlin, NGA

Tempering

- a. Task Groups
 - i. FB39-25 [Glass Properties Pertaining to Photovoltaic Applications](#) – *Steve Marino, Vitro, Task Group Chair* – updated
 - ii. New MyGlassFab tempering courses – *Jenni Chase, NGA*
- b. Systematic Reviews (5-year updates)
 - i. FB65-20 *Glass for Personal Protective Barriers* – task group reviewing ballot comments
 - ii. FB13-07 *Importance of Fabrication Prior to Heat-Treatment* – being updated with current ASTM C1048
 - iii. FB45-14 *Recommended Applications for Heat-Treated Architectural Glass* – being updated with current ASTM C1048
 - iv. FM02-09 *Protecting Glass Against Weld Spatter* – to be combined with FB03-03 *Construction Site Protection and Maintenance of Architectural Glass*
- c. New Business – Tempering

Presentation: Insights from Glazing Failures – *Bill Lingnell, Lingnell Consulting Services*

FABRICATING COMMITTEE AGENDA

Sept. 30, Oct. 1, Oct. 2, 2025

NGA Glass Conference: Ann Arbor

Ann Arbor Marriott Ypsilanti at Eagle Crest

Laminating – Julia Schimmelpenninck, Eastman | Saflex

- a. Task Groups
 - i. FB78-25 [Glass Nomenclature – Schema 1](#) – *Michael Saroka, Goldray Glass, Task Group Chair* – published
 - 1. Online nomenclature coding tool
 - ii. Laminated Glazing Reference Manual – *Julia Schimmelpenninck, Eastman | Saflex, Task Group Chair*
 - iii. FB07-05 *Point Supported Glazing* – task group reviewing ballot comments
 - iv. Next Steps for Global Quality Standards – *Jon Griggs, Guardian Glass LLC, Task Group Chair* – initial call to be scheduled
 - v. Laminating educational video from 2007 – hold for MyGlassFab laminating course development
 - vi. ANSI Z97.1 Fall-out protection – *Michael Saroka, Goldray Glass, Task Group Chair*
 - 1. Call for volunteers
- b. 2025 Systematic Reviews (5-year updates)
 - i. FB14-07 *Glass Floors and Stairs* – task group reviewing ballot comments
 - ii. FB48-15 *Effects of Moisture, Solvents and Other Substances on Laminated Glazing Edges* – passed ballot; to be published
 - iii. FB59-18 *Heat-Treated Laminated Glass Exposed Edges* – being updated with current ASTM C1048
 - iv. IN04-14 *Safety Guidelines for Deglazing Structural Silicone* (Installing Committee GTP)- to be combined with FB09-06 *Suggested Procedures for Dealing with Broken Glass*
- c. New Business – Laminating

Presentation: New Standard for Hydrostatic Pressures – Vaughn Schauss, Kuraray

Industry Collaboration

- a. Certification Program Updates – *John Kent and Kristin Best, Administrative Management Systems, Inc.*
- b. Fenestration Glazing Industry Alliance (FGIA) – *Amy Becker, FGIA*
- c. National Fenestration Rating Council (NFRC) – *Tom Culp, Birch Point Consulting, NGA Code Consultant*

Adjourn until Thursday, October 2

Thursday, October 2, 2025

- 1. Call to Order - *Chair Aaron Thompson, Viracon*
- 2. Appointment of Recording Secretary – *Georgia Oehler/Amber Johnson, NGA*
- 3. Committee Business

Presentation: Thin Glass - *Robert Hart, LBNL; Stephen Morse, Michigan Tech University; John Kent, AMS; Kristin Best, AMS*

Protective Glazing – Vaughn Schauss, Kuraray America

- a. Task Groups
 - i. Bird-Friendly Glazing– *Marc Deschamps, Walker Glass – Task Group Chair*
 - 1. ASHRAE 189.1 – added bird-friendly requirements – *Tom Culp, Birch Point Consulting, NGA Energy Code Consultant*
 - 2. ASTM Practice/Guide to promote uniform implementation of NGA *Bird Friendly Glazing Design Guide*
 - 3. Bird-Friendly legislation database- *Georgia Oehler, NGA*
 - ii. Wired Glass in Fire-Rated Safety Glazing Applications GTP – reviewing ballot comments
 - iii. Protective Glazing Manual Update

FABRICATING COMMITTEE AGENDA

Sept. 30, Oct. 1, Oct. 2, 2025

NGA Glass Conference: Ann Arbor

Ann Arbor Marriott Ypsilanti at Eagle Crest

- b. Systematic Reviews (5-year updates)
 - i. FB43-14 *Security Glazing* – task group reviewing ballot comments
- c. New Business – Protective Glazing
 - i. New ASTM Standard for School Building Retrofit – *Julia Schimmelpenningh, Eastman | Saflex*

Presentation: Fire and Structural Building Code Update – *Thom Zarembo and Nick Resetar, Roetzel & Andress, NGA Fire and Structural Codes Consultants*

Presentation: *Using AI to Optimize Work and Life* – *Robert Carlson, TriStar Glass, NGA Volunteer of the Year*

Insulating – Robert Carlson, TriStar Glass

- a. VIG Deflection Testing – Joint with FGIA – *Stephen Morse, Michigan Tech University*
- b. Task Groups
 - i. FB27-25 [Considerations for the Appearance of IGUs](#) – published
 - ii. Condensation on High-Performance Glass – *Kayla Natividad, Pilkington North America, Task Group Chair*
 - iii. Highly Insulating Glass Units AIA presentation – *Kayla Natividad, Pilkington North America, Task Group Chair*
 - iv. Unsupported Edge Conditions of Insulating Glass Units – *joint with FGIA- Aaron Thompson, Viracon, Task Group Co-Chair (NGA)*
 - v. IGU Spacer Types and Capabilities 101 – *Michael Speicher, H.B. Fuller Company, Task Group Chair*
- c. 2025 Systematic Reviews (5-year updates)
 - i. FB66-20 *Introduction to Vacuum Insulating Glazing* – to be combined with FB49-17 (2022) *Performance Improvements in IGUs*
 - ii. FB63-19 *Products for Energy Applications* – *Aaron Thompson, Viracon, Task Group Chair* – task group to review ballot comments
- d. New Business- Insulating
 - i. Update of GANA Sealant Manual

Decorative – Michael Saroka, Goldray Glass

- a. Decorative Glazing Manual update
- b. Task groups
 - i. Introduction to Digital Print – *Michael Saroka, Goldray Glass, Task Group Chair* – at ballot
 - ii. Recommended Practice for Defining Fabrication Details – *Michael Saroka, Goldray Glass, Task Group Chair*
 - iii. Decorative Glazing Installation Challenges – joint with NGA Installing Committee – *Michael Saroka, Goldray Glass, Task Group Chair*
- c. 2025 Systematic Reviews (5-year updates)
 - i. FB41-14 *Design Considerations for Use of Sealants/Adhesives with Coated Glass* – reviewing ballot comments
 - ii. FB19-25 [Guidelines for Handling and Cleaning Decorative Glass](#) – updated
 - iii. FB67-20 *Guidelines on How to View Decorative Glazing Products in Interior and Exterior Applications*- included in Decorative Glazing Manual; to be updated with current ASTM C1048 and WK88132.
 - iv. FB68-20 *Guidelines for Measuring Color of Decorative Glazing Materials in the Field*- included in Decorative Glazing Manual; editing for consistency of definitions/terms used and consistency with Determining an Acceptable Color Variance concerning the CMC Delta E Calculation.
 - v. FB70-20 *Best Practices for Installed Painted Decorative Glass*- on hold for Decorative Glazing Installation Challenges – task group work

FABRICATING COMMITTEE AGENDA

Sept. 30, Oct.1, Oct. 2, 2025

NGA Glass Conference: Ann Arbor

Ann Arbor Marriott Ypsilanti at Eagle Crest

- vi. Glossary of Terms for Color and Appearance (former GTP) – reviewing ballot comments, updates to be included in the NGA Glossary of Architectural Glass and Glazing and NGA Decorative Glazing Manual

d. New Business- Decorative

NGA Installing Committee Update – Chair Joey Aragon, Aragon Construction

- a. Value Engineering – *Rob Carlson, Tristar Glass, Task Group Chair*
- b. Delegated Design vs Design Build vs Design Assist – *Matt Kamper, Woodbridge Glass, Task Group Chair*
- c. Glass & Glazing Estimating Essentials Manual update- *Chuck Knickerbocker, Technical Glass Products (Allegion), Task Group Chair*
- d. Frameless Shower Enclosures Resources: Design Guidelines for Architects – *Danny Donahue, FHC The Glazing Supply Company, Task Group Chair*
- e. Update of Division 8 Specifications in cooperation with Deltek
- f. Classification of Interior Demountable Wall Systems under MasterSpec Division 10

4. NGA Fabricating Committee New Business

5. Adjournment

Next Events:

NGA Advocacy Days | Multiple Dates in 2025 | Washington, D.C.

[GlassBuild America](#) | November 4-6, 2025 | Orlando, FL

[BEC Conference](#) | March 1-3, 2026 | Louisville, KY

[NGA Glass Fabricator Conference](#) | April 26-29, 2026 | Chicago, IL

**FABRICATING COMMITTEE MINUTES**

Feb. 6, 2025 | 9:00 am – 12:00 pm

NGA Glass Conference: Carlsbad

Westin Carlsbad Resort

Chair: Aaron Thompson, Viracon

athompson@viracon.com

Vice Chair: Bobby Chestnut, Walker Glass

bchestnut@walkerglass.com

NGA Antitrust Policy

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1. Call to Order - *Chair Aaron Thompson, Viracon*
 - a. Called to order at 9:01 am PT
2. Review of [Anti-Trust Statement](#) and [Conflict of Interest](#) Policies
 - a. Reviewed
3. Appointment of Recording Secretary – *Georgia Scalfano/Amber Johnson, NGA*
4. [Minutes](#) of the Previous Meeting – August 7-8, 2024 NGA Glass Conference: Milwaukee
 - a. Motion to approve: Jon Griggs; Seconded: Julia Schimmelpenninck; approved unanimously
5. Committee Business – *Aaron Thompson, Viracon*
 - a. Ballot Participation
 - i. Vote early and just once
 - b. Redline version of re-ballotted documents- implemented with [Appearance of IGUs](#) and [Glass Properties Pertaining to Photovoltaic Applications](#)
 - i. Track changes functionality has been helpful, keep implementing it for future ballots
 - c. ASTM C14 Update- Standards being revised and/or balloted
 - i. *C1036 Standard Specification for Flat Glass - Jeff Moore, Corning*
 1. Approved with comments; some major updates to Table 4
 - ii. *C1048 Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass – Rick Wright*
 1. Passed ballot and no comments; in editor review, new publishing will be C1048-25
 - iii. *C1172 Standard Specification for Laminated Architectural Flat Glass- Julia Schimmelpenninck, Eastman/Saflex*
 1. Published September 2024
 - iv. *C1349 Standard Specification for Architectural Flat Glass Clad Polycarbonate - Urmilla Sowell, NGA*
 1. Reapproved in 2024
 - v. *C1422 Standard Specification for Chemically Strengthened Flat Glass – Arun Varshneya, Saxon Glass Technologies*
 1. Review task group has been formed
 - vi. *C1503 Standard Specification for Silvered Flat Glass Mirror – Martin Boulay, Walker Glass*
 1. New version published in 2024, no substantive changes
 - vii. *C1900 Practice for Weathering and Evaluation of Laminated Glass- Julia Schimmelpenninck, Eastman/Saflex*
 1. New version published in 2024, no substantive changes, just new references
 - d. ASTM C14 New activities/work items status
 - i. *WK47853 New Standard Bird Tunnel Testing of Transparent Glazing Materials in Perpendicular “Fly-through” Configuration – Stefan Knust, City of NY, and Kevin Ramus, KR Glass Consulting*
 1. New title: Standard Test Method for Bird Tunnel Testing of Transparent Glazing Materials. Received negatives at ballot; those comments to be reviewed.
 - ii. *WK72641 New Standard Center-Punch Fragmentation of Fully Tempered Glass – Urmilla Sowell, NGA*
 1. No updates at this time.
 - iii. *WK 88132 New Standard Specification for Decorative Enamels on Flat Glass – Michael Saroka, Goldray Glass*
 1. Spinoff of C1048. Negatives received at ballot; comments to be reviewed.

Insulating – Robert Carlson, TriStar

- a. [Statement](#) on Argon and gas filled IGUs- added to glass.org/advocacy



FABRICATING COMMITTEE MINUTES

Feb. 6, 2025 | 9:00 am – 12:00 pm

NGA Glass Conference: Carlsbad

Westin Carlsbad Resort

- i. “Many insulating glass units (IGUs) used in window applications contain argon or other gas fills. The NGA does not have a position on insulating glass window longevity related to retention of argon or other gas fills. NGA recommends referring to the window manufacturer guidelines for information on insulating window gas retention, window longevity and warranty information.”
- b. Best Practices for IGUs at Elevation
 - i. Existing industry references: NGA/FGIA TB-1601-95(14) Guidelines for Capillary Tubes; [FGIA TM-3200-21 IG Cavity Pressure Compensation](#)
 - 1. No additional task group/resource needed; current industry resources cover topic
- c. Task Groups
 - i. FB27-11 (2015) [Considerations for the Appearance of IGUs](#) – at final ballot
 - 1. Passed final ballot; will be published by end of February
 - ii. [Condensation on High-Performance Glass](#) - Kayla Natividad, Pilkington North America - Task Group Chair
 - 1. Task group work, will meet again in a few weeks to continue reviewing draft
 - iii. VIG AIA presentation – will be combined with existing Multi-Cavity AIA presentation
 - 1. Initial meeting to be held Feb. 24; VIG technologies will be added to current presentation
 - a. Volunteers: Tom Donovan, Randy Reynolds
- d. 2025 Systematic Reviews (5-year updates)
 - i. FB66-20 *Introduction to Vacuum Insulating Glazing* – to be combined with FB72-21 *Introduction to Hybrid VIG Fabrication*
 - 1. Correction: Introduction to Vacuum Insulating Glazing will be combined with current Performance Improvements in IGUs GTP. Hybrid VIG Fabrication will stay it’s own GTP.
 - ii. FB63-19 *Products for Energy Applications* – Aaron Thompson, Viracon - Task Group Chair
 - 1. Call for volunteers to review ballot comments
 - a. Volunteers: Sean Weir, Matt Manning, Mike Hammond, Michelle Phan, Mike Saroka, Kyle Blais
- e. New Business- Insulating
 - i. New GTP- Spacer Types and Capabilities 101 – Michael Speicher, H.B. Fuller Company - Task group Chair
 - 1. Initial call to be scheduled
 - a. Volunteers: Jon Griggs, Rob Carlson, Dirk Schulte, John Mayfield, Helen Sanders, Kyle Blais, DJ Weil, Matt Manning, Chris Olson, Steve Dean, Michelle Phan, Adryen Reyes, Joe Erb

Tempering

- a. Task Groups
 - i. FB39-14 [Glass Properties Pertaining to Photovoltaic Applications](#) - Steve Marino, Vitro, Task Group Chair -Task group resolved ballot comments- out for re-ballot
 - 1. Received 2 editorial ballot comments, no disapproval, will go to Final ballot
- b. Systematic Reviews (5-year updates)
 - i. FB65-20 [Glass for Personal Protective Barriers](#)- need feedback on relevance of the document
 - 1. Will remove some references to covid and send for systematic review
 - a. Volunteers: Ed Robison; pull volunteers from original task group
 - ii. FB13-07 *Importance of Fabrication Prior to Heat-Treatment*- hold for ASTM C1048 update
 - 1. ASTM C1048 has been updated; will move forward with update of GTP
 - iii. FB45-14 *Recommended Applications for Heat-Treated Architectural Glass*- hold for ASTM C1048 update
 - 1. ASTM C1048 has been updated; will move forward with update of GTP
 - iv. FM02-09 *Protecting Glass Against Weld Splatter*- to be combined with FB03-03 *Construction Site Protection and Maintenance of Architectural Glass*

**FABRICATING COMMITTEE MINUTES**

Feb. 6, 2025 | 9:00 am – 12:00 pm

NGA Glass Conference: Carlsbad

Westin Carlsbad Resort

- a. New Business- Tempering
 - i. New MyGlassFab courses- *Jenni Chase, NGA*
 - 1. Call for volunteers: Michelle Phan, DJ Weil, Terry Schaefer, Jon Griggs, Chuck Wencel, Jason Fisher, Tom Wojtowicz, Mark LeMunyon, Aarn Rosen, Rob Carlson, Hal Savakus. Giulio Dalla Costa

Laminating – Julia Schimmelpenningh, Eastman|Saflex

- a. Task Groups
 - i. [Glass Nomenclature – Schema 1](#) -*Michael Saroka, Goldray Glass, Task Group Chair*- at re-ballot
 - 1. Will go to final ballot
 - 2. Nomenclature coding tool demonstrated to correlate with document
 - a. Right now, it's a test website; speak with NGA marketing team about how to implement this as a permanent NGA tool
 - ii. Laminated Glazing Reference Manual, *Julia Schimmelpenningh, Eastman|Saflex, Task Group Chair*- hold for above
 - 1. Will be picked back up now that nomenclature document is almost complete
 - 2. Volunteers: Kyle Lindersmith
 - iii. FB07-05 [Point Supported Glazing](#) – call for volunteers to review ballot comments
 - 1. Volunteers: Vaughn Schauss, DJ Weil, Ed Robison, Jason Fisher, Tom Wojtowicz, Julie Schimmelpenningh, Michelle Phan, Rob Carlson
 - iv. Next Steps for Global Quality Standards- *Jon Griggs, Guardian Glass LLC, Task Group Chair*- call for volunteers
 - 1. Project creation form to be created
 - a. Volunteers: Michelle Phan, Vaughn Schauss, Mike Saroka, DJ Weil, Kayla Natividad, Mark LeMunyon, Tom Wojtowicz, Julie Schimmelpenningh, Rob Carlson
- b. 2025 Systematic Reviews (5-year updates)
 - i. FB14-07 *Glass Floors and Stairs* – will go to ballot
 - ii. FB48-15 *Effects of Moisture, Solvents and Other Substances on Laminated Glazing Edges* – will go to ballot
 - iii. FB59-18 *Heat-Treated Laminated Glass Exposed Edges* – hold for ASTM C1048 update
 - 1. ASTM C1048 has been updated; will move forward with update of GTP (add new statement and then ballot)
 - iv. IN04-14 *Safety Guidelines for Deglazing Structural Silicone* (Installing Committee GTP)- to be combined with FB09-06 *Suggested Procedures for Dealing with Broken Glass*
 - 1. Staff to combine documents and send a redline version out to ballot
- c. New Business- Laminating
 - i. Laminating educational video from 2007- potential to update/revise
 - 1. Original GANA video but needs updated with proper branding and voiceover. Script should also be reviewed. Does not deal with applications and only covers sheet lamination.
 - a. Action: Hand over to MyGlassClass and they will determine whether to not to proceed with updating
 - ii. New task group: How to use ANSI Z97 and what it means; fallout protection and what is it?
 - a. Action: project creation form to be created and presented at GC: Ann Arbor
 - b. Volunteers: Julie Schimmelpenningh, Mike Saroka, Vaughn Schauss, Michelle Phan, Matt Manning, Dan LaPorte

Decorative – Michael Saroka, Goldray Glass

- a. Decorative Glazing Manual update
 - i. Being edited; coming soon
- b. Task groups
 - i. FB77-24 [Determining an Acceptable Color Variance for Decorative Glass](#) – published!

**FABRICATING COMMITTEE MINUTES**

Feb. 6, 2025 | 9:00 am – 12:00 pm

NGA Glass Conference: Carlsbad

Westin Carlsbad Resort

- ii. [Introduction to Digital Print](#)- *Gin Benner, Agnora Inc., Task Group Chair*
 - 1. Tabled; next steps to be determined
- iii. [Recommended Practice for Defining Fabrication Details](#)- *Michael Saroka, Goldray Glass, Task Group Chair*- call for volunteers
 - 1. Volunteers: Michelle Phan, DJ Weil, Matt Manning, Sean Weir, Matt Hanna
- b. 2025 Systematic Reviews (5-year updates)
 - i. FB41-14 *Design Considerations for Use of Sealants/Adhesives with Coated Glass* – will go to re-ballot
 - ii. FB19-08 *Guidelines for Handling and Cleaning Decorative Glass*- included in Decorative Glazing Manual; also keep as separate resource to be shared with building owners and installers
 - iii. FB67-20 *Guidelines on How to View Decorative Glazing Products in Interior and Exterior Applications*- included in Decorative Glazing Manual; hold balloting for updates to ASTM C1048 and WK88132.
 - iv. FB68-20 *Guidelines for Measuring Color of Decorative Glazing Materials in the Field*- included in Decorative Glazing Manual; consider editing for consistency of definitions/terms used and consistency with Determining an Acceptable Color Variance concerning the CMC Delta E Calculation.
 - v. FB70-20 *Best Practices for Installed Painted Decorative Glass*- included in Decorative Glazing Manual
- c. New Business- Decorative
 - i. New Task Group: Decorative Glazing Installation Challenges- joint with NGA Installing Committee- call for volunteers
 - 1. Volunteers: Bobby Chestnut, Michelle Phan, Matt Hanna, DJ Weil, Jason Fisher, Ed Robison, Rob Carlson
 - ii. [Glossary of Terms for Color and Appearance](#) – former GTP; included in Decorative Glazing Manual and NGA Glossary – call for volunteers to update definitions
 - 1. Volunteers: Sean Weir, Julie Schimmelpenninck, Matt Manning, DJ Weil, Michelle Phan, Gady Ginzburg, Dan Laporte, Mike Saroka

Protective Glazing – Vaughn Schauss, Kuraray America

- a. School Security Glazing
 - i. [Security Glazing for Schools](#) AIA presentation - *Julie Schimmelpenninck, Eastman/Saflex - Task Group Chair* – complete!
 - 1. Contact NGA to become a presenter
- b. Bird-Friendly Glazing– *Marc Deschamps, Walker Glass- Task Group Chair*
 - i. ASHRAE 189.1 – adding bird-friendly requirements – *Tom Culp, Birch Point Consulting, NGA Energy Code Consultant*
 - 1. Task group has met, and language has been submitted to ASHRAE 189.1. (Note: the proposal is not inclusive of all products in the marketplace. Tom Culp has been made aware)
 - ii. ASTM Practice/Guide to promote uniform implementation of NGA *Bird Friendly Glazing Design Guide*
 - 1. Update of [NGA Bird Friendly Glazing Design Guide](#)
 - 2. Initial meeting scheduled for February 10th to start review of design guide and ASTM Practice/Guide
 - iii. Bird-Friendly legislation database- *Georgia Scalfano, NGA*
 - 1. Local/state legislation updates sent in AT e-blast
- c. Fire-Rated Glazing
 - i. [Wired Glass in Fire-Rated Safety Glazing Applications](#) GTP- review ballot comments
 - 1. Call to be scheduled to review ballot comments
- d. New task group to add to current Bullet Resistant Glazing GTP on how to clean and maintain bullet resistant glass
 - i. Cleaning language has been updated in FB01-01; add language to Protective Glazing Manual
- e. Protective Glazing Manual Update- call for volunteers

**FABRICATING COMMITTEE MINUTES**

Feb. 6, 2025 | 9:00 am – 12:00 pm

NGA Glass Conference: Carlsbad

Westin Carlsbad Resort

- i. Volunteers: Aaron Thompson, Matt Manning, James Wright, Rob Carlson, Julie Schimmelpenningh, Jason Fisher, Tom Donovan, Ed Robison, DJ Weil, Mike Saroka, Dan LaPorte, Michelle Phan, Vaughn Schauss
- f. Systematic Reviews (5-year updates)
 - i. FB43-14 *Security Glazing* – to be combined with other related GTPs and add to Protective Glazing Manual
 - 1. Low-Medium-High table to be added
- g. New Business- Protective Glazing
- NGA Installing Committee Update – Chair Joey Aragon, Aragon Construction**
 - a. Value Engineering – Rob Carlson, Tristar Glass- Task Group Chair
 - i. How to overcome challenges in implementing high-performance glazing products
 - 1. Ongoing project. Reviewing data from survey results and will determine next steps
 - b. [Delegated Design vs Design Build vs Design Assist](#)- Matt Kamper, Woodbridge Glass – Task Group Chair
 - i. Task group work; target ballot date before BEC
 - c. Glass & Glazing Estimating Essentials Manual update- Chuck Knickerbocker, Technical Glass Products (Allegion) – Task Group Chair
 - i. Lesson 10 (labor hours) is being updated; MyGlassClass course will be updated in parallel
 - d. Frameless Shower Enclosures Resources – Danny Donahue, FHC The Glazing Supply Company – Task Group Chair
 - i. Handout for consumers is complete; next will be Design Guidelines for Architects – call for volunteers
- 6. NGA Fabricating Committee New Business
 - a. New NGA Event for Fabricators in Spring 2026
- 7. Adjournment
 - i. Adjourned at 10:55 am PT

Next Events: [BEC Conference](#) | Mar 2-4, 2025 | Las Vegas, NV
 NGA Advocacy Days | Multiple Dates in 2025 | Washington, D.C.
 NGA Glass Conference: Ann Arbor | Sept. 29-Oct. 2, 2025 | Ann Arbor, MI
 GlassBuild America | Nov. 4-6, 2025 | Orlando, FL



AIA-accredited Presentations

- Benefits of Daylighting in Building Design
- Benefits of Laminated Glass in Design
- Key Strategies of Bird-Friendly Glazing – *New!*
- Critical Reasons to Specify Insulating Glass
- Designing with Glass for Cast and Heat-Formed
- Designing with Glass for Privacy and Translucency
- Fire-Rated Glazing Today
- Glazing to Protect
- Reflected Solar Energy of Glazing Systems
- Security Glazing for Schools – *New!*
- Understanding Applications for Heat-Treated Glass
- Value-Added Performance of Coated Glass
- Thermal Bridging Considerations *at Interface Conditions* – *New!*



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FORMING COMMITTEE AGENDA

October 1, 2025

NGA Glass Conference: Ann Arbor

Ann Arbor Marriott Ypsilanti at Eagle Crest

Chair: Steve Marino, Vitro Architectural Glass

Vice Chair: Jon Griggs, Guardian Glass LLC

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Agenda Items

1. Call to Order – *Chair Steve Marino, Vitro Architectural Glass*
2. Review of [Anti-Trust Statement](#) and [Conflict of Interest](#) Policies
3. Appointment of Recording Secretary – *Georgia Oehler & Amber Johnson, NGA*
4. [Minutes](#) of the Previous Meeting – February 5, 2025 at NGA Glass Conference: Carlsbad
5. Old Business
 - a. State sustainability initiatives – *Georgia Oehler, NGA*
 - i. Legislative tracking spreadsheet; members-only resource available at [NGA Resource Hub on glass.org](#); Updates will be noted in the AT Eblast
 - b. Flat Glass Sustainability Drivers - downcycling definition added to [glass.org/advocacy/](#)
 - c. Aluminum Extruders Council (AEC) & NGA end of life study – *Tom Culp, Birch Point Consulting, NGA Energy Code Consultant*
 - d. CA AB2446 and CA AB43 – California Air Resource Board (CARB)
 - e. Boston Net Zero zoning bill – added to NGA's Sustainability Legislation Map (previously Buy Clean Map)
 - f. Task Group Updates – *Kayla Natividad, NSG | Pilkington North America*
 - i. Flat Glass Industry Standardized Definitions
 1. Standardizing definitions for these terms: Low-E Glass, Solar Control Glass, Jumbo Glass, and Low-iron Glass
 2. Reviewing ballot comments
 - ii. Anti-Microbial Coatings for Architectural Glass GTP
 1. Reviewing ballot comments
 - g. Systematic Reviews (5-year updates)
 - i. FM06-20 *General EPD Education* - on hold for EPA guidelines
 - ii. FM01-08 *Approximate Weight of Architectural Flat Glass* combined with FB23-09 *Approximate Weight of Interlayer Used in Laminated Architectural Flat Glass* (with additional thicknesses and corrected density) – passed ballot; to be published
6. New Business
7. Adjournment

Next Events:

NGA Advocacy Days | Multiple Dates in 2025 | Washington, D.C.

[GlassBuild America](#) | November 4-6, 2025 | Orlando, FL

[BEC Conference](#) | March 1-3, 2026 | Louisville, KY

[NGA Glass Fabricator Conference](#) | April 26-29, 2026 | Chicago, IL



FORMING COMMITTEE MINUTES

Feb. 5, 2025 | 1:00 pm – 2:00 pm

NGA Glass Conference: Carlsbad

Westin Carlsbad Resort

Chair: Steve Marino, Vitro Architectural Glass

Vice Chair: Jon Griggs, Guardian Glass LLC

NGA Antitrust Policy

It is the undeviating policy of the Association to comply strictly with the letter and spirit of all federal, state and applicable international trade regulations and antitrust laws. Any activities of the Association or Association-related actions of its staff, members, officers, directors or chapter officials which violate these regulations and laws are detrimental to the interests of the Association and are unequivocally contrary to Association policy. *Please refer to NGA Bylaws for SECTION 2. IMPLEMENTATION of the antitrust compliance policy of the Association.*

Agenda Items

1. Call to Order – *Chair Steve Marino, Vitro Architectural Glass*
 - a. Called to order by Vice-Chair Jon Griggs at 1:05 pm PT
2. Review of [Anti-Trust Statement](#) and [Conflict of Interest](#) Policies
 - a. Reviewed
3. Appointment of Recording Secretary – *Georgia Scalfano & Amber Johnson, NGA*
4. [Minutes](#) of the Previous Meeting – August 8, 2024 NGA at Glass Conference: Milwaukee
 - a. Motion to approve: Kayla Natividad; Seconded: Mike Hammond; Approved unanimously
5. Old Business
 - a. State Buy Clean initiatives- *Georgia Scalfano, NGA*
 - i. Legislative tracking spreadsheet; members-only resource available at [NGA Resource Hub on glass.org](#); Updates will be noted in the AT Eblast
 - b. Flat Glass Sustainability Drivers- definitions added to [glass.org/advocacy/](#)
 - i. Definitions added to website: Embodied carbon vs. Operational Carbon; Social Cost of Carbon; Circularity; Global Warming Potential (GWP); Environmental/Social/Governance (ESG) Reporting
 1. Action: Add definition for “downcycling”
 - c. Aluminum Extruders Council (AEC) & NGA embodied carbon study- *Tom Culp, Birch Point Consulting, NGA Energy Code Consultant*
 - i. Balance between embodied carbon and operational carbon
 1. Embodied carbon refers to the greenhouse gas emissions (measured in CO₂eq) from the manufacturing, transportation, installation, maintenance, and disposal of building materials
 2. Operational carbon refers to the greenhouse gas emissions (measured in CO₂eq) from the building energy consumption
 3. Action: we sent out RFPs; how to best combine the new data we’ve found and move forward
 - d. Task Group: Flat Glass Industry Standardized Definitions
 - i. Currently working on standardizing definitions for these terms: low-e, solar control, jumbo glass, low iron and thin glass.
 1. Volunteers: Jon Griggs, Kayla Natividad, Mike, DJ Weil, Matt Hanna, Hal Savakus, Aaron Thompson, Rob Carlson, Tom Wojtowicz, Matt Manning, Michelle Phan
 - e. Task Group: [Anti-Microbial Coatings for Architectural Glass](#) GTP
 - i. Reviewing ballot comments
 1. Volunteers: Matt Manning, Jason Fisher, DJ Weil
 - f. Systematic Reviews (5-year updates)

- i. FM06-20 *General EPD Education* - on hold for EPA guidelines
- ii. FM01-08 *Approximate Weight of Architectural Flat Glass* to be combined with FB23-09 *Approximate Weight of Interlayer Used in Laminated Architectural Flat Glass* (with additional thicknesses and corrected density)
 - 1. Will go to ballot

6. New Business

- a. California Air Resource Board – CA AB2446 and CA AB43 has an initiative to try and reduce carbon by 40% by 2035
 - i. Action: survey seeking feedback; comments being compiled and will be distributed amongst group
- b. FYI: Boston passed a Net Zero carbon zoning bill affecting new construction for 15 units or more and anything over 20,000sqft. Retrofit 50,000sqft or more. Needs to omit “zero carbon”. Report embodied carbon of building materials. “Large projects” must do LCAs
- c. Passive house and glass / passive house and windows
 - i. To be addressed under the advocacy committee.

7. Adjournment

- a. Adjourned at 1:30 pm PT

Next Events:

[BEC Conference](#) | Mar 2-4, 2025 | Las Vegas, NV
 NGA Advocacy Days | Multiple Dates in 2025 | Washington, D.C.
 NGA Glass Conference: Ann Arbor | Sept. 29-Oct. 2, 2025 | Ann Arbor, MI
 GlassBuild America | Nov. 4-6, 2025 | Orlando, FL



*PRE-REGISTRATION LIST
as of September 15, 2025*

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Cardinal Glass Industries*
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Patrick Elmore
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Andrea La Greca

Skyline

Vipul Bhagat

Momentive Performance Materials

Logan Tichenor

Songwon International

Charles Tompkins

National Guard Products

Ted Wegert

Technical Glass Products (Allegion)

Devin Bowman

Nxlite Corporation

Lisa Green
Shannon Kovar

Techni-Glass LLC

Jon Johnson

Oldcastle BuildingEnvelope

Jason Fisher
Sara Lajcaj
Mark Le Munyon
Matt Manning

Technoform North America

Helen Sanders

Thompson Innovative Glass, LLC

Tom Donovan
Joel Larime
Thomas Prekop

ORION Laser Tech

Koen Schoofs

Tristar Glass, Inc. *

Robert Carlson
Tim Kelley
Karen Kelley^

Pilkington North America, Inc. *

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Ashli Natividad^
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*PRE-REGISTRATION LIST
as of September 15, 2025*

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CONSULTANTS

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Aaron Thompson

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Nick Resetar⁺

Thomas Zaremba⁺

Vitro Architectural Glass

Paul Bush

Steven Marino

Mark Seeton

Logan Tautkus-Berry

Lingnell Consulting Services

Bill Lingnell⁺

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Tara Brummet

Chris Barry Glass Consultant

Chris Barry

Walker Glass Co., Ltd.

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Olivia Fritz

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Administrative Management Systems, Inc.

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NGA Committee Leadership

NGA Advocacy Committee



Paul Bush
Chair
Vitro Architectural
Glass



Kayla Natividad
Chair, Sustainability
Sub-Committee
Pilkington | NSG

NGA Fabricating Committee



Aaron Thompson
Chair
Viracon



Bobby Chestnut
Vice Chair
Walker Glass

NGA Forming Committee



Steven Marino
Chair
Vitro Architectural
Glass



Jon Griggs
Vice-Chair
Guardian Glass

NGA Installing Committee



Joey Aragon
Chair
Aragon Construction

Fabricating Committee Technical Liaisons



Julia Schimmelpenningh
Laminating
Eastman | Saflex



Robert Carlson
Insulating
Tristar Glass



Vaughn Schauss
Protective Glazing
Kuraray America



Michael Saroka
Decorative
Goldray Glass

NGA Staff and Consultants in Attendance



Jenni Chase
Vice President,
Workforce
Development



Tom Culp
Energy Codes
Consultant



Katy Devlin
Vice President,
Content &
Programming



Michele Nosko
Chief Operating
Officer



Georgia Oehler
Senior Manager,
Technical Services &
Sustainability



Max Perilstein
Sole Source
Consulting



Nick Resetar
Fire & Structural
Codes Consultant



Wendy Rochelle
Events Operations
Manager



Urmilla Sowell
Vice President,
Advocacy &
Technical Services



Karen Wegert
Director, Technical
Services



Lakisha Woods
President & CEO



Thom Zaremba
Fire & Structural
Codes Consultant

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Tustin, CA



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Langley Township, BC, Canada



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Anderson Aluminum Corp.
Columbus, OH



Vipul Bhagat

Skyline Design
Chicago, IL



Mark Seeton

Vitro Architectural Glass
Pittsburgh, PA



Joey Aragon

Aragon Construction Inc.
Montclair, CA



Lakisha Woods

NGA President & CEO

COMMITTEE AND TASK GROUP ACTIVITIES SUMMARY

ADVOCACY COMMITTEE

Legislation One-Pagers

- School Security: Windows and Doors Respond First
- High-Performance Windows Can Help Save the World
- Saving Birds with Effective Glass Solutions
- Training and Upskilling Workers to Meet Labor Demand
- Window Recyclability: Circular Economy

Legislation Databases – *Members only resources available at [NGA Resource Hub on glass.org](https://www.nga.org/resources)*

- Sustainability Legislation Database
- U.S. and Canadian Bird-Friendly Building Policies Database

Sustainability Sub-Committee

At ballot

- Benefits of Glass in Daylighting Applications

Task group work

- Architectural Glass Circularity AIA Presentation

FORMING COMMITTEE

Task group work

- Flat Glass Industry Standardized Definitions
- Anti-Microbial Coatings for Architectural Glass

INSTALLING COMMITTEE

Task group work

- Delegated Design vs. Design Build vs. Design Assist
- Frameless Shower Enclosures Resources
- Glass and Glazing Estimating Essentials Manual update
- Interior Demountable Wall Systems – Division 10
- Value Engineering

FABRICATING COMMITTEE

At ballot

Decorative

- Introduction to Digital Print

Task group work

Decorative

- Decorative Glazing Installation Challenges
- Glossary of Terms for Color and Appearance
- Recommended Practices for Defining Fabrication Details

Insulating

- Condensation on High-Performance Glass
- Highly-Insulating Glass Units AIA Presentation
- IGU Spacer Types and Capabilities 101
- Products for Energy Applications
- Unsupported Edge Conditions of IGUs – joint with FGIA

Laminating

- Glass Floors and Stairs
- How to Use ANSI Z97
- Laminated Glazing Reference Manual update
- Next Steps for Global Quality Standards
- Point Supported Glazing

Protective Glazing

- Bird-Friendly ASTM Practice/Guide
- Protective Glazing Manual update
- Security Glazing
- Wired Glass in Fire-Rated and Safety Glazing Applications

Tempering

- Glass for Personal Protective Barriers
- MyGlassFab courses

Members interested in joining any task group, please email Amber Johnson: ajohnson@glass.org

Manuals, Guides, Books and Other Resources

[All About Glass and Metal: A Guide for Architects & Specifiers](#)
[An Owner's Guide to Exit & Succession Planning](#)
[Bob Maltby's Glass Book](#)
[Commercial Fenestration Systems Manual](#)
[Engineering Standards Manual](#)
[Frameless Shower Enclosure Design and Installation Manual](#)
[Glass and Glazing Estimating Essentials](#)
[Glazing Manual](#)
[Glossary of Architectural Glass and Glazing](#)
[Guide to Architectural Glass](#)
[Guide to the Glass and Glazing Requirements of the Model Building Codes](#)
[Heavy Glass Door Design Manual](#)
[Laminated Glazing Reference Manual](#)
[Project Manager's Reference Manual](#)
[Protective Glazing Manual](#)
[Sealant Manual](#)
[Cleaning Architectural Glass Postcards in *English* and *Spanish*](#)
[NGA Shower Door Information Flyer](#)

Design Guides

DG01-21	Best Practices for Bird-Friendly Glazing Design
DG03-22	Thermal Bridging Considerations at Interface Conditions

Glass Technical Papers

AD01-25	Overcoming Challenges of Circularity and Architectural Glass Recycling
FB01-00 (2023)	Proper Procedures for Cleaning Architectural Glass Products
FB02-02 (2023)	Heat-Treated Glass Surfaces Are Different
FB03-03 (2023)	Construction Site Protection and Maintenance of Architectural Glass
FB04-03 (2021)	Design Considerations for Laminated Glazing Applications
FB05-04 (2023)	Emergency Egress Through Laminated Glazing Materials
FB06-24	Proper Procedures for Cleaning Flat Glass Mirrors
FB07-05 (2019)	Point Supported Glazing
FB09-06 (2023)	Suggested Procedures for Dealing with Broken Glass
FB10-06 (2023)	Skylights and Sloped Glazing are Not Walking Surfaces
FB11-06 (2022)	Marking and Labeling of Architectural Glass
FB12-07 (2023)	Blast Resistant Glazing
FB13-07 (2018)	The Importance of Fabrication Prior to Heat-Treatment
FB14-07 (2020)	Glass Floors and Stairs
FB15-07 (2022)	Describing Architectural Glass Constructions
FB16-07 (2022)	Bullet Resistant Glazing
FB18-08 (2023)	Methods of Measuring Optical Distortion
FB19-25	Guidelines for Handling and Cleaning Decorative Glass
FB20-08 (2022)	Iridescence Patterns in Heat-Treated Architectural Glass
FB21-09 (2021)	Installation Techniques Designed to Prolong the Life of Flat Glass Mirrors
FB22-24	Proper Procedures for Fabrication of Flat Glass Mirrors
FB23-09 (2019)	Approximate Weight of Interlayer used in Laminated Architectural Flat Glass
FB24-24	Hurricane Product Substitution
FB25-09 (2024)	Performance Criteria for Glazing Subjected to Seismic Events
FB26-10 (2022)	Detention Facility Glazing
FB27-25	Considerations for the Appearance of IGU Edge at the Time of Fabrication
FB28-11 (2022)	Assessing the Compatibility of Glazing Materials and Components
FB30-11 (2024)	Proper Procedures for Receiving, Storage & Transportation of Flat Glass Mirrors
FB31-11 (2017)	LEED White Paper - Mirror
FB32-24	Dynamic Glazing for High Performance Buildings
FB333-11 (2023)	Glass Use in Guardrails
FB34-12 (2023)	Screening Out UV Radiation with Laminated Glass

FB36-24	Coastal Glazing and the Turtle Codes
FB37-24	Glass Use in Furniture
FB38-14 (2021)	The Recyclability and Reusability of Glass Products
FB39-25	Glass Properties Pertaining to Photovoltaic Applications
FB40-25	Recyclability of Architectural Glass Products
FB41-14 (2019)	Design Consideration for Use of Sealants/Adhesives with Coated Glass
FB42-24	Assessment of Decorative Glass Strength Properties
FB43-14 (2020)	Security Glazing
FB44-24	Assessing the Durability of Decorative Glass
FB45-14 (2019)	Recommended Applications for Heat-Treated Architectural Glass
FB46-15 (2022)	Assessment of the Weatherability & Durability of Decorative Glass
FB47-15 (2021)	Considerations when Installing Interior-Mounted Back-Painted Glass
FB48-15 (2020)	Effects of Moisture, Solvents and Other Substances on Laminated Glazing Edges
FB49-17 (2022)	Performance Improvements of IGUs
FB50-17 (2022)	Building Energy Performance
FB51-17 (2022)	Building Envelope Commissioning
FB52-17 (2022)	Guidelines for the Production of Heat-Treated Architectural Flat Glass
FB53-17 (2024)	Benefits of Decorative Glass in Daylighting Applications
FB54-17 (2022)	Guidelines and Best Practices on how to Manage Color Variance of Decorative Glazing
FB55-17	LEED White Paper - Decorative
FB56-18 (2024)	Heat Soak Testing of Tempered Glass For Architectural Glass Applications
FB57-24	One Optical Number Does Not Fit All
FB58-18 (2023)	Understanding Reflective Distortion in Mirror Installations
FB59-18	Heat-treated Laminated Glass Exposed Edges
FB60-18 (2023)	Understanding Reflected Solar Energy of Glazing Systems in Buildings
FB61-24	Tornado Resistant Glazing
FB62-24	Thermal Stress in Heat-Treated Spandrel Glass
FB63-19	Products for Energy Applications
FB65-20	Glass for Personal Protective Barriers
FB66-20	Introduction to Vacuum Insulating Glazing
FB67-20	Guidelines on How to View Decorative Glazing Products in Interior and Exterior Applications
FB68-20	Guidelines for Measuring Color of Decorative Glazing Materials in the Field
FB70-20	Best Practices for Installed Painted Decorative Glass
FB71-24	School Security Glazing
FB72-21	Introduction to Hybrid VIG Fabrication
FB73-22	Types of Decorative Glass
FB74-22	Alignment in US Energy Conservation Codes ASHRAE 90.1 and IECC
FB75-23	Compatibility Testing of Insulating Glass PIB Primary Sealant with Respect to Glazing Materials
FB76-23	Fire-Rated Glazing 101
FB77-24	Determining an Acceptable Color Variance for Decorative Glass
FB78-25	Glass Nomenclature – Schema 1
FM01-08 (2020)	Approximate Weight of Architectural Flat Glass
FM02-09 (2020)	Protecting Glass Against Weld Splatter
FM03-10 (2023)	LEED® Recycled Content for Glass
FM04-12(2019)	Daylighting
FM05-12(2023)	Physical and Mechanical Properties
FM06-20	General EPD Education
FM07-21	Flat Glass Environmental Transparency Documents
IN02-09 (2022)	Bid Considerations for Contract Glazing Proposals
IN03-12 (2023)	Key Elements of Fenestration System Shop Drawings
IN04-14 (2020)	Safety Guidelines for Deglazing Structural Silicone
IN05-17 (2022)	Overview of Building Information Modeling (BIM) for Glass and Glazing Systems
TB1601-24	Guidelines for Use of Capillary Tubes
TB1250-19	PIB Primary Sealant

The following is a list of activities, resources, events and other products and services produced by the National Glass Association and available to our members. Contact NGA at 703.442.4890, ext. 127 or membership@glass.org for more information.

Advocacy & Representation

NGA represents and advocates for the industry's interests at these bodies, collaborating whenever possible with other trade groups. NGA's Vice President of Advocacy & Technical Services is Urmilla Sowell, usowell@glass.org. [LEARN MORE](#)

- | | | | |
|------------|--------|--------|--------|
| ▪ ASTM | ▪ ICC | ▪ NGBS | ▪ NFRC |
| ▪ ASHRAE | ▪ IGCC | ▪ NIBS | ▪ SGCC |
| ▪ ANSI Z97 | ▪ GICC | ▪ NFPA | ▪ ISO |

Technical & Business Resources

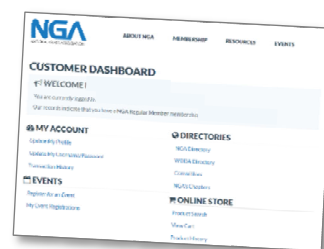
- Over 90 Glass Technical Papers & Glass Information Bulletins – *available at no cost!* [BROWSE TITLES](#)
- Technical manuals written by industry experts – **Downloadable manuals and design guides now free to members!** [BROWSE TITLES](#)
 - Frameless Shower Enclosure Design & Installation Manual
 - Laminated Glazing Reference Manual
 - NGA's GANA Glazing Manual (IYOG edition)
 - Heavy Glass Door Design Guide
 - Glossary of Architectural Glass & Glazing
 - Project Manager's Reference Manual
 - Commercial Fenestration Systems Manual
 - Glass and Glazing Estimating Essentials
 - Guide to Glass & Glazing Requirements of the Model Building Code, 6th edition
 - Guide to Architectural Glass
 - Protective Glazing Manual
 - Engineering Standards Manual
 - GANA Sealant Manual
 - And more!
- Design Guides fulfill a targeted need for more in-depth guidance and recommendations related to design & installation best practices for the glazing & glass products industry – *NGA members save up to 50%* [BROWSE TITLES](#)
- Thirsty Thursday Webinars each month – *at no cost* [ACCESS THE ARCHIVES](#)
- Test Methods [BROWSE TITLES](#)
 - Standard Test Method for Ball Drop Impact of Laminated Architectural Flat Glass (ASTM F3007 – 2019)
 - Standard Specification for Ball Drop Impact Resistance of Laminated Architectural Flat Glass (ASTM F3006 – 2020)
 - Standard Test Method for Center-Punch Fragmentation of Fully Tempered Flat Glass
 - Standard Test Method for Laminated Glass Edges when in Contact with Sealants and Glazing Tapes
- Business help and industry guides – *NGA members save up to 50%*
 - An Owner's Guide to Exit Planning & Succession [BROWSE](#)
 - Glass and Metals (Complete Series): A Guide for Architects and Specifiers [BROWSE](#)
 - Guide to Decorative Glass [BROWSE](#)
- Market Intelligence – *Researched by industry experts* [TAKE AN IN-DEPTH LOOK](#)
 - WorldofGlassMap.com
 - Annual ranking reports: Top 50 Glaziers, Top Glass Fabricators, Top Metal Companies

Members-Only Resources **EXCLUSIVE!**

On-demand webinars, the Codes & Standards Help Center, safety bulletins, resources from the American Subcontractors Association (ASA) and more – *Exclusive access through NGA membership* [START HERE](#) [login required]

How to Access the NGA Store via the online NGA Customer Dashboard

- Visit glass.org and click on MY DASHBOARD in the upper right corner.
- You will be prompted to log in with the credentials provided to you by NGA. If you need assistance, contact Josh Lowe at 703/442-4890, ext. 127 OR jlowe@glass.org.
- You can now explore the online NGA Store and more!



NEW! MyGlassFAB – NGA's new online training tool for fabricators – FREE to NGA members!

MyGlassFAB offers core training for production personnel to learn about job responsibilities, safety, products, and fabrication techniques. [MORE INFO](#)

MyGlassClass.com – Now FREE to NGA members! [SEE THE COURSE CATALOG](#)

¡Los cursos ahora están disponibles en español en MyGlassClass.com!

MyGlassClass.com provides world-class training, conveniently available online, to teach learners basic job skills and knowledge that will complement the on-the-job training their employers provide. Learning areas include:

- Intro to Glass and Glazing
- Safety
- Glass & Metal Fabrication
- System Fabrication, Assembly & Installation
- Codes & Estimating
- OSHA

NGA Glazier Apprentice Curriculum

Through MyGlassClass.com, NGA offers Glazier Apprentice Curriculum for organizations and companies that want to establish a glazier apprenticeship program approved by the U.S. Department of Labor (DOL). Students who complete the curriculum will earn a jointly endorsed NGA/NCCER credential indicating a journeyman-level minimum competency. [MORE INFO](#)

Upcoming Educational Conferences & Events – discounted NGA member pricing [VISIT GLASS.ORG FOR UPDATES](#)

NGA Glass Conference: Ann Arbor
September 29-October 2, 2025 | Ann Arbor, MI

BEC Conference 2026
March 1-3, 2026 | Louisville, KY

GlassBuild America: The Glass, Window & Door Expo
November 4-6, 2025 | Orlando, FL

NGA Glass Fabricator Conference
April 26-29, 2026 | Chicago, IL

Magazines & Newsletters – Keeping members and the industry informed [VISIT GLASS MAGAZINE ONLINE](#); [VISIT WINDOW+DOOR ONLINE](#)

- *Glass Magazine*, the glass and glazing authority – print, digital, and weekly news
- *Window + Door*, the information source for the fenestration industry - in print, digital, and weekly news
- NGA member newsletter monthly and NGA member Advocacy & Technical newsletter monthly

Member Recognition – Make an Impact [SEE ALL MEMBER BENEFITS](#)

- Use of NGA member logo for your website, emails, letterhead, etc. as the symbol of your company's commitment to industry best practices, safety and ethics.
- Member decal and certificate to designate your NGA member status.
- Online NGA [member directory](#)

**JOIN ONLINE AT
www.glass.org**



Join us for GlassBuild America in 2025 and 2026!

November 4-6, 2025 | **Orlando, Florida**

September 23-25, 2026 | **Las Vegas, Nevada**

Quick Reference Sheet

Associations and Organizations

- AGMT – Architectural Glass and Metal Technician
- AIA – American Institute of Architects
- ANSI Z97 Committee – American National Standards Institute
- ASCE – American Society of Civil Engineers
- ASHRAE – American Society of Heating, Refrigerating, and Air-Conditioning Engineers
- ASTM International – American Society of Testing and Materials
- BEC Conference – Building Envelope Contractors Conference
- BOMA – Building Owners and Managers Association
- CSI – Construction Specification Institute
- CPSC – Consumer Product Safety Commission
- EPA – Environmental Protection Agency
- EWC/ASE – Efficient Windows Collaborative/Alliance to Save Energy
- FGIA – Fenestration & Glazing Industry Alliance
- GANA – Glass Association of North America (*legacy association*)
- GICC – Glazing Industry Code Committee (within NGA)
- GISC – Glazing Industry Secretariat Committee (of ANSI Z97)
- GIMAV – Association of Italian manufacturers/suppliers of machinery, equipment and special products for glass processing
- GPAD – Glass Processing and Automation Days
- GSA – General Services Administration
- glasstec
- GPD – Glass Performance Days
- IGCC – Insulating Glass Certification Council
- ICC – International Code Council
- ISO – International Standards Organization
- ITA – Italian Trade Agency
- IWCA – International Window Cleaners Association
- IYOG – International Year of Glass
- NACC – North American Contractor Certification
- NFPA – National Fire Protection Association
- NFRC – National Fenestration Ratings Council
- NGA – National Glass Association
- NIBS – National Institute of Building Sciences
- PGC – Protective Glazing Committee
- SGCC – Safety Glazing Certification Council
- UL – Underwriters Laboratory
- WDMA – Window and Door Manufacturers Association

Other Abbreviations and Jargon

- AT – Advocacy & Technical activities
- FB – Fabricating Committee
- CFSM – Commercial Fenestration Systems Manual
- EC3 – Embodied Carbon Calculator
- EPD – Environmental Product Declarations
- ESM – Engineering Standards Manual
- FM – Forming Committee
- FT – Fully Tempered
- GIB – Glass Informational Bulletin
- GTP – Glass Technical Paper
- HPD – Health Product Declaration
- HT – Heat-Treated
- IGU – Insulating Glass Unit
- LCA – Life Cycle Analysis
- LGRM – Laminated Glazing Reference Manual
- MGC – MyGlassClass.com
- PCF – Project Creation Form
- PCR – Product Category Rules
- RF – Radio Frequency
- SME – Subject Matter Expert
- VIG – Vacuum Insulating Glazing

NGA Committee Meetings

- **Anyone can participate in discussions.**
- NGA voting members can make a motion and vote.
- Each company has one vote; not necessarily the same individual in all situations.

NGA Websites:

- glass.org
- glassmagazine.com
- myglassclass.com
- glassbuild.com
- windowanddoor.com

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