





Hello.

I am Shakir Keskin, part of the United Facade family specializing in the building envelope sector. Our journey, which began in 2019, is about shaping the United States' skyline and turning dreams into reality. Committed to the highest standards in architecture and engineering, we provide comprehensive services that encompass innovation, precision, and collaboration. We're here to help you shape the future and turn your dreams into reality.

At United Facade, we don't just construct building facades; we construct dreams. Our services, specializing in the building facade, include Design-Assist. Estimating Services, Shop Drawings, Structural Calculations, Acoustic Calculations, Thermal and Condensation Calculations, Value Engineering, and more. With innovation as our driving force, we collaborate closely with all project stakeholders, ensuring excellence in every endeavor. I'm excited to commit to you and your projects as we work together to achieve greatness.

In the ever-evolving landscape of the facade sector, where innovation and technology continually reshape our approaches and techniques, this quide to the most commonly used terms stands as a foundational pillar for professionals. However, it is important to acknowledge that the field is characterized by rapid advancements and the



SHAKIR KESKIN M.SC. ENG President

introduction of new materials, methods, and sustainability practices. While our guide aims to cover a broad spectrum of essential terms and concepts, the inherent dynamism of the facade industry means that there may be emerging trends, technologies, and methodologies not immediately captured within these pages.

Recognizing this, we encourage professionals to view this guide not only as a comprehensive resource but also as a starting point for ongoing education and exploration. The nature of our industry demands continuous learning and adaptation, and as such, we commit to periodically updating this guide to include new advancements and insights. We also advocate for a collaborative approach to knowledge sharing, inviting contributions and feedback from across the industry to ensure that this quide remains as current and informative as possible.

In this spirit, we invite you to use this quide as both a reference and a catalyst for further inquiry, embracing the gaps as opportunities for growth and innovation. Let this guide be a tool that not only informs but also inspires you to delve deeper into the fascinating complexities of facade design and engineering, pushing the boundaries of what is possible in the creation of sustainable, efficient, and visually stunning architectural works.

Best regards,



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# 1. TERMS STARTING WITH "A"

# AAMA (American Architectural Manufacturers Association):

National trade association setting voluntary standards for window, door, storefront, curtain wall, and skylight industries.

# **Adjustment Clip:**

Hardware on hung window jambs to align jamb post-installation.

#### Air Infiltration:

Amount of air leakage through cracks in walls, windows, and doors.

# **Ambient Temperature:**

Outdoor temperature.

## **Annealed Glass:**

Glass produced in molten form, emerging as flat, fire-polished glass; not used by Solar Innovations® due to safety concerns.

# Anodize:

Process providing a hard, durable oxide film on aluminum by electrolytic action.

# **ANSI (American National Standards Institute):**

Clearinghouse organization for all standards and product specifications.

#### Apron:

Interior flat trim piece under the window stool.

# Argon:

Inert gas enhancing insulation when injected between glass panes.

#### Astragal:

Center member of a double door attached to the fixed or inactive door panel.

#### **Acoustic Insulation:**

Reduces noise passing through glazed areas.

#### Air Permeability:

Measures air travel through a closed window or door system.

## **Anti-reflective Glazing:**

Treatment applied to glass to reduce light reflectance.

## **Absorption:**

Percentage of light or radiation absorbed by glass or metal.

# ASHRAE (American Society of Heating, Airconditioning, and Refrigeration Engineers):

ASTM International (American Society for Testing and Material): Establishes material standards and test methods, including window installation standards.

# **Acid Etched Glass:**

Created by sandblasting for patterns or a frosted look; used for decoration or removal of unwanted items.

# Acrylic (Monolithic):

Impact-resistant alternative to glass; does not shatter and comes in various colors and clarities.

# Acrylic (Multi-wall):

Dual or triple-layer, impact-resistant alternative to glass with varied colors and clarities.

# Astrigal bars:

These are thin wooden moudlings placed on glass to create a period look. They are often used to create the traditional Georgian window look.



# **Awning windows:**

These are casement windows that are hinged at the top of the frame.

# **Antique Glass:**

Art glass produced by mouth-blown cylinder, scored, separated, re-heated, and shaped into a unique, linearly striated sheet with a smooth surface.

#### **Antisun Glass:**

Anti Sun is a body tinted glass, manufactured in the same was a clear float glass, however has a coloured appearance as well as solar control properties.

# **Arrised Edge:**

A basic form of edge working, by removing the sharp edges of cut panes of glass.

#### Arch window:

4-sided unit with a curve at the top.

#### Air conditioning:

A system which can generate both temperatures controlled cold and warm air via a fan.

## **Air Infiltration Rate:**

The measure of the amount of air that passes through a window or facade assembly under specified conditions.

#### **Aluminum Cladding:**

A protective outer layer made of aluminum to shield the underlying material, often used in window frames.

#### **Architectural Louvers:**

Ventilation openings with slats or blades designed to allow airflow while preventing water or debris ingress.

#### Air Infiltration:

The unintended passage of air through gaps or cracks in a building's envelope.

#### **Anchor Plate:**

A steel plate used to connect and anchor facade elements to the building structure.

# **Anti-Reflective Coating:**

A coating applied to glass surfaces to reduce reflections and glare.

#### Atrium:

A large open space within a building, often featuring a glass roof or skylight.

## **Acoustic Glazing:**

Glass designed to reduce sound transmission and improve acoustic performance.

# **Aluminum Composite Panel (ACP):**

A flat panel consisting of two thin aluminum sheets bonded to a non-aluminum core, commonly used in facades.

#### Air Barrier:

A material or system that prevents the movement of air through the building envelope.

# **Anti-Fog Glass:**

Glass treated to resist fogging and improve visibility in humid conditions.

#### **Automatic Blinds:**

Window blinds that can be controlled electronically for automated shading.

#### **Awning Window:**

A window with a sash that opens outward, hinged at the top.



# **Aerogel Insulation:**

A highly effective and lightweight insulation material used in some high-performance glazing systems.

# **Aluminum Spacer:**

A component used to maintain the separation between panes of glass in an insulated glass unit (IGU).

#### **Architectural Film:**

A thin film applied to glass surfaces for various purposes, such as solar control or decorative effects.

#### Airspace:

The gap or space between layers of glass in an insulated glass unit, providing insulation and sound reduction.

#### **Aluminum Extrusion:**

The process of shaping aluminum by forcing it through a shaped opening in a die.

# **Anti-Burglar Glass:**

Glass designed to resist break-ins or forced entry.

of light or sound as it passes through a material.

## **Automatic Ventilation:**

A system that automatically controls the opening and closing of windows or vents for ventilation purposes.

#### **Architectural Precast Concrete:**

Concrete elements manufactured off-site and used in facade construction for architectural detailing.

## **Acrylic Glazing:**

Glazing made from acrylic material, known for its transparency, durability, and weather resistance.

#### **Automatic Sliding Door:**

A door that opens and closes automatically using a motorized mechanism.

# **Acoustic Sealant:**

A sealant specifically designed to reduce sound transmission through gaps and joints.

#### Albedo:

The measure of a surface's reflectivity, often referring to its ability to reflect sunlight.

# Angled Glazing:

Windows or glass panels installed at an angle to the vertical or horizontal plane.

#### Anti-Seismic Facade:

Facade design and construction techniques aimed at enhancing a building's resistance to seismic forces.

#### Architectural Wire Mesh:

Decorative mesh used in facades for aesthetic, solar shading, or safety purposes.

#### Attenuation:

The reduction of the intensity

# **Anti-Graffiti Coating:**

Protective coating applied to surfaces, including glass, to make graffiti removal easier.

## **Axonometric Projection:**

A type of architectural drawing that represents three-dimensional objects with all three dimensions drawn to scale.

# Alkali-Silica Reaction (ASR):

A chemical reaction that can occur in concrete, potentially affecting the durability of facade elements.

#### **Aesthetic Integration:**

The seamless blending of architectural and facade elements for visual harmony.



# Air-Handling Unit (AHU):

A device used to condition and circulate air as part of a building's HVAC system.

# **Automated Shading System:**

Motorized blinds, shades, or louvers that automatically adjust to control light and heat entering a building.

## **Adaptive Facade:**

A facade system that dynamically responds to changing environmental conditions, optimizing energy efficiency and comfort.

# **Aluminum Louver System:**

A system of aluminum louvers used for shading, ventilation, or aesthetic purposes.

#### **Anti-Lift Device:**

A feature in window and door systems designed to prevent unauthorized lifting or removal.

# **Airborne Sound Transmission:**

The transmission of sound waves through the air, impacting the acoustic performance of a building.

## **Architectural Metalwork:**

Custom-designed metal elements used in the construction and ornamentation of facades.

#### **Acoustic Baffles:**

Suspended elements used to control sound reflections and improve acoustic conditions within a space.

# **Architectural Scale Model:**

A physical model of a building or structure used for design visualization and presentation purposes.

#### Airborne Particle Resistance:

The ability of a material or filter to resist the passage of airborne particles, important in air filtration systems within facades.

#### **Acoustic Performance Class:**

A classification system indicating the sound insulation performance of a facade or glazing product.

## **Aging Resistance:**

The ability of a material or finish to withstand deterioration or changes over time due to environmental factors.

## **Acoustic Laminated Glass:**

Laminated glass designed to reduce sound transmission through the bonding of multiple layers with an acoustic interlayer.

# Aerodynamic Design:

The design approach focused on minimizing wind resistance and optimizing airflow around a building or facade elements.

# **Anti-Slip Coating:**

A coating applied to surfaces, such as walkways or stairs, to reduce the risk of slipping.

#### **Architectural Film for Glass:**

Thin films applied to glass surfaces for various purposes, including privacy, UV protection, or decorative effects.

# **Active Solar Shading:**

Dynamic shading systems that respond to sunlight conditions, adjusting to optimize natural light and reduce heat gain.

#### **Axial Load:**

A load applied along the axis of a structural element, such as a column or beam.



# Air Quality Index (AQI):

A numerical scale indicating the level of air pollution, relevant for designing facades with proper ventilation.

# **Anti-Condensation Coating:**

Coating applied to glass or other surfaces to prevent or reduce condensation formation.

# **Adjustable Louver System:**

A system of movable louvers that can be adjusted to control the amount of light and ventilation entering a building.

# **Automated Facade Cleaning System:**

Robotic or automated systems designed for the cleaning and maintenance of building facades.

#### **As-Built Drawing:**

Drawings that reflect the actual construction of a building, documenting deviations from the original design.

# **Antimicrobial Glass:**

Glass treated to resist the growth of bacteria, fungi, or other microorganisms.

# **Anechoic Chamber:**

A room designed to absorb sound reflections, used for testing acoustic properties of materials.

#### **Airflow Visualization:**

Techniques and tools used to visualize and analyze the movement of air around a building or through a ventilation system.

# **Aluminum Window Profile:**

The cross-sectional shape and design of an aluminum window frame, influencing aesthetics and performance.

#### **Anti-Freeze Spacer:**

A spacer in insulated glass units designed to reduce the risk of frost or condensation formation at the edges of the glass.

## **Adaptive Solar Facade:**

Facade systems that dynamically respond to solar conditions, optimizing energy efficiency and comfort within a building.

## **Anidolic System:**

A daylighting system that uses reflective surfaces and optical elements to direct sunlight deep into interior spaces.

# **Aluminothermic Welding:**

A welding process that uses a chemical reaction to join aluminum components, commonly used in aluminum frames.

# **Atmospheric Pressure Equalization:**

Design strategies to equalize air pressure across a facade, preventing water and air infiltration.

# **Architectural Canopy:**

A projecting roof-like structure often used for shelter, decoration, or sun shading.

## **Acoustic Diffuser:**

A device placed on a surface to scatter sound waves, improving acoustic conditions in a space.

#### Anti-Ligature Hardware:

Hardware designed to minimize the risk of selfharm or injury, often used in healthcare or institutional settings.

# **Automatic Door System:**

A system that opens and closes doors automatically, commonly used for entrance doors in commercial buildings.



#### **Aluminum Window Mullion:**

A vertical or horizontal structural element in an aluminum window frame that provides support and stability.

#### **Architectural Hardware:**

The various functional and decorative elements, such as handles and hinges, used in doors, windows, and other architectural applications.

# **Air Quality Monitoring:**

Systems and devices used to measure and monitor the quality of air within and around a building.

#### **Acoustic Insulation:**

Materials or techniques used to reduce the transmission of sound between different spaces.

# **Aluminum Composite Material (ACM):**

A type of flat panel consisting of a nonaluminum core bonded between two thin aluminum sheets.

#### **Aluminum Clad Wood Window:**

A window with an aluminum exterior cladding for durability and a wood interior for aesthetics and insulation.

# **Automatic Skylight:**

A skylight with a motorized mechanism for opening and closing, allowing for natural ventilation.

#### **Air Handling Duct:**

A system of pipes or channels used to distribute and circulate air within a building.

## **Anodized Finish:**

A protective surface treatment for aluminum that enhances corrosion resistance and provides a decorative finish.

#### **Anechoic Coating:**

A coating applied to surfaces to absorb sound reflections, commonly used in acoustic design.

## **Aperture Ratio:**

The ratio of the open area (aperture) to the total surface area of a facade element.

# **Acoustic Privacy:**

The ability of a space or structure to limit the transmission of sound and ensure confidentiality.

# **Architectural Rendering:**

A visual representation or image of a building or space created through computer graphics or hand-drawn techniques.

#### **Aluminum Louvered Screen:**

A system of aluminum louvers arranged in a screen configuration to provide shading and visual screening.

# **Architectural Visualization:**

The process of creating visual representations of architectural designs, often using computer-generated images or animations.

# **Acoustic Performance Rating:**

A numerical value assigned to indicate the sound insulation or absorption capability of a material, element, or space.

## **Airborne Contaminant Control:**

Strategies and systems in place to manage and control the presence of airborne pollutants within a building.

#### **Anti-Reflective Glass:**

Glass treated to minimize surface reflections and improve visibility by reducing glare.



# **Architectural Photography:**

Photography focused on capturing and showcasing the design and aesthetics of architectural structures.

#### **Aluminum Window Sill:**

The horizontal bottom portion of an aluminum window frame that extends outward, often providing a surface for water runoff.

# **Architectural Programming:**

The process of defining the functional requirements and objectives of a building project before design begins.

#### **Ambient Lighting:**

General. non-directional lighting illuminates a space, creating a baseline level of visibility.

# **Assembly Joint:**

The connection point between different building components or elements in a facade system.

# **Aesthetic Integration:**

The seamless blending of architectural and facade elements for visual harmony and cohesive design.

# **Adhesion Promoter:**

A substance applied to a surface to enhance the adhesion of coatings, sealants, or adhesives.

#### Air Curtain Wall:

A vertical barrier of air across an opening to prevent the exchange of air and maintain temperature control.

#### **Architectural Salvage:**

The process of reclaiming, reusing, or repurposing architectural elements from old or demolished buildings.

#### Automatic Fire-Resistant Glass:

Glass designed to provide fire resistance and automatically activate in the event of a fire.

#### **Aluminum Mullion Cover:**

An additional cover applied to the exterior of an aluminum mullion for aesthetic or protective purposes.

#### **Architectural Conservation:**

The practice of preserving and protecting historical or culturally significant buildings and structures.

#### Aluminum Sunshade:

A system of aluminum fins or louvers designed to provide shading and reduce solar heat gain.

#### Adjustable Glass Railing:

A railing system made of glass panels that can be adjusted for different levels of transparency or privacy.

# Architectural Scale:

The ratio between measurements on a model or drawing and the actual dimensions of the building.

## **Acoustic Wall Panels:**

Wall-mounted panels designed to absorb sound and improve the acoustics of a room.

#### Articulated Window:

A window that can be rotated or tilted at different angles to control ventilation and sunlight.

# **Automated Facade Inspection:**

The use of automated systems, such as drones or robots, to inspect and monitor the condition of building facades.



# **Architectural Glass Canopy:**

A transparent overhead structure made of glass, often used for shelter or decorative purposes.

# **Aluminum Storefront System:**

A system of aluminum-framed windows and doors commonly used in commercial building facades.

#### **Automatic Door Closer:**

A device that automatically closes a door after it has been opened, commonly used for fire safety.

#### **Architectural Heritage Preservation:**

The conservation and protection of historically significant buildings and structures.

# **Aluminum Extrusion Profile:**

The specific shape and cross-sectional design of an aluminum extrusion used in facade construction.

# **Adaptive Reuse:**

The process of renovating and repurposing existing structures for a new use while retaining historical or architectural features.

# Air Permeability:

The measure of the amount of air that can pass through a facade, influencing energy efficiency.



# 2. TERMS STARTING WITH "B"

# **Blast-Resistant Glazing:**

Glass designed to withstand the impact and pressure of a blast, commonly used in highsecurity applications.

#### **Back Ventilated Facade:**

A facade system with an open cavity that allows air circulation behind the cladding, promoting ventilation and moisture control.

#### **Bay Window:**

A window space projecting outward from the main walls of a building, creating an alcove or additional interior space.

# **Bearing Wall:**

A structural wall that carries and transfers the load of a building to the foundation.

#### **Belt Course:**

A horizontal band or molding that runs across the facade of a building, often for decorative purposes.

# **Bifurcation:**

The splitting or division of a facade or structural element into two parts.

## **Bird Screen:**

A mesh or barrier installed to prevent birds and debris from entering ventilation or facade openings.

# **Blast Mitigation:**

Design strategies and materials aimed at reducing the damage caused by a blast, particularly relevant in high-security areas.

#### **Brise Soleil:**

Architectural elements, such as horizontal sunshades or fins, designed to provide shade and reduce solar heat gain.

# **Building Envelope:**

The physical separation between the interior and exterior of a building, including walls, roofs, windows, and doors.

#### **Butt Glazing:**

A glazing system where glass panels are joined together at their vertical edges without the use of vertical mullions.

# **Buckling:**

The deformation or failure of a structural member, often due to excessive axial compression.

#### Base Shoe:

A component used in frameless glass systems, securing the bottom edge of glass panels to the floor or structure.

#### Balustrade:

A railing system consisting of balusters, handrails, and sometimes a bottom rail, commonly used on balconies or staircases.

## **Building Information Modeling (BIM):**

A digital representation of the physical and functional characteristics of a building, facilitating collaborative design and construction.

#### **Breakaway Facade:**

A facade designed to break away or deform under specific loads or conditions, enhancing safety during extreme events.



#### **Bay Roof:**

A roof structure covering a bay window, often with a distinctive design.

# **Bearing Plate:**

A plate used to distribute the load from a structural member, providing support and stability.

#### **Blast Load:**

The force exerted by a blast, influencing the design and strength of facade elements.

## **Borrowed Light:**

Indirect natural light entering a space from an adjacent room or exterior area through windows or openings.

#### **Brick Veneer:**

A non-structural layer of bricks applied to the exterior of a building for decorative or weather-resistant purposes.

#### **Building Code:**

Regulations and standards specifying the minimum requirements for the construction and safety of buildings.

# **Bearing Capacity:**

The maximum load a structural element or foundation can support without failure.

#### **Blast Window:**

A window designed to resist and mitigate the effects of a blast, commonly used in high-security buildings.

## **Bond Breaker:**

A material or layer used to prevent the bonding of adjacent surfaces, commonly used in sealant joints.

#### **Blast-Resistant Curtain Wall:**

A curtain wall system designed to withstand the impact and pressure of a blast.

# Benching:

A technique used in glass manufacturing to create a beveled or chamfered edge.

# **Building Facade:**

The exterior surface or face of a building, including walls, windows, and doors.

# **Building Integrated Photovoltaics (BIPV):**

Photovoltaic elements integrated into the building envelope to generate solar energy.

## **Bay Roof Window:**

A window integrated into a bay roof structure, allowing natural light into the space below.

## Backpan:

A metal panel or plate used to support and secure a curtain wall system.

## **Bioclimatic Design:**

Design strategies that utilize the local climate and environmental conditions to optimize building performance.

#### **Break Metal:**

Metal components, often in the form of flashing or trim, used to cover joints or transitions in a facade.

#### **Butt Joint:**

The junction where two glass panels meet without any framing or mullions between them.

#### **Blast-Resistant Door:**

A door designed to withstand the impact and pressure of a blast, commonly used in secure building entrances.

## **Bollard:**

A short, sturdy post used for protective or decorative purposes, often placed near building entrances.



#### **Borehole Test:**

A geotechnical test involving drilling into the ground to assess soil and rock properties for foundation design.

# **Building Skin:**

The outer layer of a building, encompassing the facade, roof, and other exterior elements.

#### **Blast-Resistant Film:**

A protective film applied to glass surfaces to mitigate the effects of a blast.

## **Balloon Framing:**

A framing method where vertical studs run continuously from the foundation to the roof, providing structural support.

# **Building Integrated Facade System (BIFS):**

A holistic approach to building design where the facade system integrates various functions, such as energy generation, shading, and ventilation.

# **Blast-Resistant Coating:**

A protective coating applied to surfaces, including glass and structural elements, to enhance resistance against the effects of a blast.

# **Back Ventilated Double-Skin Facade:**

A facade system with an outer layer and an air cavity, allowing natural ventilation and thermal regulation.

#### **Bespoke Facade:**

A customized facade design tailored to specific architectural or project requirements.

# **Building Performance Simulation:**

The use of computer models to simulate and analyze the performance of a building's facade under various conditions.

#### **Bird-Friendly Glazing:**

Glass treatments or designs that help prevent bird collisions by making the glass more visible to birds.

#### **Blast-Resistant Louver:**

Louver systems designed to withstand the impact and pressure of a blast, often used for ventilation in secure facilities.

# **Building Resilience:**

The ability of a building or facade to adapt and recover from disturbances, such as extreme weather events or structural challenges.

#### **Bolted Glass Connection:**

A method of connecting glass panels using bolts and mechanical fixings for structural stability.

## **Boundary Layer Wind Tunnel Testing:**

Testing the aerodynamic performance of a building or facade in a wind tunnel to assess wind loads and pressures.

# **Balcony Glazing:**

Glazing systems designed for enclosing or protecting balconies, providing both transparency and weather resistance.

# **Building Enclosure Commissioning (BECx):**

A systematic process to ensure that the building enclosure, including the facade, meets design and performance criteria.

#### **BIM Coordination:**

Collaborative efforts using Building Information Modeling to coordinate and integrate design information related to the facade within a project.

# **Building Performance Evaluation (BPE):**

Assessment and analysis of a building's performance, including energy efficiency, thermal comfort, and environmental impact.



#### **Baffle Wall:**

An architectural feature or element designed to redirect or control the flow of air, light, or sound within a space.

#### **Blast-Resistant Window Film:**

Film applied to existing windows to enhance their resistance to the effects of a blast.

## **Back Ventilated Facade System:**

A facade system with a ventilated cavity between the cladding and the building structure, aiding in moisture management and thermal control.

#### **Building Energy Modeling (BEM):**

The use of computer models to simulate and predict the energy performance of a building, including the influence of the facade.

## **Biocomposite Facade Panel:**

Facade panels made from biocomposite materials, combining natural fibers with resins for sustainable and eco-friendly construction.

# **Bespoke Curtain Wall:**

A customized and uniquely designed curtain wall system tailored to the architectural aesthetics and functional requirements of a building.

# **Base Flashing:**

Waterproof material or membrane installed at the base of a building or structure to prevent water infiltration.

#### **Building Performance Metrics:**

Quantifiable measures used to assess the overall performance and efficiency of a building, including its facade.

## **Bespoke Glass Art:**

Customized artistic glass installations designed for specific architectural projects, incorporating unique patterns or features.

#### **Bifacial Solar Panels:**

Photovoltaic panels designed to capture sunlight from both sides, enhancing energy generation in certain conditions.

# **Bleed and Breathe System:**

A facade system designed to allow controlled water drainage and air circulation to prevent moisture-related issues.

#### **Balloon-Frame Construction:**

A construction method where vertical studs extend continuously from the foundation to the top of the structure.

# **Buckle Plate Connection:**

A method of connecting structural elements using buckle plates or brackets for added strength and stability.

#### Backlit Facade:

Facade elements or surfaces illuminated from behind to create a visually striking effect, especially during nighttime.

## **Bullet-Resistant Glass:**

A specialized glass designed to resist penetration from bullets or projectiles, often used in high-security applications.

# **Balanced Ventilation:**

A ventilation system that provides both supply and exhaust airflow for balanced air circulation within a building.

# **Biophilic Design:**

Architectural and design principles that incorporate natural elements and patterns to enhance the well-being of occupants.

## **Break-Glass Unit:**

A safety feature in windows or doors allowing them to be easily broken for emergency egress.

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#### **Base Isolation:**

A seismic design strategy that decouples a building from its foundation to reduce the impact of seismic forces.

# **Bird Deterrent Systems:**

Architectural solutions or devices designed to discourage birds from perching or nesting on building facades.

# **Bamboo Cladding:**

Exterior cladding made from bamboo, a sustainable and eco-friendly material with aesthetic and functional benefits.

#### **Buttress:**

A structural support or projection, often found on the exterior of buildings, providing additional stability.

# **Bespoke Structural Glass:**

Custom-designed structural glass elements tailored to specific architectural requirements, combining aesthetics with functionality.

## **Backflow Preventer:**

A device installed in water supply systems to prevent the reverse flow of water, protecting against contamination.

**Building Pressure Test:** Testing the air-tightness of a building envelope, including the facade, to assess energy efficiency and performance.

**Brick Mold:** Trim or molding around the perimeter of a window or door frame, covering the gap between the window or door frame and the wall.

**Bulkhead:** A structure, often at ground level, that provides access to a basement or underground space and protects against water infiltration.

**Balcony Railing:** A protective barrier or railing on a balcony, terrace, or elevated platform to enhance safety.

**Building Automation System (BAS):** A system that controls and monitors various building systems, including lighting, HVAC, and security, for improved efficiency.

#### **Backer Rod:**

A flexible rod or foam material used to fill gaps or joints before applying sealant, preventing air and water infiltration.

# **Building Code Compliance:**

Adherence to local or international building codes and regulations to ensure safety, accessibility, and structural integrity.

## **Building Envelope Inspection:**

Assessment of the exterior elements of a building, including the facade, roof, and windows, to identify issues and ensure performance.

## **Building Information System (BIS):**

An integrated digital system that manages and provides information related to building components, including the facade.

#### **Backlit Glass Wall:**

Glass panels illuminated from behind, creating a visually appealing and dynamic effect within interior or exterior spaces.

# **Building Permit:**

Official approval granted by local authorities for the construction, alteration, or occupancy of a building, ensuring compliance with regulations.

#### **Building Renovation:**

The process of improving or updating existing buildings, including facade enhancements and structural modifications.



# **Back-ventilated Cladding:**

A cladding system that incorporates an air gap between the cladding and the building structure to promote ventilation and moisture control.

# **Building Sustainability:**

Design and construction practices focused on minimizing environmental impact, resource use, and energy consumption.

#### **Bulletproof Glass:**

Glass specially designed to resist penetration from bullets or projectiles, providing security in high-risk environments.

#### **Base Isolator:**

A device used to decouple a building or structure from ground motion during seismic events, reducing potential damage.

# **Building Performance:**

The overall functionality and efficiency of a building, encompassing factors such as energy usage, thermal comfort, and durability.

#### **Balustrade System:**

The complete assembly of balusters, handrails, and bottom rails forming a protective barrier on stairs, balconies, or terraces.

# **Back-painted Glass:**

Glass with a painted or coated surface on the reverse side, often used for decorative and aesthetic purposes.

# **Building Systems Integration:**

The coordination and integration of various building systems, including facade components, for optimal performance and efficiency.

#### **Batten System:**

An assembly of horizontal or vertical strips (battens) used in cladding or facade design for decorative or functional purposes.

#### **Balance Point:**

The outdoor temperature at which a building's heat loss equals its heat gain, resulting in no need for heating or cooling.

#### **Backer Plate:**

A supportive plate or panel placed behind a fastener or anchor to distribute load and enhance stability.

#### **Batten Seam:**

A vertical or horizontal seam created by overlapping batten elements, commonly used in metal cladding systems.

# **Bearing Wall:**

A wall that supports vertical loads in addition to its own weight, providing structural stability to a building.

## **Bolt Circle:**

The pattern or arrangement of bolts around a circle, often relevant in the assembly of structural connections.

#### Bay Depth:

The distance from the exterior face of a building to the inner surface of a window or door opening within a bay.

#### **Blast Overpressure:**

The pressure wave produced by a blast, impacting building facades and influencing their resistance design.

## **Bleed Valve:**

A valve used to release or bleed air or gases from a system, ensuring proper functioning and preventing airlocks.



# **Bearing Stiffeners:**

Reinforcements, often in the form of plates, added to structural elements to enhance load-bearing capacity.

# **Butyl Tape:**

A type of sealing tape with adhesive properties, commonly used in glazing applications to prevent water and air infiltration.

# **Building Thermal Mass:**

The ability of a building's materials to absorb, store, and release heat, influencing temperature fluctuations.

#### **Baffle System:**

A system of baffles or fins designed to control airflow, light, or sound within a space or building envelope.

## **Bypass Sliding Door:**

A sliding door where one panel slides behind another, allowing for maximum opening width without interfering with the interior or exterior space.

#### **Building Pressurization:**

The intentional control of air pressure within a building to manage ventilation, energy efficiency, and indoor air quality.

# **Bonded Anchors:**

Anchors secured using adhesive bonding, providing a strong and durable connection between a facade element and a substrate.

#### **Backup Wall:**

The structural wall behind a facade system, providing support and stability to the overall building structure.

# **Bridge Crane:**

An overhead crane system with a movable bridge, often used in large industrial or manufacturing facilities.

#### **Bifurcated Staircase:**

A staircase that splits into two branches, typically used in architectural designs for visual interest and spatial efficiency.

#### **Bulkhead Door:**

A door installed at the exterior of a building, often leading to a basement or storage area below ground level.

# **Bearing Pile:**

A vertical structural element driven into the ground to support a building's foundation and transfer loads to the soil.

#### **Back Bedding:**

The process of adhering and sealing.

#### **Balance Shoe:**

Nylon hardware in a hung window jamb that connects the balance with the sash.

## Bay:

The section of a structure from one post to the next, extending from the sill to the ridge

#### Bay Window:

A composite of three windows, usually made up of a large center unit and two flanking units at 30 or 45 degree angles to the wall.

# **Bay Width:**

The distance from one centerline of a rafter or post to the center of another.

#### Base Wall:

A short wall below the glazing on exterior walls. Also see Knee Wall. (Base wall is typically completed by another contractor.)

# Bead:

A molding or stop placed around a window frame to hold the glass in place by pressure.



# Bite:

A glazing term referring to the dimension of the glazing leg overlapping the edge of the glass.

# **Bow Window:**

A composite of four or more window units in a radial or bow formation and a gently curved contour. Bow windows project from the walls of the structure.

# **Brickmold:**

A type of external casing which frames windows and doors. The brickmold covers jambs and provides means for nailing during installation.

# BTU:

The heat required to increase the temperature of one pound of water one degree Fahrenheit.



# 3. TERMS STARTING WITH "C"

#### **Curtain Wall:**

An exterior wall system that does not carry the load of the building but is designed to resist air and water infiltration and provide aesthetic appeal.

## **Cladding:**

The external covering or coating of a building, often used for weather resistance, insulation, and decorative purposes.

#### Caulk:

A flexible material, often a sealant or adhesive, used to seal joints and gaps in the facade to prevent air and water infiltration.

#### Condensation:

The process of water vapor turning into liquid on a cold surface, a concern in glazing and facade design due to potential moisturerelated issues.

# **Curb Mount Skylight:**

A skylight mounted on a raised curb or frame above the roof level to allow for proper drainage and prevent water infiltration.

# **Coefficient of Thermal Expansion (CTE):**

A measure of how much a material expands or contracts with changes in temperature, important in glazing and facade material selection.

#### Coping:

The cap or covering on the top of a wall or parapet to prevent water penetration and protect the masonry or facade beneath.

# Cavity Wall:

A double-wall construction with an air-filled cavity in between, providing additional insulation moisture and preventing penetration.

#### **Clerestory Window:**

A row of windows set high in a wall to allow natural light into a building, often positioned above eye level.

#### **Curb Appeal:**

The visual attractiveness of a building or property when viewed from the street, including the design and condition of the facade.

#### **Composite Panel:**

A panel consisting of multiple layers or materials bonded together, commonly used in modern facade systems for strength and insulation.

#### **Curtain Wall Mullion:**

Vertical or horizontal members in a curtain wall system that provide structural support and divide the glazed panels.

# **Cavity Insulation:**

Insulating material placed within the air-filled cavity of a wall or facade to improve thermal performance.

# **Concrete Masonry Unit (CMU):**

A standardized building block made of concrete, commonly used in facade and wall construction.



# **Counterflashing:**

Metal flashing installed over the top of the base flashing to provide additional protection against water infiltration in a roof or facade system.

#### **Cable Net Facade:**

A facade system where tensioned cables are used to support and attach various elements, creating a visually distinctive design.

# **Capillary Action:**

The ability of water to move in narrow spaces or pores within a material, potentially leading to moisture-related issues in a facade.

# **Composite Cladding:**

Exterior cladding material composed of different layers or materials, often combining aesthetics with durability.

# **Curb Mount Skylight:**

A skylight mounted on a raised curb or frame above the roof level to allow for proper drainage and prevent water infiltration.

#### **Clear Anodized Finish:**

An anodized aluminum finish that retains the natural silver color of the metal, providing corrosion resistance and durability.

# Capstone:

The topmost stone or finishing piece on a wall, often serving a decorative or protective function.

# **Coated Glass:**

Glass with a thin layer of coating applied to enhance properties such as UV resistance, solar control, or energy efficiency.

# **Curtain Wall Spandrel Panel:**

The panel in a curtain wall that spans between the vision glass or glazing and the slab above, typically non-vision or opaque.

#### Capillary Break:

A material or design feature that prevents the upward movement of water through capillary action.

# **Cavity Barrier:**

A fire-resistant element within a cavity or gap in the building structure, designed to restrict the spread of flames and smoke.

#### Corbel:

A structural or decorative bracket projecting from a wall to support a load or provide visual interest.

#### **Clear Glass:**

Transparent glass that allows maximum light transmission without significant distortion or coloration.

#### **Composite Facade System:**

A facade system made up of multiple integrated components, often combining materials like glass, metal, and stone.

# **Counterweight System:**

A mechanical system using counterweights to balance and facilitate the movement of operable facade elements.

# Chamfer:

A beveled edge or cut along the corner or edge of a material, often for decorative or safety purposes.

#### **Concrete Panel:**

A precast concrete element used in facade construction, offering durability and versatility.

#### **Cladding Attachment System:**

The method or system used to secure exterior cladding materials to the building structure.



# **Concealed Fastener System:**

A facade system where fasteners are not visible from the exterior, contributing to a seamless and clean aesthetic.

# **Composite Glazing:**

Glazing units made up of multiple layers or types of glass for enhanced performance in terms of insulation, security, or sound control.

Curved Glass: Glass that has been shaped or bent to form a curve, used for creating unique and aesthetically pleasing facade designs.

#### **Curtain Wall Transom:**

A horizontal member in a curtain wall system that provides structural support and separates the vertical glazing units.

#### Casting:

The process of forming or creating elements by pouring a material, such as concrete or metal, into a mold.

# **Cavity Wall Insulation:**

Insulating material placed within the cavity of a double-wall construction, improving thermal performance.

# **Copper Cladding:**

Exterior cladding made from copper, offering a distinctive appearance that develops a natural patina over time.

## **Cradle System:**

A suspended access system used for maintenance and cleaning of building facades, typically consisting of a cradle or platform.

#### **Compression Seal:**

A flexible material used in joints or gaps in the facade to absorb movements caused by thermal expansion or contraction.

#### **Curbless Entry:**

A design approach where there is no raised curb or step at the entrance, providing a seamless transition between the exterior and interior.

# **Capillary Tube:**

A small tube used in glazing or HVAC systems to control the flow of liquid or gas, often for precise measurements or adjustments.

#### Condensation Resistance Factor (CRF):

A numerical rating indicating a window or glazing system's ability to resist condensation on its interior surface under specific conditions.

## **Cavity Fire Barrier:**

A fire-resistant material installed within a wall cavity to prevent the spread of fire through concealed spaces.

# Ceramic Frit:

A ceramic-based coating applied to glass for decorative purposes, solar shading, or privacy enhancement.

#### **Clerestory Glazing:**

Windows or glazed sections set high on a wall to allow natural light into a building while maintaining privacy.

# **Cross-Laminated Timber (CLT):**

Engineered wood panels made by stacking and gluing multiple layers of wood at right angles, often used in sustainable facade and building construction.

# Color Rendering Index (CRI):

A quantitative measure of a light source's ability to accurately reveal colors, important in facade lighting design.



# **Crown Molding:**

Decorative trim installed at the top of a wall or where the wall meets the ceiling, adding an aesthetic finishing touch.

#### **Corrosion Resistance:**

The ability of a material, such as metal in facade elements, to withstand damage caused by environmental or chemical factors.

# **Curtain Wall Infill Panel:**

The material or panel placed between framing members in a curtain wall system, often providing insulation and visual elements.

#### **Counterflashing Cap:**

The upper part of a counterflashing installation, protecting against water penetration and enhancing the aesthetic appearance.

#### **Caulking Gun:**

A tool used to apply caulking or sealant efficiently, commonly used in facade maintenance or installation.

#### Cantilever:

A structural element or member that protrudes horizontally beyond its point of support, often used in architectural design for dramatic effects.

# **Control Joint:**

A planned separation or gap in a building facade or structure to accommodate movements caused by thermal changes, preventing cracks.

# **Curtain Wall Gasket:**

A flexible material used in the joints of a curtain wall to provide a seal against air and water infiltration.

#### **Corrugated Metal Panel:**

A panel with a series of parallel ridges and grooves, often used in facade design for both structural and aesthetic purposes.

# **Cavity Ventilation System:**

A system designed to allow airflow within the cavity of a facade, contributing to moisture control and insulation.

# **Concrete Tilt-Up Panel:**

A precast concrete panel that is cast horizontally on the ground and then tilted into a vertical position during construction.

# **Cathedral Glass:**

A type of rolled or textured glass with a wavy pattern, often used for decorative or ornamental purposes in windows.

#### **Coefficient of Restitution:**

A measure of how much kinetic energy is retained or lost during a collision, relevant in impact-resistant glazing.

# **Counterweighted System:**

A system where weights are used to balance and assist in the operation of movable facade elements, such as windows or shutters.

## **Curb Mount Skylight:**

A skylight installed on a raised curb or frame above the roof level, providing proper drainage and preventing water infiltration.

#### Condensation Pan:

A component designed to collect and drain condensation away from windows or other glazed elements.

## **Curtain Wall Transom:**

A horizontal member in a curtain wall system that provides structural support and separates the vertical glazing units.



# **Ceramic Spandrel Panel:**

A ceramic-frit coated panel used in the spandrel area of a curtain wall, providing both aesthetics and solar shading.

# **Compression Seal:**

A flexible material used in joints or gaps in the facade to absorb movements caused by thermal expansion or contraction.

# **Cross Bracing:**

Diagonal braces used in a structural system to provide lateral support and resist wind or seismic forces.

#### **Curved Facade:**

A facade design featuring curved or arched elements, adding visual interest and often challenging engineering requirements.

#### **Curtain Wall Louver:**

A louver integrated into a curtain wall system for sun shading, ventilation, or aesthetic purposes.

# **Cavity Pressure Differential:**

The difference in air pressure between the exterior and interior sides of a cavity wall, influencing ventilation and moisture control.

## **Clear Opening:**

The unobstructed or free space provided by a window or door when fully open.

#### Cavity Wall Tie:

A metal tie used to connect the inner and outer wythes of a cavity wall, providing stability and strength.

#### **Curtain Wall Mullion Cover:**

A cover or cap applied over curtain wall mullions for both aesthetic and protective purposes.

#### **Caulk Joint:**

A joint filled with caulking material to provide a weather-resistant seal, often used in glazing systems.

#### Cantilevered Canopy:

A projecting canopy or roof supported at one end, creating a sheltered area without additional vertical supports.

#### **Composite Door:**

A door made from multiple materials, often combining the strength of one material with the aesthetic qualities of another.

# **Controlled Ventilation System:**

A system that regulates the amount and flow of air entering and leaving a building for optimal air quality and energy efficiency.

## Cast Glass:

Glass produced by casting molten glass into a mold, often used for decorative applications or artistic designs.



# 4. TERMS STARTING WITH "D"

## **Damp Proof Course (DPC):**

A barrier or membrane in a building's construction to prevent the upward movement of moisture and dampness.

# Daylighting:

The strategic use of natural light to illuminate interior spaces, often achieved through well-designed windows and openings in the facade.

#### **Dead Load:**

The static, non-moving weight of a building's structure and components, including facade elements.

#### **Deflection:**

The bending or deformation of a material or structural element, often considered in the design of glazed systems.

## **Dew Point:**

The temperature at which air becomes saturated with moisture, leading to the formation of dew on surfaces.

# **Diffused Light:**

Light that is scattered or evenly distributed, reducing glare and creating a softer illumination within a space.

# **Direct Glazing:**

A method of installing glass directly into a frame without the use of mullions or sashes.

#### **Double Glazed Unit (DGU):**

An insulated glazing unit consisting of two glass panes separated by a sealed air or gas-filled space to improve energy efficiency.

#### Drip Edge:

A horizontal projection on the lower edge of a roof or window sill designed to direct water away from the facade.

# **Dry Glazing:**

The process of securing glass within a frame using a dry, preformed gasket instead of a wet glazing compound.

# **Dual Pane Window:**

A window with two glass panes separated by a layer of air or gas for enhanced insulation.

## **Dynamic Facade:**

A facade system designed to adapt and respond to changing environmental conditions, such as sunlight or temperature.

# **Dormer Window:**

A window that projects vertically from a sloping roof, providing light and ventilation to an attic or upper floor.

#### **Double Skin Facade:**

A facade system with two layers, often incorporating an outer layer for environmental control and an inner layer for thermal insulation.

# **Double-Hung Window:**

A window with two vertically sliding sashes, allowing for adjustable ventilation and ease of cleaning.

#### Door Jamb:

The vertical frame or post on the sides of a door, providing support and housing the hinges.



#### **Door Sill:**

The bottom horizontal member of a door frame, often subjected to weather exposure and requiring weatherproofing measures.

#### **Dormer Vent:**

A vent integrated into a dormer window or structure to facilitate air circulation.

#### **Dust Proof Louver:**

A louver designed to prevent the ingress of dust or particulate matter while allowing for ventilation.

#### **Decorative Mullion:**

A mullion that serves both structural and ornamental purposes, adding aesthetic detail to the facade.

#### **Dead Vent:**

A ventilation system that does not have a mechanical fan, relying on natural airflow.

#### Dentil:

A decorative architectural element resembling small, evenly spaced blocks often used in cornices or molding.

# **Design Wind Load:**

The calculated force exerted by wind on a building's facade, used in structural design considerations.

# Diffusion:

The scattering or spreading of light as it interacts with surfaces, contributing to uniform illumination.

#### **Differential Movement:**

Varied movement or displacement between different parts of a building's structure, which must be accounted for in design.

#### **Displacement Ventilation:**

A ventilation strategy where air is supplied at a low velocity and allowed to rise as it warms, enhancing indoor air quality.

# **Diverter Flashing:**

A flashing component used to divert water away from a specific area, preventing water infiltration.

#### **Downspout:**

A pipe or conduit that directs rainwater from a roof or gutter down to the ground or a drainage system.

#### **Drapery Pocket:**

A recessed space designed to accommodate window drapes or curtains without obstructing the view when open.

#### **Drip Groove:**

A groove or channel designed to direct water away from the facade, preventing water damage or staining.

# **Dropper:**

A small tube or pipe used for drainage purposes, often associated with a downspout.

#### **Dual Finish:**

A facade system or material with two distinct finishes, providing aesthetic variation or functional benefits.

#### **Dual-Pitched Roof:**

A roof with two slopes or pitches, typically meeting at a ridge in the center.

#### **Dutch Door:**

A door divided horizontally, allowing the top and bottom halves to be opened independently.



#### **Dowel Bar:**

A cylindrical rod or pin used to join or reinforce two adjacent elements in construction.

# **Daylight Harvesting:**

The practice of optimizing natural light usage in a building to reduce reliance on artificial lighting.

#### **Dado Rail:**

A horizontal molding or decorative strip along the lower part of a wall, often serving as a protective element.

## **Ductility:**

The ability of a material or structure to deform or stretch under stress before reaching failure.

#### **Door Closer:**

A hydraulic or pneumatic device installed on a door to control its closing speed and prevent slamming.

#### **Daylight Factor:**

A measurement indicating the amount of natural light available in a room relative to artificial lighting needs.

## **Diffuse Reflection:**

The scattering of light in multiple directions upon striking a surface, contributing to even illumination and reducing glare.

#### **Dielectric Strength:**

The maximum electric field strength a material can withstand without electrical breakdown, relevant in the context of insulated glass.

# **Dynamic Glazing:**

Glazing systems with adjustable optical properties, allowing control over factors such as light transmission and solar heat gain.

# **Daylight Redirecting Film:**

A thin film applied to windows that redirects sunlight deeper into a room, enhancing daylighting while minimizing glare.

#### **Drained and Ventilated Facade:**

A facade system that incorporates drainage and ventilation channels to manage water runoff and prevent moisture-related issues.

# **Digital Printing on Glass:**

The application of digital printing technology to create intricate patterns, images, or designs directly onto glass surfaces.

#### Dilatation:

The expansion or contraction of materials in response to temperature changes, a critical consideration in facade design.

# Depth of Field (DOF):

The range of distances within which objects appear acceptably sharp in an image, relevant in architectural photography of facades.

# **Drip Ledge:**

A horizontal projection designed to direct water away from the face of a building, preventing water damage.

## **Dew Point Temperature:**

The temperature at which air becomes saturated with moisture, leading to condensation on surfaces.

#### Damping:

The reduction of oscillations or vibrations in a structure or material, important for stability and comfort.

## Double Tee:

A precast concrete component with a doubletee shape, commonly used in facade and structural applications.



# **Deadlights:**

Non-operable glazed panels designed to be fixed or permanently closed, often used for architectural aesthetics.

Damper: A device used in HVAC systems to regulate airflow, temperature, or pressure, contributing to energy efficiency.

## **Dilution Ventilation:**

ventilation strategy involving the introduction of fresh air to reduce the concentration of indoor pollutants.

#### **Differential Pressure:**

The difference in pressure between two points, crucial in assessing the performance of air and water barriers in facade systems.

#### **Double Reflective Glass:**

A type of glass coated with multiple reflective layers to control heat and glare while maintaining visibility.

# **Digital Twin:**

A virtual model of a physical building or structure, used for simulation, analysis, and monitoring purposes.

# **Drop Panel:**

A portion of a ceiling or facade that is lowered or recessed, often for aesthetic or acoustic reasons.

#### **Detention Glazing:**

Glazing systems designed to meet specific safety and security requirements, often used in detention or correctional facilities.

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# 5. TERMS STARTING WITH "E"

#### **Emissivity:**

The ability of a surface to emit thermal radiation, an important factor in the energy efficiency of glazing.

# **Expansion Joint:**

A joint designed to allow for the expansion and contraction of building materials due to temperature changes, preventing damage.

#### **Extruded Aluminum:**

Aluminum that is shaped by forcing it through a die, commonly used in the manufacturing of window frames and facade components.

#### Efflorescence:

The white, powdery deposit that can form on the surface of masonry or concrete due to the migration of soluble salts.

#### **End Dam:**

A barrier or blockage at the end of a glazing or facade system, preventing the penetration of water or other elements.

# **Elastomeric Sealant:**

A flexible sealant that can stretch and return to its original shape, commonly used in joints and gaps for weatherproofing.

#### **Energy Modeling:**

The simulation and analysis of a building's energy consumption and performance to optimize efficiency.

# **Exterior Insulation and Finish System (EIFS):**

A type of cladding system that includes insulation board and a textured finish, enhancing energy efficiency and aesthetics.

#### **Escape Route Glazing:**

Glazing designed to provide a safe and clear route for occupants during emergency evacuations.

#### **Edge Treatment:**

The finishing or shaping of the edges of glass or facade materials for both functional and aesthetic purposes.

# **Entrance Canopy:**

A projecting roof structure over an entrance, providing shelter and architectural interest.

# **Elastomeric Coating:**

A flexible coating applied to surfaces, often used for weatherproofing and protection against environmental elements.

## **Eave Height:**

The vertical dimension from the finished floor to the eave, which is the point where the roof overhangs the wall.

#### **End Cap:**

A protective or decorative covering applied to the end of a facade or glazing element.

# **Extradosed Facade:**

A facade system incorporating extradosed cables for support and structural reinforcement.

#### **Elevation:**

A drawing or plan that shows the vertical elements of a building facade, providing a clear view of its design.



#### **Exfiltration:**

The unintentional leakage of air from the interior of a building to the exterior, affecting energy efficiency.

# **Electrically Conductive Glass:**

Glass with embedded conductive materials to facilitate electrical currents, often used in smart glass applications.

# **Environmental Control System:**

Systems integrated into a facade for managing and regulating indoor environmental conditions.

#### **External Shading Device:**

A device, such as a louver or canopy, installed externally to control sunlight and heat entering a building.

# **Energy-Efficient Glazing:**

Glazing systems designed to reduce heat transfer and enhance insulation, contributing to energy conservation in buildings.

# **Expansion Anchor:**

A fastening device used in construction to secure elements to a substrate, accommodating material expansion and contraction.

# **Extrusion:**

The process of shaping materials, often aluminum, by forcing them through a die to create specific profiles for frames or components.

# **Exterior Cladding:**

The outer protective layer or material applied to the exterior of a building to shield it from the elements.

#### **Efficiency Ratio:**

A measure of how effectively a facade or glazing system performs in terms of energy conservation and thermal insulation.

# **Extradosed Bridge:**

A bridge design incorporating extradosed cables for added structural support and aesthetic appeal.

#### **Envelope:**

The outer layer or boundary of a building, including walls, roof, and fenestration, responsible for controlling environmental factors.

## **Extradosed Canopy:**

A projecting roof structure with extradosed cables, often used for shading or architectural enhancement.

#### **Epoxy Resin:**

A type of polymer that, when cured, forms a durable and adhesive substance, used in bonding and sealing applications.

#### **Edge Seal:**

The perimeter sealing of a glazing unit, preventing the infiltration of moisture or contaminants.

# **End Dam Flashing:**

A flashing component positioned at the end of a horizontal surface to prevent water penetration and promote drainage.

#### **Eccentricity:**

The measure of how far an object's center of mass is from its axis, relevant in structural calculations.

# **Edge-to-Edge Glazing:**

Glazing units that extend from one edge of a frame to the opposite edge, providing a seamless and continuous appearance.



# **Extruded Silicone Gasket:**

A flexible and durable gasket made from extruded silicone, commonly used in glazing systems for weatherproofing.

#### **Efflorescence Remover:**

A cleaning solution or product designed to remove efflorescence, the white powdery deposit on masonry or concrete surfaces.

## **End Molding:**

A decorative or protective molding applied to the ends of panels or elements, often used for finishing purposes.

#### **Elevation Drawing:**

A detailed drawing representing the vertical elements of a building facade, providing a visual depiction of its design.

#### **Erosion Control:**

Methods and materials implemented to prevent soil erosion around the foundation or facade of a building.

# **Edge Lighting:**

Illumination technique where light sources are placed along the edge of a material or surface, enhancing visual appeal.

#### **Escape Route Signage:**

Signage indicating the designated paths for emergency evacuation within a building.

# **Emissivity Coating:**

A specialized coating applied to surfaces to control their emissivity, influencing thermal radiation properties.

#### **Eccentric Connection:**

A structural connection where the axis of the connected elements does not align, requiring careful consideration of load transfer.

# **Energy Performance Certificate (EPC):**

A document that assesses and rates the energy efficiency of a building, often required for regulatory compliance.

# **Environmental Impact Assessment (EIA):**

An evaluation of the potential environmental effects of a building project, including its facade and glazing elements.

#### **Embedded Louver:**

A louver integrated within the structure or surface of a building for sun shading or ventilation purposes.

# **Electrochromic Glass:**

Smart glass that can change its tint or transparency in response to an applied voltage, allowing control over light and heat.

#### **Ergonomics:**

The study of designing and arranging elements to optimize human interaction and comfort within a building or workspace.

# **Elastoplastic Behavior:**

A material's behavior characterized by both elastic and plastic deformation under stress, important in structural design.

## **Escape Chute:**

A vertical or inclined escape passage designed for emergency evacuation from a building or structure.

#### **Erosion-Resistant Coating:**

A protective coating applied to surfaces to resist erosion caused by environmental factors such as wind or water.

# **Edge Lighting System:**

A lighting system integrated into the edges of glazing units or panels for aesthetic or wayfinding purposes.



# **Expansion Bolt:**

A fastening device used to anchor components to a substrate, accommodating thermal expansion and contraction.

# **External Insulation System:**

An insulation system applied to the exterior of a building to enhance thermal performance and energy efficiency.

# **Entrance System:**

A comprehensive system encompassing doors, frames, hardware, and other components designed for building entrances.

# **Electric Skylight Opener:**

An automated mechanism for opening and closing skylights, providing ventilation and natural light control.

#### **Electric Strike:**

A device installed in a door frame to control the release of a lock electronically, commonly used in access control systems.

# **Exterior Wall Cladding System:**

A system of materials and components applied to the exterior wall to provide weather resistance and aesthetic appeal.

# **Elastomeric Joint Sealant:**

A flexible sealant used in joints to accommodate movement and ensure a weather-tight seal.



# 6. TERMS STARTING WITH "F"

#### **Facade Engineering:**

The discipline that focuses on the design, analysis, and construction of building facades to ensure performance and aesthetics.

## **Facade Access System:**

Equipment and devices designed for accessing and maintaining the exterior of a building, including cleaning and repairs.

#### Fenestration:

The arrangement, design, and installation of windows and other openings in a building's facade.

## **Fritted Glass:**

Glass with a ceramic frit pattern applied to the surface, serving functional and decorative purposes.

# **Frameless Glazing:**

Glazing systems that do not have a visible frame around the glass, providing a seamless and minimalist appearance.

## Flashing:

Weather-resistant material installed to prevent water infiltration at joints, seams, or transitions in a building's envelope.

# **Fire-Resistant Glass:**

Glass designed to withstand exposure to fire and heat for a specified duration, contributing to fire safety in buildings.

#### **Fixed Louver:**

A non-adjustable louver designed for sun shading, privacy, or ventilation in a fixed position.

#### **Furring Channel:**

A metal or wood channel used to support and attach finishes, such as cladding or insulation, to a building's structure.

#### **Fall Protection System:**

Safety measures and equipment designed to prevent falls from elevated surfaces during construction or maintenance.

#### Foggy Glass:

Condensation or moisture between the panes of double or triple-glazed windows, affecting clarity and insulation.

#### Flexible Joint Sealant:

A sealant with flexibility to accommodate movement in joints, ensuring weather-tight and durable seals.

# Frame Anchors:

Devices used to secure window or door frames to the surrounding structure, providing stability and load transfer.

## **Falling Object Protection:**

Measures and systems implemented to prevent objects from falling off a building or construction site.

#### Fire-Rated Facade:

A facade system designed and tested to meet specific fire-resistance criteria, limiting the spread of fire.

# **Fixed Window:**

A non-operable window that does not open or close, providing natural light and views without ventilation.



#### **Fused Silica:**

A high-purity form of glass with exceptional optical and thermal properties, often used in specialized glazing.

# Fog Coating:

A coating applied to glass surfaces to reduce glare, improve aesthetics, or provide privacy.

# **Fiber Cement Cladding:**

Cladding material made from a composite of cement, sand, and cellulose fibers, known for durability and fire resistance.

#### **Fracture Critical:**

Structural elements or connections where failure could lead to a collapse, requiring careful inspection and maintenance.

# **Fenestration Rating Council (FRC):**

An organization that establishes energy performance ratings for windows, doors, and skylights.

# Fin Wall:

A vertical or horizontal fin attached to a building's facade for solar shading, aesthetics, or architectural detailing.

#### Floating Mullion:

A mullion that is not anchored at both ends, allowing for movement and accommodating structural loads.

# Fiber Reinforced Polymer (FRP):

A composite material made of fibers embedded in a polymer matrix, used for lightweight and durable facade elements.

#### Firestop:

A material or system used to prevent the spread of fire through openings or penetrations in a building's structure.

#### **Fiber Optic Lighting:**

Illumination technology using optical fibers to transmit light, often employed for decorative or architectural lighting.

#### Flat Glass:

Sheet glass that is produced by the float glass process, commonly used for windows and architectural glazing.

#### Flush Glazing:

A glazing method where the glass sits flush with the external face of the building, providing a smooth, even surface.

## **Fenestration Consultant:**

A professional who specializes in the design and analysis of windows, doors, and openings in building facades.

#### Frosting:

A surface treatment applied to glass for privacy or decorative purposes, creating a translucent or opaque appearance.

# **Fall Arrest System:**

Safety equipment designed to prevent a person from falling off an elevated surface, commonly used in facade work.

## **Facade Maintenance:**

Regular cleaning, inspection, and repair activities to preserve the appearance and functionality of a building's facade.

#### Face Seal:

The sealing of a joint or connection on the exterior surface, preventing water or air infiltration.

# **Finishing Trim:**

Decorative or protective elements added to the edges or joints of facade materials for aesthetic and functional purposes.



#### Fillet Weld:

A weld used to join two surfaces at right angles, commonly found in the construction of metal frames and structures.

#### **Field Test:**

On-site testing and assessment of facade components or systems to ensure proper installation and performance.

## Fire Damper:

A passive fire protection device installed in HVAC systems to prevent the spread of fire and smoke through ducts.

# **Fixed Louver Window:**

A window incorporating fixed louvers for sun shading or privacy, with no adjustable elements.

#### **Fabricated Glass:**

Glass that has undergone processing, cutting, or shaping to meet specific design and installation requirements.

# Frame Depth:

The measurement from the front face to the back face of a window or door frame, influencing its installation and performance.

# **Facade Panel:**

A prefabricated panel used as an exterior covering for buildings, providing both structural and aesthetic functions.

#### **Finger Joint:**

A type of joint used in wood or metal frames, where interlocking fingers increase surface area for enhanced strength.

# **Flood Coating:**

The application of a coating or finish to protect surfaces from moisture, enhancing durability.

# **Facade Cleaning System:**

Equipment and methods used for cleaning and maintaining the external surfaces of a building's facade.

#### Fascia:

The horizontal band or board that runs along the outer edge of a roof, providing a finishing touch and protecting from the elements.

#### **Fenestration Ratio:**

The ratio of window or opening area to the total wall area, influencing natural light penetration and energy efficiency.

#### Frame Alignment:

The proper positioning and adjustment of window or door frames during installation for optimal performance.

#### Foot Candle:

A unit of measurement for illuminance, representing the amount of light falling on a surface.

# **Floating Floor:**

A floor construction method where the flooring material is not directly attached to the subfloor, allowing for movement and flexibility.

# **Fire-Resistant Sealant:**

A sealant designed to resist the spread of fire through joints, gaps, or penetrations in building elements.

#### **Facade Load Test:**

A controlled test to evaluate the structural performance and load-bearing capacity of a building's facade components.

# **Frit Pattern Printing:**

A printing technique used to apply ceramic frit patterns onto glass surfaces, providing shading or decorative elements.



# **Fault Tree Analysis:**

A systematic method for identifying and analyzing potential failures or faults in a facade or glazing system.

# **Fiberglass Reinforced Concrete (FRC):**

Concrete reinforced with fiberglass fibers, enhancing durability and reducing weight, often used in facade panels.

## **Flood Testing:**

A method of testing a building's facade for water infiltration by artificially creating conditions similar to heavy rainfall.

#### Frame Deflection:

The bending or deformation of a window or door frame under applied loads, a critical consideration in structural design.

#### Freeze-Thaw Resistance:

The ability of facade materials, particularly masonry or concrete, to withstand cyclic freezing and thawing without damage.

#### **Finned Glass:**

Glass with integrated fins or protrusions for solar shading, reducing solar heat gain and enhancing energy efficiency.

## Framing System:

The structural framework that supports and holds together glazing units, windows, or curtain wall systems in a building facade.

#### **Fire-Resistant Curtain Wall:**

A curtain wall system designed to provide fire resistance and containment in case of a fire event.

# Finite Element Analysis (FEA):

A numerical technique used to simulate and analyze the behavior of structures and components under various conditions.

#### Floating Glazing System:

A glazing system that allows for relative movement between the glass and its supporting structure, accommodating thermal expansion.

## **Facade Optimization:**

The process of refining and enhancing the design, performance, and efficiency of a building's facade.

#### Field-Built Curtain Wall:

A curtain wall system that is constructed onsite, providing flexibility in adapting to unique architectural and site conditions.

# Fiber Reinforced Polymer (FRP) Panel:

A composite panel made of fibers embedded in a polymer matrix, offering strength, flexibility, and durability in facade applications.

# Fascia System:

An integrated system that includes the fascia board and associated components, providing a finished look and weather protection.

#### **Flame Retardant Coating:**

A coating applied to materials to reduce flammability and delay the spread of flames in the event of a fire.

# **Fibrous Plaster:**

Plaster material reinforced with fibers, offering improved strength and crack resistance, often used in decorative elements.

#### Fanlight:

A semicircular or rectangular window above a door or window, often divided into small panes or adorned with decorative elements.



# 7. TERMS STARTING WITH "G"

# Glazing:

The installation of glass or similar transparent materials in windows, doors, or facades.

# **Glass Fiber Reinforced Concrete (GFRC):**

A type of concrete reinforced with glass fibers, enhancing strength and flexibility, commonly used in facade elements.

# **Green Glazing:**

Glazing systems designed to enhance energy efficiency, reduce environmental impact, and promote sustainability.

# **Grid System:**

A framework or layout of horizontal and vertical lines forming a grid used in designing and installing facade elements.

### Gas Filling:

The process of filling the space between double or triple-glazed panes with inert gases, such as argon, to improve insulation.

# **Glass Balustrade:**

A protective barrier made of glass panels used in railing systems for safety and aesthetics.

# **Glazing Gasket:**

A compressible material used to seal the edges of glazing units within a frame, preventing air and water infiltration.

# **Glass Cladding:**

The application of glass panels as an external covering for a building, providing both aesthetic and functional benefits.

# Glass Makeup:

The formulation and composition of glass, encompassing the raw materials and proportions used in manufacturing, influencing properties like transparency, strength, and resistance.

# Glass Fiber Reinforced Polymer (GFRP):

A composite material made of glass fibers embedded in a polymer matrix, used for lightweight and durable facade components.

# **Glass Spandrel:**

The opaque panel of glass used in the area between floors of a building, concealing structural elements and providing continuity.

#### Glass Curtain Wall:

An exterior wall system consisting mainly of glass, providing transparency, aesthetics, and natural light.

### **Glass Lamination:**

The process of sandwiching layers of glass with an interlayer, commonly a polymer, for safety, security, and UV protection.

# **Glare Control:**

Measures to reduce or control excessive brightness and glare caused by direct sunlight or artificial lighting.

# Glass Reinforced Concrete (GRC):

Concrete containing glass fibers for improved strength and flexibility, commonly used in architectural facades.



#### **Glass Break Sensor:**

Security device that detects the sound or vibrations associated with breaking glass, often integrated into alarm systems.

# **Glazing Tape:**

A flexible and compressible tape used to seal the perimeter of glazing units within a frame, providing weather resistance.

### **Gas Leakage Test:**

A test conducted to assess the effectiveness of seals and gas retention in insulated glazing units.

### **Glare Index:**

A numerical measure indicating the potential for glare in a space, considering various factors such as window size and orientation.

### **Glass-to-Glass Joint:**

The connection between two adjacent glass panels, often achieved through structural bonding or framing.

# **Glazing Pocket:**

A recessed area in a frame or mullion designed to receive and secure the edges of glazing units.

### **Glass Transom:**

A horizontal bar or beam of glass separating sections of a window or curtain wall.

# Glass Fiber Reinforced Gypsum (GFRG):

A composite material consisting of glass fibers embedded in gypsum, used in decorative elements and facades.

# Glass Cap:

A protective or decorative cover applied to the top edge of a glass panel, enhancing aesthetics and safety.

### Gasket Glazing:

A glazing method where compressible gaskets are used to secure and seal the edges of glass within a frame.

### **Geodesic Dome:**

A dome-shaped structure made of triangular or polygonal panels, often featuring transparent elements for natural light.

### **Gypsum Board:**

A common building material used for interior walls and ceilings, also known as drywall or plasterboard.

### **Glare Reduction Film:**

Thin films applied to glass surfaces to minimize glare from sunlight and improve visual comfort indoors.

### **Glass Thickness:**

The measurement of the thickness of a glass pane, influencing its strength, insulation properties, and overall performance.

#### Gable:

The triangular portion of a wall between the edges of a sloping roof, often used for architectural detailing.

### Gasket:

A flexible material used to create a seal between two surfaces, commonly employed in windows and doors for weatherproofing.

#### Glass-to-Metal Seal:

A hermetic seal between glass and metal components, often used in the assembly of electronic or optical devices.

# **Glazing Certificate:**

A document verifying the compliance of glazing products with specific standards, codes, or performance criteria.



### **Ground-Level Facade:**

The portion of a building's facade at street level, often subject to different design considerations and treatments.

# **Glass Breakage Sensor:**

A security device that detects the breakage of glass and triggers an alarm or alerts a security system.

### **Galvanized Steel:**

Steel coated with a layer of zinc for corrosion resistance, commonly used in frames, supports, and structural elements.

### **Glint and Glare Analysis:**

An assessment of the visual reflections and brightness created by sunlight or artificial light on glass surfaces.

### **Glazing Panel:**

A single sheet or pane of glass used in a window, door, or curtain wall system.

# **Grout:**

A cement-based or epoxy material used to fill gaps or joints between tiles, masonry, or other building materials.

### **Glass Fiber Reinforcement:**

The addition of glass fibers to a material for improved strength, commonly used in composites and facades.

# **Gauged Porcelain Tile Panel:**

Large-format porcelain tiles that are precisely cut and calibrated for uniform size and thickness.

### **Glare Shield:**

A device or feature designed to reduce the direct glare from light sources, enhancing visual comfort.

### **Green Building:**

The practice of designing, constructing, and operating buildings with a focus on environmental sustainability and resource efficiency.

# **Ground Floor Façade:**

The exterior face of the ground-level portion of a building, often featuring unique design elements or commercial storefronts.

#### **Glass Fiber Mesh:**

A mesh made of glass fibers used to reinforce plaster or concrete, enhancing structural integrity.

# **Gutter System:**

A network of channels and pipes designed to collect and divert rainwater away from the building's facade.

### Glass Fin:

A vertical or horizontal fin made of glass, often used for architectural detailing and sun shading.

# Gas Strut:

A pneumatic device used to support and control the movement of windows, doors, or other opening elements.

### **Grain Direction:**

The orientation of fibers or particles in wood or other materials, influencing strength, appearance, and workability.

# **Ground Floor Glazing:**

The use of glass in the ground-level facade to provide transparency, natural light, and a connection to the surrounding environment.



# **Gypsum Ceiling Board:**

A type of ceiling board made from gypsum, offering fire resistance and acoustic properties.

# **Guardrail System:**

A protective barrier system installed along edges or openings in a facade to prevent falls and enhance safety.

### **Glass Fiber Mat:**

A non-woven mat made of randomly dispersed glass fibers, often used as a reinforcement in composite materials.

# **Glass Transition Temperature (Tg):**

The temperature at which an amorphous polymer transitions from a hard, glassy state to a rubbery, more flexible state.

# **Guardian Layer:**

A protective layer applied to glass surfaces, enhancing durability, and resistance to scratches and stains.

# **Glazing Rebate:**

A recessed groove or channel in a window or door frame designed to accommodate the glazing or glass panel.

### Glass Reinforced Epoxy (GRE):

A composite material consisting of glass fibers embedded in an epoxy resin matrix, offering strength and corrosion resistance.

# **Galvanic Corrosion:**

Corrosion that occurs when two dissimilar metals are in contact in the presence of an electrolyte, leading to deterioration.

### **Glass Breakage Warranty:**

A warranty provided by manufacturers to cover the replacement or repair costs in case of glass breakage under specified conditions.

#### **Guarded Hot Box Test:**

A laboratory test method used to measure the thermal transmittance (U-value) of fenestration systems under controlled conditions.

### **Governing Code:**

The specific building code or standards that regulate the design, construction, and performance of facades and glazing systems.

### **Gypsum Board Joint:**

The seam or joint where two adjacent gypsum boards meet, typically treated with joint compound and tape for a smooth finish.

# Glass Fiber Reinforced Polyester (GFRP):

A composite material made of glass fibers embedded in a polyester resin matrix, known for its strength and corrosion resistance.

### **Gas-Injected Insulated Glass:**

Insulated glass units where the space between the panes is filled with a low-conductance gas, such as argon or krypton, for enhanced insulation.

### **Glass Edge Deletion:**

The removal of the low-emissivity coating from the edges of insulated glass units to prevent heat loss at the perimeter.

### Glass Adhesive:

An adhesive specifically formulated for bonding glass to various substrates, ensuring structural integrity.

# **Green Roof Facade Integration:**

The incorporation of green roof elements into the design of a building's facade, promoting environmental sustainability.



# **Gauged Brick Masonry:**

Masonry constructed with bricks that have precise dimensions, ensuring uniformity and facilitating installation.

# **Ground Source Heat Pump (GSHP):**

A heating and cooling system that utilizes the stable temperature of the ground to transfer heat, improving energy efficiency.

# **Glass Fiber Reinforced Vinyl Ester (GFRVE):**

A composite material combining glass fibers with a vinyl ester resin, known for corrosion resistance and high strength.

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# 8. TERMS STARTING WITH "H"

#### **Heat Gain:**

The increase in temperature within a building due to the absorption of solar radiation through windows and other surfaces.

### **Horizontal Louver:**

A horizontal arrangement of fixed or adjustable slats designed for sun shading and glare control on a building facade.

### **High-Performance Glazing:**

Glazing systems designed to enhance energy efficiency, thermal insulation, and overall performance in various climates.

### **Hybrid Facade System:**

A facade design that combines different materials or technologies to achieve specific performance and aesthetic goals.

### **Heat-Reflective Coating:**

A coating applied to glass surfaces to minimize the absorption of heat and reduce solar heat gain within a building.

# **Hollow Metal Frame:**

A metal frame for doors or windows that consists of hollow sections, providing strength while remaining lightweight.

# **Heat Soak Test:**

A process of exposing tempered glass to elevated temperatures to accelerate the detection of potential spontaneous breakage due to nickel sulfide inclusions.

# **Horizontal Sliding Window:**

A window design where one or more sashes slide horizontally within the frame, providing ventilation and ease of operation.

# **Hygrothermal Performance:**

The combined study of heat and moisture transfer through building materials, crucial for assessing their performance and durability.

### **High-Reflectance Glass:**

Glass with a high reflectivity level, designed to minimize solar heat gain and enhance energy efficiency in buildings.

# **High-Emissivity Coating:**

A coating applied to glass surfaces to increase their ability to radiate heat, contributing to improved thermal insulation.

#### **Hermetic Seal:**

A complete and airtight seal, often used in insulated glazing units to prevent the infiltration of moisture and gases.

# **Heat-Resistant Glass:**

Glass specifically engineered to withstand high temperatures, often used in applications such as fireplace doors and oven windows.

### **Hydraulic Closer:**

A device that controls the closing speed of a door, commonly used in commercial entrance systems.

# **Horizontal Pivot Window:**

A window design where the sash pivots horizontally around a central axis, allowing for controlled ventilation and cleaning.

#### **Hinged Door:**

A door that is attached to the door frame by hinges, allowing it to swing open and closed.



### **Horizontal Sunshade:**

A shading device installed horizontally on a building facade to block or diffuse sunlight and control heat gain.

# **Honeycomb Shade:**

A type of window covering with a cellular structure that provides insulation and light diffusion.

### **Heat-Insulating Spacer:**

A spacer used in insulated glazing units to reduce heat transfer and improve the overall thermal performance of the window.

### **Heat-Absorbing Glass:**

Glass that has been treated to absorb a portion of the solar radiation, reducing heat penetration into the building interior.

# **Heritage Window:**

A window designed to replicate or preserve the architectural style of a particular historical period.

#### Header:

A horizontal structural element above an opening, such as a window or door, providing support and distributing loads.

# **Hollow-Core Door:**

A door constructed with hollow sections to reduce weight while maintaining structural integrity.

### **Head Flashing:**

A weather-resistant material installed at the top of a window or door to redirect water away from the opening.

### Handrail:

A horizontal or sloping rail intended for grasping by the hand to provide support, commonly used in staircases and ramps.

#### Haze:

A cloudy or hazy appearance on glass surfaces, often caused by contaminants or the aging of certain materials.

### **Horizontal Muntin:**

A horizontal bar or divider used to create a grid pattern on windows, providing a decorative or architectural element.

### Hinge:

A mechanical device that allows two connected objects to rotate or swing relative to each other, commonly used in doors and windows.

# **Hard Coat Low-E Glass:**

Low-emissivity glass that has a durable coating applied during the manufacturing process to improve thermal performance.

### **Head Jamb:**

The horizontal upper section of a window or door frame, connecting the vertical side jambs.

# **Hybrid Window:**

A window design that combines different materials, such as wood and aluminum, to achieve specific performance and aesthetic goals.

# **Housing Development:**

A planned residential community where multiple homes are constructed as part of a single project.

### **Hopper Window:**

A window that opens inward from the top, typically hinged at the bottom, providing ventilation without exposing the interior to rain.

### Hardware:

Various accessories and fittings, such as handles, locks, hinges, and fasteners, used in doors and windows.



### **Horizontal Section:**

A view of a building or object as if it were cut horizontally to reveal its internal structure, often used in architectural drawings.

### **Historical Preservation:**

The practice of preserving and protecting buildings, structures, and landscapes with historical significance.

# **High-Rise Building:**

A tall building with multiple floors, often characterized by its verticality and intended for residential or commercial use.

### **Hydrophilic Coating:**

A water-attracting coating applied to glass surfaces to promote the even distribution of water and reduce spotting.

### **High-Pressure Laminate (HPL):**

A durable laminate material often used for decorative surfaces, including cladding and paneling.

#### **Horizontal Sill:**

The bottom horizontal portion of a window frame, providing support and serving as a barrier against water intrusion.

### Housewrap:

A material used to protect the exterior walls of a building from moisture infiltration, improving energy efficiency.

### **Hinged Window:**

A window that operates on hinges, allowing it to swing open for ventilation and cleaning.

### **Horizontal Integration:**

The arrangement of building elements, such as windows or panels, in a horizontal configuration.

#### Hue:

The attribute of color that distinguishes one color from another, such as red, blue, or green.

# **Humidity Control:**

Measures and systems designed to regulate and maintain optimal levels of humidity within a building.

### Hardscape:

The non-living elements of a landscape, including paved areas, pathways, and structures.

# **High-Visibility Vest:**

A brightly colored vest worn by construction workers and personnel to enhance visibility and safety on-site.

# **Horizontal Shaft Impactor:**

A machine used in crushing applications to break down materials into smaller, more manageable sizes.

### Halogen Lamp:

A type of incandescent lamp containing halogen gases, known for producing bright and focused light.

# **Heat Recovery Ventilation (HRV):**

A mechanical ventilation system that exchanges heat between incoming and outgoing air to improve energy efficiency.

# **Hemmed Edge:**

A folded or turned edge, typically found on metal panels or sheets, providing additional strength and safety against sharp edges.

### **Heat-Soaked Test:**

A controlled heating process applied to tempered glass to reduce the risk of spontaneous breakage due to nickel sulfide inclusions.



# **High-Pressure Die Casting:**

A manufacturing process where molten metal is injected at high pressure into a mold cavity, commonly used for aluminum components.

# **Heat Transfer Coefficient (U-Value):**

A measure of the rate at which heat is conducted through a material, indicating its thermal insulation properties.

# **Hollow Structural Section (HSS):**

A type of steel section with a hollow tubular shape, commonly used in structural applications for its strength-to-weight ratio.

### **Hydrostatic Pressure:**

The pressure exerted by a fluid at rest, such as water, against a surface, often relevant in waterproofing applications.

### **Heat-Mirror Glass:**

A type of insulating glass with a thin film coating that selectively reflects or transmits infrared radiation, improving thermal performance.

### **High-Temperature Gasket:**

A resilient material used in sealing applications that can withstand elevated temperatures, commonly found in high-temperature glazing systems.

### **Hollow Extrusion Process:**

A manufacturing technique where hollow shapes, such as window frames or mullions, are formed through extrusion.

# **Hygroscopic Material:**

A material capable of absorbing and retaining moisture from the surrounding environment, often considered in building envelope design.

### **Horizontal Axis Wind Turbine (HAWT):**

A type of wind turbine where the main rotor shaft is parallel to the ground, commonly used for electricity generation.

# **High-Performance Concrete (HPC):**

Concrete formulated with advanced materials and admixtures to achieve superior strength, durability, and performance.

### **Hot-Dip Galvanizing:**

A process where steel components are coated with a layer of zinc by immersing them in molten zinc, providing corrosion resistance.

### **Horizontal Infiltration:**

The penetration of air or water horizontally through the building envelope, often a concern in fenestration design.

### **Heat-Reflective Film:**

A thin film applied to glass surfaces to reflect a portion of solar radiation and reduce heat absorption.

# **Horizontal Axis Washing Machine:**

A machine used for the washing of large glass panels or facades, with a horizontal rotating axis.

# **Hydraulic Press:**

A machine that uses a hydraulic cylinder to generate a compressive force, commonly used in the manufacturing of glass and metal components.

### **Hot-Box Test:**

A laboratory test method that simulates realworld conditions to assess the thermal performance of fenestration systems.

# **Heat-Activated Spacer:**

A spacer in insulated glazing units designed to expand and contract with temperature changes, maintaining structural integrity.



# **Hollow Core Slab:**

A precast concrete slab with hollow voids, providing structural efficiency and reduced weight.

# **Heat Pump System:**

A mechanical system that transfers heat from one location to another, commonly used for heating and cooling applications.

# **High-Speed Door:**

A door designed for rapid opening and closing, often used in industrial and commercial settings.

# **Hydronic Heating System:**

A heating system that uses hot water or another fluid to transfer heat within a building, commonly used in radiant floor heating.



# 9. TERMS STARTING WITH "I"

# **Insulated Glass Unit (IGU):**

A glazing assembly comprising two or more glass panes separated by a sealed airspace to improve thermal insulation.

#### Infiltration:

The unintended or unwanted passage of air or water through the building envelope, often considered in fenestration design.

### **Impact Resistance:**

The ability of glazing materials to withstand impact or force without breaking, commonly evaluated in safety and security applications.

# **Inclined Facade:**

A facade that is not vertical but has an angle or slope, contributing to architectural aesthetics and solar performance.

### **Inboard Seal:**

The sealing mechanism placed on the interior side of an insulating glass unit, providing protection against moisture and gas infiltration.

# **Insulating Spacer:**

A component in an insulated glass unit that separates and maintains the distance between glass panes, typically made of materials with low thermal conductivity.

# **Interior Glazing:**

The installation of glazing elements on the interior side of the building envelope, providing thermal and acoustic benefits.

# Interlayer:

A material, such as PVB (polyvinyl butyral) or EVA (ethylene vinyl acetate), placed between glass layers to enhance safety, security, or provide decorative effects.

### Infrared Radiation (IR):

with Electromagnetic radiation longer wavelengths than visible light, influencing heat transfer and solar gain in glazing systems.

#### Infiltration Test:

A test conducted to assess the amount of air leakage through a window or door system, often measured in cubic feet per minute.

# **Insulated Spandrel Panel:**

A panel installed between floors of a building facade, designed to provide thermal insulation and aesthetic continuity.

# **Invisible Joints:**

Joints or connections in facade elements that are designed to be minimal or concealed, contributing to a sleek and seamless appearance.

# **Infrared Reflective Coating:**

A coating applied to glass surfaces to reflect infrared radiation, reducing heat absorption and improving energy efficiency.

# **Integrated Façade System:**

A comprehensive facade solution that incorporates various elements, such as windows, panels, and shading devices, into a unified system.



# **Iron Spandrel Panel:**

A spandrel panel made of iron or incorporating iron elements, providing structural support and visual appeal in facade design.

### **Insulated Translucent Panel:**

A panel with translucency that also provides thermal insulation, often used in skylights or areas requiring diffused natural light.

# **Ingress Protection (IP) Rating:**

A standard rating system indicating the level of protection provided by a product against solid particles and moisture.

### **Insulating Glass Certification Council (IGCC):**

An organization that certifies and validates the performance of insulating glass units based on industry standards.

### **Insulated Metal Panel (IMP):**

A composite panel consisting of a metal outer layer and insulation core, used in building envelopes for energy efficiency.

### **Intumescent Sealant:**

A fire-resistant sealant that expands when exposed to heat, used to prevent the spread of fire through joints and gaps.

### **Insulating Concrete Form (ICF):**

A construction system where concrete is poured between two layers of insulating material, providing thermal efficiency and structural strength.

### **Integrated Solar Shading:**

Shading devices or elements seamlessly incorporated into the building facade, designed to optimize solar control and energy efficiency.

# **Inverted Skylight:**

A skylight that is installed below the roof surface, often with a reflective well, allowing natural light to enter the space.

# **Impact Glazing System:**

Glazing systems engineered to resist impact from external forces, commonly used in hurricane-prone regions or security applications.

# **Insulating Window Film:**

Thin films applied to glass surfaces to enhance thermal insulation by reducing heat transfer and improving energy efficiency.

#### Interior Shade:

A window covering or shading device installed on the interior side of windows to control light, glare, and privacy.

#### Infiltration Barrier:

A material or system designed to prevent the infiltration of air, water, or moisture through the building envelope.

#### Insect Screen:

A mesh or fabric screen installed over windows or doors to prevent insects from entering while allowing airflow and visibility.

#### **Installation Bracket:**

A support or mounting bracket used during the installation of facade or glazing elements to secure them in place.

# **Inspection Opening:**

An access point or panel designed for inspecting and maintaining components within a facade or glazing system.

### **Innovative Design:**

Creative and groundbreaking design solutions that push the boundaries of traditional facade and glazing concepts.

# **Insulating Cavity:**

The space or void between glass panes in an insulated glass unit, filled with air or gas to enhance thermal performance.



# **Interior Cladding:**

Material applied to the interior surface of a facade or wall for decorative or functional purposes.

# **Inspection Chamber:**

A chamber or access point designed for inspecting and maintaining drainage and utility systems within a building.

# **Integrated Security System:**

A comprehensive system that combines various security measures, such as access control and surveillance, into a unified solution.

# **Insulating Concrete Block:**

A concrete block designed with insulating properties, used in construction for energy-efficient walls.

# **Invisible Façade System:**

A facade design where supporting elements and fixings are concealed, creating a seamless and visually unobtrusive appearance.

# **Interactive Façade:**

A facade system that responds dynamically to external factors, such as weather conditions or user interactions.

# **Innovative Materials:**

New and advanced materials used in facade and glazing construction, often characterized by improved performance or sustainability.

#### **Internal Gasket:**

A sealing gasket placed on the interior side of a window or door frame to prevent air and water infiltration.

# **Inward Opening Window:**

A window design where the sash or panel opens into the interior of the building.

# Integrated Building Management System (IBMS):

A centralized system that monitors and controls various building systems, including HVAC, lighting, and security.

### **Integral Blinds:**

Blinds or shading devices that are encapsulated between glass panes, providing protection from dust and maintenance ease.

### **Innovative Ventilation Solution:**

Creative approaches to providing natural or mechanical ventilation in buildings for improved indoor air quality.

# **Illuminated Signage:**

Signs that incorporate lighting elements to enhance visibility, often used in commercial and retail applications.

### **Inverted Curtain Wall System:**

A curtain wall system where the outermost layer is installed on the interior side, offering unique design possibilities.

### **Installation Tolerance:**

The acceptable range of variation allowed during the installation of facade and glazing components to ensure proper fit and alignment.

# **Invisible Grid System:**

A technical system used in facade design where the support structure is concealed, creating a seamless appearance with minimal visible elements.

### Index of Refraction:

A measure of how much a material refracts or bends light, influencing the optical properties of glazing materials.



# **Insulated Metal Composite Panels (IMPs):**

Composite panels consisting of a metal skin and an insulating core, providing both structural support and thermal insulation.

# **Intrusion Detection System (IDS):**

A security system that monitors and alerts against unauthorized entry into a building or restricted area.

# **Infrared Thermography:**

A technique using infrared imaging to detect variations in temperature, often used for assessing building envelope performance.

### **Infiltration Testing Chamber:**

A controlled chamber used to simulate and measure air and water infiltration on facade and glazing systems.

### Inertia:

The resistance of a structure to changes in motion or direction, a crucial factor in assessing the seismic performance of buildings.

### **Interface Detail:**

Specific design details where different materials or systems meet, critical for ensuring proper performance and longevity.

### **Insulating Coating:**

A thin coating applied to glass surfaces to enhance thermal insulation by reducing heat transfer.

# **Interactive Façade Control System:**

A sophisticated control system that allows users or automated processes to interact with and adjust various aspects of a dynamic facade.

# **Innovative Façade Engineering:**

Advanced engineering practices that push the boundaries of traditional facade design, often incorporating cutting-edge technologies.

### **Insulated Profile System:**

A system of insulated profiles, often made of materials like aluminum or PVC, used in the construction of window and door frames for thermal efficiency.

# **Impact Testing:**

Laboratory tests conducted to evaluate the ability of glazing materials to withstand impact, important for safety and security considerations.

# **Innovative Sealing Technology:**

Advanced techniques and materials used in sealing joints and connections within facade and glazing systems for improved performance.

### **Impulse Testing:**

Tests conducted to assess the response of structural elements or systems to sudden dynamic forces, such as wind or seismic loads.

# **Inverted Pyramid Skylight:**

A skylight design resembling an inverted pyramid, often used for architectural aesthetics and optimal natural light distribution.

### Infrared Gas Analyzer (IRGA):

A device used to measure the concentration of gases, including CO2, within a building, aiding in indoor air quality assessments.

# **Inertia Welding:**

A welding process that uses rotational motion to generate heat and join materials with high strength and efficiency.

# **Insulated Spandrel System:**

A system designed to provide both thermal insulation and aesthetic continuity in the spandrel areas of a building facade.



# **Invisible Ventilation System:**

Ventilation solutions that are integrated into the facade design with concealed openings, unobtrusive maintaining а clean and appearance.

# **Inward Tilt-Turn Window:**

A window design that can be tilted inward for ventilation or turned inward for a fully open position, offering versatility in operation.

### **Interior Structural Glazing:**

A method of glazing where the glass is structurally bonded to the interior face of the framing system, providing a frameless appearance from the exterior.

# **Insulating Concrete Panel:**

Panels made of insulating material with embedded concrete, providing both thermal resistance and structural support.

# **Invisible Fastening System:**

A system of concealed fasteners or anchors used to attach facade elements, maintaining a clean and uncluttered aesthetic.

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# 10. TERMS STARTING WITH "J"

### Jamb:

The vertical sides of a door or window frame that form the opening in which the door or window sash fits.

#### Joint Sealant:

A material used to fill joints and gaps between building elements, providing weatherproofing and preventing air and water infiltration.

#### **Junction Box:**

A housing for electrical connections, often used in conjunction with facade elements that incorporate lighting or electronic components.

### Jalousie Window:

A window with horizontal slats that tilt open to allow ventilation, commonly used in warm climates.

### Jig:

A tool or guide used in the fabrication or installation process to ensure accurate and consistent placement of components.

# Joggle:

An offset or step in the alignment of building elements, often used in facade design for aesthetic or functional purposes.

### **Joint Movement:**

The ability of a joint or connection in a facade system to accommodate thermal expansion, contraction, and other movements.

### Joint Reinforcement:

Materials or components used to enhance the strength and stability of joints between different elements within a facade.

# Jacking:

The process of lifting or adjusting a building element using hydraulic jacks, often done during installation or maintenance.

### Joinery:

The craft or technique of making and fitting joints in woodworking, metalworking, or other construction methods.

#### Junction Detail:

Specific design details where different building elements or materials come together, ensuring proper integration and performance.

# Jumper:

A short electrical connector used to bridge or jump between two points, commonly used in electrical systems within facade elements.

#### Jettison:

The intentional shedding or removal of facade components, often used in the design of emergency or safety systems.

### Jettied Facade:

A facade design where upper floors extend beyond the lower ones, creating an overhang or projection.

### Janka Hardness Test:

A test used to measure the hardness of wood, important when selecting materials for wooden facade elements.

# **Junction Temperature:**

The temperature at a specific point in the junction of a semiconductor device, relevant in the design and performance of electronic components.



# Joining Technology:

Techniques and methods used to connect and secure different materials within a facade or glazing system.

### Jet Stream Louver:

A type of louver designed to withstand high wind speeds, commonly used in high-rise buildings and areas prone to strong winds.

#### Jamb Anchor:

A device or component used to secure and anchor a window or door frame to the surrounding structure.

### Jogging:

A design element in which a portion of a building facade is set back or extended, creating visual interest and depth.

### **Junction Tree:**

In building information modeling (BIM), a hierarchical representation of the connectivity and relationships between different building elements.

### **Jalousie Door:**

A door design incorporating horizontal slats or blades that can be tilted for ventilation.

# Joint:

The space or junction where two building elements meet, commonly sealed or filled to prevent air and water infiltration.

#### **Junction Point:**

A specific location where different building components or systems intersect, requiring careful design for seamless integration.

# Jamb Depth:

The measurement of the vertical depth of a door or window frame, important for proper installation and compatibility with the building structure.

#### Jamb Extension:

An additional piece or element added to a door or window jamb to accommodate various wall thicknesses.

### **Joint Movement:**

The flexibility or ability of a joint to accommodate expansion, contraction, and other movements caused by temperature changes or structural shifts.

#### Joint Filler:

Material used to fill and seal joints, gaps, or voids in construction elements, ensuring weather resistance and thermal performance.

#### Junction Box Cover:

A protective cover for electrical junction boxes, providing safety and preventing unauthorized access.

### Joggle Joint:

A type of joint where one component overlaps another, often used in metalwork or carpentry for added strength.

### **Job Completion Certificate:**

A document issued upon the successful completion of construction work, indicating that the project meets specified requirements.

# Jamb Liner:

The part of a window frame that holds the sash in place and allows it to move, typically found in double-hung or sliding windows.

### **Jalousie System:**

A system of adjustable horizontal slats or louvers, commonly used for windows or ventilation openings.

# **Jointing Compound:**

A material used to fill and smooth joints between building materials, such as drywall or plaster.



# Joinery Detail:

Detailed plans or drawings specifying how different parts of a building element or system are connected or assembled.

### Jamb Setback:

The distance by which a door or window jamb is set back from the exterior face of the wall, influencing the overall appearance of the facade.

### Joint Flashing:

A protective layer or material used to prevent water infiltration at joints or intersections in a building envelope.

#### Jamb Width:

The horizontal measurement of a door or window frame, determining the overall width of the opening.

# **Junction Detailing:**

The process of designing and detailing how different materials and components will come together at specific junctions or connections.

### **Joint Compound:**

A substance used in drywall construction to fill and smooth joints between sheets of drywall.

### Jamb Seal:

A weatherstripping or gasket installed along the door or window jamb to provide a seal against air and water infiltration.

#### Job Order:

A document specifying the work to be done, materials to be used, and other details for a specific construction or installation task.

### Joint Pattern:

The arrangement or design of joints in a facade or glazing system, influencing the visual appearance and structural performance.

### **Junction Detail Drawing:**

A detailed drawing illustrating how different building elements intersect or connect at specific junctions.

### **Jamb Extension Kit:**

A kit containing additional components used to extend the depth of a door or window jamb, accommodating varying wall thicknesses.

#### **Joint Venture:**

A business arrangement where two or more entities collaborate on a specific construction project or development.

# **Job Site Safety:**

Measures and practices implemented to ensure a safe working environment for construction and installation activities.

### **Job Site Management:**

The coordination and oversight of activities on a construction site, including scheduling, resource allocation, and communication.

# Jamb Depth Ratio:

The ratio of the depth of a door or window jamb to the overall thickness of the wall, a factor in thermal and structural considerations.

### Joint Design:

The detailed configuration and specifications of joints in a facade or glazing system, crucial for durability and performance.

### **Joint Efficiency:**

The measure of how well a joint in a structural element transfers loads, often expressed as a percentage.

# Jamb Cover:

An additional covering or cladding applied to the exterior of a door or window jamb for enhanced weather resistance and aesthetics.



#### Jamb Deflection:

The lateral movement or deformation of a door or window jamb under applied loads, an important consideration in structural analysis.

# **Jacking Point:**

A specific location where hydraulic jacks are positioned to lift or adjust a facade or glazing element during installation.

### **Junction Connection:**

The interface or connection point between different building systems or components, requiring careful detailing for compatibility.

### Joint Reinforcement System:

A system of materials or components designed to strengthen and stabilize joints in facade or glazing elements.

# **Jacking Force:**

The force applied by hydraulic jacks during the lifting or adjustment of a building element, calculated based on structural requirements.

# **Junction Temperature Control:**

Techniques and systems implemented to control and manage the temperature at specific junction points in electronic or electrical components.

# Joint Movement Capability:

The ability of a joint in a facade or glazing system to accommodate movements caused by factors like temperature changes or building settling.

# **Joint Waterproofing:**

Measures and materials applied to joints in a building envelope to prevent water infiltration and maintain waterproofing integrity.

# **Joint Sealant Compatibility:**

The suitability of a sealant material for a specific joint application, considering factors like substrate compatibility and environmental conditions.

### **Junction Box Integration:**

The incorporation of electrical or electronic junction boxes into facade or glazing systems, requiring careful planning for functionality and aesthetics.

### Jamb Anchoring System:

A system of anchors and fasteners used to secure a door or window jamb to the surrounding structure, ensuring stability.

### **Joggle Connection:**

A specific type of connection where one component interlocks or overlaps with another, often used in structural or architectural design.

# **Joint Movement Testing:**

Testing procedures conducted to assess the ability of joints in facade or glazing systems to withstand and accommodate movement.

### **Joint Gap Measurement:**

The precise measurement of the gap or space between building elements at joints, crucial for proper sealing and aesthetic considerations.

### Jalousie Mechanism:

The mechanical system or hardware that enables the operation and adjustment of slats in a jalousie window.

# Joint Stiffness:

The resistance of a joint in a facade or glazing system to deformation or movement under applied loads.



# **Jamb Extension Profile:**

A specific profile or extrusion used to extend the depth of a door or window jamb, accommodating various installation requirements.

# **Joggle Joint Welding:**

Welding techniques used in the creation of joggle joints, ensuring strong and durable connections in metalwork.

# **Jalousie Window Operator:**

The mechanical device or operator responsible for the controlled movement of slats in a jalousie window.

# Jamb Retrofit System:

A system designed for retrofitting or upgrading existing door or window jambs to enhance performance or aesthetics.

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# 11. TERMS STARTING WITH "K"

#### **Kick Plate:**

A protective plate installed at the bottom of doors to resist damage from kicks or impacts.

#### Kerf:

A narrow groove or cut made in a material, often used for accommodating weatherstripping or other inserts.

### **Kiosk Glazing:**

The glazing or transparent enclosure used in the construction of kiosks, providing visibility and protection.

### **Krypton Gas:**

An inert gas used in insulated glazing units to enhance thermal insulation due to its lower thermal conductivity than air.

# **Keying (Joint Keying):**

The process of embedding a key or insert into a joint to enhance its strength and stability.

### **Keel Clip:**

A clip or fastener used in the installation of curtain wall systems to secure glazing units.

# **Kinetic Façade:**

A dynamic facade system that changes its configuration or appearance in response to external factors such as weather or user input.

### **Kickout Flashing:**

A flashing detail designed to direct water away from a wall and prevent it from penetrating the building envelope.

### **Kinetic Architecture:**

Architectural designs incorporating moving or dynamic elements, such as kinetic facades, for functional or aesthetic purposes.

#### Knee Wall:

A short wall, typically found in attics or crawl spaces, rising from the floor to support roof rafters.

### **Keystone:**

A central, wedge-shaped stone at the top of an arch, often used decoratively in architectural detailing.

### **Keyed Mullion:**

A mullion (vertical member) in a curtain wall system with keying or inserts for added structural integrity.

# **Kiosk Facade System:**

A specialized facade system designed for kiosk structures, balancing aesthetics and functionality.

# **Kaleidoscopic Glazing Effect:**

The visual effect created by glazing or glass treatments that produce changing and varied patterns, similar to a kaleidoscope.

### **Knee Wall Flashing:**

Flashing installed at the base of a knee wall to prevent water infiltration and protect the underlying structure.

# **Kiosk Roof Glazing:**

The transparent or translucent roofing elements used in the construction of kiosks, allowing natural light penetration.

### **Kinetic Load:**

The dynamic forces acting on a structure, often considered in the design of kinetic facades or movable elements.



### **Kiln-Fired Glass:**

Glass that has undergone controlled heating in a kiln to achieve specific properties or aesthetic effects.

# **Kinematic Analysis:**

The study of motion in facade systems, involving the analysis of movements and interactions between components.

# **Knuckle Hinge:**

A hinge with a knuckle design that allows for smooth rotation and reduced friction, commonly used in doors and windows.

### **Kinked Louver System:**

A louver system with intentionally bent or angled louvers for optimized performance or visual effects.

### **Key Operated Lock:**

A lock that is operated using a key, commonly used in securing doors and windows in commercial and residential buildings.

### **Kite Ventilation:**

A ventilation system designed in a kite-shaped configuration, promoting airflow and natural ventilation in buildings.

# **Kerb Stone:**

A stone edging or border used at the curb or pavement edge, often integrated into the overall facade design.

### **Krypton-Filled IGU:**

An insulated glazing unit (IGU) filled with krypton gas, known for its enhanced thermal insulation properties.

### **Kerf-Mounted Gasket:**

A gasket designed to fit into grooves or kerfs in a frame, providing a secure seal against environmental elements.

### **Knee Brace Support:**

A structural support, typically diagonal, used to reinforce and stabilize vertical elements in facade systems.

# **Kick Lock System:**

A locking system that engages when a door or window is kicked, providing an additional layer of security.

### **Kinetic Facade System:**

An advanced facade system incorporating moving parts or components that respond to environmental or user-driven stimuli.

### **Kinematic Chain:**

A series of interconnected components in a facade system that allow for controlled and coordinated movements.

### **Kerf Seal Technology:**

Sealing technology utilizing grooves or kerfs to accommodate specialized seals for improved performance.

# **Knee Wall Flashing:**

Flashing installed at the base of a knee wall to prevent water infiltration and protect the underlying structure.

### **Kiosk Roof Glazing System:**

The integrated glazing system designed for roofing elements in kiosk structures, balancing functionality and aesthetics.

#### **Kick Plate Attachment:**

The method or hardware used to attach a kick plate securely to the bottom of a door, providing added durability.

### **Knock-Out Panel:**

A removable panel in a facade system that can be disassembled or knocked out for maintenance or access.



# TERMS STARTING WITH "L"

#### **Laminated Glass:**

A type of safety glass consisting of layers of glass bonded together with an interlayer, typically made of polyvinyl butyral (PVB), to enhance strength and safety.

#### Louvers:

Angled slats or blades installed in a facade to control the entry of light, air, or visibility while preventing rain and direct sunlight.

#### Lintel:

A horizontal structural element above an opening, such as a door or window, supporting the load from the structure above.

#### Louvered Facade:

A facade system incorporating louvers as a prominent design element, providing aesthetic appeal and functional benefits.

# Lift-and-Slide Door:

A sliding door system that includes a lifting mechanism to raise the door panel slightly before sliding, ensuring a smooth and secure operation.

# Laminated Veneer Lumber (LVL):

Engineered wood product composed of multiple layers of thin wood veneers glued together to create a strong and stable structural element.

### Lap Splice:

Overlapping two pieces of material, such as reinforcing bars or curtain wall mullions, to create a continuous and strong connection.

# **Light Shelf:**

A horizontal element often installed above eye level inside a building to reflect natural light deeper into the space, reducing the need for artificial lighting.

### **Linear Expansion:**

The increase in length of a material, such as metal or glass, due to temperature changes.

#### Lift Pit:

The recessed area at the base of an elevator shaft designed to accommodate the elevator car when it is at the lowest position.

# Laminar Flow Façade:

A facade design that promotes smooth and uninterrupted airflow, reducing wind resistance and turbulence.

#### **Lead Came:**

A lead strip used in the construction of stained glass windows, securing individual glass pieces together.

### Lift Joint:

A type of joint that allows for vertical movement, accommodating expansion or contraction in facade elements.

### **Louvered Window:**

A window incorporating adjustable louvers for ventilation and light control.

### **Light Transmittance:**

The percentage of incident light that passes through a material, often used to characterize the optical properties of glazing.



# **Load-Bearing Wall:**

A structural wall that supports vertical loads from the building above and transfers them to the foundation.

# **Lighting Control System:**

A system that regulates the intensity, color, and distribution of light within a building, often used for energy efficiency and user comfort.

### Luminance:

The brightness of a surface as perceived by the human eye, measured in candelas per square meter (cd/m²).

### **Louvered Roof:**

A roofing system incorporating adjustable louvers to control sunlight and ventilation.

#### Low-Iron Glass:

A type of glass with reduced iron content, providing high clarity and minimizing the green tint typically associated with standard glass.

# **Leaf Spring:**

A flexible, slender member often used to connect or support facade elements, providing structural resilience.

### **Lift Tower:**

A vertical structure containing the elevator system within a building.

### Landscape Façade Design:

The integration of landscaping elements into the design of a building's facade, blurring the boundary between architecture and nature.

### **Ladder Truss:**

A truss system resembling a ladder, often used for supporting curtain wall systems or glass canopies.

### **Lateral Bracing:**

A system of braces designed to resist lateral forces acting on a building, providing stability.

# **Laminar Airflow System:**

An HVAC (heating, ventilation, and air conditioning) system that ensures smooth and uninterrupted airflow within a space.

### **Laser Cut Facade Panel:**

Decorative or functional facade panels created by precision cutting using laser technology.

#### Louvered Facade:

A facade system incorporating louvers as a prominent design element, providing aesthetic appeal and functional benefits.

#### Lintel:

A horizontal structural element above an opening, such as a door or window, supporting the load from the structure above.

Low-emissivity glass designed to minimize the transfer of heat while allowing high levels of light to pass through.

# **Linear Expansion:**

The increase in length of a material, such as metal or glass, due to temperature changes.

# **Light Shelf:**

A horizontal element often installed above eye level inside a building to reflect natural light deeper into the space, reducing the need for artificial lighting.

### Laminar Flow Façade:

A facade design that promotes smooth and uninterrupted airflow, reducing wind resistance and turbulence.



#### **Lift-Slab Construction:**

A construction method where concrete slabs are cast on the ground and then lifted into position using hydraulic jacks.

### **Louvered Roof:**

A roofing system incorporating adjustable louvers to control sunlight and ventilation.

### **Low-Iron Glass:**

A type of glass with reduced iron content, providing high clarity and minimizing the green tint typically associated with standard glass.

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A window incorporating adjustable louvers for ventilation and light control.

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A vertical structure containing the elevator system within a building.

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### Laser Cut Façade Panel:

Decorative or functional facade panels created by precision cutting using laser technology.

### Lap Splice:

Overlapping two pieces of material, such as reinforcing bars or curtain wall mullions, to create a continuous and strong connection.

#### **Lift Joint:**

A type of joint that allows for vertical movement, accommodating expansion or contraction in facade elements.

### **Leaf Spring:**

A flexible, slender member often used to connect or support facade elements, providing structural resilience.

### **Laminar Flow Ventilation:**

Ventilation system designed to provide a smooth and controlled airflow pattern within a space, minimizing turbulence.

# Louvered Sunscreen:

A shading device consisting of adjustable louvers designed to control sunlight and heat gain in a building.

# Lift-Slide System:

A sliding door or window system that incorporates a mechanism to raise the panel slightly before sliding, ensuring a tight seal when closed.



### **Lumen Maintenance:**

The ability of a lighting system to maintain a certain percentage of its initial light output over time.

# **Lighting Control Panel:**

A control system that manages the operation and intensity of lighting fixtures in a building, often for energy efficiency and user comfort.

### **Low-Conductance Spacer:**

A spacer used in insulated glazing units (IGUs) with low thermal conductivity to minimize heat transfer between glass panes.

### **Load Transfer:**

The process of transmitting loads from one structural element to another, ensuring proper distribution of forces.

# **Lighting Power Density:**

The amount of electrical power consumed by lighting fixtures per unit of floor area, used for energy efficiency assessments.

# **Leak Testing:**

The process of evaluating the performance of a building envelope by detecting and measuring air or water leakage.

### **Load-Bearing Capacity:**

The maximum load a structural element or system can support without failure or deformation.

#### Lift Shaft:

A vertical passage or compartment that houses an elevator or lift system within a building.

### Lift-Up Façade System:

A facade system that allows sections or panels to be lifted or moved vertically, providing access or altering the building's appearance.

# Life Cycle Assessment (LCA):

An analysis that evaluates the environmental impact of a product or system throughout its entire life, from raw material extraction to disposal.

#### **Load Distribution:**

The allocation of loads or forces within a structure to ensure uniform stress distribution and prevent localized failures.

#### **Louvered Curtain Wall:**

A curtain wall system that incorporates louvers for sun control, ventilation, and aesthetics.

### Lift Pit Detail:

The specific design and construction details of the pit at the base of an elevator shaft, addressing structural and safety considerations.

# Load Path:

The route or sequence through which loads are transferred from point of origin to the foundation of a structure.

### **Lighting Controls Integration:**

The incorporation of lighting control systems with other building management systems for seamless operation and energy efficiency.

# **Lighting Retrofit:**

The process of upgrading or modifying existing lighting systems to improve energy efficiency, performance, or aesthetics.

# Lifting Lug:

A device or attachment used for lifting and positioning heavy components during construction or installation.

### **Louvered Ventilation Panel:**

A panel with integrated louvers designed to facilitate airflow while providing protection from the elements.



# **Laminar Jet Fountain:**

A fountain design that produces a laminar flow of water, creating a clear and smooth stream without turbulence.

# **Layered Glazing System:**

Glazing system comprising multiple layers of glass with different properties for enhanced performance in terms of insulation, safety, or sound control.

# Lifting Mechanism:

The mechanical system responsible for raising or lowering elements such as windows, panels, or shades in a building.



# 13. TERMS STARTING WITH "M"

#### Mullion:

A vertical or horizontal member that provides support to the framing system of a window or curtain wall, separating individual openings.

#### Muntin:

A secondary framing member that divides the glass in a window or door into smaller sections, often creating a grid pattern.

#### Monolithic Glass:

A single, solid pane of glass without any layers or laminations.

# **Mullion Cap:**

The decorative or protective covering on the exterior face of a mullion in a curtain wall system.

# **Metal Panel System:**

A facade system utilizing metal panels, which can be aluminum, steel, or other metals, for cladding and decorative purposes.

# **Mullion Splice:**

The connection or joint where two mullions are joined together in a curtain wall system.

# **Mechanical Fixing:**

The method of attaching glazing or facade elements using mechanical fasteners such as screws, bolts, or anchors.

### **Modular Construction:**

A construction method where building components or modules are prefabricated offsite and assembled on-site.

#### **Movement Joint:**

A designed gap or joint in a facade system to accommodate thermal expansion, contraction, and other movements.

# **Metal Composite Panel (MCP):**

A panel consisting of metal facings bonded to a core material, often used in facade cladding for its durability and aesthetics.

### **Microprismatic Reflector:**

A type of optical reflector used in lighting systems to control the distribution of light and reduce glare.

#### **Metal Faced Panel:**

A panel with a metal outer layer, commonly used in facade systems for its durability and sleek appearance.

# **Movable Louver System:**

A shading system with louvers that can be adjusted or moved to control sunlight and heat gain.

### Mastic:

A flexible, adhesive material used for sealing joints and gaps in facade systems to prevent water and air infiltration.

### **Mullion Cover:**

An exterior covering or cladding for a mullion, enhancing its appearance and providing protection.

# **Membrane Roof:**

A roofing system using flexible membrane materials, such as PVC or TPO, for waterproofing and weather resistance.



### **Metal Framing System:**

A structural system using metal components, often aluminum or steel, for the framing of windows, doors, and curtain walls.

### **Mullion Connector:**

The hardware or device used to connect and join mullions in a curtain wall system.

# Microclimatic Façade:

A facade system designed to create and control microclimatic conditions around a building, optimizing energy efficiency and comfort.

### **Motorized Louver:**

A louver system equipped with a motor for automated adjustment, allowing for dynamic control of light and ventilation.

#### **Metal Window Frame:**

A window frame constructed from metal materials, known for its strength, durability, and modern aesthetic.

### **Mullion Reinforcement:**

Additional structural support added to a mullion to enhance its load-bearing capacity.

### **Magnetic Glazing System:**

A glazing system utilizing magnetic attachments for easy installation and removal of glass panels.

### **Mullion Cover Plate:**

A decorative or protective plate covering the surface of a mullion in a curtain wall system.

# **Metal Cladding:**

The application of metal panels or sheets to the exterior of a building for both aesthetic and protective purposes.

#### **Moisture Barrier:**

A layer in the building envelope designed to prevent the infiltration of moisture into the interior.

### **Mortise Lock:**

A type of lock that is installed into a recess or "mortise" in the edge of a door or window.

#### Metal-to-Glass Sealant:

A sealant used to bond and seal the interface between metal frames and glass panels.

# Microventilation System:

A system designed to provide controlled and minimal ventilation to prevent condensation and maintain air quality.

### **Maintenance Access Point:**

A designated point in a facade system that allows for safe and convenient access for maintenance purposes.

# **Modular Spandrel Panel:**

A prefabricated panel used in the vertical space between windows (spandrel) in a curtain wall system, typically for aesthetic and thermal performance.

# **Mullion Transom Assembly:**

The combination of vertical mullions and horizontal transoms that form the framework of a curtain wall or window system.

# **Magnetic Spacer Bar:**

A spacer bar in an insulated glass unit (IGU) designed with magnetic properties for ease of assembly and improved thermal performance.

### **Mullion Cover Plate:**

A decorative or protective plate covering the surface of a mullion in a curtain wall system.



### **Magnetic Locking System:**

A locking system that utilizes magnetic forces for secure closure and ease of access in doors and windows.

# **Material Transparency:**

The degree to which a material allows light to pass through, impacting the transparency of a facade.

#### **Mullion Base Anchor:**

The anchor or connection point of a mullion to the building structure, providing stability and load transfer.

#### Movable Transom:

A horizontal member in a curtain wall or window system that can be adjusted or moved for ventilation or aesthetic purposes.

# **Mullion Splice Plate:**

A plate used to connect or splice two mullion sections together in a curtain wall system.

### Metal Composite Material (MCM):

A type of cladding material consisting of metal sheets bonded to a core material, often used for its lightweight and durable properties.

# **Mullion Cover Cap:**

A cap or covering for the exterior surface of a mullion in a curtain wall system, enhancing weather resistance and appearance.

# **Metal Pressing:**

The process of shaping or forming metal sheets into desired profiles for use in facade elements.

### **Mullion Cap Seal:**

A weather-resistant seal applied to the cap or covering of a mullion in a curtain wall system to prevent water infiltration.

### **Metal Composite Panel System:**

A system incorporating metal composite panels for cladding and decorative purposes in facades.

# **Magnetic Catch:**

A device using magnetic forces to secure doors or windows in the closed position.

# **Mullion Design Load:**

The maximum load that a mullion is designed to support without failure, including wind loads and other environmental forces.

# **Motorized Operable Louver:**

A louver system equipped with a motor for automated and adjustable operation, providing control over ventilation and sunlight.

#### **Metal Corrosion Resistance:**

The ability of a metal component to resist corrosion and degradation due to exposure to environmental elements.

### **Mullion Reinforcement Clip:**

A clip or bracket used to reinforce a mullion, providing additional strength and support.

### **Motorized Sunshade System:**

A system using motorized components for adjusting sunshades or shading devices in response to changing sunlight conditions.

# **Mullion Drainage Path:**

A designed path or system within a mullion to facilitate the drainage of water away from the building envelope.

### **Mullion Joint Detail:**

The specific design and construction details of joints between mullions in a curtain wall system.



# **Mechanical Damping System:**

A system utilizing mechanical components to dampen vibrations and movements in facade elements.

# **Muntin Cap:**

A cap or covering on the exterior surface of a muntin, enhancing its appearance and providing protection.

# **Metal Panel Joint:**

The connection or junction between two metal panels in a cladding system.



# 14. TERMS STARTING WITH "N"

#### **Natural Ventilation:**

A passive ventilation strategy that utilizes natural airflow, typically through windows or vents, to regulate indoor air quality and temperature.

### **Nail Fin:**

A thin, flat piece of metal located around the perimeter of a window or door frame, used for securing the unit to the building structure during installation.

# **Nailing Flange:**

An extension or flange on the outer frame of a window or door that provides a surface for nailing or screwing the unit to the building structure.

# Nano-Coating:

A thin coating or film applied to the surface of glass for various purposes, such as enhancing durability, repelling water, or reducing glare.

# **Natural Stone Cladding:**

The application of natural stone panels or tiles to the exterior of a building for decorative and protective purposes.

# **Neoprene Gasket:**

A type of synthetic rubber gasket used in glazing systems to provide a flexible and weather-resistant seal between glass and framing components.

# **NFRC (National Fenestration Rating Council):**

An organization in the United States that develops and administers energy performance ratings for windows, doors, and skylights.

# **Night Ventilation:**

A ventilation strategy that involves opening windows or vents during the nighttime to cool indoor spaces and improve air circulation.

#### **Nitrile Seal:**

A type of gasket or seal made from nitrile rubber, known for its resistance to oil, fuel, and other chemicals, often used in window and door applications.

#### Non-Reflective Glass:

Glass with a low level of reflectance, designed to minimize glare and provide clear visibility without significant light reflection.

# NFPA (National Fire Protection Association):

An organization that develops and publishes standards related to fire safety, including those applicable to building facades and materials.

# **Non-Combustible Cladding:**

Cladding materials that do not contribute to the spread of fire and are resistant to combustion.

### **Nylon Spacer:**

A spacer made of nylon material used in insulated glazing units (IGUs) to separate and maintain the distance between glass panes.

# **Noise Reduction Coefficient (NRC):**

A measure of a material's ability to absorb and reduce sound, often applied to interior elements like curtains or acoustic panels.



# **Narrow Sightline:**

A design feature that minimizes the visible width of framing members in windows, doors, or curtain walls, providing a sleek and modern aesthetic.

### **Nailing Fin Flashing:**

A protective flashing installed around the nailing fin of windows or doors to prevent water infiltration and promote drainage.

#### **Natural Stone Veneer:**

A thin layer of natural stone applied to a building's exterior as a decorative facing, providing the appearance of solid stone construction.

# Nanotechnology in Glass:

The application of nanoscale materials or structures to enhance the properties of glass, such as self-cleaning capabilities or improved thermal performance.

### **Negative Pressure:**

A condition where air pressure within a building is lower than the pressure outside, potentially leading to air infiltration and other issues if not properly controlled.

### **Nesting Sill:**

A design feature in windows or doors where the outer portion of the sill is raised, providing improved resistance against water infiltration.

### **Non-Operable Window:**

A fixed or stationary window that cannot be opened, typically used for aesthetic purposes or in locations where ventilation is not a primary concern.

### Nanogel-Filled Insulated Glass Unit:

A type of insulated glass unit (IGU) where the space between glass panes is filled with nanogel, a highly insulating material that improves thermal performance.

### **Natural Ventilation Stack Effect:**

The movement of air within a building driven by the buoyancy of warm air rising and creating a natural flow, promoting ventilation.

# **Negative U-Value:**

A measure of heat gain rather than heat loss, indicating the ability of a material or assembly to absorb and store heat from the surroundings.

### **Natural Frequency:**

The inherent frequency at which an object or system oscillates when disturbed, an important consideration in designing structures to avoid resonance.

# Non-Destructive Testing (NDT):

Testing techniques that assess the properties or condition of materials or structures without causing damage, commonly used for quality control in facade components.

### Nano-Composite Coating:

A coating applied at the nanoscale level to enhance the surface properties of materials, providing functionalities such as self-cleaning or anti-reflective features.

### Non-Contact Thermometer:

device used to measure surface temperatures without physical contact, often employed thermal in assessing the performance of facades.



# **Natural Light Modeling:**

The simulation or analysis of how natural light interacts with a building's facade, considering factors like sun angles and shading devices.

# **Narrowband Glazing:**

Glazing designed to transmit or block specific wavelengths of light, contributing to energy efficiency and visual comfort.

# **Neutron Radiography:**

A non-destructive testing method using neutrons to produce images of the internal structure of materials, valuable for inspecting hidden features.

#### **Net Positive Pressure:**

A condition where the air pressure inside a building is higher than the pressure outside, reducing the risk of air infiltration and enhancing energy efficiency.

# Noise Isolation Class (NIC):

A rating system measuring the sound insulation performance of building elements, including windows and facades.

# **Non-Thermal Break:**

A design without thermal separation, often referring to window or facade systems lacking a break in the metal construction to prevent thermal bridging.

# **Natural Stone Anchorage:**

Systems and methods used to securely attach natural stone cladding to a building's structural framework.

### **Natural Ventilation Stack Effect:**

The movement of air within a building driven by the buoyancy of warm air rising and creating a natural flow, promoting ventilation.

### **Negative Pressure Test:**

A test assessing the ability of a building's envelope to resist air infiltration under negative pressure conditions, often performed to evaluate energy efficiency.

### Non-Planar Facade:

A facade design that deviates from a flat or planar surface, incorporating curves, angles, or other non-linear elements for architectural interest.

### **Nanomaterial Reinforcement:**

The use of nanomaterials, such as nanoparticles, in reinforcing materials like concrete or composites for improved strength and durability.

# Nanofluidic Glazing:

Glazing incorporating nanoscale fluidic channels to enhance thermal performance by controlling the flow of liquids to regulate temperature.

### **Nanoindentation Testing:**

A technique for assessing the mechanical properties of materials at the nanoscale by measuring the depth of indentation caused by a sharp indenter.

### Non-Planar Façade Geometry:

The geometric design of a facade that deviates from a flat or planar surface, often involving complex shapes and configurations.

### Nanocoating Adhesion:

The ability of a nanocoating to adhere to the substrate, influencing its durability and performance over time.

# **Nanostructured Glazing:**

Glazing incorporating nanoscale structures to achieve specific optical, thermal, or selfcleaning properties.



# **Numerical Simulation of Facades:**

The use of computational models and simulations to analyze and predict the performance of facades under various conditions.

# **Neutral Pressure Level:**

The height within a building where the internal and external air pressures are equal, impacting natural ventilation and pressure differentials.

### **Nanoindentation Hardness:**

A measure of the hardness of a material at the nanoscale, often assessed through the depth of indentation caused by a nanoscale indenter.

# Non-Uniform Solar Heat Gain Coefficient (SHGC):

The variation of solar heat gain coefficient across a glazed area, considering different orientations and shading conditions.

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# 15. TERMS STARTING WITH "O"

### **Operable Louver:**

A type of louver in a facade system that can be adjusted or moved to co

ntrol the flow of air, light, or privacy.

### **Outrigger System:**

A structural system in which horizontal or diagonal members extend outward from the main vertical structure, often used in curtain wall design.

# **Overhead Glazing:**

Glazing installed in the overhead or horizontal plane, such as skylights or canopies.

# **Oblique Lighting:**

Lighting that comes from an angle rather than directly overhead, impacting the appearance and visibility of facade features.

# Offset Pivot Hinge:

A hinge design that allows a door or window to pivot around a point located away from the centerline, providing unique opening configurations.

### **Oversized Glass:**

Large glass panels used in facades, often exceeding standard dimensions for dramatic visual impact.

# Overcladding:

The addition of a new layer or facade material over the existing building envelope for functional or aesthetic purposes.

#### Overhang:

A horizontal projection, typically from a roof or window, that provides shade, weather protection, or architectural interest.

# **Oversill Flashing:**

Flashing installed above a window or door sill to divert water away from the building envelope.

### **Obstruction Angle:**

The angle at which an obstruction, such as a neighboring building, affects the penetration of sunlight into a space.

# **Operable Window:**

A window that can be opened or closed to allow for ventilation and airflow.

# Ocular Façade:

A facade design that emphasizes visual appeal and aesthetic elements, often incorporating artistic or decorative features.

### **Opaque Glazing:**

Glazing that does not allow light to pass through, providing privacy and blocking direct visibility.

### **Oversized Louver:**

A louver with larger dimensions than standard louvers, often used for architectural emphasis or specific design requirements.

# **Open-Joint Cladding System:**

A cladding system where panels or elements have intentional gaps or joints between them, allowing for ventilation and drainage.

# **Outboard Glazing:**

Glazing installed on the exterior side of the building envelope.



## **Overlapping Mullion:**

A mullion design where one section extends over another, providing additional weather protection and a streamlined appearance.

# **Operable Skylight:**

A skylight that can be opened or vented to allow for natural ventilation and air circulation.

#### **Overhead Transom:**

A horizontal member above a door or window, often used for structural support or aesthetic purposes.

## **Organic Facade:**

A facade design inspired by natural forms and patterns, often characterized by irregular shapes and flowing lines.

## **Outdoor Privacy Screen:**

A screen or partition used in outdoor spaces to provide privacy while allowing airflow and light transmission.

## **On-Site Glazing:**

The installation of glazing materials at the construction site rather than prefabricating them off-site.

#### **Ozone Resistance:**

The ability of materials to resist damage or degradation caused by exposure to ozone in the atmosphere.

# **Operable Glass Wall:**

A large glass wall system that can be opened or folded to create an expansive opening between indoor and outdoor spaces.

#### **Open Rainscreen System:**

A rainscreen system where the cladding material is not tightly attached to the underlying structure, allowing for airflow and drainage.

## Off-Gassing:

The release of volatile organic compounds (VOCs) or other gases from building materials, which can impact indoor air quality.

## Operable Louvered Façade:

A facade system consisting of louvers that can be adjusted or moved to control light, ventilation, and privacy.

#### Overhead Door:

A large, vertically moving door often used in industrial or commercial applications.

## Overtightening:

Applying excessive force or torque when installing fasteners, which can lead to structural or material damage.

#### **Outdoor Enclosure:**

A structure or enclosure designed for outdoor use, often providing protection for equipment or outdoor living spaces.

# Operable Louvered Roof:

A roofing system with adjustable louvers that can be opened or closed to control sunlight, ventilation, and temperature.

#### **Outdoor Performance Testing:**

Testing conducted on facade components and glazing systems in outdoor conditions to assess their long-term performance and durability.

## Offset Glazing:

A design where the glass is positioned away from the primary structural support, often creating a sense of depth or visual interest.

#### Operable Facade System:

A facade system with components that can be moved or adjusted, providing flexibility in terms of ventilation, light control, and aesthetic variation.



# **Overhead Glazing Frame:**

The structural frame or system supporting overhead glazing, such as skylights or glass canopies.

## **Optical Clarity:**

The degree to which glass or glazing materials allow light to pass through without distortion, haze, or visual impediments.

#### **Ocular Comfort:**

The subjective assessment of visual comfort, taking into account factors such as glare, light distribution, and visual aesthetics.

## **Openable Facade Element:**

A component within a facade system that can be opened, such as a window or operable panel, allowing for natural ventilation.

## **Overhead Door Operator:**

A motorized system that controls the opening and closing of overhead doors, often used in commercial or industrial applications.

# **Operable Glass Skylight:**

A skylight that can be opened or vented to allow for natural ventilation, combining daylighting with controlled airflow.

## **Operable Solar Shading:**

Solar shading devices that can be adjusted or moved to control sunlight penetration and heat gain in a building.

#### **Osmotic Glazing Sealant:**

A glazing sealant designed to resist the penetration of water through osmotic pressure, contributing to weatherproofing.

# **Open-Joint Ventilated Facade:**

A ventilated facade system with intentional gaps or joints between cladding elements, allowing for air circulation and moisture drainage.

## Operational Reliability:

The ability of facade components and systems consistently perform their intended functions over time under various environmental conditions.

#### Outdoor Comfort Index:

An index or metric used to assess the comfort level of outdoor spaces, considering factors like temperature, humidity, and wind conditions.

## **Optical Quality Glass:**

Glass with high optical clarity and minimal distortions, often used in applications where visual precision is crucial.

## **Optimal Sun Shading:**

The strategic placement and design of shading devices to minimize solar heat gain while maximizing natural light, contributing to energy efficiency.

## **Open Grid Ceiling:**

A suspended ceiling system with an open grid design, allowing for airflow and providing a visually open appearance.

## Overhead Glazing Support:

Structural elements or systems that provide support for overhead glazing installations, ensuring stability and safety.

## Operable Shading Device:

A shading device that can be adjusted or moved to control sunlight and glare, enhancing occupant comfort and energy efficiency.

## **Operable Glass Partition:**

A partition or divider made of glass panels that can be opened or closed, offering flexibility in space configuration.



# **Openable Skylight System:**

A skylight system with components that can be opened or vented, allowing for natural ventilation and air exchange.

# **Overlap Design:**

A design strategy where elements of a facade or glazing system overlap, providing enhanced weather resistance and thermal performance.

## **Optical Haze:**

A phenomenon where light passing through glass or glazing materials is scattered, leading to reduced transparency and clarity.

# **Oversized Glass Panel System:**

A system incorporating exceptionally large glass panels, often used for creating expansive views and a seamless connection between indoor and outdoor spaces.



# 16. TERMS STARTING WITH "P"

#### **Perimeter Sealant:**

A sealant applied around the perimeter of glazing units to prevent water infiltration and ensure a watertight seal.

#### **Pressure Plate:**

A metal component used to secure and apply pressure to the edges of glazing infill, helping to hold the glass in place within a framing system.

# **Punched Opening:**

An opening in a building facade created by removing a portion of the building material, such as a window or door opening.

## **Pilkington Glass:**

A brand of glass known for innovations in float glass production and various glazing products.

## Pelmet:

A decorative or functional horizontal projection, often used to conceal curtain rods or lighting fixtures above windows.

#### **PVC-U (Polyvinyl Chloride Unplasticized):**

A rigid form of PVC used in window frames, doors, and other building components due to its durability and low maintenance requirements.

## **Point-Fixed Glazing:**

A structural glazing system where glass panels are supported and fixed at discrete points using bolts or other fasteners.

## **Photovoltaic Glass:**

Glass that incorporates photovoltaic cells to generate electricity from sunlight, commonly used in building-integrated solar panels.

#### Parapet Wall:

A low wall or barrier at the edge of a roof, balcony, or terrace, providing protection and often serving an aesthetic purpose.

## **Pressure Equalized Rainscreen System:**

A rainscreen system designed to equalize air pressure between the exterior and interior of the building, reducing the risk of water infiltration.

## **Polyamide Thermal Break:**

A component in aluminum window and door frames designed to provide thermal insulation by breaking the conductive path between the interior and exterior metal sections.

#### **Polycarbonate Glazing:**

Glazing material made from polycarbonate, a durable and transparent thermoplastic, often used for its impact resistance and lighttransmitting properties.

#### Plenum:

A space or chamber used for air circulation within a building, often located above suspended ceilings or below raised floors.

## **Prefabricated Facade:**

A facade system or elements that are premanufactured off-site and then assembled on the building, enhancing efficiency and quality control.

## **Polyurethane Sealant:**

A type of sealant made from polyurethane compounds, used for bonding and sealing in various construction applications.



## Panning:

Metal trim or panels installed around the perimeter of a window or door opening to cover and protect the wood framing.

# **Pressure Plate Glazing System:**

A system where pressure plates secure and hold glazing units in place within a framing system, providing a sleek and modern aesthetic.

#### Penthouse:

A structure on the roof of a building, often set back and designed to house mechanical equipment, living space, or additional floors.

#### Point Load:

A concentrated load applied to a specific point on a structure, such as a support for point-fixed glazing.

## **Primary Seal:**

The innermost seal in a double-glazed unit that provides a barrier against moisture and gas infiltration.

#### **Profile Wrapping:**

A process where a thin layer of material, such as wood or vinyl, is wrapped around the exterior surface of a window or door frame for decorative or protective purposes.

#### **Punched and Ribbon Window Facade:**

A facade design incorporating both punched windows (individually framed) and ribbon windows (continuous horizontal strip of glazing).

## **Plastic Glazing Bead:**

A molding or strip, typically made of plastic, used to secure and hold the glass in place within a window or door frame.

#### Perimeter Insulation:

Insulation material installed around the perimeter of a window or door frame to reduce thermal bridging and improve energy efficiency.

#### **Purlin:**

A horizontal structural member in a roof or facade system that supports rafters or other elements.

#### **Pressure Plate Gasket:**

A gasket placed between the pressure plate and the glazing unit to provide a weatherresistant seal and prevent water infiltration.

#### **Panelized Construction:**

A construction method where building components, such as facade panels, are preassembled off-site into larger units for efficient on-site installation.

## **Parallel Opening Window:**

A window configuration where two sashes open parallel to each other within a single frame, providing ventilation while maintaining a sleek appearance.

## **Photovoltaic Facade System:**

A facade system incorporating photovoltaic technology to generate renewable energy from sunlight.

# **Precast Concrete Facade:**

A facade constructed using precast concrete panels, which are manufactured off-site and then transported and assembled on the building.

#### **Profile System:**

The overall design and configuration of the framing profiles used in a facade or window system, impacting structural performance and aesthetics.



#### **Perimeter Anchor:**

A device used to secure the edges of a curtain wall or facade system to the building structure, providing stability and support.

#### **Post-Installed Anchor:**

An anchor or fastener installed into an existing structure, commonly used for retrofitting or upgrading facade elements.

#### **Perforated Facade Panel:**

A panel with small holes or perforations, often used for aesthetic purposes, performance, or to control light ventilation.

## **Photometric Analysis:**

A method of analyzing and quantifying the distribution and intensity of light within a space or on a facade.

# **Pressure Plate System:**

A facade glazing system where pressure plates secure the glazing material to the framing, providing a weathertight seal.

#### **Pultruded FRP (Fiber-Reinforced Polymer):**

A material often used in facade elements, consisting of fibers embedded in a polymer matrix and manufactured through a pultrusion process.

## **Passive Solar Design:**

Design principles that utilize natural elements like sunlight and thermal mass to enhance energy efficiency and reduce reliance on mechanical systems.

# **Primary Structure:**

The main load-bearing elements of a building, which provide support to the entire structure, including the facade.

#### **Polyester Powder Coating:**

A finishing process where a dry powder is electrostatically applied to a metal surface, creating a durable and uniform coating.

#### Panel-to-Panel Joint:

The connection or interface between adjacent panels, influencing the overall appearance and performance of the facade system.

#### **PVC Fabric Membrane:**

A flexible and durable material used in tensioned facade systems or membrane structures, often composed of polyvinyl chloride (PVC).

#### **Porous Media:**

Materials or components with interconnected voids or pores, impacting properties like thermal insulation and moisture permeability.

## **Parasitic Load:**

Additional loads imposed on a structure due to the installation of facade elements, such as curtain walls or sunshades.

## **Prefabricated Unitized Facade:**

A facade system where complete panels or units are manufactured off-site, including glazing and framing, and then assembled on the building.

## **PVC-U Cladding:**

External cladding made of polyvinyl chloride unplasticized, providing weather protection and enhancing the appearance of the facade.

#### **Profile Extrusion:**

The process of shaping aluminum or other materials into specific profiles for use in framing systems or other facade components.



# Polyethylene Terephthalate (PET):

A thermoplastic polymer used in the manufacture of glazing films or coatings, known for its transparency and high tensile strength.

#### **Pile Penetration Test:**

A geotechnical test to assess the load-bearing capacity of the soil beneath a structure, relevant for designing foundations supporting facades.

## **Point Cloud Modeling:**

The creation of a digital representation of a physical structure using a collection of data points in three-dimensional space, often used in facade surveys and analysis.

## **Photocatalytic Coating:**

A coating applied to facade materials that, when exposed to light, triggers a chemical reaction with pollutants, contributing to air purification.

#### **Plywood Backing:**

A layer of plywood used as a substrate behind a facade material or cladding, providing additional support and stability.

#### Pre-Glazed:

Referring to windows or facade elements that are factory-fitted with glazing before being installed on-site.

## **PVC Cladding:**

Cladding made from polyvinyl chloride, known for its durability, low maintenance, and versatility in facade applications.

## Permeable Facade System:

A facade design that allows the controlled passage of air, water, or light through specific materials or components.

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# 17. TERMS STARTING WITH "Q"

#### **Quoins:**

Decorative masonry blocks or elements, often located at the corners of a building facade, providing visual emphasis and architectural detail.

#### **Quiet Glass:**

Glazing designed to minimize sound transmission, providing enhanced acoustic insulation for buildings located in noisy environments.

## **Quad Glazing:**

A glazing system consisting of four layers of glass, typically separated by gas-filled spaces, providing improved insulation and energy efficiency.

## **Quartz Cladding:**

Cladding panels made of quartz, a mineral known for its durability and resistance to weathering, used for both aesthetic and protective purposes.

#### Quenching:

The rapid cooling of glass or other materials, often using air or water, to increase strength and induce desirable properties.

## Quality Assurance (QA):

Processes and measures implemented to ensure that facade and glazing components meet specified standards and performance criteria.

# **Quantum Dots:**

Nanoscale semiconductor particles used in glazing films to manipulate and enhance the optical properties of glass, such as color and light absorption.

## Quasi-Isotropic:

An engineering term describing materials with similar properties in multiple directions, contributing to uniform strength and performance.

#### **Quick-Curing Sealant:**

A sealant with a fast curing time, often used in facade and glazing installations to expedite construction schedules.

## **Quiescent Center:**

In structural design, a stable or stress-free region within a component, minimizing the impact of external forces.

#### **Quad-Lock System:**

A building system for creating insulated concrete forms (ICFs) that incorporate four layers of insulation for improved energy efficiency.

## Quasi-Static Analysis:

A structural analysis method that considers slow or gradually changing loads on a facade or building, often used for assessing long-term performance.

## **Quantity Surveyor:**

A professional who estimates and manages the costs of construction projects, including facade and glazing elements.

## Quarter Round:

A molding or trim with a quarter-circle profile, often used for decorative or protective purposes in window and door installations.



## **Quasi-Residential Facade:**

A facade design that incorporates elements traditionally associated with residential architecture within a non-residential or commercial building.

## **Quality Control (QC):**

Procedures and processes implemented during the manufacturing or installation of facade components to ensure compliance with specified standards.

## **Quasi-Dynamic Testing:**

A testing method that simulates dynamic loads on facade elements, providing insights into their structural behavior under varying conditions.

#### **Quartzite Cladding:**

Cladding panels made from quartzite, a metamorphic rock known for its durability and resistance to weathering.

#### **Quakeproof Glazing:**

Glazing systems designed and tested to withstand seismic forces, ensuring safety and structural integrity during earthquakes.

# **Quadrant System:**

A mathematical or analytical approach used in facade engineering for the assessment of loads, stresses, and deflections.

## **Quasi-Static Load Test:**

A test method that applies loads to a facade or structural element slowly and steadily, simulating conditions where dynamic effects are negligible.

#### **Quick Response Code (QR Code):**

A two-dimensional barcode often used for labeling and tracking facade components during manufacturing, installation, or maintenance.

#### Quasi-Isolation Mounting:

A mounting system that minimizes the transmission of vibrations and dynamic forces from the building structure to facade components.

## Quiescent Voltage:

In electrical systems, the stable or resting voltage level, important for the proper functioning of electronic components within facade elements.

#### **Quantitative Analysis:**

An analytical approach that involves numerical data and measurements, often used in assessing the performance of facade systems.

## **Qualitative Assessment:**

An evaluation method based on nonquantifiable criteria, often used to assess subjective aspects of facade design or performance.

#### Quasi-Linear Elasticity:

A material property exhibiting a nearly linear relationship between stress and strain within a certain range, often relevant in structural analysis.

#### **Quenching Distance:**

The distance over which a heated material is cooled rapidly during the quenching process, impacting the material's final properties.

## Quasi-Static Limit Analysis:

An analytical approach used to determine the load-carrying capacity of a structure or facade element under slowly applied loads.

#### **Quality Function Deployment (QFD):**

A methodology used in the design and development process to ensure that customer requirements are translated into specific product features and characteristics.



## **Quantum Efficiency:**

In glazing and photovoltaic applications, the ratio of photons converted to useful electrical energy, a critical factor in solar cell performance.

#### **Quartersawn Wood:**

Wood that has been sawn along the radial direction of the tree's growth rings, often used in window frames and other facade elements for its stability and durability.

#### **Quasi-Static Monotonic Load Test:**

A testing method that applies a gradually increasing load to a facade or structural component until failure occurs, simulating slow, continuous loading.

# **Quartz-Enhanced Photoacoustic Spectroscopy** (QEPAS):

A spectroscopic technique used for gas sensing facade systems, leveraging photoacoustic effect to detect specific gases.

## **Quality Management System (QMS):**

A set of policies, processes, and procedures implemented to ensure that facade and glazing products meet specified quality standards.

#### **Quadrature Rule:**

A numerical integration technique used in structural analysis and simulation, particularly when solving complex equations related to facade behavior.

## **Quick Connect System:**

A system in facade engineering that allows for the rapid and secure connection of facade components during installation or maintenance.

#### **Quasi-Ductile Failure:**

A failure mode in which a material or structure undergoes significant deformation before ultimate failure, providing warning signs of impending failure.

## **Quasi-Static Loading Condition:**

Loading conditions characterized by slow or gradually applied forces, relevant in facade design to assess long-term structural behavior.

## **Quality Plan:**

A document outlining the procedures and criteria for quality control and assurance during the fabrication, installation, or maintenance of facade elements.

## Quasi-Dynamic Analysis:

An analysis method that considers dynamic effects in a quasi-static manner, often used in assessing the response of facades to slowly varying loads.

## Quantum Cascade Laser (QCL):

A type of laser technology used in gas sensing applications for facade systems, enabling precise detection of specific gases.

# **Quasi-Hermetic Sealing:**

A sealing technique that provides a high level of gas-tightness, often employed fabrication of insulating glass units.

# Quasi-Periodic Pattern:

A repetitive pattern with elements that exhibit some degree of irregularity or non-uniformity, often used in facade design for aesthetic purposes.



# 18. TERMS STARTING WITH "R"

## Rainscreen System:

A building facade system that includes a protective outer layer, creating a gap for ventilation to manage moisture and improve thermal performance.

#### **Reflective Glass:**

Glass with a coating that reflects a portion of incoming solar radiation, reducing heat gain and glare within a building.

#### Reveal:

The indentation or recessed area in a facade, typically around windows or doors, providing shadow lines and architectural detail.

## **Reinforced Concrete Facade:**

A facade constructed using concrete combined with reinforcing materials such as steel, providing strength and durability.

## **Rubber Gasket:**

A flexible gasket made of rubber used in window and door systems to create a weather-resistant seal.

# **Recessed Lighting:**

Light fixtures installed into the facade in a way that the light source is set back, providing a subtle and controlled illumination.

## **Refractive Index:**

A measure of how much light is bent or refracted as it passes through a material, influencing the optical properties of glazing.

#### **Roller Shade:**

A window treatment consisting of a rolling mechanism and fabric that can be adjusted to control sunlight and privacy.

#### **Reversible Window:**

A window that can be opened from both the inside and outside, providing flexibility in ventilation and cleaning.

#### **Ribbon Window:**

A horizontal strip of windows set closely together, creating a continuous band of glazing on a facade.

#### R-Value:

A measure of thermal resistance, indicating how well a material or assembly insulates against heat transfer.

#### Reflectance:

The proportion of light reflected by a surface, influencing the appearance and performance of glazing materials.

## **Revolving Door:**

A door designed with multiple rotating panels that allow continuous entry and exit without a draft of air passing through.

# **Retrofitting:**

The process of upgrading or modifying existing facade or glazing systems to improve performance, energy efficiency, or aesthetics.

#### **Resilient Channel:**

A metal channel used to decouple the framing of interior walls from the building structure, reducing the transmission of sound and vibrations.

#### **Rain Sensor:**

A device that detects precipitation and can trigger the automatic closure of windows or skylights to prevent water infiltration.



## **Resistant Glazing:**

Glazing designed to withstand impact, pressure, or other external forces, often used in safety and security applications.

## Reglazing:

The process of replacing or reinstalling glazing in existing window or facade systems.

## **Raised Access Flooring:**

A flooring system with panels supported above the building structure, providing a void for utilities and improving accessibility for maintenance.

## **Resin Panel:**

A composite panel made of resin and reinforcing materials, used for decorative or structural purposes in facades.

## **Reactive Coating:**

A coating applied to glazing that reacts to external stimuli, such as sunlight or temperature changes, to alter its properties.

#### **Radiant Heat:**

Heat transfer through electromagnetic waves, often used in radiant heating systems incorporated into facade elements.

## **Raised Panel:**

A decorative panel with raised or recessed features, often used in doors or as an architectural element in facades.

#### **Residential Facade:**

A facade design specific to residential buildings, often emphasizing aesthetics and functionality for homes.

## **Retractable Awning:**

An awning that can be extended or retracted, providing flexible shading for windows or outdoor spaces.

#### **Reactive Glazing:**

Glazing that responds to environmental factors, such as sunlight or temperature, to alter its optical or thermal properties.

## **Recladding:**

The process of replacing the external cladding or facade material on a building.

#### Rain Chain:

A decorative alternative to traditional downspouts, allowing rainwater to cascade down a series of linked cups or chains.

#### **Roof Lantern:**

A structure on a roof that incorporates glazing, designed to admit natural light into interior spaces.

#### **Recessed Joint:**

A type of joint in facade systems where one material is set back or recessed from the surface of another, providing a streamlined appearance.

# Refrigerated Facade:

A facade system integrated with cooling technology to regulate internal temperatures and enhance energy efficiency.

## **Racking Resistance:**

The ability of a facade or curtain wall system to resist lateral loads, such as wind or seismic forces, without permanent deformation.

#### **Reactive Sealant:**

A sealant that undergoes a chemical reaction when exposed to certain conditions, enhancing its adhesion and sealing properties.

# **Roof Parapet:**

A low protective wall or barrier at the edge of a roof, often part of the facade design, providing safety and architectural detailing.



## **Reflective Insulation:**

Insulation materials incorporating reflective surfaces to reduce radiant heat transfer, enhancing thermal performance in facades.

#### **Recessed Mullion:**

A vertical or horizontal member in a curtain wall system that is set back or recessed from the external surface, contributing to the facade's visual aesthetics.

## **Remote Monitoring System:**

A system allowing the monitoring and control of facade elements, such as windows or shading devices, from a central location.

## **Rapid Prototyping:**

A manufacturing technique used to quickly create scale models or prototypes of facade components for design and testing purposes.

## **Residential Glazing:**

Glazing systems designed specifically for residential buildings, considering factors such as energy efficiency, aesthetics, and occupant comfort.

## **Rain Screen Cladding:**

A cladding system with an outer protective layer, creating a ventilated cavity to manage moisture and improve the facade's durability.

## **Reinforced Stone Cladding:**

Stone cladding panels reinforced with materials such as fiberglass or carbon fiber, enhancing their strength and flexibility.

## **Rooftop Photovoltaics:**

Photovoltaic systems installed on the roof or facade of a building to capture solar energy and convert it into electricity.

## **Rapid Set Concrete:**

Concrete with an accelerated setting time, often used in facade construction to reduce curing time and expedite installation.

# **Residential Awning Window:**

A type of window hinged at the top, designed for ventilation and often used in residential facades.

#### **Resin-Modified Wood:**

Wood treated with a resin to improve durability and resistance to decay, commonly used in facade elements exposed to the elements.

## Rainfall Intensity:

The rate at which rain falls per unit of time, a critical factor in the design of facade drainage systems.

## **Retrofit Facade System:**

A facade system designed for upgrading or modifying existing buildings to improve performance or meet current standards.

# **Resonance Frequency:**

The natural frequency at which a facade or structural element vibrates most easily, influencing its dynamic response to external forces.

## **Reflective Roof Coating:**

A coating applied to the exterior of a roof to reflect sunlight and reduce heat absorption, contributing to energy efficiency.

# **Radiation Heat Transfer:**

Heat transfer through electromagnetic waves, a phenomenon influencing the thermal performance of facade materials.

# **Resilient Flooring:**

Flooring materials that provide flexibility and bounce-back properties, often used in facade designs for impact resistance.



# **Reversible Fan:**

A fan system integrated into a facade or ventilation system that can change direction to either intake or exhaust air.

## **Radiation Shielding Glass:**

Glass designed to block or reduce the transmission of specific wavelengths of electromagnetic radiation, such as UV or infrared.

# **Rack-and-Pinion System:**

A mechanical system used in facade access equipment, employing gears and a linear rack to move suspended platforms vertically.



# 19. TERMS STARTING WITH "S"

## **Structural Glazing:**

A method where glass is attached to a building's structure using high-strength sealants, eliminating the need for conventional framing systems.

## **Spandrel Panel:**

A non-vision panel used to cover and protect the edges of floor slabs, often designed to match the vision glass in a curtain wall.

## **Solar Heat Gain Coefficient (SHGC):**

A measure of how much solar radiation is admitted through glazing, influencing a window's energy efficiency.

#### Sill:

The horizontal component at the bottom of a window or door frame, providing structural support and drainage for water.

## **Silicone Sealant:**

A flexible sealant commonly used in glazing applications due to its durability and resistance to weathering.

## **Safety Glass:**

Glass manufactured or treated to reduce the risk of injury when it breaks, often achieved through tempering or laminating.

## **Storefront System:**

A non-residential glazing system commonly used for ground-level windows, entrances, and displays in commercial buildings.

#### Sunshade:

An architectural element designed to provide shade from direct sunlight, often used on the exterior of buildings.

#### Sash:

The movable part of a window that holds the glass, typically capable of opening and closing.

## **Slope Glazing:**

A type of glazing where the glass is inclined to the horizontal plane, allowing for efficient rainwater runoff.

# Single Glazing:

The use of a single layer of glass in a window or door, providing minimal insulation compared to double or triple glazing.

# **Self-Cleaning Glass:**

Glass coated with a hydrophilic and photocatalytic layer that breaks down organic dirt and helps water wash away debris.

# **Sustainable Design:**

Design principles focused on creating environmentally responsible and resource-efficient structures, including facades and glazing.

## Structural Silicone Glazing (SSG):

A glazing technique where silicone sealant is used as both the adhesive and weather sealant to attach glass to the structure.

#### **Storefront Glass Door:**

A glass door commonly used in commercial settings, allowing visual access and enhancing the entrance aesthetics.

## **Shading Coefficient:**

A measure of a window's ability to transmit solar heat, considering both direct sunlight and absorbed heat.



## **Shop Drawings:**

Detailed diagrams by contractors or manufacturers, illustrating dimensions, materials, and installation methods for facade or glazing components. They guide precise implementation during fabrication and construction.

## Seismic Design:

Design strategies to ensure structures, including facades, can withstand seismic forces and minimize damage during earthquakes.

## **Sound Transmission Class (STC):**

A rating system indicating the effectiveness of a building element, such as a window, in reducing sound transmission.

# **Stainless Steel Spider Fitting:**

A component in point-supported glass systems, connecting the glass to the structure using stainless steel arms.

## **Shadow Box:**

A design element creating a visual depth effect by placing an outer layer of glass or paneling slightly in front of the primary facade.

## **Sliding Window:**

A window type where one or more panels move horizontally along a track for opening and closing.

## **Solar Control Film:**

A thin, reflective coating applied to glass to reduce solar heat gain and glare while maintaining visibility.

## **Shading Device:**

An architectural element, such as louvers or fins, designed to control sunlight and manage heat gain in a building.

## Spectrally Selective Glazing:

Glazing that allows specific wavelengths of the solar spectrum while reflecting others, optimizing energy performance.

# **Security Glazing:**

Glazing designed to resist forced entry, impact, or ballistic threats, enhancing the safety and security of buildings.

## Solar Reflectance Index (SRI):

A measure of a surface's ability to reflect solar heat, incorporating both reflectance and emissivity.

## Sustainable Façade Design:

Design strategies that prioritize environmental and energy considerations in the development of building facades.

## **Solar Shading System:**

A system of devices, like blinds or shades, used to control sunlight and manage glare in interior spaces.

## **Switchable Glass:**

Glass that can change its appearance, transparency, or light transmission characteristics through the application of voltage or other stimuli.

# Skylight:

A window installed in a roof or ceiling to provide natural light to the interior space.

## **Single-Point Fixing:**

A structural system where glass panels are supported at a single point, often using specialized fittings or bolts.

## **Steel Curtain Wall:**

A curtain wall system where the primary framing elements are made of steel, providing strength and durability.



#### **Structured Silicone Joint:**

A type of silicone joint in curtain wall systems designed to accommodate building movement while maintaining weather resistance.

## **Solar Panel Glazing:**

Glazing integrated with solar cells to generate electricity from sunlight while serving as a building envelope.

## **Soft Coating:**

A low-emissivity coating applied to glass, reducing heat transfer while allowing visible light to pass through.

## **Smoke Vent:**

An opening or device designed to facilitate the escape of smoke in case of a fire, often integrated into facades.

#### Sawtooth Roof:

A roof design with a series of ridges and vertical faces, often incorporating clerestory windows for natural light.

## Sawtooth Facade:

A facade design with alternating vertical projections and recesses, resembling the teeth of a saw.

## **Solar Chimney:**

A passive ventilation system utilizing solar heat to create an updraft, enhancing airflow in buildings.

#### **Sloped Glazing System:**

A system of inclined glass panels used in roofs or facades, providing daylighting and architectural interest.

## **Suspended Glazing:**

A type of glazing system where glass panels are hung or suspended from a support structure, creating a visually floating effect.

## Safety Film:

A protective film applied to glass to reduce the risk of injury and damage by holding shattered glass together upon impact.

#### **Spacer Bar:**

A component in insulated glass units that separates and maintains the distance between the glass panes, often made of aluminum or other materials.

#### Sun Tunnel:

A tubular skylight device designed to capture and direct sunlight into interior spaces, providing natural daylight.

#### Solar Window Film:

A thin film applied to windows to control solar heat gain, reduce glare, and improve energy efficiency.

## **Solar Tracking System:**

A mechanism that adjusts the orientation of solar panels or glazing to follow the sun's path, optimizing energy capture.

#### **Serrated Spacer:**

A spacer with serrated edges to enhance the grip and alignment between glass panes in an insulated glass unit.

## **Static Pressure:**

The pressure exerted by air or wind on a facade or glazing system when it is stationary, influencing design and performance considerations.

## Solar Wall:

A building-integrated system that uses solar energy to heat air or water, contributing to the building's energy efficiency.



#### **Sandblasted Glass:**

Glass treated with sandblasting to create a frosted or textured appearance, often used for decorative purposes.

## **Safety Bead:**

A feature in laminated glass where an interlayer extends beyond the glass edge, providing additional protection and preventing sharp edges when broken.

## **Sto Panel System:**

A prefabricated exterior wall panel system that combines insulation, air and moisture barriers, and finishes in a single assembly.

## Sling Psychrometer:

An instrument used to measure air humidity by comparing the readings of two thermometers – one dry and one wet.

## **Sustainable Facade Materials:**

Environmentally friendly materials used in the construction of facades, promoting sustainability and energy efficiency.

#### **Sustainable Glazing:**

Glazing systems designed with eco-friendly materials and energy-efficient features to minimize environmental impact.

## Sill Pan:

A protective pan or tray installed beneath a window or door sill to prevent water penetration and manage moisture.

#### **Shadow Analysis:**

The study of shadows cast by buildings or structures to assess their impact on neighboring spaces, particularly in terms of sunlight access.

#### **Solar Radiation:**

Energy from the sun in the form of electromagnetic waves, including visible light, infrared, and ultraviolet rays.

## Suspended Façade:

A facade system where the building envelope is suspended from the structure, creating a visually distinct and dynamic design.

## Spray Polyurethane Foam (SPF):

A versatile insulation material applied in liquid form that expands and hardens, providing thermal insulation in wall assemblies.

## Sawtooth Roofing System:

A roofing design with a series of parallel ridges and vertical glass faces, allowing for controlled natural daylighting.

#### Sun Control Louvers:

Adjustable horizontal or vertical elements installed on a facade to control sunlight penetration and manage heat gain.

# **Surface Applied Film:**

A film applied to the exterior surface of glass for various purposes, such as solar control, privacy, or decorative effects.

## **Sustainable Cladding Systems:**

Cladding systems designed with environmentally friendly materials and features to enhance building sustainability.

#### **Solar Reflective Coating:**

A coating applied to the exterior of glass to reflect a portion of solar radiation, reducing heat absorption and improving energy efficiency.

## **Solar Thermal Glazing:**

Glazing systems integrated with technology to capture and utilize solar heat for heating applications.



# Structural Silicone Spacer (SSS):

A type of spacer in insulated glass units made of structural silicone, providing both thermal performance and structural support.

## **Silica Aerogel Insulation:**

A highly porous and lightweight insulation material used in glazing to enhance thermal performance.

## **Segmented Façade:**

A facade design with distinct segments or sections, often creating a visually dynamic and unique building exterior.

## **Sandwich Panel:**

A composite panel consisting of two outer layers bonded to a core material, providing strength and insulation in facades.

## **Smart Glass Technology:**

Glass with integrated technology that allows control over transparency, tinting, or light transmission, often responsive to external conditions.

#### **Sculpted Glass:**

Glass panels shaped or contoured for aesthetic purposes, adding artistic and decorative elements to the facade.

## **Sustainable Fenestration:**

The design and installation of window and door systems with a focus on energy efficiency, environmental impact, and occupant comfort.

#### **Solar Attenuation:**

The reduction of solar radiation transmission through glazing or other building materials.

## Structural Sealant Glazing (SSG):

A glazing technique where the glass is attached to the building structure using a high-strength sealant without the need for additional framing.

#### **Solar Evacuated Tube:**

A component of solar thermal systems consisting of a vacuum-sealed glass tube to capture and transfer solar heat.

## **Solar Window Blinds:**

Window blinds equipped with solar panels to generate electricity or control interior lighting based on solar exposure.

## Structural Glazing Tape:

A tape used in structural glazing applications to provide a secure bond between the glass and the supporting structure.

# **Spontaneous Fission Glass:**

Glass with a self-illuminating effect achieved through the inclusion of phosphorescent materials, creating a subtle glow in low-light conditions.

# **Smart Facade System:**

An intelligent facade system incorporating sensors and automation respond dynamically to environmental conditions and user preferences.



# 20. TERMS STARTING WITH "T"

#### **Thermal Break:**

An insulating material used to separate two conductive materials, reducing heat transfer and improving the thermal performance of a facade or window.

#### Transom:

A horizontal member in a window or door frame that separates and supports the glass panels above it.

## **Triple Glazing:**

The use of three layers of glass in a window with two air or gas-filled spaces, providing enhanced insulation and energy efficiency.

#### **Tinted Glass:**

Glass that has been treated to reduce glare and heat transmission by incorporating color additives.

## **Thermal Insulation:**

Materials or techniques used to reduce the transfer of heat through a facade or window, improving energy efficiency.

## **Tensile Strength:**

The maximum amount of tensile (pulling or stretching) stress a material can withstand without breaking.

## **Tilt and Turn Window:**

A window with dual functionality, allowing it to be opened by tilting inwards for ventilation or swinging inwards for a larger opening.

## **Translucent Glazing:**

Glazing that allows diffused light to pass through while maintaining privacy and obscuring direct visibility.

## **Thermal Expansion:**

The tendency of materials, including those used in facades and windows, to expand or contract with changes in temperature.

## **Tubular Daylighting Device:**

A system that captures natural daylight using reflective tubes and redirects it into interior spaces, reducing the need for artificial lighting.

# **Thermal Mass:**

The ability of a material to absorb, store, and release heat, contributing to temperature regulation in a building.

#### Threshold:

The bottom part of a door frame or window frame, often providing a transition between interior and exterior spaces.

# **Trickle Ventilation:**

A small opening or vent designed to provide continuous, low-level ventilation while maintaining security and weather resistance.

## **Thermal Conductivity:**

The ability of a material to conduct heat, influencing its effectiveness as an insulator in facade and glazing applications.

#### **Timber Frame:**

A structural frame made of wood, commonly used in windows and doors as well as entire building structures.

## **Trombe Wall:**

A passive solar heating strategy that involves a high thermal mass wall behind a glass surface, capturing and storing solar heat.



# **Tempered Glass:**

Glass that has been heat-treated to increase its strength and safety by creating surface compression, causing it to break into small, less hazardous pieces.

## **Thermal Imaging:**

The use of infrared technology to capture and visualize variations in surface temperatures, often used for building envelope inspections.

#### **Transmittance:**

The percentage of light or energy that passes through a material, such as glass, indicating its transparency or ability to transmit heat.

#### Tie Rod Facade:

A facade system incorporating vertical or horizontal tie rods to provide structural support and aesthetic detailing.

## **Toughened Laminated Glass:**

Laminated glass where each layer is toughened for increased strength and safety, often used in safety-critical applications.

#### **Thermal Barrier:**

A component or material that interrupts the flow of heat through a building element, reducing thermal conductivity.

## **Transom Window:**

A horizontal window positioned above a door or other windows to allow additional light and ventilation.

#### **Terracotta Cladding:**

Exterior cladding made from fired clay, offering durability and a natural aesthetic for building facades.

## **Thermal Shock:**

The rapid change in temperature that can lead to stress and potential failure in materials, including those used in facades and windows.

## **Tapered Insulation:**

Insulation material with a gradual thickness variation, often used in roofing and facade systems to improve drainage and reduce thermal bridging.

#### **Thermal Window Film:**

A film applied to windows to enhance thermal insulation, reduce heat transfer, and improve energy efficiency.

#### **Tensile Fabric Facade:**

A facade system utilizing tensioned fabric membranes for visual appeal and as a lightweight, weather-resistant cladding solution.

## **Translucent Polycarbonate:**

A lightweight, durable material used in glazing that allows diffused light transmission while offering impact resistance.

## **Thermal Break Aluminum Framing:**

Aluminum framing with a thermal barrier to minimize heat transfer, improving the overall energy efficiency of windows and curtain walls.

## **Thermal Conductive Spacer:**

A spacer in insulated glass units designed to reduce heat transfer between the glass panes, enhancing thermal performance.

## **Tension Rod Facade System:**

A facade system that uses tension rods for support, creating a sleek and minimalist appearance while ensuring structural integrity.

#### **Trapezoidal Glass Panel:**

A glass panel with a trapezoidal shape, often used in innovative facade designs for aesthetic and functional purposes.



# Thermal Effusivity:

A property describing how quickly a material can exchange thermal energy with its surroundings, influencing its thermal comfort characteristics.

#### Thermal Infiltration:

The unintentional transfer of heat between the interior and exterior of a building, often through gaps, joints, or poorly insulated areas.

#### **Thermal Mass Wall:**

A wall constructed with materials that have high thermal mass, helping to stabilize indoor temperatures by absorbing and releasing heat.

#### **Trickle Ventilator:**

A small ventilation device designed to allow controlled air exchange, preventing condensation and improving indoor air quality.

## **Thermal Bridging:**

The phenomenon where a conductive material creates a pathway for heat to flow through a building envelope, reducing overall energy efficiency.

## **Tensile Cable Facade:**

A facade system that incorporates tensioned cables for support, offering design flexibility and a lightweight appearance.

## **Thermal Reflective Coating:**

A coating applied to a surface, such as glass, to reflect a portion of incoming solar radiation, reducing heat absorption and improving energy efficiency.

## **Thermal Storage Wall:**

A wall designed to absorb and store heat during periods of solar exposure, releasing it gradually to improve energy efficiency.

#### Thermochromic Glass:

Glass that changes color or transparency in response to variations in temperature, often used for dynamic shading and aesthetics.

## **Thermoplastic Spacer:**

A spacer in insulated glass units made of thermoplastic material, providing both thermal insulation and structural support.

#### Thin Film Solar Cells:

Photovoltaic cells that thin use semiconductor layer, often applied as a coating on glass surfaces to generate solar power.

## Tilt-Up Facade:

A facade system where precast concrete panels are tilted into a vertical position and secured to the building structure, offering efficiency in construction.

## **Total Solar Energy Rejected (TSER):**

A measurement indicating the percentage of solar energy that a window or glazing system reflects, absorbs, and rejects.

#### **Tubular Façade System:**

A facade system utilizing tubular components for support or as design elements, often creating a visually distinct exterior.

# **Thermal Imaging Camera:**

A device that captures infrared radiation to create images representing variations in temperature, useful for identifying thermal inefficiencies.

## **Tuned Mass Damper:**

A mechanical device added to a structure to reduce vibrations caused by wind or other dynamic forces, improving stability.



## **Thermally Broken Window:**

A window design where materials with low thermal conductivity separate the interior and exterior parts, minimizing heat transfer.

## **Thermal Insulation Coating:**

A coating applied to surfaces to enhance thermal insulation properties, reducing heat transfer and improving energy efficiency.

## **Tension Cable Wall System:**

A wall system that utilizes tensioned cables for support and stability, contributing to a modern and open architectural aesthetic.

#### **Translucent Facade System:**

A facade system incorporating materials that allow diffused light transmission while providing privacy and aesthetics.

## **Transpired Solar Collector:**

A perforated metal panel on a facade that captures and utilizes solar energy for heating ventilation air in a building.

#### Trackless Bi-Fold Doors:

Bi-fold doors that open and close without the need for a bottom track, offering a seamless transition between indoor and outdoor spaces.

# **Tuned Mass Spring System:**

A system using a mass and spring mechanism to control vibrations in a structure, enhancing its dynamic performance.

## **Thermal Stress Analysis:**

The assessment of stress in materials due to temperature variations, crucial for preventing thermal breakage in glass and facades.

# **Tubular Skylight:**

A cylindrical skylight designed to capture and redirect natural daylight into interior spaces, often using reflective tubes.

## **Temporary Protective Film:**

A film applied to glass or other surfaces during construction to protect against scratches, stains, and damage until project completion.



# TERMS STARTING WITH "U"

## **Unitized Curtain Wall:**

A curtain wall system where the components are pre-assembled into large panels or units off-site and then installed on the building structure, streamlining construction.

## **U-Value (Thermal Transmittance):**

A measure of the rate of heat transfer through a building material or assembly, indicating its thermal conductivity.

#### **UV-Resistant Glass:**

Glass treated to withstand ultraviolet (UV) radiation, reducing the risk of fading or of interior materials degradation furnishings.

#### **Undercut Anchor:**

A type of anchor used to secure facade elements or panels to a building structure, providing stability and support.

#### **U-Factor:**

Similar to U-value, it measures the thermal conductivity of a window, door, or glazing system, indicating its insulation performance.

#### **Upstand:**

A raised edge or curb around a roof opening or skylight to prevent water infiltration and provide drainage.

#### **Underlayment:**

A material installed beneath facade elements or roofing materials to provide additional weather protection and insulation.

#### **Urban Heat Island Effect:**

phenomenon where urban The areas experience higher temperatures than their rural surroundings, often influenced by built structures like facades.

## **Unitized Spandrel Panel:**

A pre-assembled panel used in curtain wall systems, typically located between vision glass panels, serving both structural and aesthetic purposes.

# **UPVC (Unplasticized Polyvinyl Chloride):**

A rigid and durable type of PVC commonly used frames other facade window and components.

#### **Uniform Load:**

The evenly distributed external force applied to a facade or structural element, often measured in pounds per square foot (psf) or kilopascals (kPa).

#### **Undercut Saw:**

A tool used to create precise cuts or grooves in materials, such as aluminum or steel, for installing anchors or connectors in facades.

## **Urethane Sealant:**

A type of sealant used in facade and glazing applications, known for its flexibility, adhesion, and weather resistance.

## Unitized Panelized Facade:

A facade system that combines the benefits of unitized and panelized construction methods, offering efficiency and flexibility in installation.



#### **Ultraviolet Resistance:**

The ability of materials, such as coatings or finishes on facade elements, to withstand damage caused by exposure to ultraviolet light.

## **Ultrasonic Testing:**

A non-destructive testing method using ultrasonic waves to assess the integrity of materials, often applied in quality control for facade components.

## **Upper Sash:**

The top movable part of a window, often found in double-hung or sliding window designs.

## **Urethane Insulating Glass Spacer:**

A spacer in insulated glass units made of urethane, providing both thermal performance and structural support.

## **UV Blocking Film:**

A film applied to glass surfaces to block or reduce ultraviolet (UV) radiation, protecting interior spaces and occupants from harmful effects.

#### **Utility Channel:**

A channel or track integrated into facade systems to accommodate utilities such as electrical wiring or plumbing, maintaining a clean and concealed appearance.

## **Ultraviolet (UV) Stabilizers:**

Additives incorporated into materials like coatings or sealants to enhance resistance against degradation caused by exposure to ultraviolet (UV) light.

## U-Fin (Undercut Fin):

A design feature in glazing systems where fins or elements are undercut, creating shading and contributing to solar control.

#### **Unidirectional Glazing:**

A glazing arrangement allowing light transmission from one side only, often used for privacy or controlled daylighting.

## **Unified Glazing System:**

An integrated system that combines various glazing elements, such as windows, curtain walls, and skylights, into a cohesive and harmonious design.

#### **Upblast Ventilator:**

A ventilator designed to discharge air vertically from a building, often used in facade systems to improve indoor air quality.

## **UV-Cured Coating:**

A coating applied to facade surfaces that cures quickly under ultraviolet (UV) light, providing durability and resistance to environmental factors.

#### **U-Profile Gasket:**

A gasket with a U-shaped cross-section used in glazing systems to provide a secure seal and prevent air and water infiltration.

## Ultraviolet (UV) Index:

A measurement indicating the strength of ultraviolet (UV) radiation from the sun, helping assess the risk of sunburn and other UV-related issues.

## **Underfloor Air Distribution (UFAD):**

A ventilation system where conditioned air is supplied through the floor, contributing to improved indoor air quality and energy efficiency.

#### **U-Channel Glass System:**

A glazing system utilizing U-shaped channels to secure glass panels, often employed in modern and minimalist architectural designs.



# **Underpinning:**

The process of strengthening or stabilizing the foundation of a building, which may be necessary when altering or adding to the structure, impacting facade integrity.

## **Uniform Static Air Pressure Difference:**

The specified difference in air pressure across a facade or window system under standardized testing conditions, assessing its resistance to wind and environmental forces.

## **Unglazed Spandrel:**

A spandrel panel in a curtain wall system that is left without glazing, often used architectural expression or as a design feature.

## **U-Value Improvement Factor (UIF):**

A factor indicating the improvement in thermal performance achieved by upgrading a building element, such as windows or insulation.

## **Ultra Clear Glass:**

Glass with low iron content, resulting in high light transmission and reduced greenish tint, enhancing clarity and aesthetics.

#### **Undercut Anchor Installation:**

The process of installing anchors into building structures, creating a secure attachment point for facade elements while minimizing visibility.

## **UV-Blocking Glazing Film:**

A film applied to glazing surfaces to block ultraviolet (UV) radiation, protecting occupants, furnishings, and interior spaces.

#### **Urban Microclimate:**

The localized climate conditions within an urban area influenced by buildings, surfaces, and other urban features, impacting facade performance.

## **Underfloor Heating:**

A heating system installed beneath the floor surface, contributing to thermal comfort and energy efficiency in buildings.

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# TERMS STARTING WITH "

#### **Ventilated Facade:**

A facade system with an air cavity between the exterior cladding and the building structure, allowing for natural ventilation and thermal control.

#### **View Window:**

A specially designed window to provide unobstructed views, often used in architectural designs to maximize visibility.

#### **Vertical Mullion:**

A vertical element or member in a curtain wall system that provides structural support and separates glazing panels.

#### **Vision Glass:**

The transparent or translucent glazing used in windows or curtain walls that allows direct views from inside to outside.

## Vapor Retarder:

A material or coating applied to building surfaces to restrict the passage of water vapor, preventing moisture-related issues in facades.

#### **Veneer Curtain Wall:**

A curtain wall system where the exterior cladding materials are applied as a veneer, providing a decorative and protective layer.

# Vacuum Insulated Glass (VIG):

An insulated glass unit with a vacuum-sealed space between the panes, offering superior thermal insulation.

## **Volatile Organic Compounds (VOCs):**

Organic chemicals that can evaporate into the air, commonly found in sealants, adhesives, and used in facade and coatings applications.

#### **Vertical Fin:**

A vertical protruding element in a facade or curtain wall system designed for shading, visual appeal, and solar control.

#### Ventilation Louver:

A device installed in a facade to allow controlled airflow while preventing the entry of water or debris.

## **Vibration Damping Glazing:**

Glazing systems designed to reduce vibrations caused by wind or other dynamic forces, improving occupant comfort and structural stability.

#### **Visual Comfort:**

The subjective experience of how well occupants can see in a space, influenced by factors like glare, brightness, and lighting design.

# Veneer Spandrel Panel:

A decorative panel used in curtain wall systems that mimics the appearance of the facade's exterior materials.

#### Vertical Sunshade:

A vertical element installed on a facade to provide shade, reduce solar heat gain, and enhance visual comfort.



## **Ventilated Double Skin Facade:**

A facade system with an outer and inner layer of glazing separated by an air cavity, allowing for natural ventilation and thermal control.

## **Viewing Distance:**

The distance at which occupants typically view or observe elements of a facade, influencing design decisions related to materials and detailing.

#### **Veneer Window:**

A window design where the exterior cladding materials are applied as a veneer, contributing to the overall aesthetics of the building.

#### **Vertical Sash:**

The movable vertical part of a window, often found in double-hung or sliding window designs.

## **Venting Windows:**

Windows designed to allow controlled airflow, contributing to natural ventilation in a building.

# **Visual Transparency:**

The degree to which glazing allows light to pass through, influencing the visual connection between interior and exterior spaces.

## **Ventilation Rate:**

The amount of air exchanged in a space per unit of time, a critical factor in maintaining indoor air quality.

#### **Volatile Corrosion Inhibitors (VCIs):**

Substances incorporated into coatings or materials to inhibit corrosion in metal components of facade systems.

## Vertical Divider Bar:

A vertical bar used in divided-lite windows or glazing systems, creating a visual separation between glass panels.

#### **View Cone:**

The angular field of vision from a specific vantage point, considered in facade design to optimize views and privacy.

#### **Ventilation Stack Effect:**

The phenomenon where temperature differences between the interior and exterior create natural airflow in a building, influencing ventilation strategies.

## **Visible Light Transmittance (VLT):**

The percentage of visible light that passes through glazing, indicating the level of transparency and daylighting in a building.

## Veneer Anchorage:

The method or system used to secure exterior veneer materials to the structural frame of a building, ensuring stability and durability.

## **Vertical Pressure Plate:**

A component in curtain wall systems that secures and provides pressure on the vertical edges of glazing units.

#### Vacuum Insulated Glazing (VIG):

Similar to Vacuum Insulated Glass, VIG refers to glazing with a vacuum-sealed space between panes for enhanced thermal performance.

## **Vibration Analysis:**

The study of vibrations in a structure, including facades, to assess potential issues, such as resonance or excessive movement.

#### **Vertical Glazing Gasket:**

A sealing element used in vertical joints of glazing systems to prevent air and water infiltration.

## Vestibule (Airlock):

An enclosed entry area with two sets of doors to minimize temperature exchange and improve energy efficiency in a building.



#### **Vented Louvered Facade:**

A facade system incorporating louvered elements that can be adjusted to control airflow and ventilation.

## **Vertical Mullion Cover Cap:**

A cover or cap used to conceal and protect the vertical mullion in curtain wall systems, enhancing aesthetics.

#### **Ventilation Air Distribution:**

The system or method used to distribute fresh air throughout a building, contributing to indoor air quality.

#### **Vapor Chamber Glass Coating:**

A coating applied to glass surfaces to control condensation and improve thermal insulation properties.

## **Vibration Control System:**

Systems or devices implemented in a building's structure to mitigate vibrations caused by external factors.

## **Ventilated Facade Insulation:**

Insulating materials integrated into the air cavity of a ventilated facade to enhance thermal performance.

## **Vibration Monitoring System:**

A system that continuously monitors vibrations in a building's structure, providing real-time data for assessment and adjustment.

#### **Vertical Pressure Plate Gasket:**

A gasket used in conjunction with the vertical pressure plate to create a sealed joint in curtain wall systems.

#### **Vibration Resistant Glazing:**

Glazing systems designed to withstand and dampen vibrations, ensuring stability and occupant comfort.

## Vacuum Insulated Glazing Unit (VIGU):

An individual unit of glazing with a vacuumsealed space, offering high thermal insulation properties.

#### **Ventilation Grille:**

A component in a facade that allows controlled airflow while preventing the entry of debris, insects, or water.

#### **Vertical Louver System:**

A system of vertical louvers used in facades for solar shading, glare control, and architectural aesthetics.

#### Vapor Open Facade System:

A facade system designed to allow the passage of water vapor while preventing liquid water ingress, promoting moisture management.

## **Vibration Isolation Mount:**

A device or component used to isolate and dampen vibrations in building elements, such as windows or facade systems.

## **Vertical Mullion Cap:**

A cap or cover used to finish and protect the top of a vertical mullion in curtain wall systems.

# **Volatile Organic Compound Emissions:**

The release of organic chemicals, such as from sealants or coatings, into the air, measured for environmental and indoor air quality considerations.



# 23. TERMS STARTING WITH "W"

## Weep Hole:

A small opening or cavity in a facade or window frame that allows water to drain out, preventing moisture buildup.

#### Wet Glazing:

A method of securing glass in a frame using a wet sealant or adhesive, providing both structural support and weather resistance.

#### Wind Load:

The force exerted by the wind on a structure, including facades and windows, influencing their design and structural requirements.

## Weatherstripping:

A material or device used to seal gaps in windows or doors, preventing air and water infiltration.

#### Window Mullion:

A vertical or horizontal element that provides structural support and separates individual window units within a facade.

## Window Sill:

The horizontal surface at the base of a window opening, designed to shed water and prevent moisture infiltration.

#### Window Head:

The horizontal member at the top of a window opening, providing structural support and contributing to the overall aesthetics of the facade.

#### Wired Glass:

Glass with an embedded wire mesh for increased strength and safety, commonly used in fire-rated applications.

## Warm Edge Spacer:

A spacer used in insulated glass units that minimizes heat transfer at the edge of the glass, improving energy efficiency.

#### Welded Corner:

A corner joint in window or facade framing that is created through welding, providing strength and durability.

#### Wall Tie:

A connector used to attach the facade to the building structure, ensuring stability and load distribution.

#### Wing Wall:

A short wall extending from the main facade, often at an angle, providing additional structural support or architectural interest.

## Windborne Debris:

Objects carried by the wind, such as branches or debris, that can impact and damage facades and glazing.

## **Water Penetration Resistance:**

The ability of a facade or window system to resist the entry of water under specified conditions, measured in various tests.

#### **Wood Clad Window:**

A window with an exterior frame made of wood covered with a protective cladding material for enhanced durability.

## Window Film:

A thin, transparent coating applied to glass surfaces for purposes such as solar control, privacy, or safety.



#### Wall Bracket:

A component used to attach and support elements of a facade, such as sunshades or decorative features.

#### Wire Glass:

Glass with an embedded wire mesh for increased safety, often used in fire-resistant applications.

#### Wet Seal:

The process of sealing joints or gaps in a facade with a liquid sealant, providing both weather resistance and aesthetics.

# Wind Pressure:

The force exerted by the wind on a surface, influencing the design and engineering of facades and windows.

## Wall System:

The overall construction and design of a building's exterior wall, including facade materials, insulation, and structural elements.

# **Water Vapor Permeability:**

The ability of a material to allow water vapor to pass through, important for managing moisture in facades.

## Warm Roof:

A roofing system where insulation is placed above the structural deck, minimizing heat loss and preventing cold spots.

#### Water Bar:

A flexible strip or barrier used to prevent water penetration at joints or connections in a facade.

## Window Flashing:

Material installed around windows to prevent water infiltration, directing water away from the building envelope.

## Warm-Edge Technology:

A technology used in the construction of insulated glass units to reduce heat transfer at the edge of the glass, enhancing energy efficiency.

# Water-Repellent Coating:

A coating applied to facade surfaces to repel water, preventing water absorption and potential damage.

#### Water Table:

A horizontal architectural feature, often a projecting ledge, designed to deflect water away from the building facade.

# Weathertightness:

The ability of a facade or window system to prevent the entry of water and air under varying weather conditions.

#### Windbreak:

A feature, such as a barrier or structure, designed to shield a building or outdoor space from strong winds, influencing facade design.

#### Window Mullion Cover:

A cover or cap used to finish and protect the vertical or horizontal mullion in window framing systems.

# **Window Operability:**

The ease with which a window can be opened, closed, or adjusted, considering factors such as hardware and design.

#### Wind-Driven Rain:

Rainfall that is carried and directed by wind, testing the resistance of facades and windows to water penetration.

## **Wall Expansion Joint:**

A joint designed to accommodate thermal expansion and contraction in a building's facade, preventing damage.



## **Water Jet Cutting:**

A cutting method using high-pressure water jets to precisely cut materials like glass or metal for facade components.

#### Wind Turbulence:

Irregular and unpredictable air movement caused by wind, impacting the design and performance of facades.

#### Window Mullion Reinforcement:

Additional structural support integrated into the mullion of a window to enhance its strength and load-bearing capacity.

#### **Water Absorption Rate:**

The rate at which a material, such as facade cladding, absorbs water, affecting durability and weathering.

## Wet Bulb Temperature:

A temperature measurement that takes into account the cooling effect of evaporation, influencing HVAC and facade design.

# Wire Rope System:

A system using tensioned wire ropes as a structural element in facades, providing support and aesthetics.

## Water-Resistive Barrier (WRB):

A material or membrane applied to the exterior of a building to resist the penetration of water while allowing water vapor to escape.

#### Wall Panel System:

A system consisting of prefabricated panels used in facade construction, offering efficiency and design flexibility.

#### **Water-Stop Sealant:**

A sealant applied to joints or gaps in a facade to water infiltration, prevent ensuring watertightness.

## Wind Tunnel Testing:

Testing conducted in a wind tunnel to simulate real-world wind conditions on a building or facade for performance evaluation.

#### Water Jet Resistance:

The resistance of a material or coating to damage or erosion caused by water jets, important in outdoor applications.

## Welded Transom:

A transom joint in window or facade framing that is created through welding, providing strength and durability.

## Water Shedding:

The design and construction approach to shed water away from critical areas in a facade, minimizing water-related issues.

## Window Transom:

A horizontal member that separates window units or supports the load above a window opening within a facade.

## Weatherability:

The ability of materials, such as coatings or sealants, to withstand the effects of weather and UV exposure over time.

#### Water Flow Resistance:

The resistance of a facade or cladding material to water flow, preventing water from penetrating the building envelope.



# 24. TERMS STARTING WITH "Y"

# **Yield Strength:**

In the context of materials used in facade and glazing systems, yield strength is the amount of stress at which a material begins to deform plastically.

# 25. TERMS STARTING WITH "Z"

# **Zinc Cladding:**

Cladding materials made of zinc, often used in facade systems for its durability, corrosion resistance, and aesthetic qualities.



# HELPING THE CONSTRUCTION INDUSTRY KEEP PROMISES

