

S T R O M B E R G
ARCHITECTURAL PRODUCTS

Glass Fiber Reinforced Concrete (GFRC)
Glass Fiber Reinforced Polymer (GFRP)

Glossary of Architectural Terms

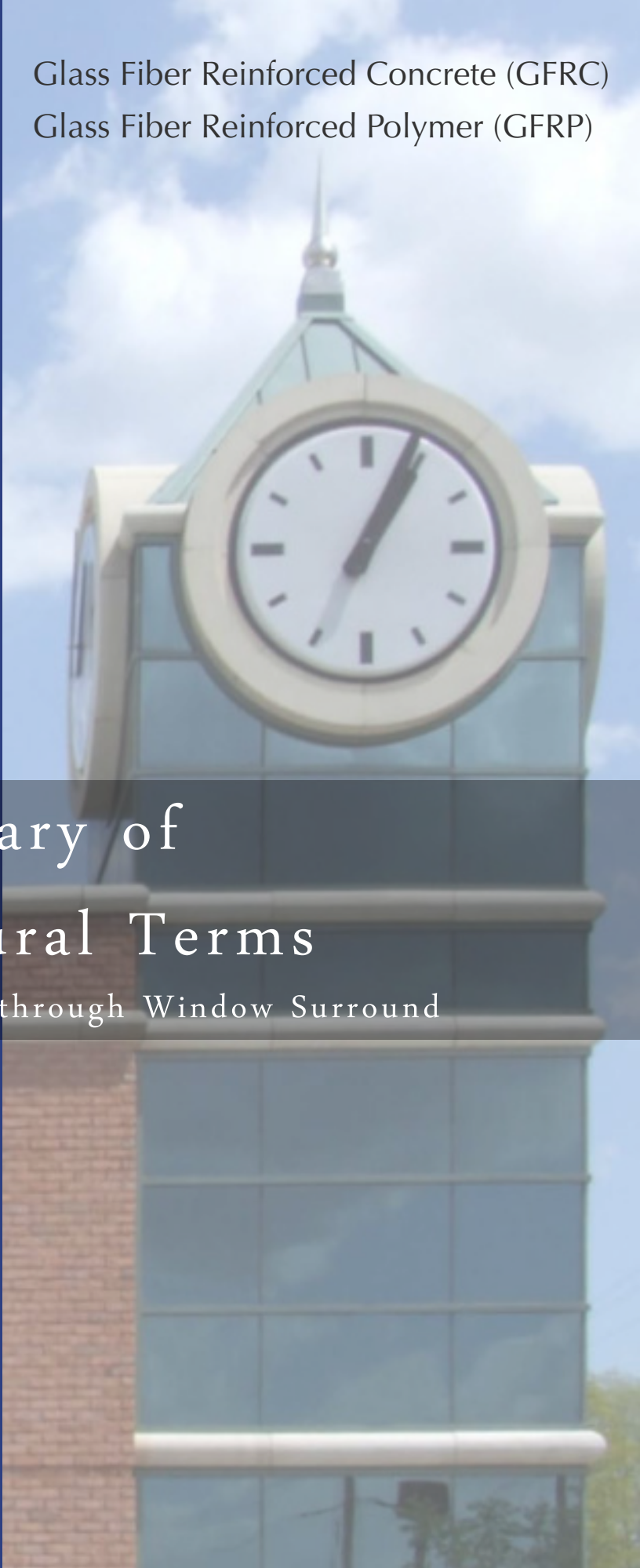
Volume IV - Hearthstone through Window Surround

4400 ONEAL STREET • GREENVILLE, TX 75401

P: 903.454.0904 • F: 903.454.0233

WWW.4STROMBERG.COM • SALES@4STROMBERG.COM

GFRC | GFRP | GFRG | CAST STONE | MARBLE | BRONZE

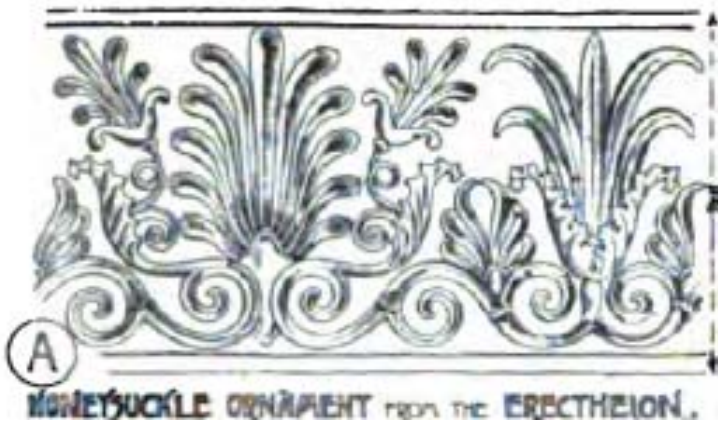


Hearthstone

The stone or stone like part of the fireplace floor that extends into the room. Synonymous with hearth although a hearthstone typically refers to a one piece stone or (GFRC) hearth. When used as a hearth, glass fiber reinforced concrete is typically cast solid or has ribbing added to the underside. The hearth is buttered full with mortar, and is set in a full mortar bed.

High Relief

A type of bas-relief where the sculpted or molded figures project to a larger degree from the background plane. Also known as alto-relievo. For the reproduction of bas-relief in glass fiber reinforced concrete or architectural fiberglass, a model is produced in clay, wood or plaster. A mold is then made using silicone rubber and a hard shell of fiberglass. Once the mold is removed from the model, the GFRC or Architectural Fiberglass are cast. Depending on the size of the glass fiber reinforced concrete or GFRP bas relief, a metal armature on the interior, generally galvanized or stainless steel, may be cast in. The casting is then sand blasted or acid washed to remove the cement film from the surface of the glass fiber reinforced concrete and to obtain the desired finish.



Honeysuckle Ornament

Hood

Horizontal element or covering above a door or window that provides shade or shelter or a decorative element. Above a fireplace or cooking area, the hood is a covering over the fireplace or grill that diverts smoke up the chimney.

Hood Molding

Protecting molding over a door or window, usually intended to direct rainwater from the face of the wall. The term hood molding is generally used when the molding is arched and is known as a label molding if it extends horizontally above the opening. Typical of the Chateau, English country, and Italianate Styles.

Horseshoe Arch

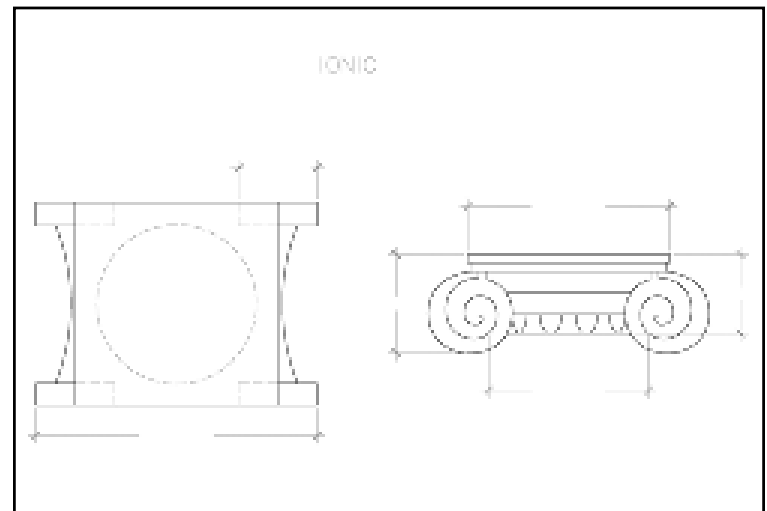
A rounded arch consisting of more than half a circle, so that the widest span of the arch is larger than the opening at the bottom of the arch.

Impost

A decorative element found at the spring point of an arch.

Intercolumniation

The clear span between two adjacent columns in a row of columns. Measured at the base of the column shafts. If the space is 1 ½ column diameters it is known as pycnostyle. If the space is two column diameters is known as systyle. 2 ¼ column diameters is known as eustyle. Column spacing of three column diameters is known as diastyle. And column spacing of four column diameters is known as areostyle.



Ionic Capital

The column capital of the Ionic order. The volutes on this column capital resemble a stylized form of rams' horns or nautilus shells.

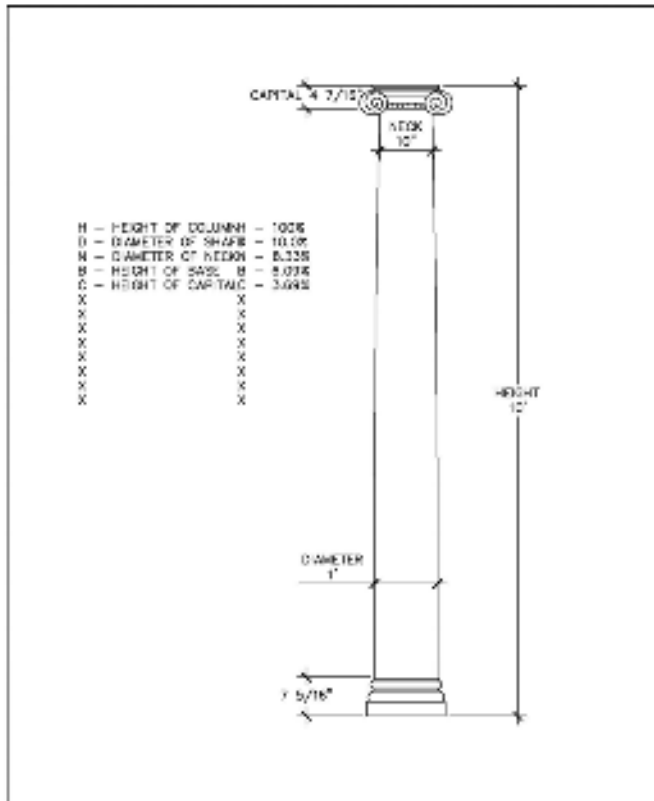
Ionic Order

One of the five orders of classical architecture. The Ionic Order takes its name from Ionia, the Greek name for those parts of Asia Minor which were settled by people of Greek origin (now modern day Turkey). The curls or "volutes" on its capital resemble rams' horns, but may have been derived from other natural spirals, from the nautilus, the lotus flower or seashells.

To the ancient Greeks, the slim proportions and elegance of the Ionic Column represented the female form, while the sturdiness and simpler details of the Doric Column represented the male.

Ionic columns were widely used by the Romans, and the style was adapted and used by Robert Adams. Ionic columns are found in architecture of the Classical Style, Adams Style, Federal Style, Neo Classical style into the present.

Ionic columns are typically slender, at 8 to 12 diameters in height (a 1' diameter column would be 8' to 12' tall). GFRC (glass fiber reinforced concrete) and GFRP (architectural fiberglass) Ionic columns are available from stock molds in column shaft sizes of even diameter (12", 14", 16" etc.). Column shafts may be made in halves to wrap a structural member or made in stacking sections. Column shafts may also be one piece if they are small enough to be transported.

***Italianate Style***

Style architecture influenced by Italian villas. GFRC (glass fiber reinforced concrete) and GFRP (architectural fiberglass) Italianate elements include columns, balustrade, belt courses, balustraded balconies, projecting cornices with decorative brackets and corner quoins. Roof cupolas, belvedere and domes, brackets and other Italianate GFRC and GFRP elements are available.

Italian Renaissance Revival

Architectural style influenced by the Renaissance palazzi of Italy. Appropriate GFRC and Architectural Fiberglass elements include an elaborate belt course between stories, rusticated corner quoins, pilasters and a large cornice. Rounded arches, balcony balustrade and frequently rooftop balusters and balustrade are also featured. Door and window surrounds often featured pedimented heads.

Jack Arch

The Jack arch is the same as a flat arch.

Jamb

Jamb is the name for one of the vertical members on either side of a door, window or fireplace surround.

***Jeffersonian***

Also known as Jeffersonian classicism or the Jeffersonian style, is a style architecture based on architecture of Thomas Jefferson. It features many elements of the classical revival style. GFRC (glass fiber reinforced concrete) and GFRP (architectural fiberglass) elements that are available in the classical revival style include triangular pediments, columns in the Doric or Tuscan

(continued on next page)

Jeffersonian - continued

order, Roman Ionic and Corinthian orders. Dentils, triglyphs, fireplace surrounds, door surrounds, moldings, cornice, fireplace mantles and balustrade.



Keystone

The wedge-shaped block at the top center of an arch. GFRC and Architectural Fiberglass keystones may be plain or embellished.

Label Molding

An exterior horizontal molding, generally above a window or door, used to direct rainwater from the face of the wall and the opening below.

Lancet Arch

A pointed, Gothic style arch.

Lancet Window

A narrow window shaped like a Lancet arch.



Lancet Windows

Light Cove

A molding with a recess for concealed lighting.



Column in architectural fiberglass with a GFRG capital and GFRG light cove.



Exterior GFRC light cove

Lintel

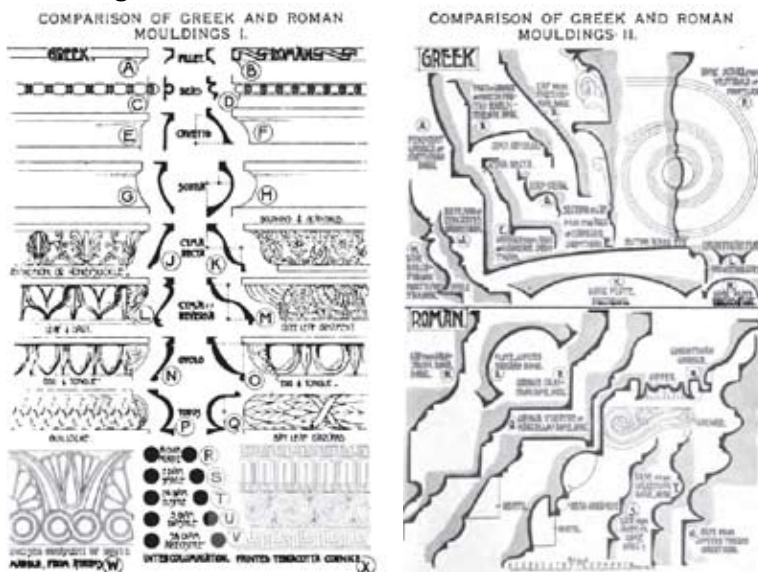
A horizontal shape above the door or window opening. GFRC (glass fiber reinforced concrete) and GFRP (architectural fiberglass) lintels are not structural in and of themselves, but are used to wrap and protect steel or concrete structural lintels.



Loggia

An elaborate gallery or porch that is either connected to or contained inside a larger structure. It is either colonnaded or arcaded and usually placed in a prominent location. Loggias are open to the outside on at least one side, to provide a protected outdoor rest area. When colonnaded loggias are open on only one side, they typically feature pilasters on the opposite wall. Loggias may feature balusters between the columns. GFRC columns for Loggias are available in all the classical orders including Tuscan columns, Doric columns, Ionic columns and Corinthian columns and with smooth or fluted columns shafts.

Molding



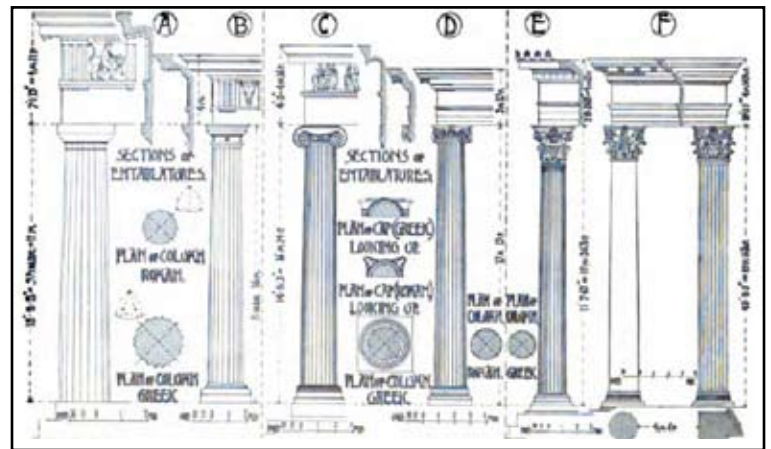
Neoclassical Style

A reinterpretation of classical Greek and Roman architecture. Neoclassical style includes Classical revival style, Greek revival style and Federal style. Characteristics of the neoclassical style include large porticos and columns of the Greek and Roman orders. Columns and pilasters of the Corinthian, Ionic and Doric order.

Order

In classical Greek architecture the orders are Doric, Ionic and Corinthian.

The Romans added the Tuscan and Composite. Each order carries its own entablature, column and base.



Palladian Window

Style of window that consists of three parts: A large arched top central window with two smaller rectangular windows on either side usually topped by lintels.

Palm Capital

A type of column capital that resembles the crown of a palm tree.

Pavilion

1. An ornamented structure in the garden. 2. A detached or semi detached structure used for specialized activities or entertainment, at a park, a fair or event. 3. A pronounced structure projecting from the building facade.



Pedestal

In classical architecture the pedestal was the support for the columns, and consists of three parts the cornice or cap; the central dado; and the base or plinth.

Pediment

A triangular shaped gable consisting of a tympanum with raked cornices on either side. In classical architecture the pediment was the low triangular gable, usually above a door, a window, or crowning a portico.

***Pendant Drop***

A suspended carved element.

Pendentive

The curved transition wall surface between a dome, or a dome drum, and the wall below.

Pentastyle

A portico with five columns.

Pergola

An open garden structure designed for the support of climbing plants. Design with regularly spaced columns or post.



Pergola with climbing roses

Peristyle

A colonnaded walkway surrounding the exterior of the building or an open area.

Pilaster

A flat column or pillar, attached to a wall.



Architectural Fiberglass Corinthian pilaster

Pineapple Ornament

The carved element that resembles a pineapple or a pine cone. Pineapple ornaments are said to be the symbol of hospitality. Pineapple ornaments are used as finials for gates or pier caps, or over doorways.

Pinnacle

A tapered upright structure rising from the roof of a building or used as a finial.

Plaque

Inscribed tablet fixed to the surface of a wall.

Plinth

The bottom most square or rectangular base of a column, pilaster pedestal or pier.

Polychromed

1. Masonry pattern of contrasting colors, such as horizontal bands across the facade or banded arches, windows or doorways. 2. Surface made up of a variety of colors to emphasize the difference between various elements.

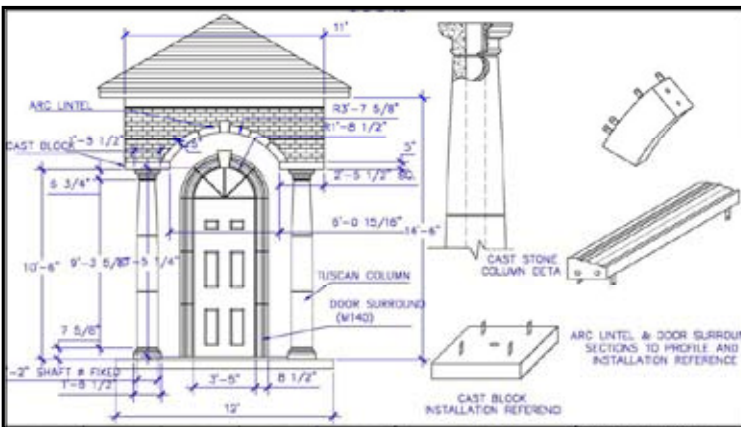
Porte Cochère

The covered entry way for an automobile to protect the people arriving by vehicle from inclement weather.



Portico

Covered entrance with a roof supported by columns, and usually with a pediment above.



Prairie Style

A uniquely American architectural style, associated with the works of Frank Lloyd Wright and Louis Sullivan.

Quatrefoil

A four lobed, clover shaped pattern, most common in Gothic, Venetian, and Gothic revival architecture.



Window surround in glass fiber reinforced stone by Stromberg

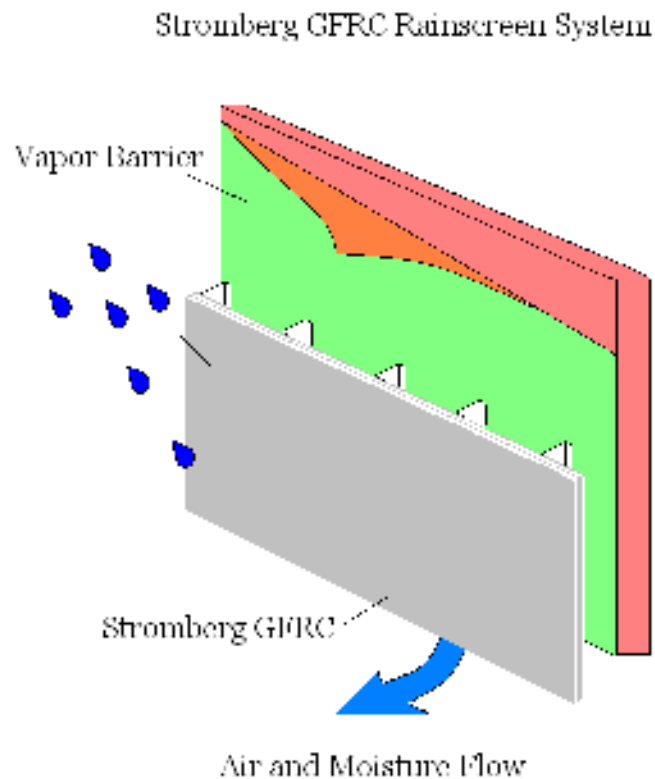
Quoin

Stone set at the external corner of a building, used to accentuate corner.



Rain Screen

A cladding method designed to minimize rain water intrusion into walls. The GFRC and Architectural Fiberglass rain screen systems combine a vented exterior cladding, an air cavity / drainage layer and a water resistant support wall.

**Rafter Tail**

The rafter tail is the external part of the Rafter that overhangs the wall at the eaves.

Raked

Term used to describe a cornice or a molding that is inclined. For example the raked cornice of a triangular pediment.

Return

The right-angle turn of a molding. A cast stone molding with a return is one that makes a right angle turn back to the wall as a way of terminating the molding.

Reveal

The exposed edge portion of molding between its outer face and a groove or opening, such as a window or door.

Rope Molding

The molding carved or shaped to resemble a twisted rope.

Rosette

Square or round pattern with a central floral motif.

Rotunda

The circular space in a building, especially when covered by a dome.

Round Dormer

A dormer with a circular window.

Roundel

Circular window, panel or decorative element.

Running Ornament

Running ornament refers to any ornaments in which the design is repetitive and continuous.

Rusticated Stone

Type of stone masonry with strongly emphasized recessed joints. Each individual masonry unit may have its edges chamfered or otherwise tooled to accentuate the joints.

Scallop

Series with continuous curves, made up of semi circular segments and resembling the shell of the scallop.

Scotia

Deep concave shaped molding. Especially refers to the concave shape of a classical column base.

Scroll

A spiral formed ornamental shape, either as part of a running ornament, or as part of a volute as on an Ionic capital or bracket.

Second Empire Style

An architectural style named after the French second Empire of Napoleon III.

Segmental Arch

An arch where the head is less than a full half circle, but is only a segment of a circle. Historically, segmental arches are most often found in Georgian style, Italianate style, Spanish colonial and Federal style architecture.

Segmental Dormer

A dormer with an arched roof. The name is derived from the dormers roof being a segment of a circle.

Segmental Pediment

A pediment above a roof or window which has a rounded top, in other words, a segment of a circle. Also known as a curved pediment.

Semicircular Arch

An arch with a semicircular head.

Semicircular Fanlight

A fanlight, semicircular in shape, usually over the main entry door.

Semicircular Window

A window with a semicircular head or a window having the shape of a semicircle.

Simielliptical Arch

An arch in the shape of half of an ellipse.

Sexfoil

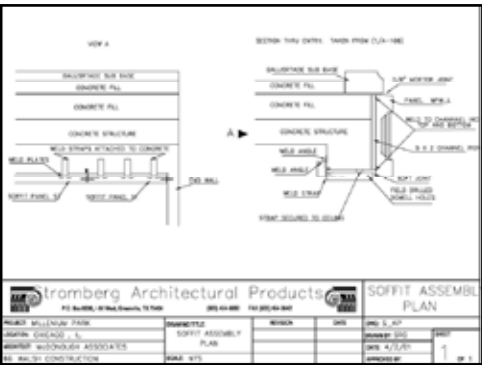
In tracery, a window or foil with six cusps. From the French word “foil” meaning “leaf”. A leaf-shaped curve or lobe, formed between points called cusps inside an arch or circle. Used in Gothic style tracery windows. Also in fountain pools having the sexfoil shape in plan.

Shell-headed

An architectural element that resembles half a scallop shell, used as the head of a niche, or as a decorative element.

Sill Course

A banding that wraps a building horizontally at the height of the window sills.



Soffit

The underside of any architectural component that is overhead, including the exposed underside of a beam, arch, balcony, lintel or cornice.

Spandrel

1. In modern high-rise construction, the wall panel located between the top of one window at one story and the bottom of the window above it at the next story. Can be made of GFRC, architectural fiberglass, stone, metal, or glass. 2. The triangular shaped area between two arches or between an arch and a wall.

Spanish Colonial Architecture (American)

The architectural style of the Spanish missions, and settlements of the American Southwest. Also known as Mission Architecture. Common architectural elements include columns, domes, canales (water spouts through the roof parapet,) vigas, carved rafter tails and low relief carved door surrounds and window surrounds. Other features sometimes used are decorative cornices and corbels and columns and pilasters along a long covered portale (porch) or arcade, balconies and loggias.

Spiral Stair

A stairway with approximately wedge-shaped treads, circular in plan. Also known as a helical stair, circular stair or caracole.

Spire

Any tall slender pointed roof element. Spires or steeples may be architectural fiberglass or GFRC. Spires are generally of one piece construction or made in segments for bolting to the structure. The architectural fiberglass or GFRC skin wraps a steel framework.



Splayed Lintel

A lintel with a top dimension larger than the bottom dimension, so that each end slants upwards away from the center line of the window.

Springer

Also known as the springing point is the place where the arch begins and were the curved arch rests on the vertical support below. The Springer is also the term for the first or lowest voussoirs or stones of an arch.

Stair Bracket

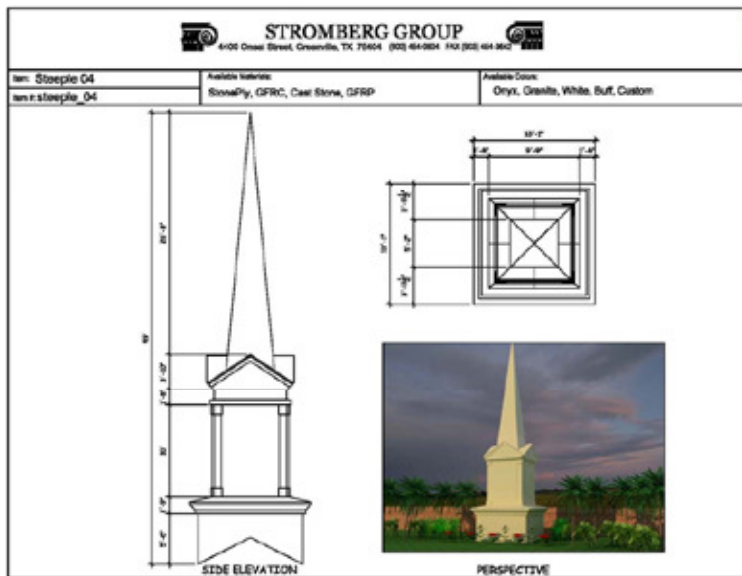
The decorative detail at the end of each step in a stairway.

Standing Seam

A raised rib at roofing panels or dome Segments.

Steeple

A tall slender structure, generally above a church tower or a cupola. Usually topped by a small spire or cross. Steeples may be GFRP (architectural fiberglass) or GFRC.



Design of a architectural fiberglass (GFRP) or (GFRC) steeple

Stepped Arch

An arch with voussoirs (stones) cut horizontally or vertically so that they line up with the masonry courses.

Stepped Gable

A gable with the stepped edge.

Sullivan-esque

The term used to describe architectural style and decorative designs created by Louis H. Sullivan, the American architect.

Sun Disk

The Egyptian emblem of the sun, a disk with wings. Sometimes used as a decorative element or window head in Egyptian revival architecture.

Supercolumniation

Also known as superposition, refers to the placing of one order of classical columns above another. For example Doric columns at the first floor and Ionic at the second floor directly above them.

Surround

Frame or decorative element around a doorway, a window or a fireplace. See door surround, fireplace surround or window surround.

Swag

A decorative element representing a garland of ribbons, draped fabric, flowers or fruit, appearing to be tied at the end and draping down in the middle.

Swan's-neck Pediment

A pediment with a sloping S-shaped element on either side. The name comes from the S-shaped pediment tops that are somewhat similar to the necks two swans facing each other.

Terra-Cotta

Architectural terra-cotta is a Clay which is been molded and shape, fired in a kiln and glazed. Terra-cotta was used as a facing on buildings in America mostly from around 1860 until the 1930s. In historic restorations, because of difficulties in replacing terra-cotta, color matching and durability issues, GFRC (glass fiber reinforced concrete) or FRP (fiber reinforced polymer) is often used as the terra-cotta replacement. Stromberg produces a special glazed GFRC and a fiberglass (FRP) which closely resembles glazed terra-cotta. Custom color matching is available, and new GFRC elements can be created with molds taken from existing terra-cotta, or from historic drawings and photographs if the terra-cotta no longer exists.



Tongue-and-art Molding

A decorative molding that features alternating tongue like shapes and dart like shapes. Similar to egg and dart.

Torus

A projecting, convex molding, which forms the “ring” at the base of a column. Architectural columns of the Corinthian and Ionic order typically have the “Attic” style base with two rings. The Tuscan column base has a single torus.



*Torus on a Tuscan style column base in Coral Stone texture
Available in GFRC, GRG or architectural fiberglass (GFRP)*

Tower

A tall, horizontal structure or building.

Tracery

Lace like shapes, most often found in Gothic architecture, that create a pattern in windows and other openings.



Stromberg Architectural Fiberglass tracery being installed

Trefoil

A three lobed pattern in a foil. From the French word “foil” meaning “leaf”. A leaf-shaped curve or lobe, formed between points called cusps inside an arch or circle. Used in Gothic style tracery windows.

Trefoil Arch

A pointed arch with three centers.



Trefoil arch in architectural fiberglass

Trellis

An open lattice or grate for the support of vines and other climbing plants.

Triangular Arch

A simple arch with no curves, created by two diagonal elements meeting at a point.

Triangular Dormer

A dormer with a triangular roof.

Triglyph

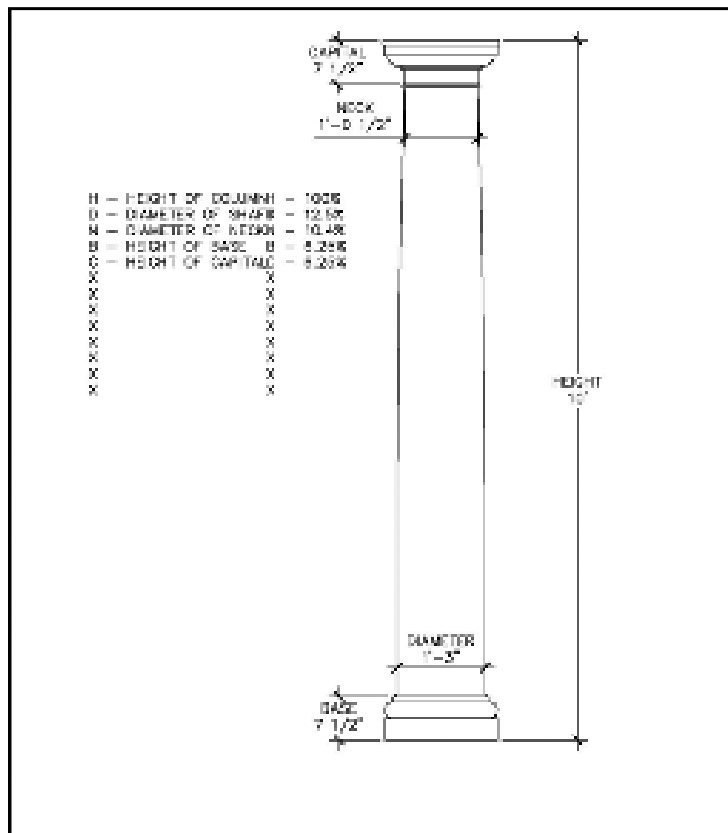
A Doric frieze ornament, consisting of a rectangular block with two V shaped grooves and two half V grooves on either edge. Triglyphs alternate with sculptured or plain blocks called metopes. Used in Greek architecture and the Greek Revival style.

Trim

The framing or edging of openings and other features on a building, including window surrounds, cornices, base moldings and casings.

Turret

A cylindrical tower, often corbelled on the corner of a larger structure. Usually with a conical roof.

**Tuscan Order**

The Tuscan Order was the simplest of the Classical Orders. It developed from Etruscan and early Roman temples. The column capitals and bases are simpler than those of the other orders and the shaft is not fluted. Palladio recommended that its plainness made it suitable for use in buildings of utilitarian function.

Tuscan Villa Style

A style derived from the villas of Tuscany, similar to the Italianate style, but symmetrical in plan.

Tympanum

The triangular space in a pediment. Enclosed by the horizontal cornice, and the sloping, diagonal sides. The tympanum may be plain, or may feature a decorative element, window, or other embellishment.

Vault

A structure composed of an arrangement of arches that form a covering over a space.

Veneer

A facing of brick, cast stone, GFRC, Architectural Fiberglass or other material that forms a durable, decorative surface over a structure, but is not load bearing itself.

Vermiculated Work

From the Latin for worm, Vermiculated surfaces have a series of wavy, disconnected grooves that resemble worms or the tracks of worms.

V-joint

A joint in mortar or sealant with a V shaped groove.

Volute

A spiral shape, as on an Ionic column capital. From the Latin Volutus for turned. Volutes are also used on the capitals of the Corinthian and Composite column.



Voussoir

The term for one of the blocks or units that make up an arch. The top voussoir is the keystone. The lowest voussoir is the springer.



GFRC Voussoir arch

Wainscot

The covering for the lower part of a wall.

Wheel Window

Circular window divided by tracery similar to the spokes of a wheel. Generally found in churches and in Gothic architecture and its derivatives.

Window Crown

The upper part of a window such as a pediment or hood.

Window Surround

The molding that surrounds a window.

**DISCLAIMER FOR USE:**

We have published this Architectural glossary as a service to you, and the other architects, designers, owners and contractors like you, who have become our clients and friends over the past 20 years. I hope you find them useful. If you don't see what you need here, contact us and we will be happy to help you. If you use our drawings, details or specifications, we would appreciate your including us as an approved supplier on your project.

PERMITTED USES:

This glossary, unless used by an Architect or Designer, may be used only for the purpose of developing plans; specifications and/or approval drawings for construction projects utilizing products manufactured or distributed by Stromberg Architectural Products Inc.

NON-PERMITTED USES:

Without the express written consent of Stromberg Architectural Products, Inc. you may not use the Photos for any purpose other than the permitted uses described above.

WARRANTY:

Stromberg Architectural Products, Inc. its employees, suppliers and agents, make NO WARRANTY OR REPRESENTATION regarding the quality, content, form, performance, fitness for purpose, merchantability or otherwise, regarding this glossary. You utilize this glossary at YOUR OWN RISK and Stromberg has and shall have no responsibility for your utilization of this glossary.

LIMITATION OF LIABILITY:

Stromberg has NO LIABILITY, express or implied, to you or any third party arising out of your utilization of this glossary for any and all purposes. In the event that it is determined that Stromberg does have any

liability, of whatever nature, the liability is LIMITED to compensatory damages of a maximum amount not to exceed \$500.00 and there shall be no liability for consequential or punitive damages.

NOTICE:

Descriptions and specifications contained herein were in effect at the time this publication was approved. In a continuing effort to refine and improve products, Stromberg reserves the right to discontinue products at any time or change specifications and/or designs without incurring any liability or obligation. Application details are for illustration purposes only, and may not be appropriate for all environmental conditions, building designs, or panel profiles. Projects should be engineered to conform to applicable building codes, regulations, and accepted industry practices.