

CADENCE BUILDING PARKING
GARAGE/RETAIL ADDITION

MATERIALS LISTS

HIGH, MEDIUM, LOW
MATERIAL OPTIONS AND SELECTIONS
PRODUCT DATA SHEETS

GROUP 16

ARC 3546 - BCS 3126

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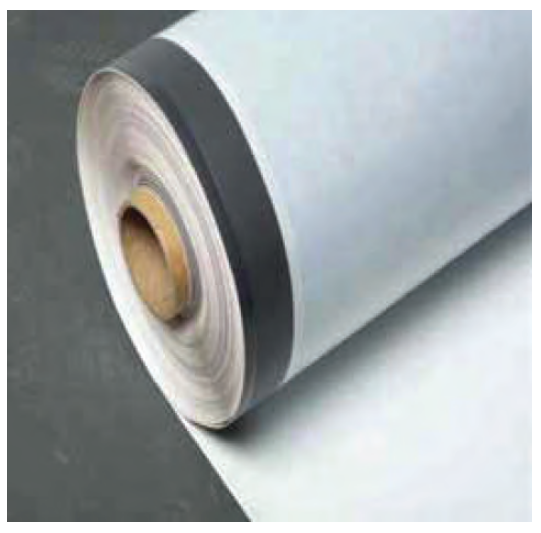
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ROOF FINISH COST RANGE

LOW RANGE COST

ULTRAPLY TPO SYSTEM



MANUFACTURER: FIRESTONE

ID:

LOCATION: RETAIL ROOF

FEATURES AND BENEFITS

- Hot-air welded membrane
- Available in 5', 8', 10' and 12' widths
- Available in thicknesses of .045", .060" and .080"
- Puncture resistant
- Reduces roof's surface temperature
- Can add LEED points
- Firestone UltraPly's proven formulation has been the same for over 20 years, giving contractors, specifiers, and building owners long-term confidence in Firestone UltraPly
- Approximately \$9/sf

MID RANGE COST

ULTRAPLY TPO XR



MANUFACTURER: FIRESTONE

ID:

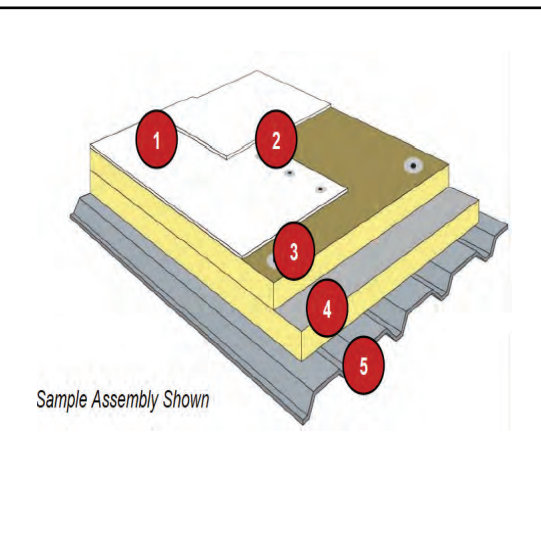
LOCATION: RETAIL ROOF

FEATURES AND BENEFITS

- Available in white, tan or gray
- Comes in a variety of thicknesses including 100, 115 and 135-mil
- Provides weatherability and strong resistance to UV rays and common rooftop chemicals.
- Weathering, UV resistance and heat-aging properties
- Puncture resistance
- Longer warranties as compared to other systems
- Install flexibility due to the many options for securement
- Approximately \$11/sf

HIGH RANGE COST

ULTRAPLY PLATINUM TPO SYSTEM



MANUFACTURER: FIRESTONE

ID:

LOCATION: RETAIL ROOF

FEATURES AND BENEFITS

- Scrim-reinforced membrane offers enhanced puncture, tear and abrasion resistance.
- Reflective surface meets ENERGY STAR® standards for energy savings in warm climates.
- Long-term roofing value for building owners.
- 30 year warranty systems offered.
- Approximately \$15/sf

STOREFRONT FRAMING COST RANGE

LOW RANGE COST

SERIES 433 STOREFRONT FRAMING



MANUFACTURER: EFCO

ID:

LOCATION: RETAIL STOREFRONT

FEATURES AND BENEFITS

- Thermally broken frames
- Three glass panes
- All joints and horizontal mullions are square cut
- Door frames will accommodate glass in three planes
- 90° and 135° inside and outside corner mullions
- All joint fasteners are #12 screws
- Steel is available for mullions as stock steel bars or custom fabricated steel shapes
- Accommodates up to 1-1/8" glazing
- Inside or outside glazing in all glass planes
- **Approximately \$37/sf**

MID RANGE COST

YES 45 XT - HIGH PERFORMANCE



MANUFACTURER: EFCO

ID:

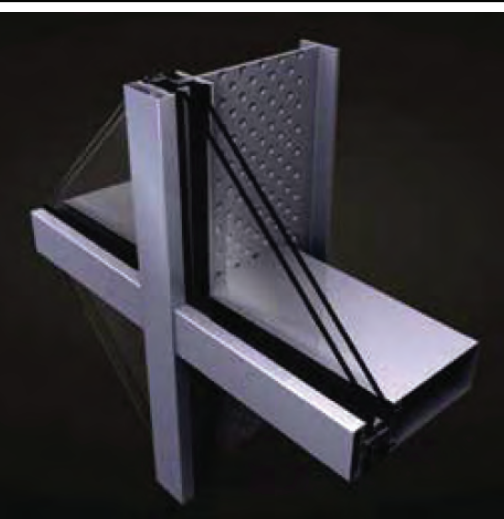
LOCATION: RETAIL STOREFRONT

FEATURES AND BENEFITS

- Outstanding thermal performance utilizing standard 1" insulating glass
- Overall system U-factor=0.36 (using UCOG=0.29)
- Greater efficiency can be achieved with higher performance glass
- Warmer Interior Surfaces with a CRFf of 66
- Best-in-class thermal performance attributes
- **Approximately \$45/sf**

HIGH RANGE COST

STEELBUILT INFINITY SYSTEM



MANUFACTURER: TGP

ID:

LOCATION: RETAIL STOREFRONT

FEATURES AND BENEFITS

- Almost any type of custom steel member can be used for a back mullion—such as stainless steel, box, I-beams and T-shapes
- Offers all the advantage of steel: larger free spans, narrower sight lines and improved thermal performance
- Narrow sight line of 1-3/4" (45 mm) for interior only or 2-3/8" (60 mm)
- **Approximately \$55/sf**

STOREFRONT GLAZING COST RANGE

LOW RANGE COST

STOREFRONT GLAZING



MANUFACTURER: CASCADIA WINDOWS & DOORS

ID:

LOCATION: RETAIL STOREFRONT GLAZING

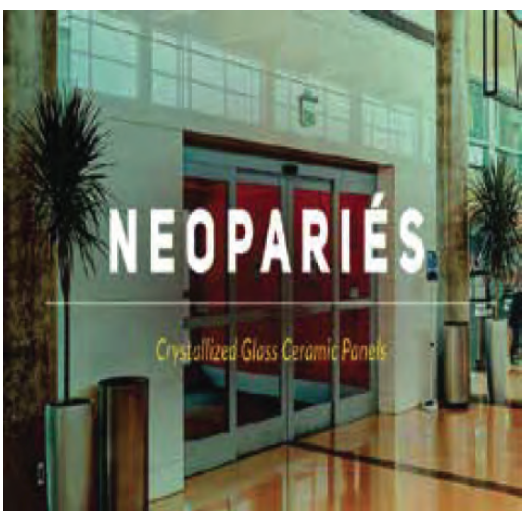
FEATURES AND BENEFITS

- Factory-built, ready for quick on-site installation
- Custom sizes & configurations
- Commercial-grade fiberglass frames
- Double (one Low-E), Triple (two Low-E) & Premium Triple (three Low-E)

Approximately \$32/sf

MID RANGE COST

NEOPARIES CRYSTALLIZED CERAMIC PANELS



MANUFACTURER:TGP

ID:

LOCATION: RETAIL STOREFRONT GLAZING

FEATURES AND BENEFITS

- Bright, smooth surface appearance
- Large panel sizes -- 35-7/16" x 70-7/8" (900 mm x 1800mm) and 47-1/4" x 94-1/2" (1200 mm x 2400 mm) (5/8" white only)
- High resistance to staining, pollution, graffiti
- For interior or exterior use
- Can be formed into convex or concave curved panels
- Four standard colors available, including white
- Excellent strength allows for use of thinner and lighter panels

Approximately \$41/sf

HIGH RANGE COST

CHANNEL GLASS



MANUFACTURER: TGP

ID:

LOCATION: RETAIL STOREFRONT GLAZING

FEATURES AND BENEFITS

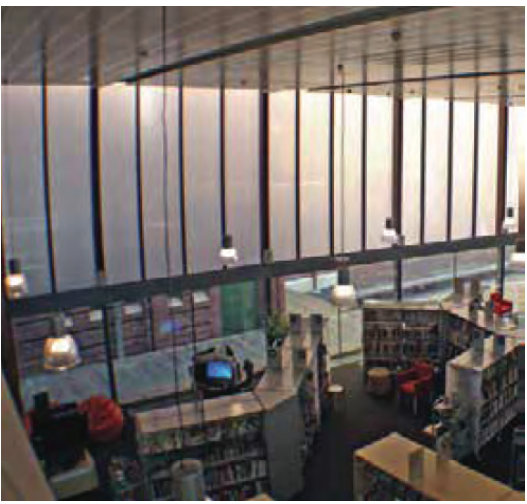
- Enhance energy efficiency, dual-glazed channel glass systems can be insulated with inert-gas fills, such as argon or krypton.
- A highly cost-effective material
- The glass is available in a variety of colors, translucencies and textures, allowing soft, even light to filter through while still maintaining an element of privacy.
- It is one of the most cost-effective glazing solutions for creating high visual impact and meeting performance criteria.

Approximately \$48/sf

POLYCARBONATE PANEL COST RANGE

LOW RANGE COST

SUNPAL POLYCARBONATE (REGULAR)



MANUFACTURER: PALRAM

ID:

LOCATION: WEST RETAIL FACADE

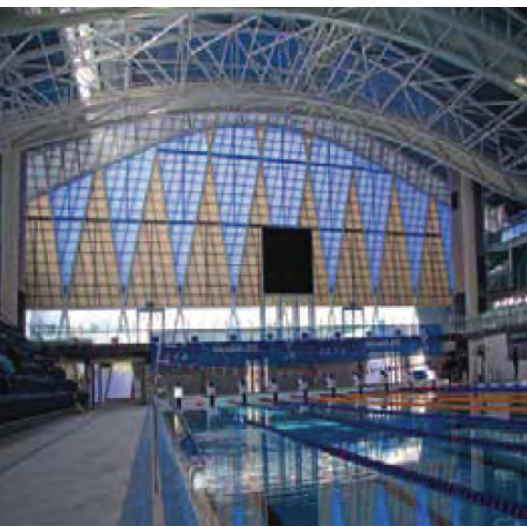
FEATURES AND BENEFITS

- Withstands very high loads
- Fast and easy installation
- Leak-proof system - no fastener penetration
- High thermal insulation
- Ideal for curved designs
- Variety of color and light transmission options available

Approximately \$10/sf

MID RANGE COST

SUNPAL POLYCARBONATE (SOLAR SMART)



MANUFACTURER: PALRAM

ID:

LOCATION: WEST RETAIL FACADE

FEATURES AND BENEFITS

- Accommodates thermal expansion & contraction
- Fast and easy installation
- Leak-proof system - no fastener penetration
- High thermal insulation
- Double-sided UV protection as standard
- Variety of color and light transmission options available

Approximately \$14/sf

HIGH RANGE COST

SUNPAL POLYCARBONATE (DIFFUSER PLUS)



MANUFACTURER: PALRAM

ID:

LOCATION: WEST RETAIL FACADE

FEATURES AND BENEFITS

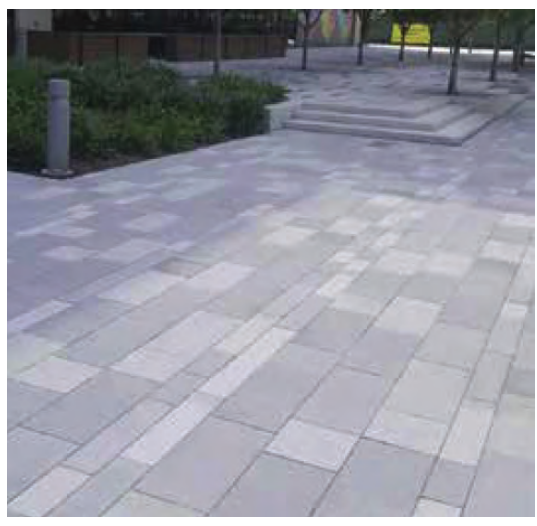
- Withstands very high loads
- Accommodates thermal expansion & contraction
- Fast and easy installation
- High thermal insulation
- Ideal for curved designs
- Double-sided UV protection as standard

Approximately \$18/sf

WAUSAU TILE ARCH. PAVERS COST RANGE

LOW RANGE COST

H-Series EcoPremier



MANUFACTURER: WAUSAU Tile

ID:

LOCATION: Rooftop Seating/Open Connection Spaces

FEATURES AND BENEFITS

Wausau Tile's H-Series EcoPremier architectural pavers feature 100% recycled porcelain aggregate. With a surface that mimics the look of finely bush-hammered limestone, EcoPremier features several earthy colors to choose from. Usage of this architectural paver line may help you qualify for LEED credit.

Approximately \$10/sf

MID RANGE COST

Galaxy Series



MANUFACTURER: WAUSAU Tile

ID:

LOCATION: Rooftop Seating/Open Connection Spaces

FEATURES AND BENEFITS

- Industry leading strength - 9,500 psi
- Paver thicknesses from 1 5/8" – 4" thick
- Spacing lugs on the pavers for ease of installation

Approximately \$13/sf

HIGH RANGE COST

IPE (SERIES PAVERS)



MANUFACTURER: WAUSAU Tile

ID:

LOCATION: Rooftop Seating/Open Connection Spaces

FEATURES AND BENEFITS

- Wausau Tile's 24" Ipe pavers are lightweight and exhibit a variety of colors from paver to paver.
- Ipe is known for being one of the hardest and strongest woods used in construction along with one of the lower maintenance woods on the market.

Approximately \$16/sf

MATERIALS FINISH CALLOUT

RETAIL FACADE

EQUITONE - TECTIVA



MANUFACTURER: EQUITONE

ID: TECTIVA

LOCATION: RETAIL FACADE

GLAZING

VITRO - SOLARBAN 60



MANUFACTURER: VITRO ARCHITECTURAL GLASS

ID: SOLARBAN 60 (2) CLEAR + CLEAR GLASS

LOCATION: RETAIL GLAZING

INTERSTITIAL SPACE PAVERS

NITTERHOUSE - PG-31



MANUFACTURER: NITTERHOUSE MASONRY PRO.

ID: PG-31

LOCATION: INTERSTITIAL SPACE PAVERS

INTERSTITIAL SPACE PAVERS

NITTERHOUSE - PG-23



MANUFACTURER: NITTERHOUSE MASONRY PRO.

ID: PG-23

LOCATION: INTERSTITIAL SPACE PAVERS

MATERIALS FINISH CALLOUT

INTERSTITIAL SPACE PAVERS

NITTERHOUSE - PG-137



MANUFACTURER: NITTERHOUSE MASONRY PRO.

ID: PG-137

LOCATION: INTERSTITIAL SPACE PAVERS

RETAIL ROOF PAVERS

WAUSAU TILE - ET-10



MANUFACTURER: WAUSAU TILE

ID: ET-10

LOCATION: RETAIL ROOF PAVERS

RAILINGS

AGS STAINLESS INC - CUSTOM



MANUFACTURER: AGS STAINLESS INC

ID: CUSTOM

LOCATION: INTERSTITIAL SPACE RAILING

STOREFRONT

EFCO - SERIES 433



MANUFACTURER: EFCO

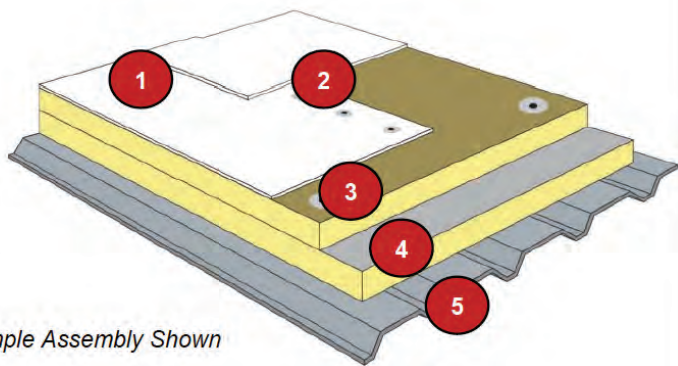
ID: SERIES 433

LOCATION: RETAIL STOREFRONT

MATERIALS FINISH CALLOUT

ROOF FINISH

FIRESTONE - ULTRAPLY TPO



Sample Assembly Shown

MANUFACTURER: FIRESTONE

ID: ULTRAPLY TPO

LOCATION: RETAIL ROOFS

GRANITE

SWENSON GRANITE WORKS - DEER ISLE



DEER ISLE granite

MANUFACTURER: SWENSON GRANITE WORKS

ID: DEER ISLE GRANITE

LOCATION: INTERSTITIAL SPACE STEPS

PERFORATED SCREENS

HENDRICK - HD-CLAD



MANUFACTURER: HENDRICK ARCHITECTURAL

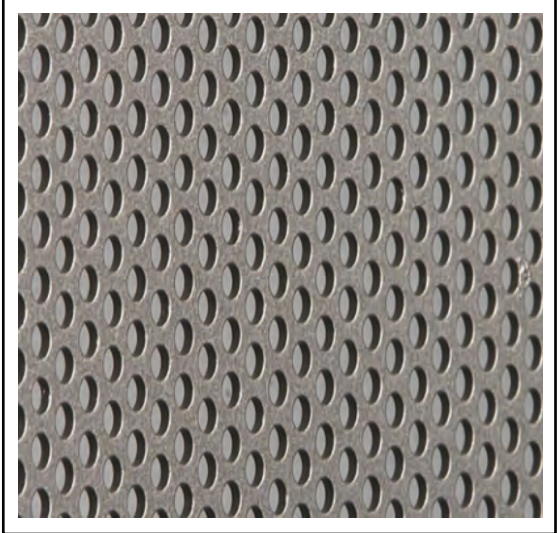
ID: CUSTOM

LOCATION: RETAIL TRELIS, PARKING GARAGE

PERFORATED METAL SCREENS

LOW RANGE COST

MÓZ PERFORATED METALS



MANUFACTURER: MÓZ PERFORATED METAL

ID:

LOCATION: RETAIL/PARKING GARAE SCREENS

FEATURES AND BENEFITS

The collection includes 5 standard patterns in multiple colors with custom options on solid-core .063” aluminum 5052 material in 4’ x 10’ standard sheet sizes. Available in up to 1/4” thickness. The material can be finished single or double sided.

Approximately \$8/sf

MID RANGE COST

HENDRICK - HD-CLAD



MANUFACTURER: Hendrick - HD-Clad

ID:

LOCATION: Retail/Garage Screens

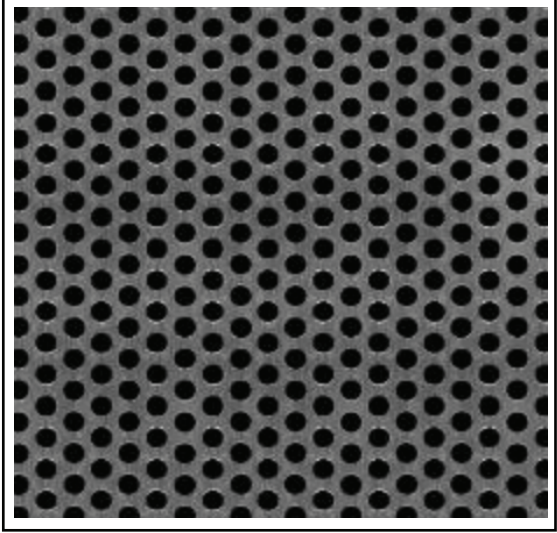
FEATURES AND BENEFITS

- Provide a wide range of of design options
- Different choices available for open area
- Different patterns, panel thickness, length and width
- Multiple painting and finish options available

Approximately \$9.50/sf

HIGH RANGE COST

McNICHOLS PERFORATED METALS



MANUFACTURER: MCNICHOLS

ID:Custom

LOCATION: Retail/Garage Screens

FEATURES AND BENEFITS

- McNICHOLS carries the largest inventory of Perforated Metal products in North America with a vast selection of sizes, gauges and hole types available.
- This dynamic product line offers ventilation, versatility and a high strength-to-weight ratio.

Approximately \$11/sf



ARCHITECTURAL PAVING STONE

PRODUCT CATALOG

NITTERHOUSE
MASONRY PRODUCTS, LLC



ARCHITECTURAL PAVING STONES - MODERA MIDTOWN, ATLANTA, GA



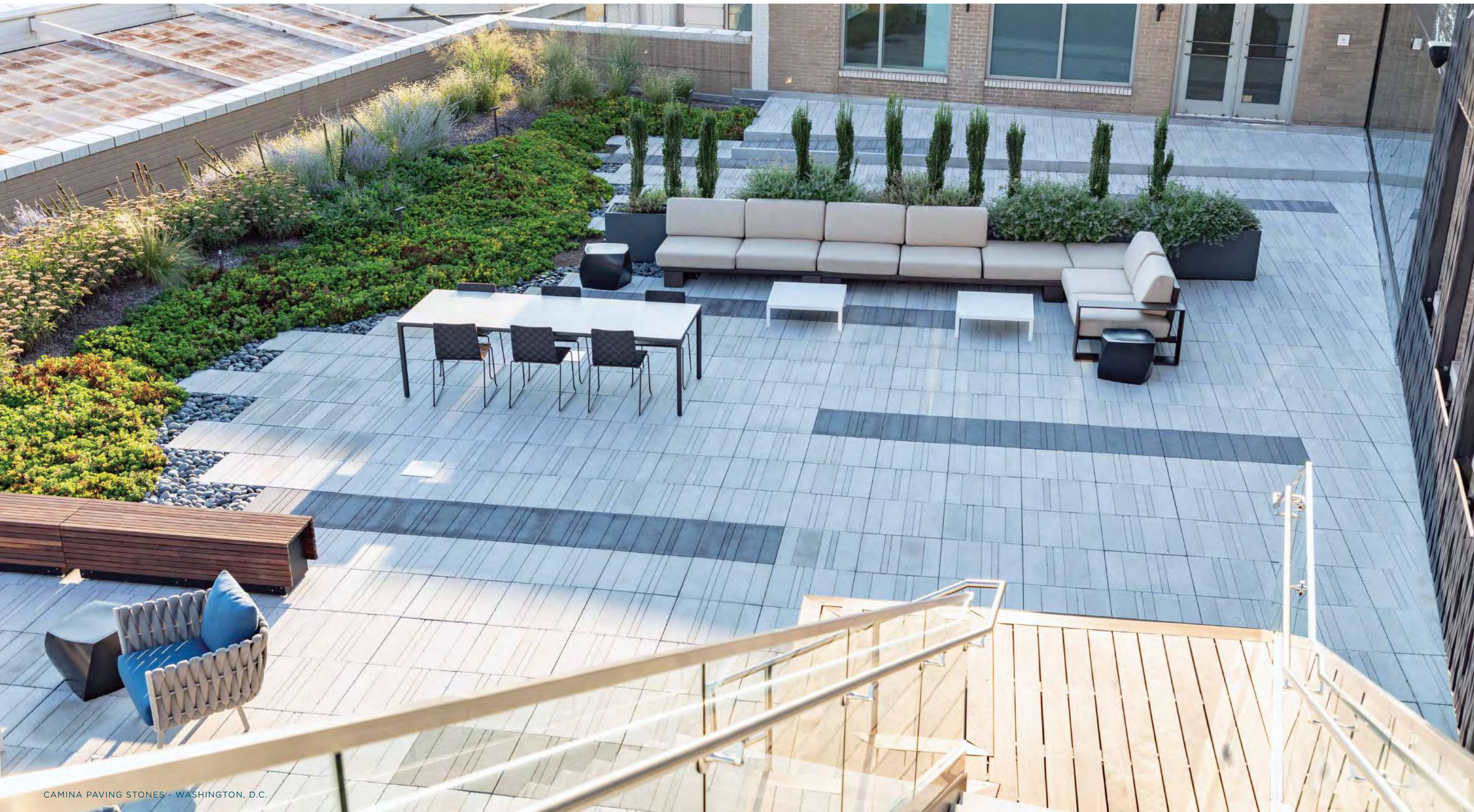
360°, H STREET, WASHINGTON, D.C.

ARCHITECTURAL PAVING STONE

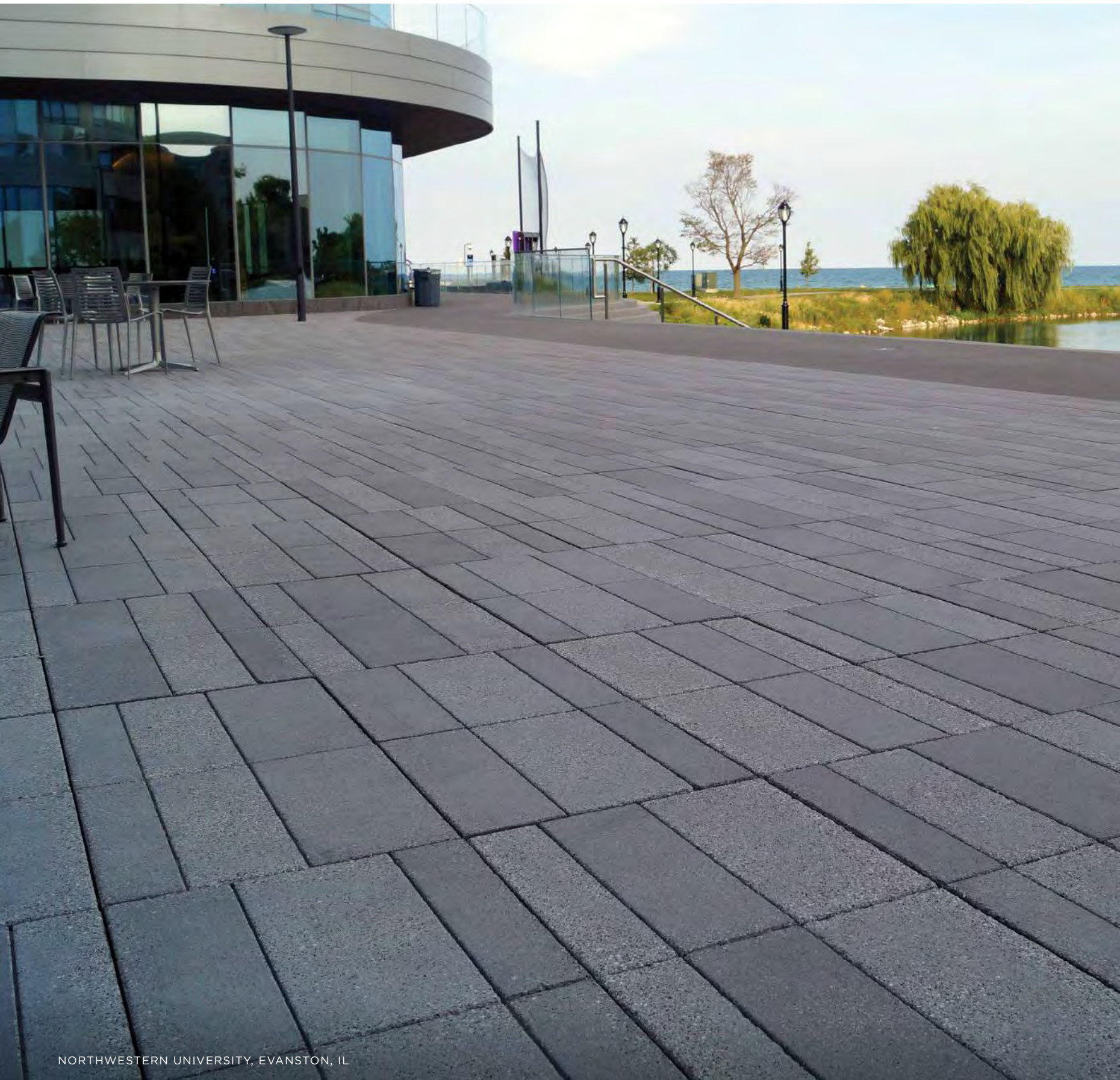
Nitterhouse's high strength Architectural Pavers combine durability with the natural beauty of aggregates showing throughout the product and finish. Our Architectural Pavers are produced to achieve an architectural uniform appearance while mimicking natural materials. We offer many color options to complement any project's aesthetic.

All sizes are 1 7/8" thick. Other thicknesses are available upon request.
 Beveled edges standard, square edges available upon request.
 Special sizes available upon request.
Color options on Page 16.

DIMENSIONS:	12"x 12"	24lbs	18"x 24"	72lbs
	12"x 24"	48lbs	24"x 24"	97lbs
	12" x 36"	74lb	24"x 30"	123lbs
	18"x 18"	54lbs	24"x 36"	145lbs



CAMINA PAVING STONES - WASHINGTON, D.C.



NORTHWESTERN UNIVERSITY, EVANSTON, IL

CAMINA PAVING STONE

Our Camina paving stone's signature grooves offer a unique linear look. The dimensions between the grooves are completely customizable. The Camina paver can have two different finishes on the face which creates variations of color on the paving stone to add to the overall project's design. This paver is sure to set your creative imagination on fire when designing your next project whether it is outside of an apartment building or a new shopping plaza our Camina paver will be the perfect addition to any project.

All sizes are 1 7/8" thick. Other thicknesses are available upon request.
Color options on Page 16.

DIMENSIONS:	12"x 12"	24lbs	24"x 24"	97lbs
	12"x 24"	48lbs	24"x 30"	123lbs
	18"x 18"	54lbs	24"x 36"	145lbs
	18"x 24"	72lbs		



URBAN STONE - THE 8300 FLATS, BETHESDA, MD



TELLUS APARTMENTS, ARLINGTON, VA

URBAN STONE

With its many variations in color and size, Urban Stone is a plank style paver that is unmatched in its design versatility. Urban Stone just like our other architectural paving stones is made with superior quality concrete strength that is durable and long lasting.

More sizes and colors available please contact your Nitterhouse representative. Urban Stone square edges standard.
Color options on Page 16.

DIMENSIONS:	4" x 12" x 3 1/8"	13lbs	4" x 12" x 2"	8lbs
	4" x 18" x 3 1/8"	19.5lbs	4" x 18" x 2"	12lbs
	4" x 24" x 3 1/8"	26lbs	4" x 24" x 2"	16lbs
	<i>New</i> – 6" x 12" x 3 1/8"	17lbs		



ROOF DECK PAVERS -RIPLEY EAST APARTMENTS, SILVER SPRING, MD



MODERA MIDTOWN, ATLANTA, GA

PLAZA & ROOF DECK PAVERS

Extend outdoor living and commercial space with our plaza pavers manufactured with the same high strength and superior quality concrete as our architectural pavers. Nitterhouse plaza and roof deck pavers are designed to be either pedestal set or fully supported.

*"12"x 24" bullnose pool coping and engraving available.
All sizes are 1 7/8" thick. Other thicknesses are available upon request.
Beveled edges standard, square edges available upon request.
Color options on Page 16.*

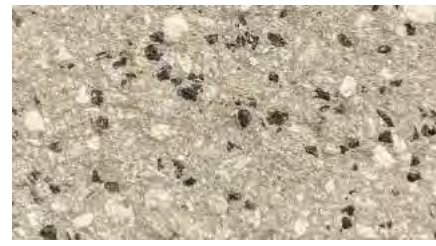
DIMENSIONS:	12"x 12"	24lbs	24"x 24"	97lbs
	12"x 24"	48lbs	24"x 30"	123lbs
	18"x 18"	54lbs	24"x 36"	145lbs
	18"x 24"	72lbs		



PG-2



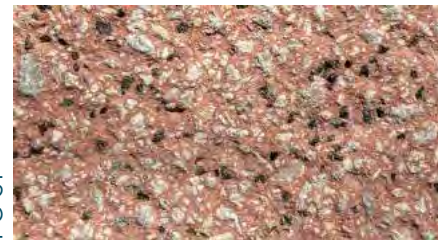
PG-135



PG-23



PG-6



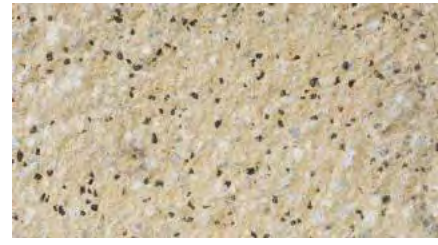
PG-31



PG-29



PG-77



PG-45B



PG-10



PG-66



PG-63



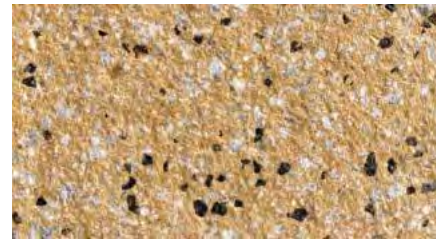
PG-4



PG-62



PG-53B



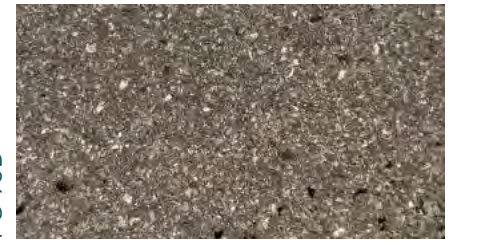
PG-130



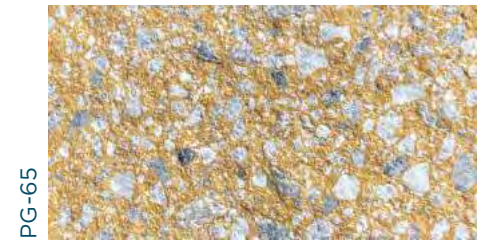
PG-7



PG-78



PG-79D



PG-65



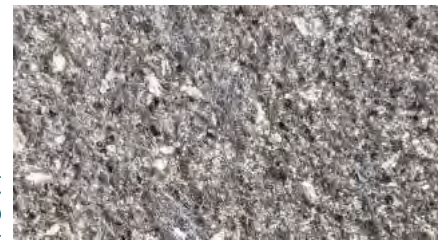
PG-27



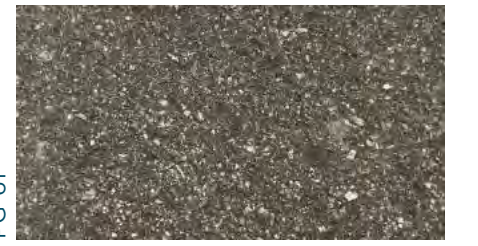
PG-68



PG-134



PG-71



PG-61



PG-75



PG-32



PG-8



PG-13



PG-1



PG-137

This sample is presented as a general representation of the product. Color of pieces will vary slightly from sample. Contact your Nitterhouse representative, 717-267-4500 for a physical sample.



SLATE PAVERS - GRANT ST. LOFTS, CHAMBERSBURG, PA

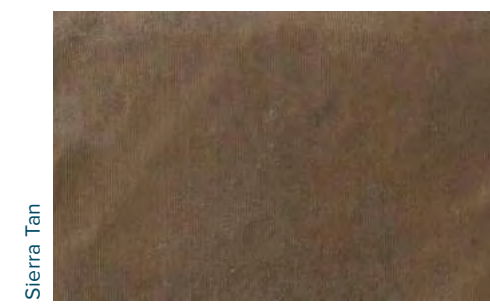


AVALON PARK CREST, TYSONS, VA

SLATE PAVERS

Get the look and texture of real slate along with the added strength of concrete with our machine pressed slate concrete paving stones. They are great for projects of all sizes both residential and commercial. All colors come in a natural finish. Sealing will enhance the color of the product. All sizes feature square edges, straight sides and consistent thickness.

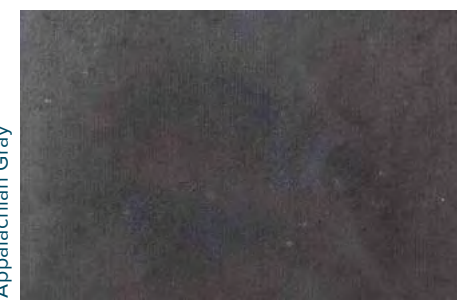
DIMENSIONS:	12"x 12"x 2"	24lbs	18"x 24"x 2"	72lbs
	12"x 24"x 2"	48lbs	24"x 24"x 2"	96lbs
	18"x 18"x 2"	54lbs	24"x 36"x 2"	145lbs



Sierra Tan



Mountain Green



Appalachian Gray



Canyon Red



CAMINA PAVING STONES - NORTHWESTERN UNIVERSITY, EVANSTON, IL



THE ASCENT, TYSONS, VA

VIP PAVERS

Our VIP Pavers for visually impaired pedestrians are compliant with the ADA Act. Nitterhouse's VIP Pavers are highly durable, functional pavers. The top surface of each VIP Paver has raised truncated domes which create a textured surface treatment. These pavers alert those with limited or impaired vision to changes in their paths of travel, such as curbs, drop-offs, and other potential hazards ahead.

DIMENSIONS: 12"x 12" x 2" 24lbs 24"x 24" x 2" 96lbs



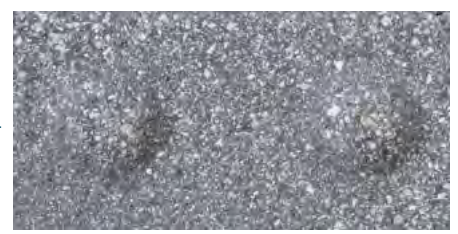
PG-1 Matte



PG-7 Matte



PG-65 Antique



PG-4 Antique



PG-1 Antique



PG-7 Antique



ROOF DECK PAVERS - HIGHGATE, TYSONS, VA

ARCHITECTURAL PAVING STONES- SPECIFICATIONS

SECTION 02780 Specifications for Unit Paving Stones

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Concrete paver units. [Concrete paver edge units.]
- B. Bedding and joint sand.
- C. Edge restraints.

1.02 RELATED SECTIONS

- A. Section: [-] - Curbs and Drains.
- B. Section: [-] - Aggregate Base.
- C. Section: [-] - Cement Treated Base.
- D. Section: [-] - Asphalt Treated Base.
- E. Section: [-] - Pavements, Asphalt and Concrete.
- F. Section: [-] - Roofing Materials.
- G. Section: [-] - Bitumen and Neoprene Setting Bed, Acrylic Fortified Mortar Setting Bed.
- H. Section: [-] - Geotextiles.

1.03 REFERENCES

Note: Use the latest editions of the references.

- A. American Society of Testing and Materials (ASTM):
 1. C 33, Specification for Concrete Aggregates.
 2. C 136, Method for Sieve Analysis for Fine and Coarse Aggregate.
 3. C 140, Sampling and Testing Concrete Masonry Units.
 4. C 144, Standard Specification for Aggregate for Masonry Mortar.
 5. C 936, Specification for Solid Interlocking Concrete Paving Units.
 6. C 979, Specification for Pigments for Integrally Colored Concrete.
 7. D 698, Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 5.5-lb (2.49 kg) Rammer and 12 in. (305 mm) drop.
 8. D 1557, Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 10-lb (4.54 kg) Rammer and 18 in. (457 mm) drop.

1.04 QUALITY ASSURANCE

- A. Installation by a contractor and crew with at least one year of experience in placing concrete pavers on projects of similar nature or dollar cost.
- B. Contractor shall conform to all local, state/provincial, federal licensing and bonding requirements.

1.05 SUBMITTALS

- A. Shop or product drawings, and product data.
- B. Full size samples of concrete paving units to indicate color and shape selections. Color will be selected by Architect/Engineer/Landscape Architect/Owner from manufacturer's available colors.

- C. Indicating drawing layout, pattern, and relationship of paving joints to fixtures and project formed

1.06 MOCK-UPS

- A. Install a (4 ft. x 4 ft.) paver area
- B. This area will be used to determine surcharge of the bedding sand layer, joint sizes, lines, laying pattern(s), color(s), and texture of the job.
- C. Approved buy the engineer/architect and shall be the standard from which the work will be judged.
- D. Approved area shall be included in the work.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver concrete pavers to site in steel banded, plastic banded, or plastic wrapped cubes on wooden pallets capable of transfer by fork lift.
- B. Unload pavers at job site in such a manner that no damage occurs to the product.

1.08 ENVIRONMENTAL CONDITIONS

- A. Do not install sand or pavers during heavy rain or snowfall.
- B. Do not install sand and pavers over frozen base materials.
- C. Do not install frozen sand.

PART 2 - PRODUCTS

2.01 CONCRETE PAVERS

Paving Stone Supplier shall be:

Nitterhouse Masonry Products LLC
859 Cleveland Ave.
Chambersburg, PA. 17201
Phone 717-267-4570
Fax 717-267-4527

TECHNICAL DATA

- A. Architectural Paving Stones
- B. Product - name(s)
shape(s),
color(s),
overall dimensions of the paver(s):

Furnish pavers meeting the following requirements:

Compressive Strength: Average compressive strength of 55 MPa (8,500 psi) with no individual unit under 50 MPa.

Absorption: Average absorption of less than 5% - tested in accordance with ASTM C 140.

Flexural Strength: The paver stones have an average flexural strength of 870 PSI - tested in accordance with NCMA testing procedures min. required strength 650 psi.

Freeze-Thaw Durability: Less than 1% weight loss - ASTM C 1262.

Weight: 24.5 lbs./sq. ft. based 2" on standard thickness.

Cement: Portland Cement conforming to ASTM C-150.

Pigments: Use pigment conforming to ASTM C 979.

2.04 EDGE RESTRAINTS

Note: Edge Restraints various types.

- A. Concrete, Plastic, Wood, Metal. Any that will restrain the pavers from moving laterally.

PART 3 - EXECUTION

3.01 EXAMINATION

Note: For installation on a compacted aggregate base and soil subgrade, the specifier should be aware that the top surface of the pavers may be 3 mm (1/8") above the final elevations after installation. This difference in initial and final elevation is to compensate for possible minor settling.

- A. Verify that subgrade preparation, compacted density and elevations conform to the specifications.

Note: Compaction of the soil subgrade to at least 95% Standard Proctor Density per ASTM D 698 is recommended. Stabilization of the subgrade and/or base material may be necessary with weak or saturated subgrade soils. The Architect/Engineer should inspect subgrade preparation, elevations, and conduct density tests for conformance to specifications.

- B. Verify that geotextiles, if applicable, have been placed according to specifications.
- C. Verify that aggregate base materials, thickness, compaction, surface tolerances, and elevations conform to the specifications.

Note: Local aggregate base materials typical to those used for flexible pavements are recommended, or those conforming to ASTM D 2940. Compaction to not less than 95% Proctor Density in accordance with ASTM D 698 is recommended for pedestrian areas. The aggregate base should be spread and compacted in uniform layers not exceeding 150 mm (6 in.) thickness. Recommended base surface tolerance should be plus or minus 10 mm (3/8 in.) over a 3 m (10 ft.) straight edge.

Note: The Architect/Engineer should inspect geotextile materials and placement (if applicable), base preparation, surface tolerances, elevations, and conduct density tests for conformance to specifications prior to installation.

Note: Mechanical tampers are recommended for compaction of soil subgrade and aggregate base around lamp standards, utility structures, building edges, curbs, tree wells and other protrusions. In areas not accessible to roller compaction equipment, compact to specified density with mechanical tampers.

Note: Mechanical plate compactors are not to be used on architectural paving stones.

- A. Verify location, type, installation and elevations of edge restraints around the perimeter area to be paved.
- B. Install edge restraints per the drawings [and manufacturer's recommendations][at the indicated elevations].
- C. Verify that base is dry, uniform, even, and ready to support sand, pavers, and imposed loads.
- D. Beginning of bedding sand and paver installation means acceptance of base and edge restraints.
- E. Verify that base is dry, uniform, even, and ready to support sand, pavers, and imposed loads.

- F. Beginning of bedding sand and paver installation means acceptance of base and edge restraints.

3.02 INSTALLATION

SAND SET PAVERS

- A. Spread the sand evenly over the base course and screed to a nominal 25 mm (1 in.) thickness, not exceeding 40 mm (1.5 in.) thickness. The screeded sand should not be disturbed. Place sufficient sand to stay ahead of the laid pavers. Do not use the bedding sand to fill depressions in the base surface.
- B. Ensure that pavers are free of foreign material before installation.
- C. Lay the pavers in the pattern(s) as shown on the drawings. Maintain straight pattern lines.
- D. Pavers shall be laid hand tight.
- E. A rubber mallet shall be used to adjust the pavers into final position.

Note: Do not use a plate or any other compactor on the pavers all adjustments are to be made by hand or a rubber mallet only.

- F. Fill gaps at the edges of the paved area with cut pavers.
- G. Cut pavers to be placed along the edge with a masonry saw.
- H. The final surface elevations shall not deviate more than 10 mm (3/8 in.) under a 3 m (10 ft.) long straightedge.
- I. The surface elevation of pavers shall be 3 to 6 mm (1/8 to 1/4 in.) above adjacent drainage inlets, concrete collars or channels.

PORTLAND / MORTAR SET PAVERS

- A. It is recommended that the pavers should have a concrete subbase of 4" minimum. The top elevation of the concrete subbase shall be no more than 2 1/2" from final paver elevation.
- B. Portland and bedding sand mixed at a ratio of 3 parts sand to 1 part Portland. This shall be mixed with water to form a mix typical of that which is used in laying brick.
- C. Place the pavers hand tight on the wet mortar and tamp into place.

Note: It may be necessary to pre-wet the back of the paver prior to installing it. Consult manufacturer for further information in installation.

PEDESTAL SET PAVERS

- A. Pavers set on pedestals or otherwise corner / edge supported should have a minimum of 2" of support. If a paving unit has a crack present it should not be replaced. These pavers are designed to support pedestrian traffic. They are not designed to handle any type of vehicular traffic.

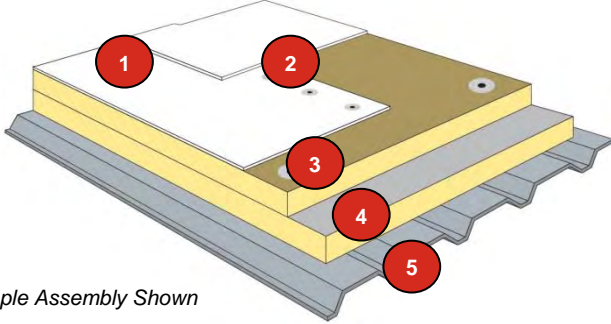
TOLERANCES:

These paver stones are hydraulically pressed to create a high density concrete unit and are manufactured to 1/8" tolerance in any direction.

FINISH:

Our "Antique" finish is design to give the paver stones a look and feel of natural stone for an architectural appearance. This finish exposes the stone showing the natural matrix of the paver. All paver stones have beveled edges.





Sample Assembly Shown

1. Firestone UltraPly TPO Membrane
2. Mechanical Attachment Method
3. Mechanically Attached or Adhered Cover Board (Optional)
4. Mechanically Attached or Adhered Insulation
5. Steel Deck

Consult Firestone Technical Specifications, Guides and Details at www.firestonebpco.com

Slope Requirement

Positive slope required for warranty.

Construction Type

New construction, complete tear-off, or recover with any wet or damaged materials removed prior to installation.

Building Height Limitation

Firestone UltraPly TPO Mechanically Attached Systems are limited to buildings 120' (36.6 m) or less.

Use of Air Barrier

An air barrier is required for projects with large wall openings greater than 10% of the total wall area. If air barrier is used, use the fully adhered insulation attachment rates.

Base Tie-Ins

Must be attached to substrates which provide a minimum of 200 lbf (1 kN) in any direction.

Increased Wind Speed and Codes

Any wind speed coverage exceeding 55 mph (88 km/h) or projects with codes requirements must be reviewed by a Firestone Roof Systems Advisor.

Deck Requirement

- Minimum 22 Gauge Steel

Fastener Type

- Firestone Heavy Duty Fastener
- Firestone Heavy Duty Plus Fastener
- Firestone HailGard™ Fastener (with HailGard Composite Board or OSB only)

Insulation Adhesive*

- Firestone I.S.O. Twin Pack™ Insulation Adhesive
- Firestone I.S.O.Spray™ R Insulation Adhesive
- Firestone I.S.O. Fix™ II Insulation Adhesive
- Firestone I.S.O.Stick™ Insulation Adhesive

*NOTE: Max. 4' x 4' boards must be used when attaching insulation with adhesives. Cleaning of the metal deck may be required to remove processing oils from manufacturing.

Adhesive Attachment

- Bead Spacing: F: 12", P: 12", C: 12"
- Full Application (I.S.O.Spray S Insulation Adhesive)

Membrane Requirement

- UltraPly TPO, Minimum 0.060"
- UltraPly Platinum™ TPO, 0.080"

Seaming Requirement

5" Firestone WideWeld™ System OR Firestone 1.5" Single Weld System (use automatic welder) stripped-in with 8" UltraPly TPO Cover Strip or UltraPly TPO QuickSeam Flashing. Joint covers are required at all joints and at angle changes 1:12 or greater.

Membrane Attachment

- Maximum 12' Row Spacing, Fasteners Spaced Maximum 6" o.c.

Edge Metal System

- Firestone EdgeGard™ System
- Firestone AnchorGard™ System
- Firestone Coping System

Insulation Fastener and Insulation Plate Attachment Rates – Field Rates for Standard 55 mph Wind Speed

Insulation (Top Layer)	4' x 8'	Coverboard (Optional)	4' x 8'
1.0" to 1.4" Firestone ISO 95+™ GL or RESISTA™ Insulation	5	Firestone ISOGARD™ HD Cover Board	5
1.5" to 1.9" Firestone ISO 95+ GL or RESISTA Insulation	5	¼" SECUROCK® Glass-Mat or DensDeck® / (Prime)	5 5/(5)
2.0" to 4.0" Firestone ISO 95+ GL or RESISTA Insulation	5	½" SECUROCK Glass-Mat or DensDeck / (Prime)	5 5/(5)
Firestone HailGard™ Composite Board	5	⅝" SECUROCK Glass-Mat or DensDeck / (Prime)	5 5/(5)
Firestone ISOGARD™ HD Composite Board	5		

Detail Description

Wall Terminations:	Firestone Termination Bar with AP Sealant applied along the caulk lip. Surface mounted or inserted counter flashing may also be used in accordance with current Firestone 30 year details.
Curb & Wall Flashings:	Curbs, walls, and expansion joints must be anchored with appropriate base tie-in detail, using HD Seam Plates and HD Fasteners. Curbs and walls must be flashed using a minimum 0.060" UltraPly TPO Membrane, or UltraPly TPO 18" Curb Flashing, per Firestone 30 year details. Flashings may be sealed with welded details only. Details may include UltraPly TPO Coated Metal.
Corners:	UltraPly TPO Inside/Outside Corners, per current Firestone 30 year details.
Roof Edges/Parapets:	Firestone AnchorGard™ or EdgeGard™ Fascia or Drain Bar systems. ANSI/SPRI ES-1 rated edge metal may also be used / Firestone Coping System or UltraPly TPO Coated Metal. Complete per Firestone 30 year details.
Penetrations:	Flash with UltraPly Pipe Flashing (weldable), UltraPly TPO Penetration Pocket, or UltraPly TPO Unsupported Flashing, per current Firestone 30 year details.

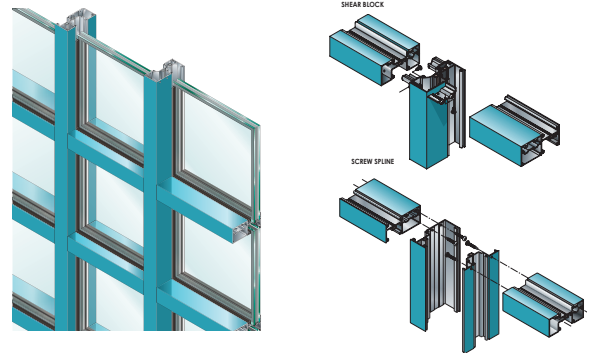
Notes:








1. Only Firestone brand products are covered in a Red Shield warranty.
2. Refer to the Firestone Technical Database at www.firestonebpco.com for additional information regarding UltraPly TPO Roof Systems.
3. Refer to the Firestone RoofGenuity™ tool to create roof assemblies with high-performance Firestone products at www.RoofGenuity.com.
4. DensDeck is a registered trademark of Georgia-Pacific Gypsum LLC.
5. It is the installing contractor's responsibility to follow applicable building codes.
6. SECUROCK is a registered trademark of USG Corporation.

SERIES 433 STOREFRONT FRAMING



Screw Spline • Shear Block
 System 433 is a 2" X 4-1/2" thermally broken storefront framing system. Glass planes can be placed in an outside set, center set or inside set configuration, which gives you design flexibility to meet any multi-plane glazing specification. The system 433 also offers a 2-sided structural glazed intermediate vertical option in the outside set configuration as well. Series 433 is compatible with all EFCO entrances.

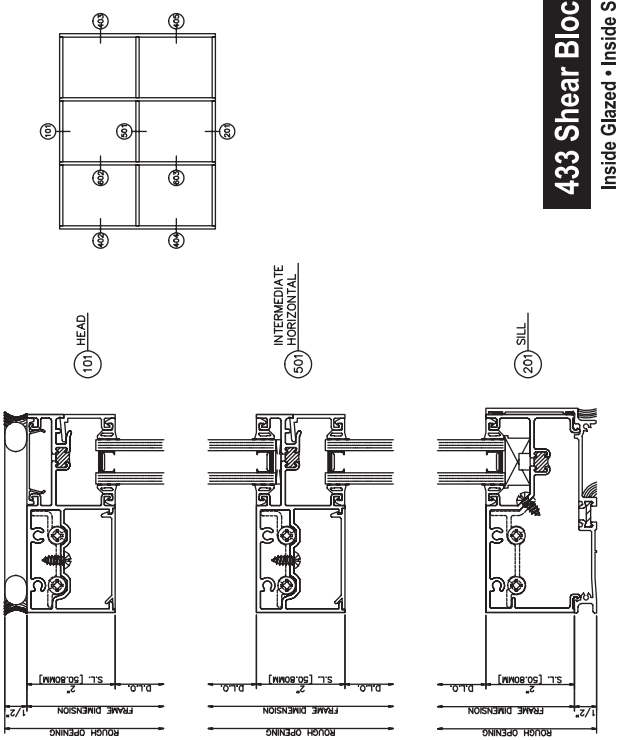
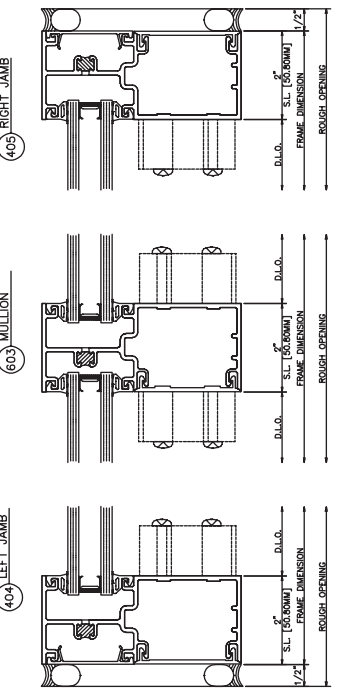
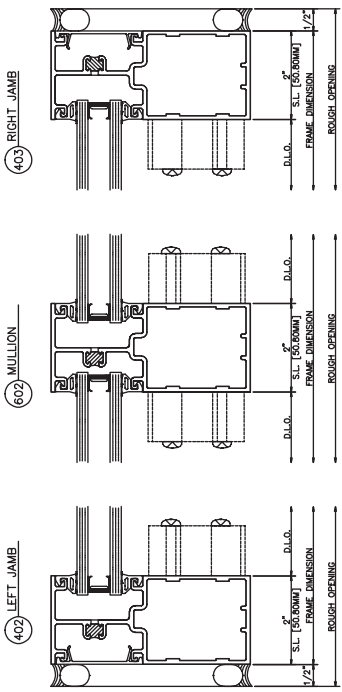
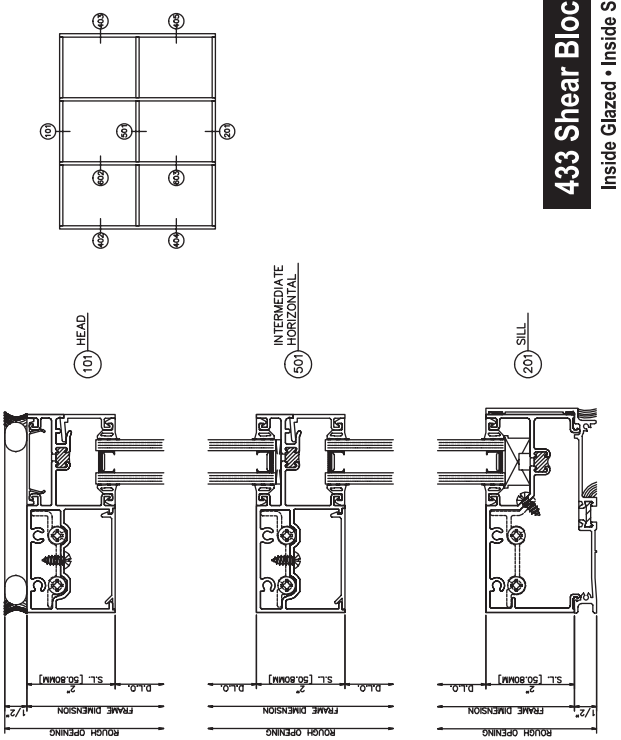
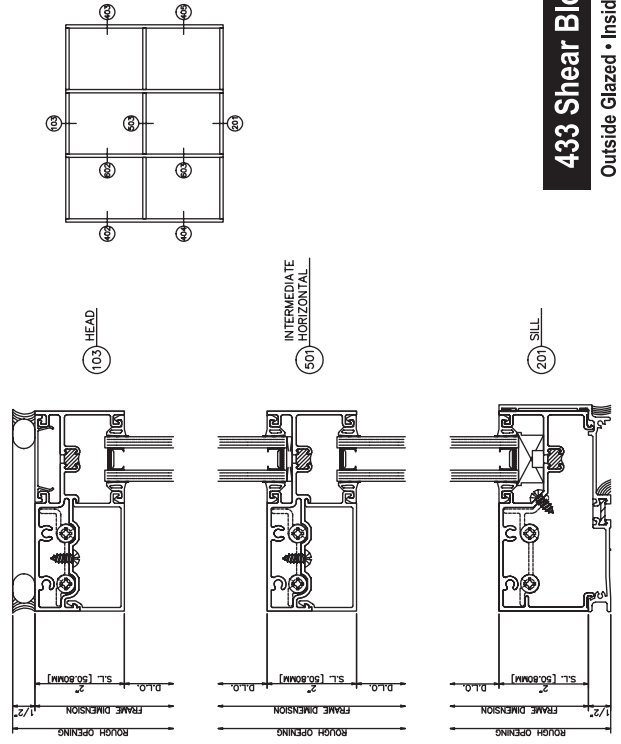
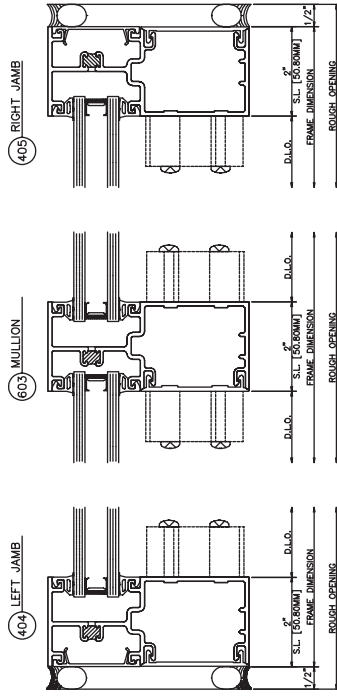
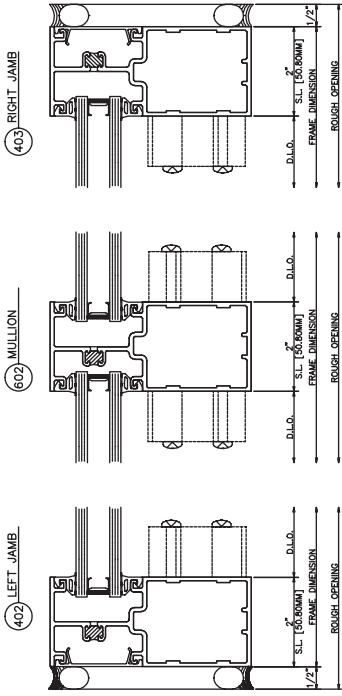


STRUCTURAL LOAD (ASTM E330) VISIT EFCOCORP.COM 	WATER RESISTANCE (ASTM E547 & E331) SCREW SPLINE 10 PSF 
AIR INFILTRATION (ASTM E283) 0.06 CFM/FT ² 	CRF (AAMA 1503) SHEAR BLOCK 67 
U-FACTOR* (ANSI/NFRC 100/200) SCREW SPLINE 0.32 - 0.53 	OITC* (ASTM E90 & E413) SCREW SPLINE 29 - 36 
STC* (ASTM E90 & E413) SCREW SPLINE 34 - 44 	

STANDARD FEATURES

- Thermally broken frames
- Three glass panes
- All joints and horizontal mullions are square cut
- Door frames will accommodate glass in three planes
- 90° and 135° inside and outside corner mullions
- All joint fasteners are #12 screws
- Steel is available for mullions as stock steel bars or custom fabricated steel shapes
- Accommodates up to 1-1/8" glazing
- Inside or outside glazing in all glass planes
- Uniform glazing gasket is used for exterior and interior
- Stock length or fabricated
- Anodized or painted finishes available

* Performance dependent on glass selection. Please contact your EFCO sales rep for project specific performance.

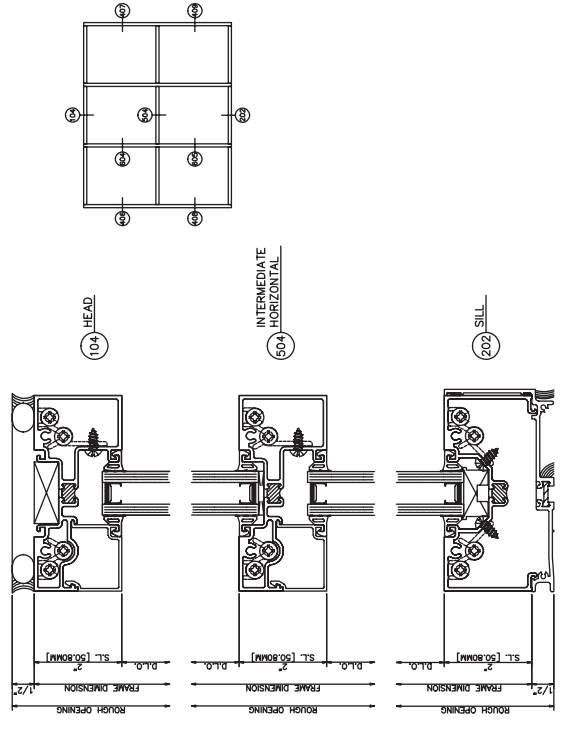
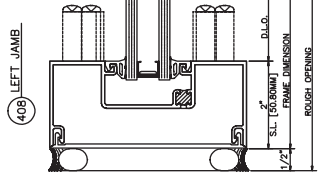
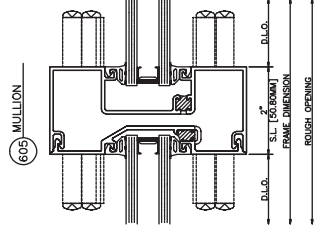
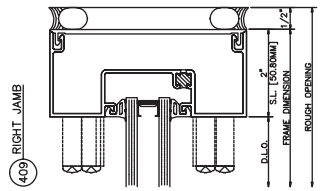
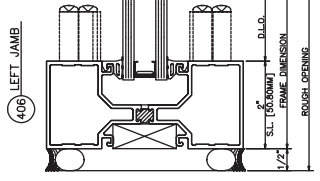
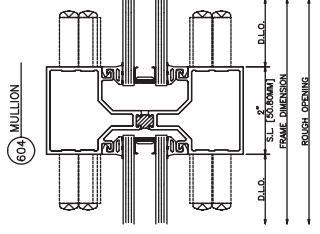
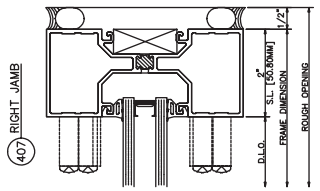


433 Shear Block
Outside Glazed • Inside Set

433 Shear Block
Inside Glazed • Inside Set

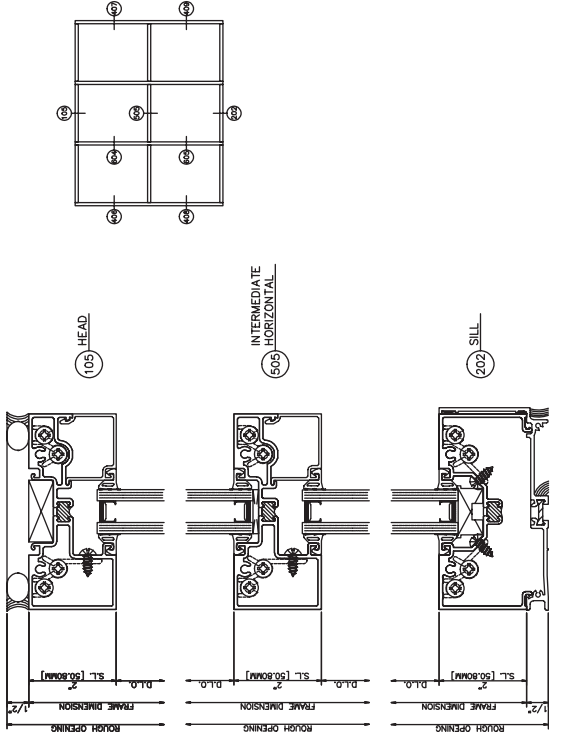
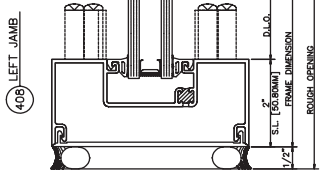
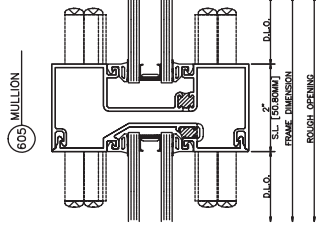
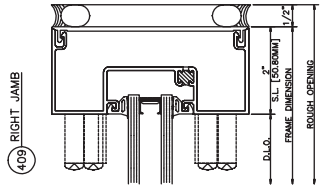
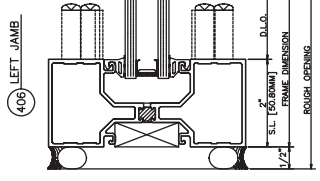
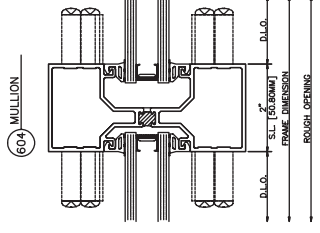
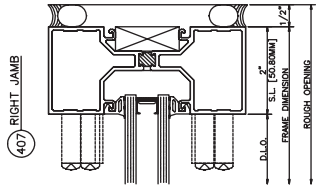
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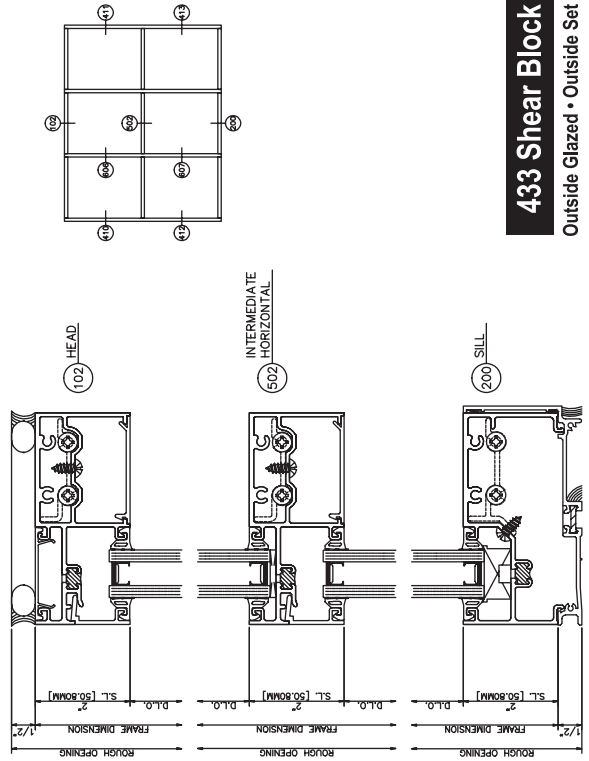
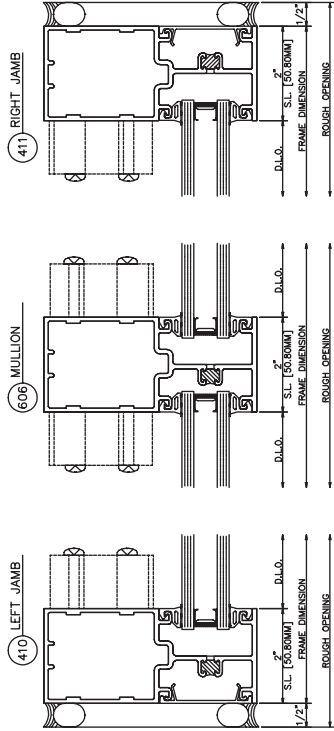
Outside Glazed • Center Set



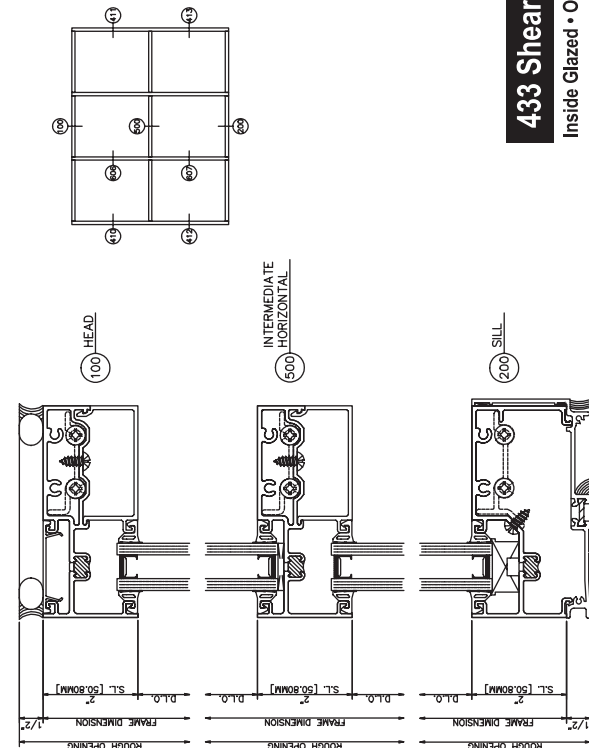
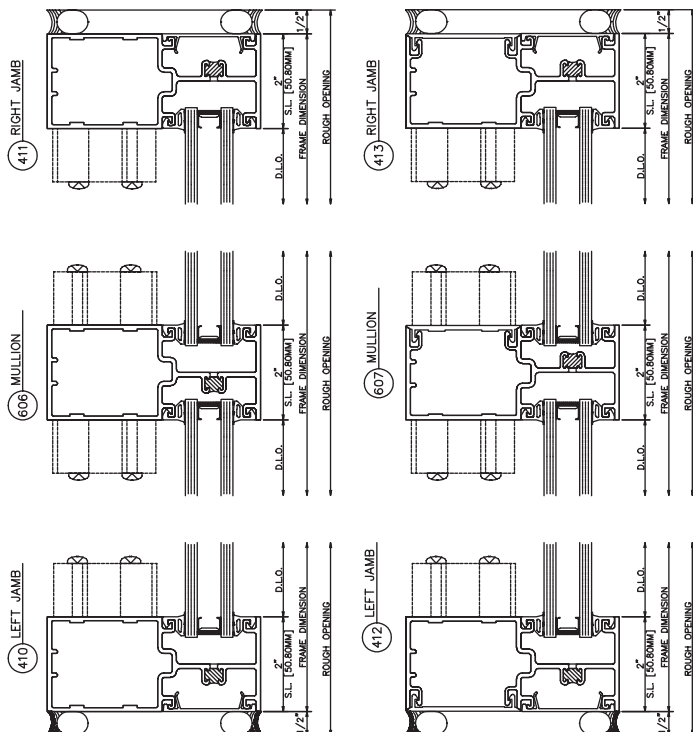
433 Shear Block

Inside Glazed • Center Set





433 Shear Block
Outside Glazed • Outside Set



433 Shear Block
Inside Glazed • Outside Set

433 Shear Block

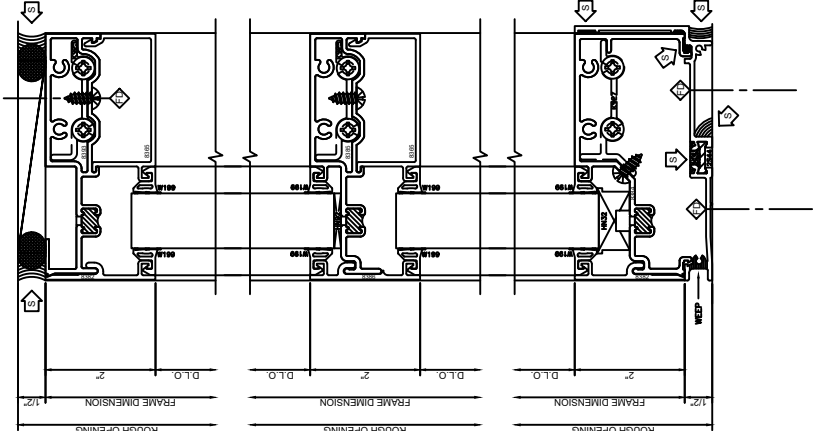
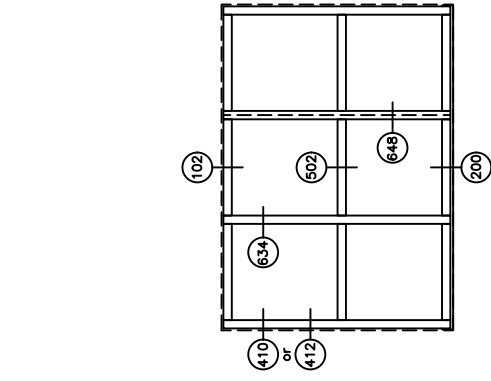
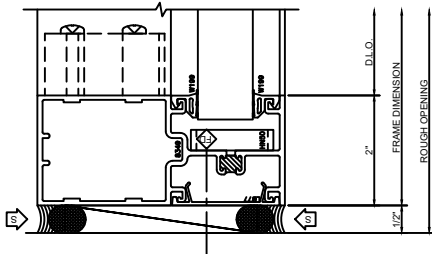
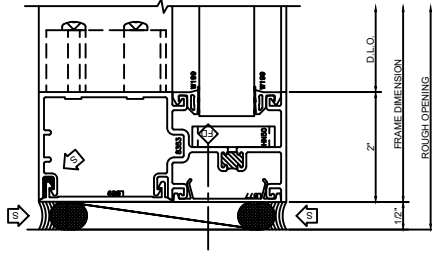
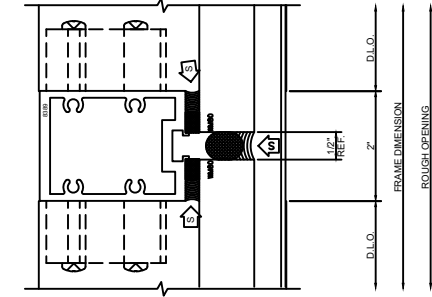
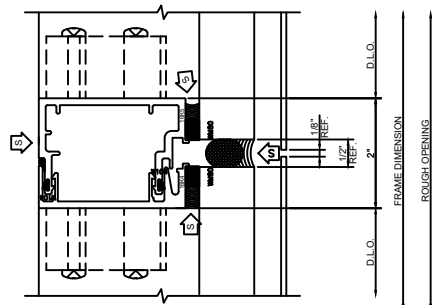
Outside Glazed - Outside Set - SSG

648	SSG EXPANSION VERTICAL
	OUTSIDE SET
	SHEAR BLOCK

634	SSG VERTICAL
	433

412	JAMB
	OUTSIDE SET
	SHEAR BLOCK

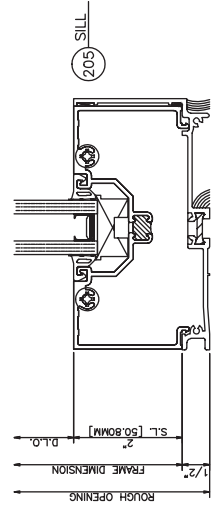
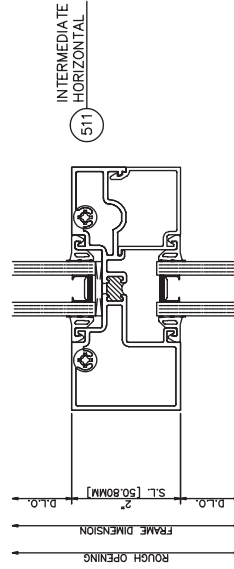
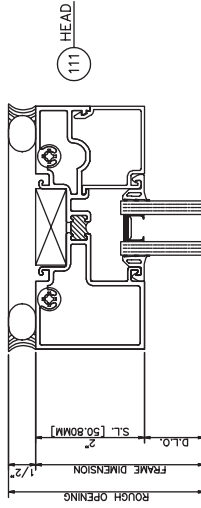
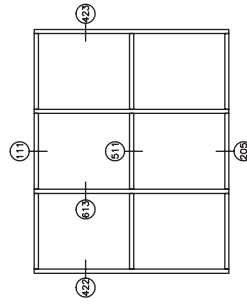
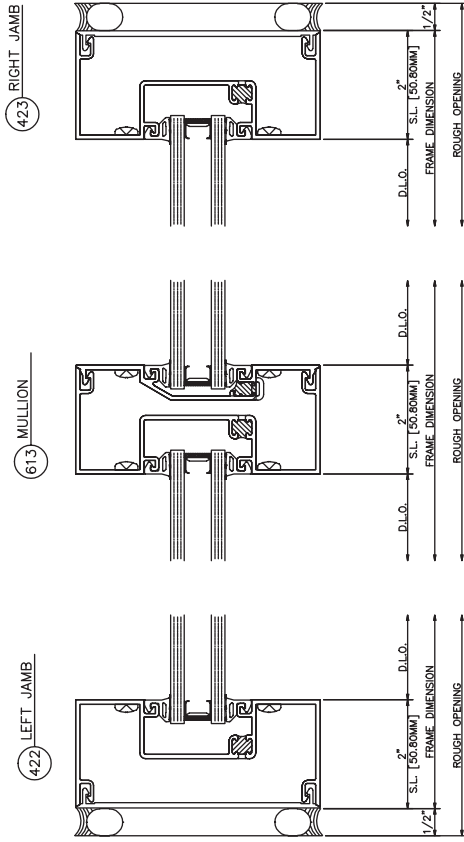
410	JAMB
	SERIES 433
	OUTSIDE SET
	SHEAR BLOCK



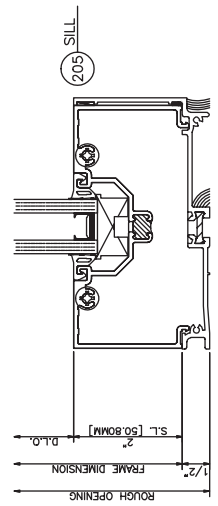
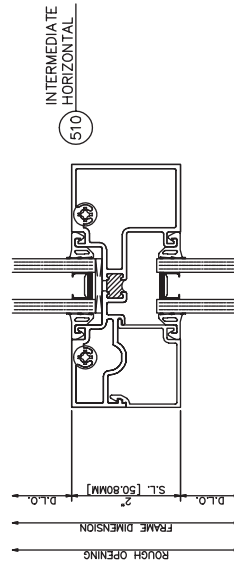
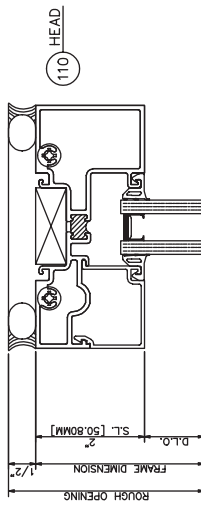
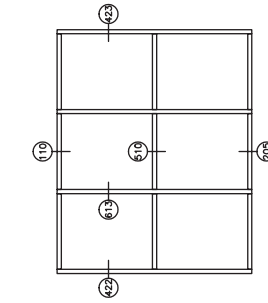
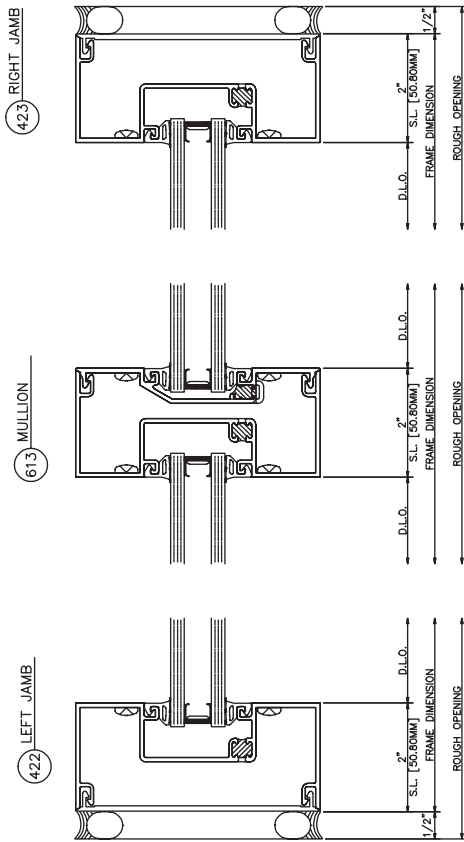
102	O.G. HEAD
	SERIES 433
	OUTSIDE SET
	SHEAR BLOCK

502	O.G. HORIZONTAL
	SERIES 433
	OUTSIDE SET
	SHEAR BLOCK

200	SILL
	SERIES 433
	OUTSIDE SET
	SHEAR BLOCK



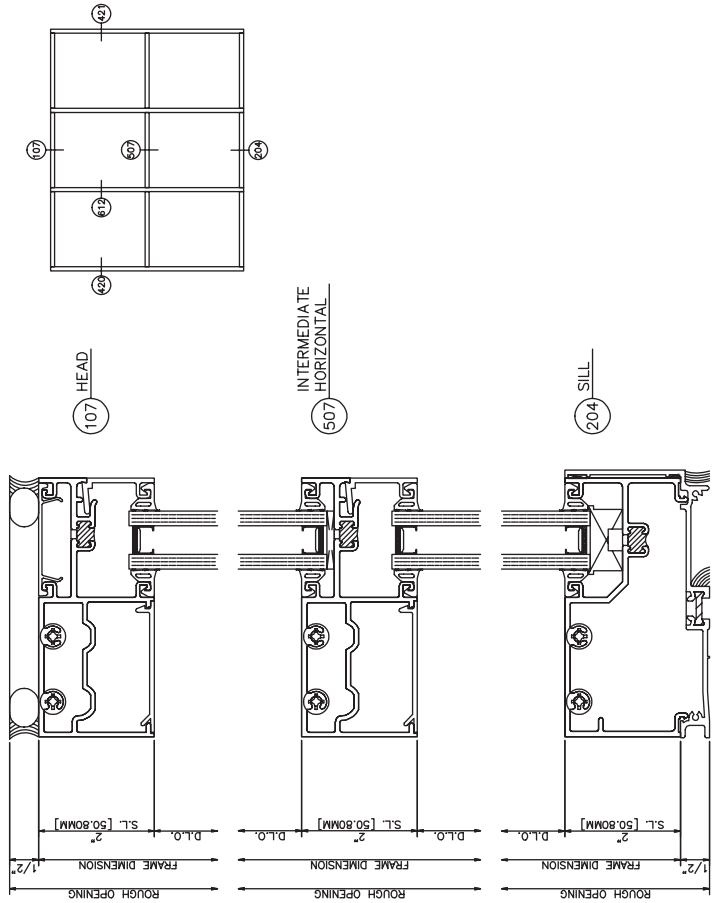
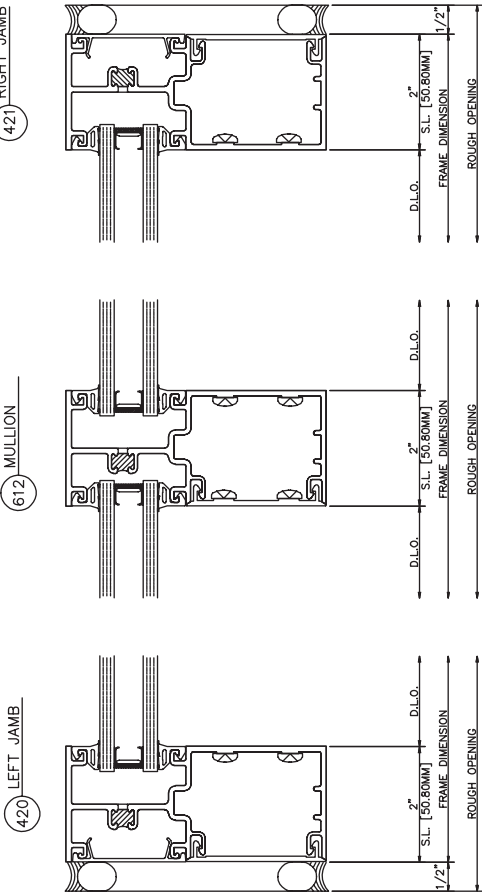
433 Screw Spline
Inside Glazed • Center Set



433 Screw Spline
Outside Glazed • Center Set

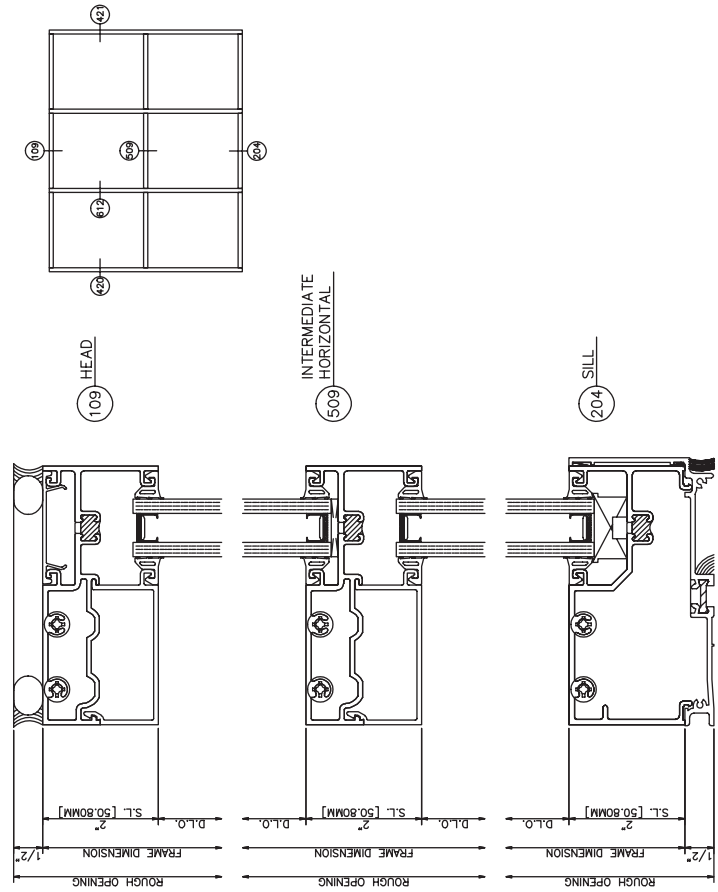
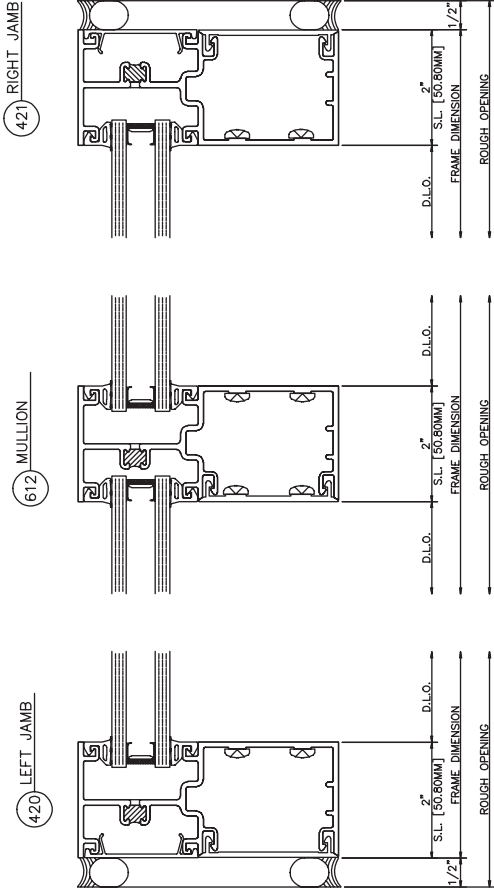
433 Screw Spline

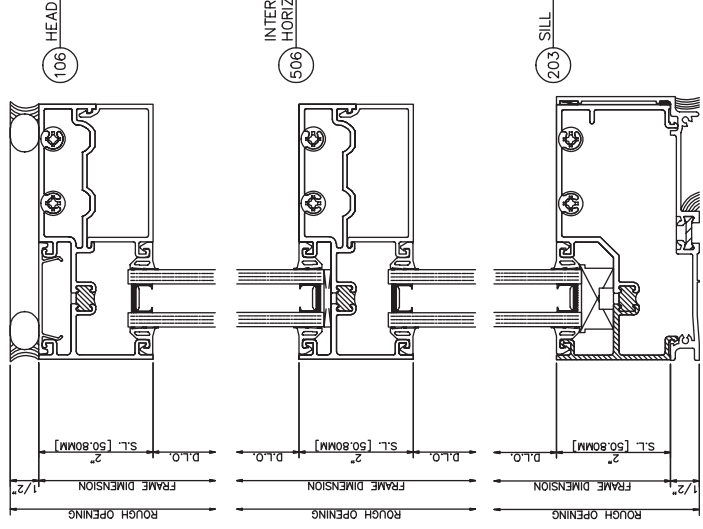
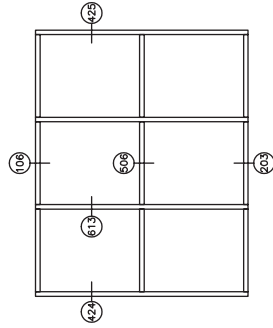
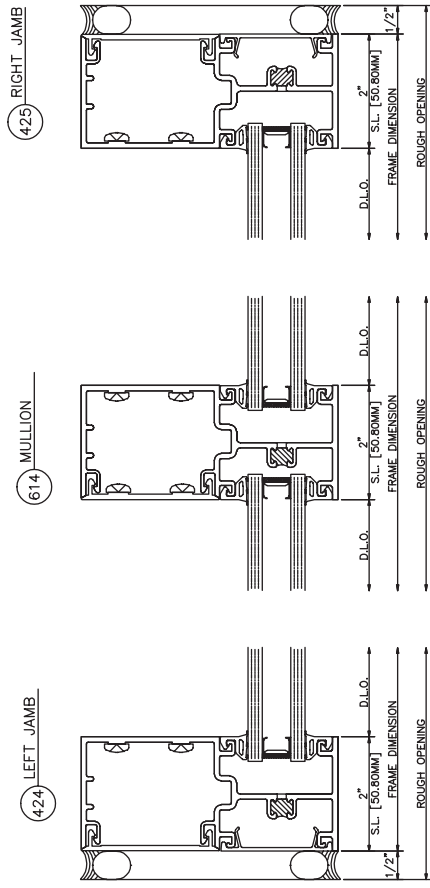
Inside Glazed • Inside Set



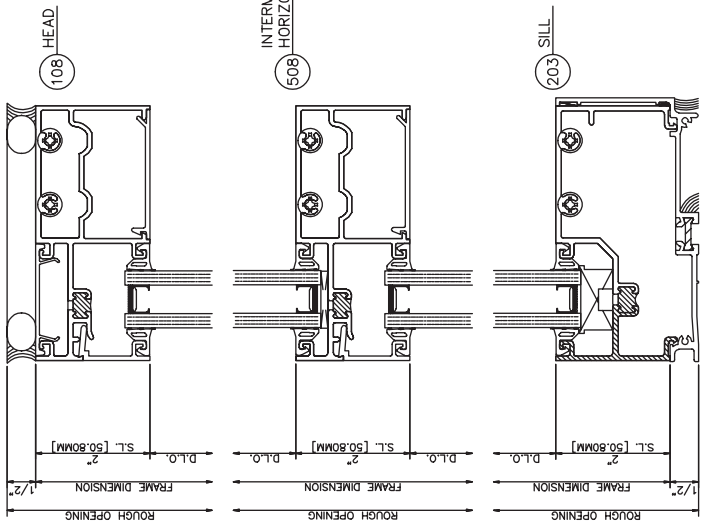
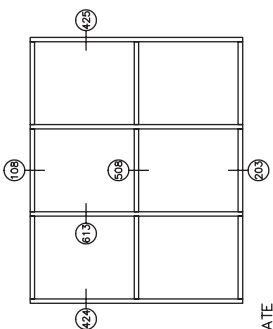
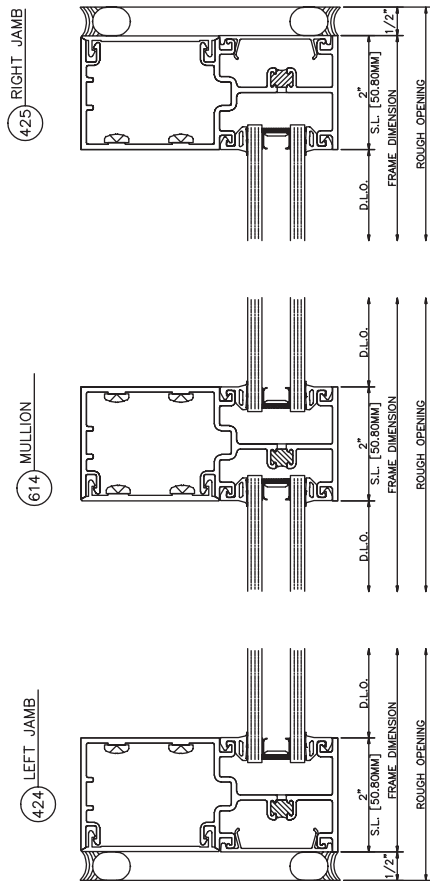
433 Screw Spline

Outside Glazed • Inside Set





433 Screw Spline
Inside Glazed • Outside Set

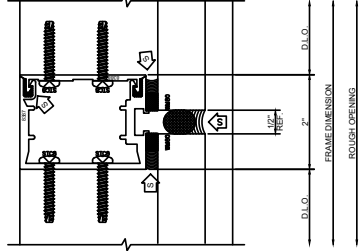


433 Screw Spline
Outside Glazed • Outside Set

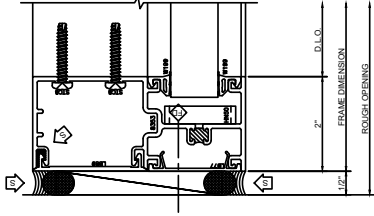
433 Screw Spline

SSG

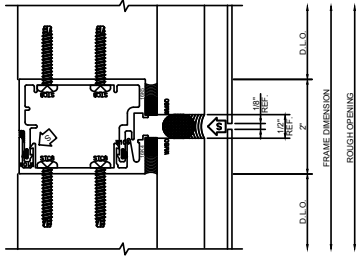
634 SSG VERTICAL
SERIES: 433
OUTSIDE SET
SCREW SPLINE



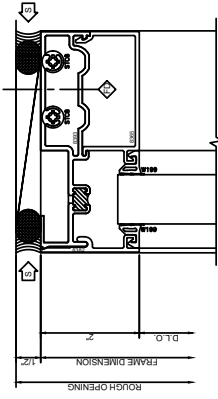
424 LAMB
SERIES: 433
OUTSIDE SET
SCREW SPLINE



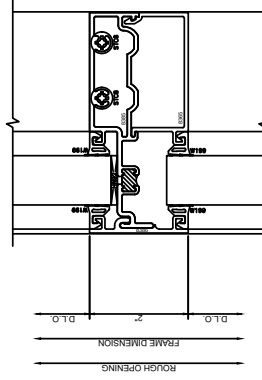
649 EXPANSION VERTICAL
SERIES: 433
OUTSIDE SET
SCREW SPLINE



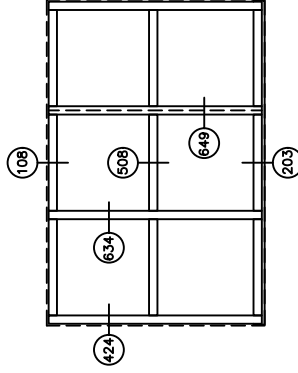
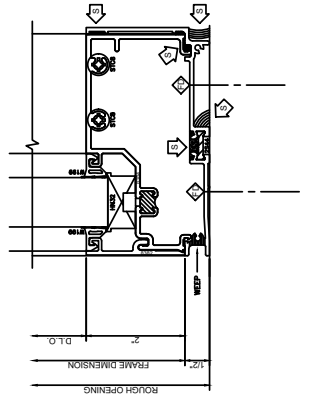
108 O.G. HEAD
SERIES: 433
OUTSIDE SET
SCREW SPLINE

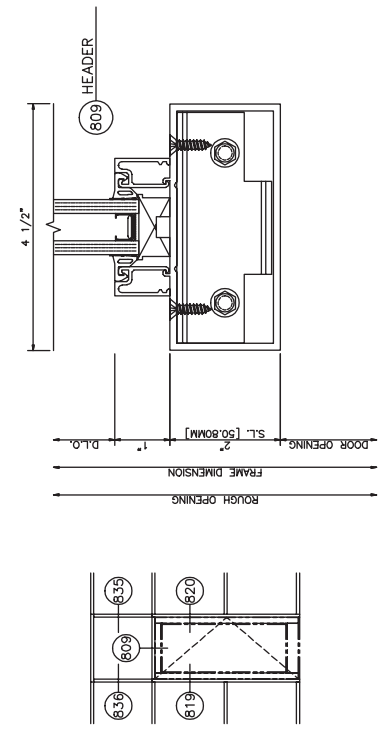
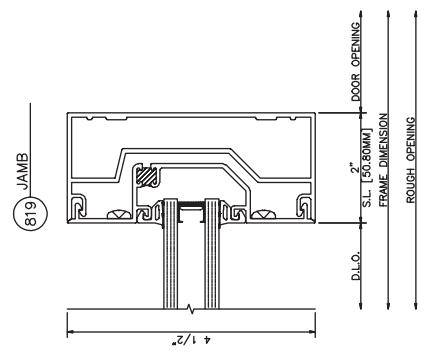
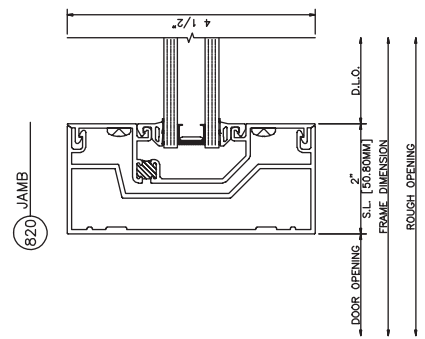
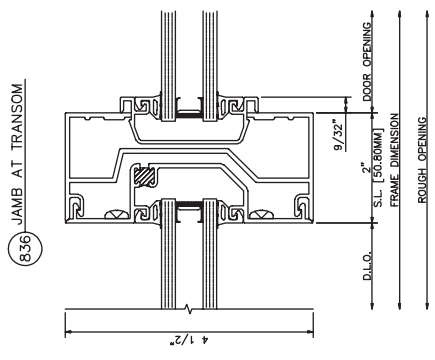
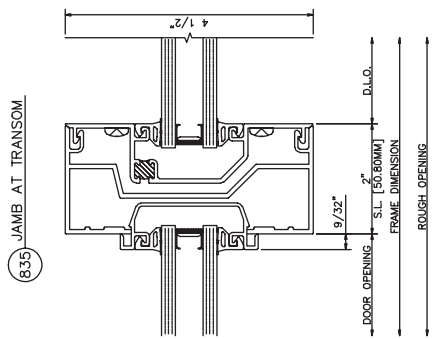
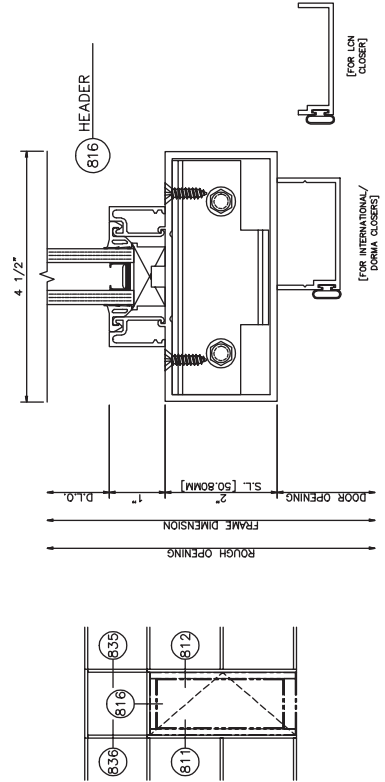
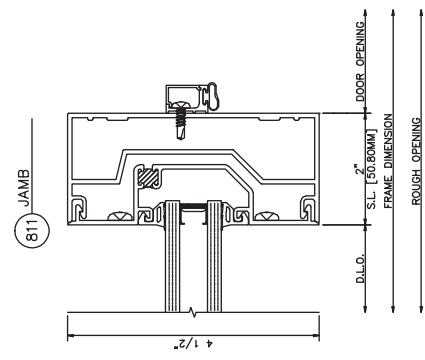
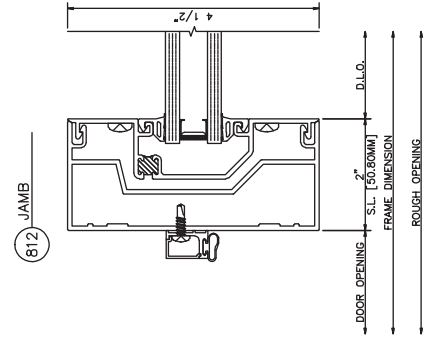
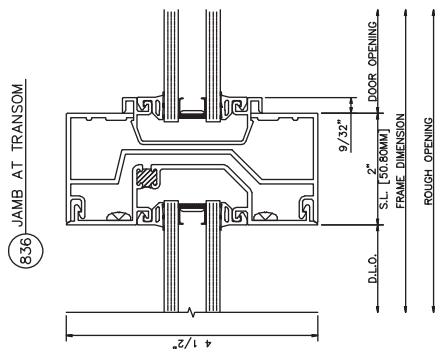
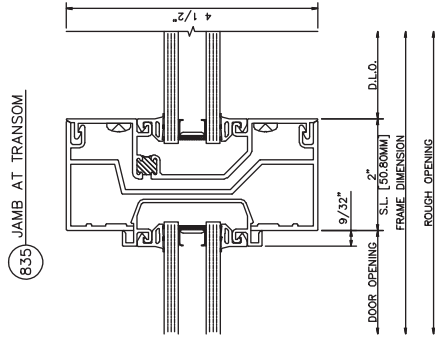


508 O.G. HORIZONTAL
SERIES: 433
OUTSIDE SET
SCREW SPLINE



203 SILL
SERIES: 433
OUTSIDE SET
SCREW SPLINE



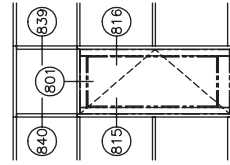
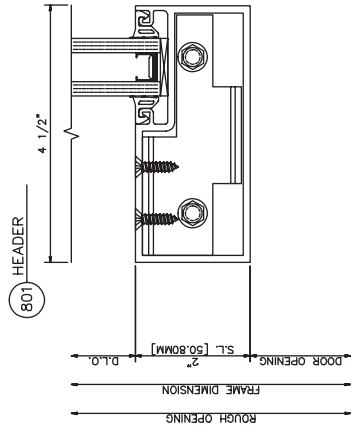
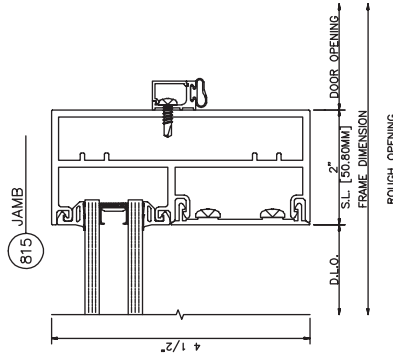
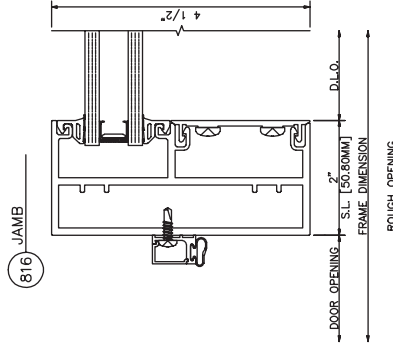
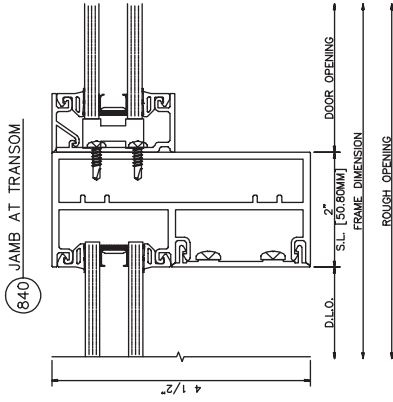
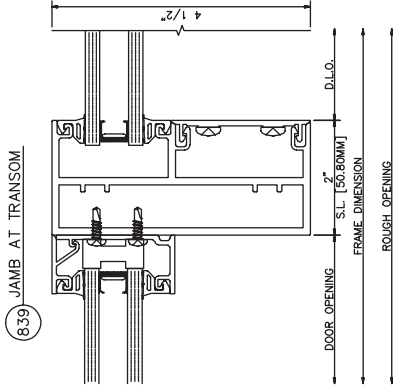


433 Door Frame with Transom
Single Acting w/C.O.C. • Center Set

433 Door Frame with Transom
Dual Acting • Center Set

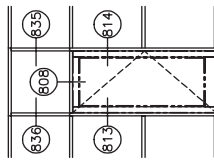
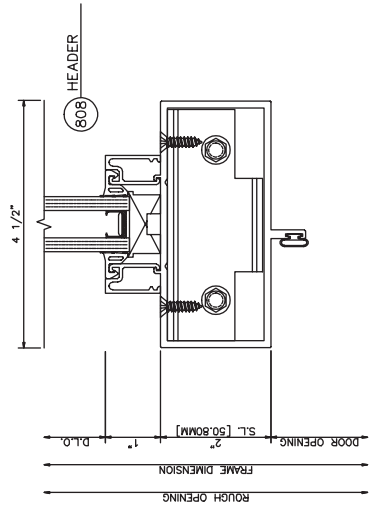
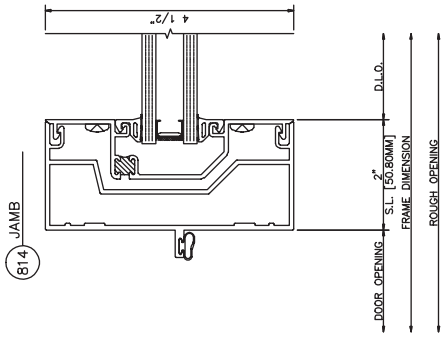
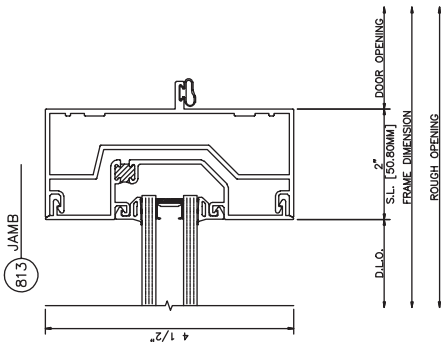
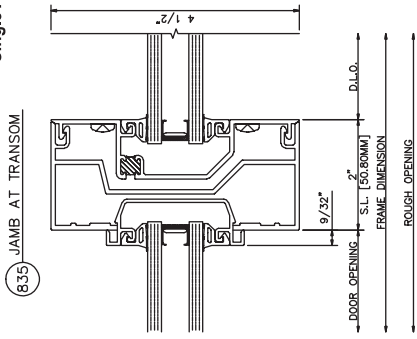
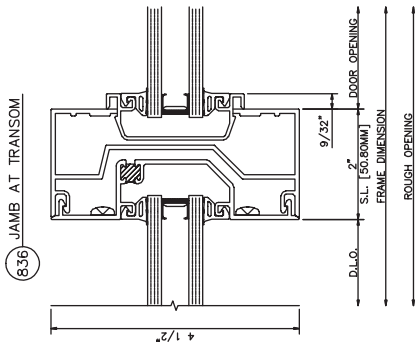
433 Door Frame with Transom

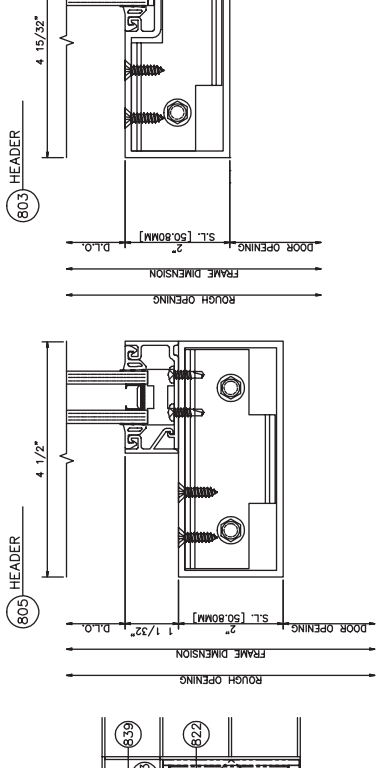
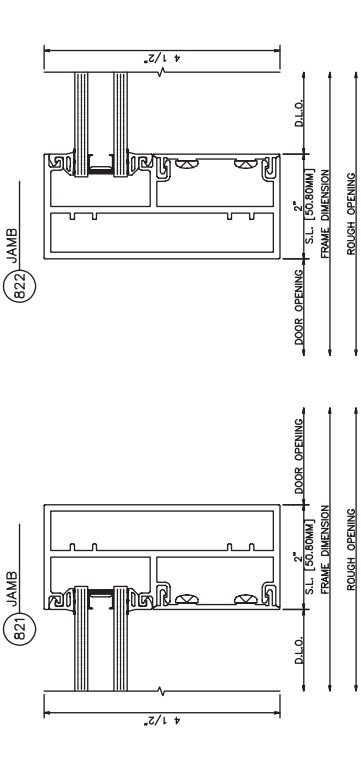
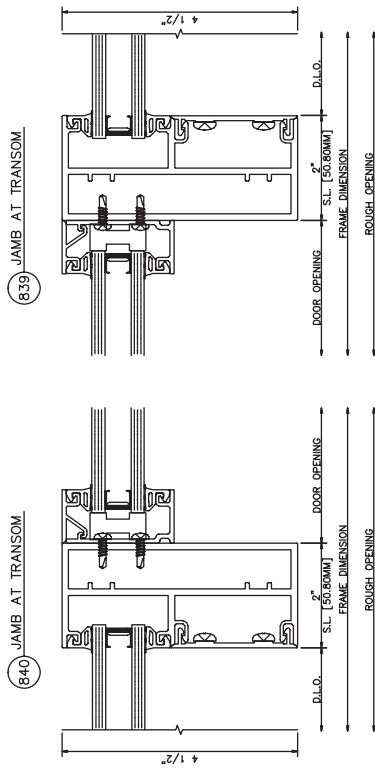
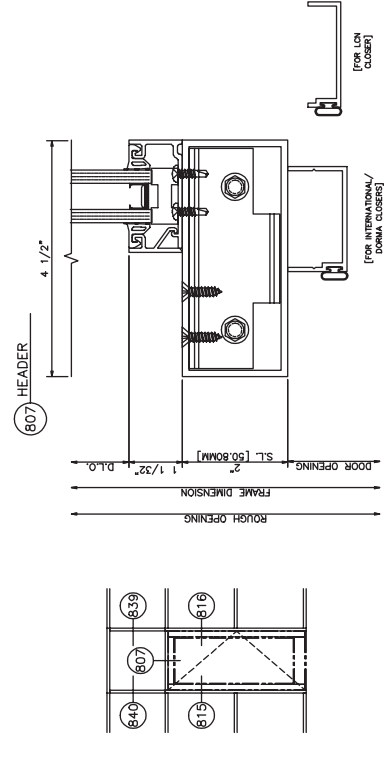
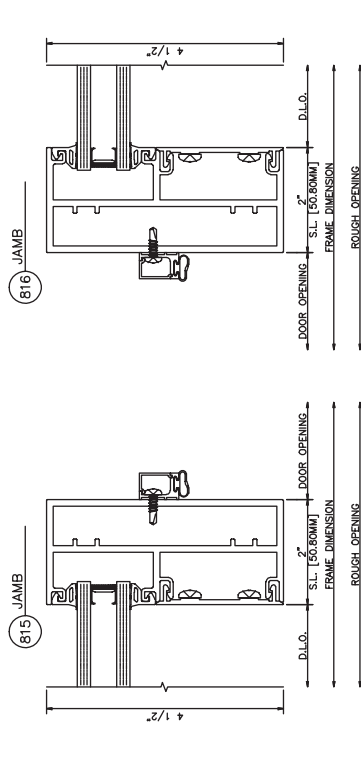
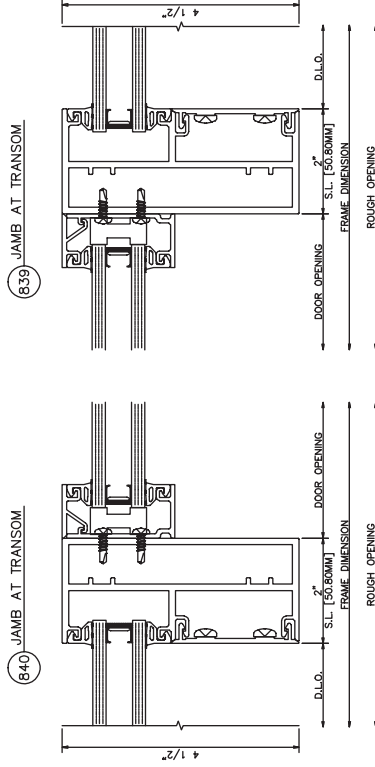
Single Acting • Inside Set



433 Door Frame with Transom

Single Acting • Center Set





433 Door Frame with Transom

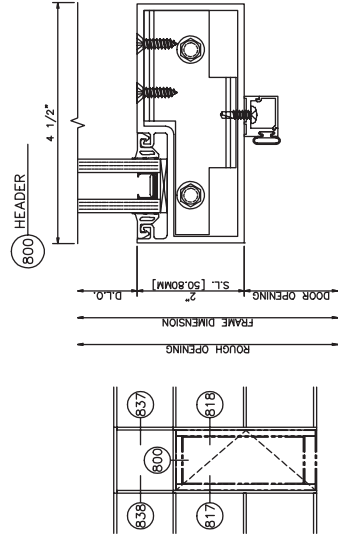
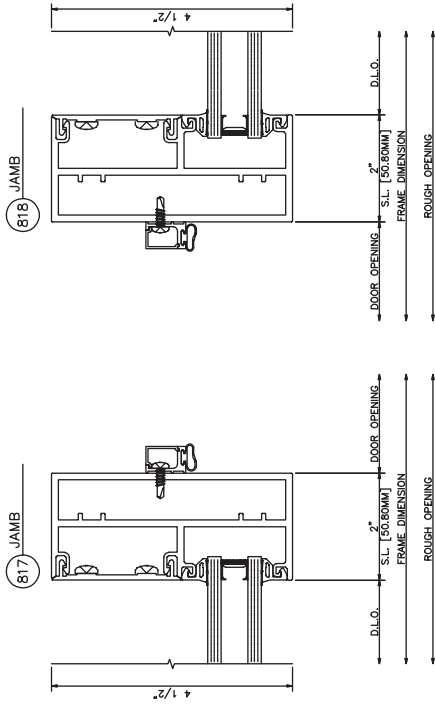
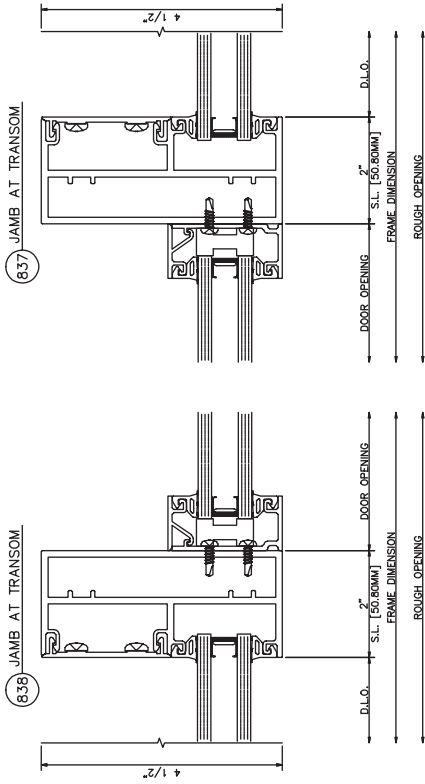
Single Acting w/C.O.C. • Inside Set

433 Door Frame with Transom

Dual Acting • Inside Set

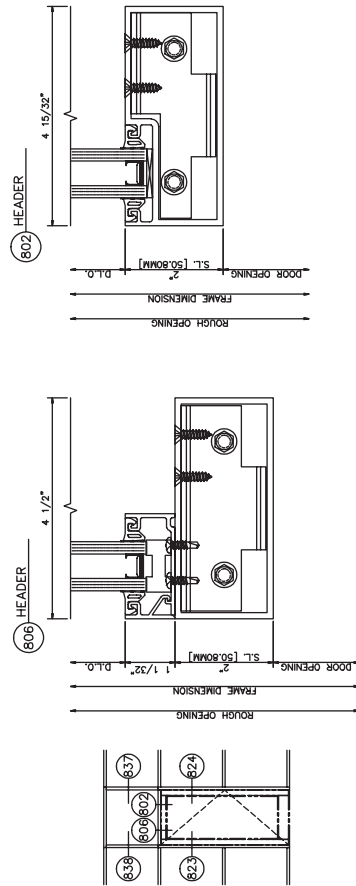
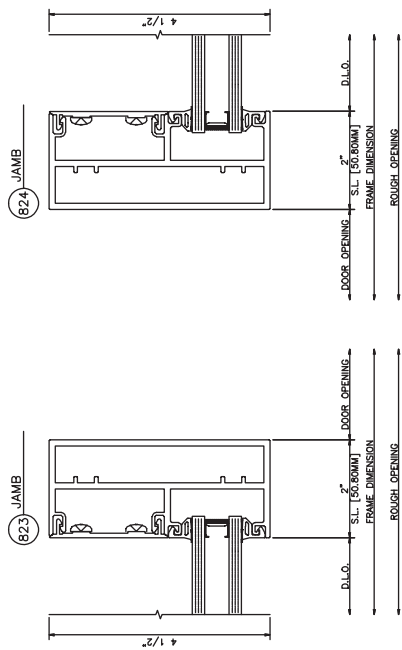
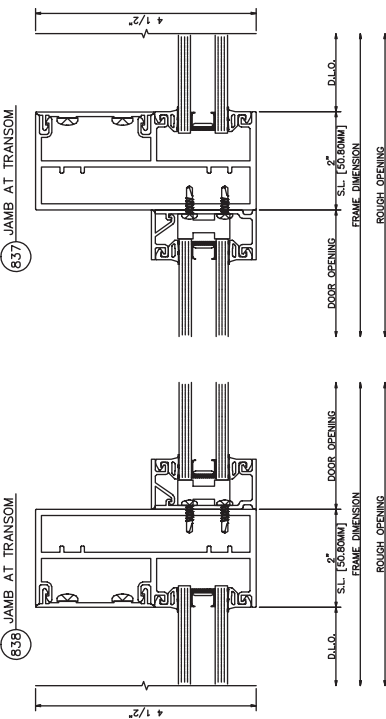
433 Door Frame with Transom

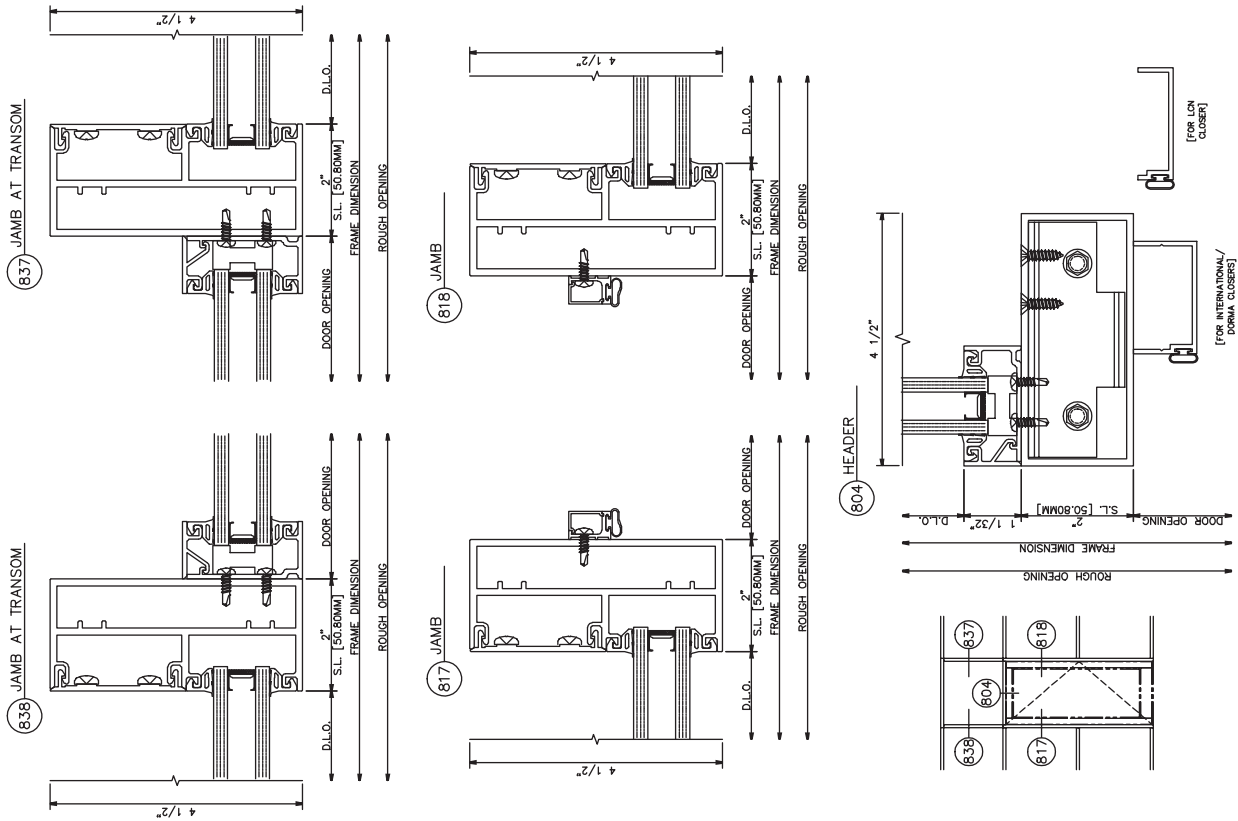
Single Acting • Outside Set



433 Door Frame with Transom

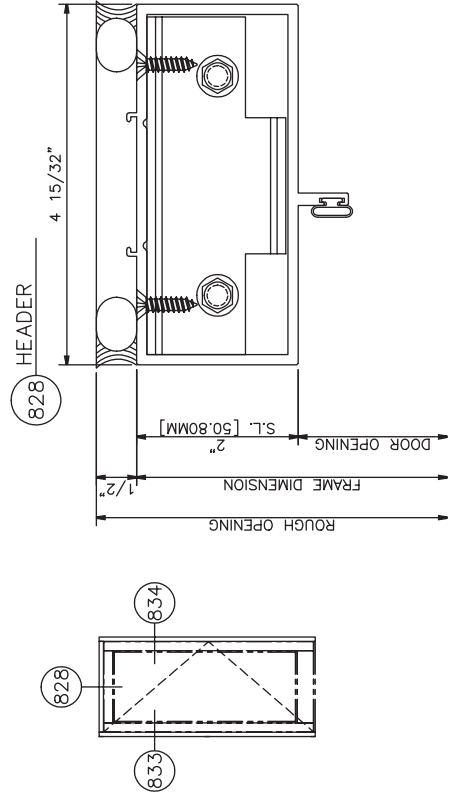
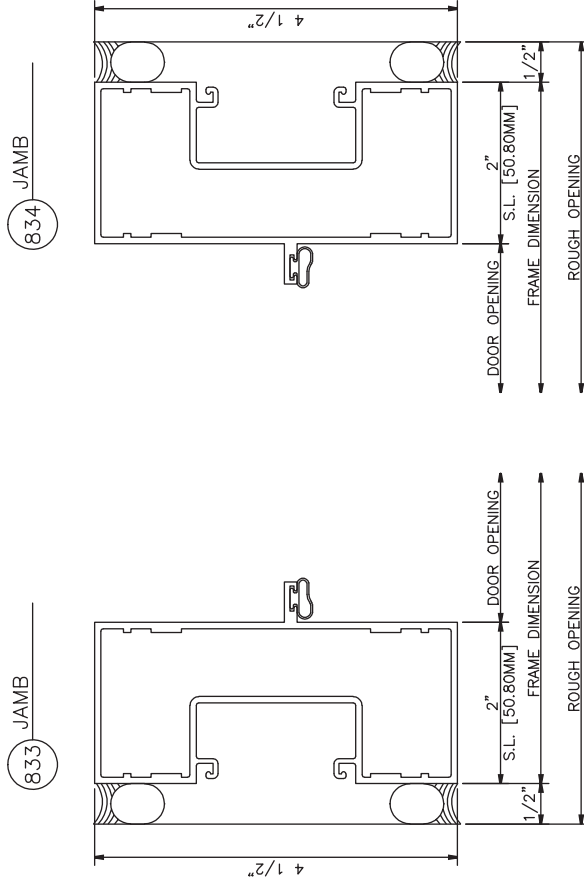
Dual Acting • Outside Set





433 Door Frame with Transom

Single Acting w/C.O.C. • Outside Set

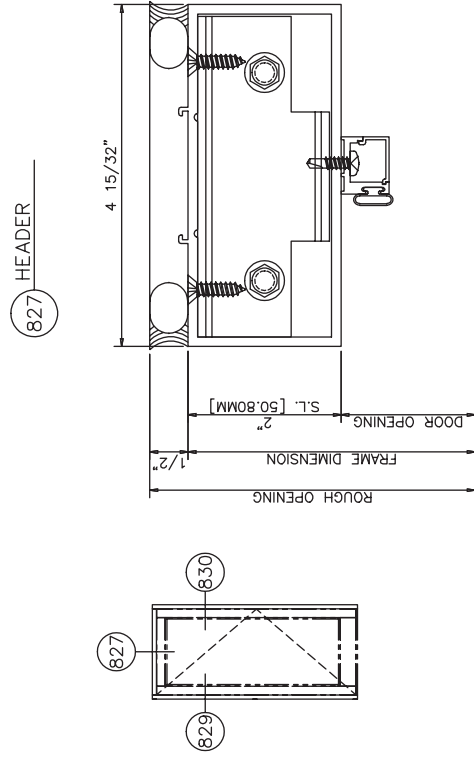
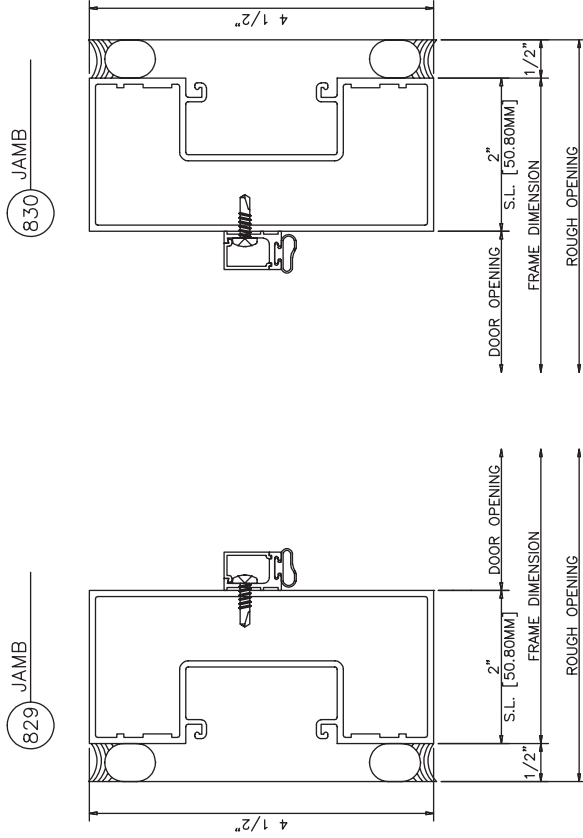


433 Door Frame with Transom

Dual Acting • Center Set

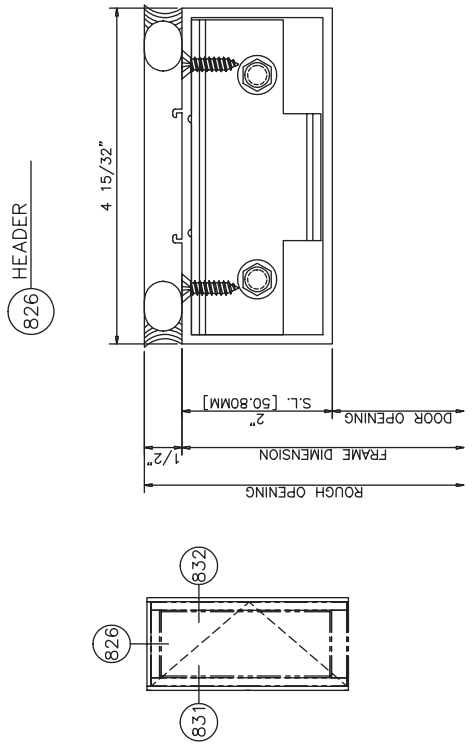
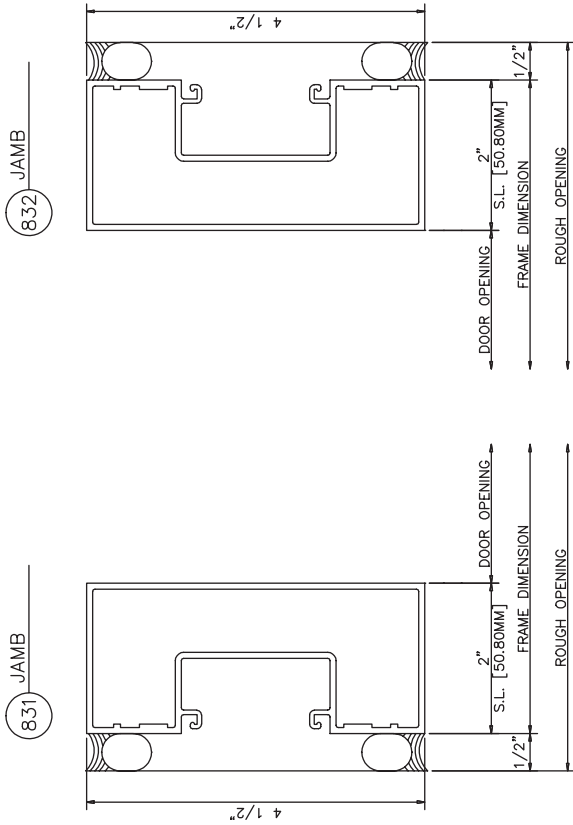
433 Door Frame Without Transom

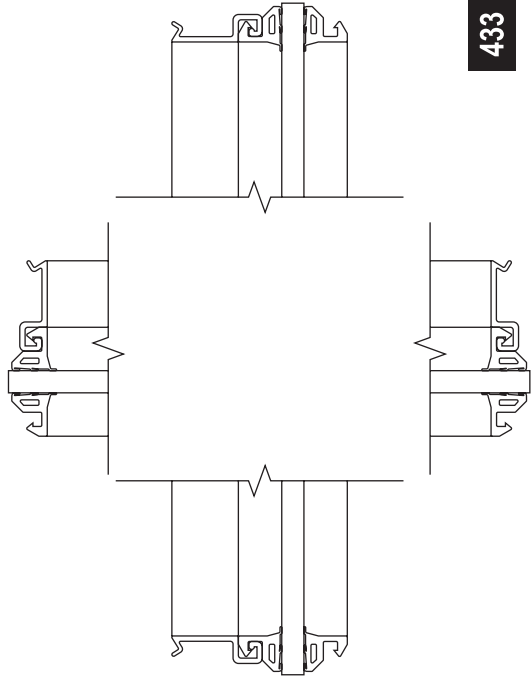
Single Acting with Applied Stops



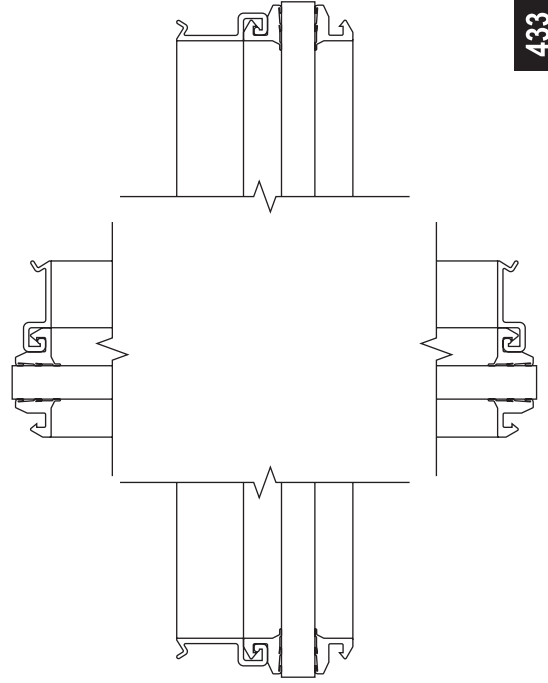
433 Door Frame Without Transom

Dual Acting

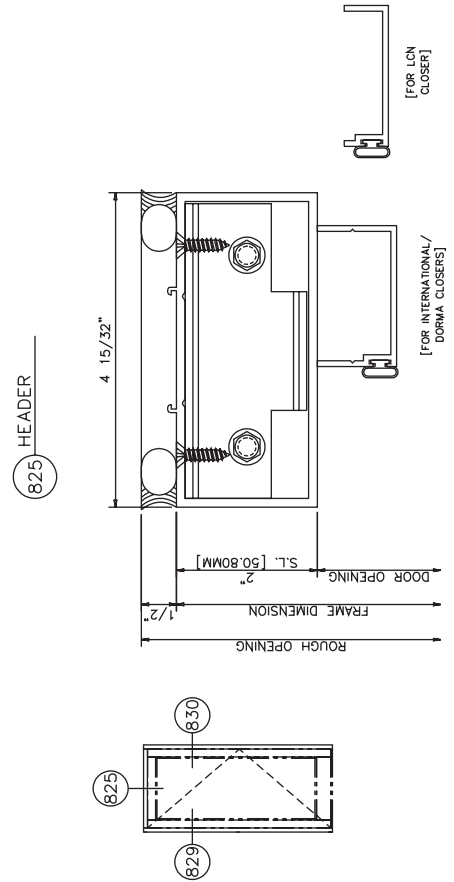
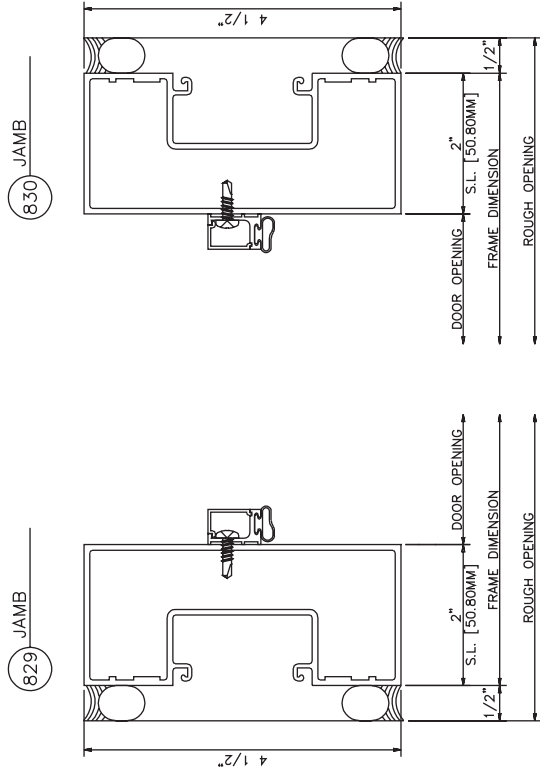




433 1/4" Glazing



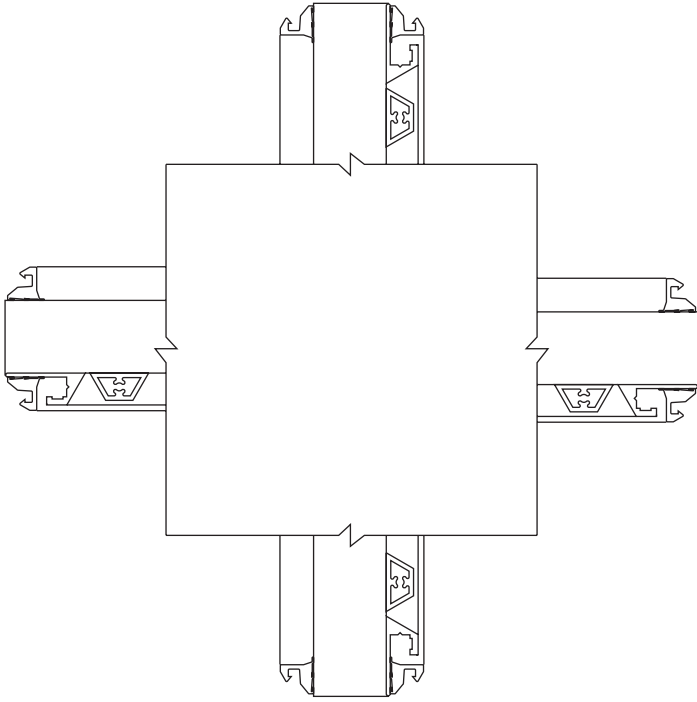
433 3/8" Glazing



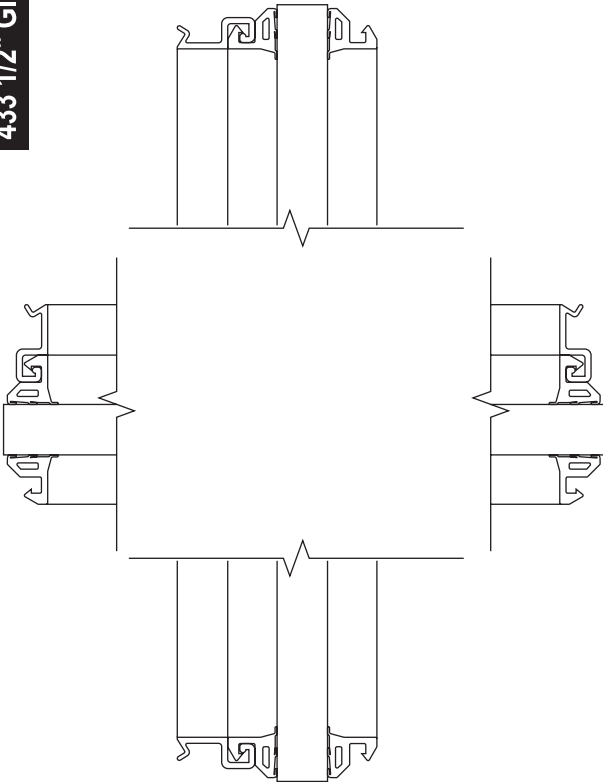
433 Door Frame Without Transom

Single Acting

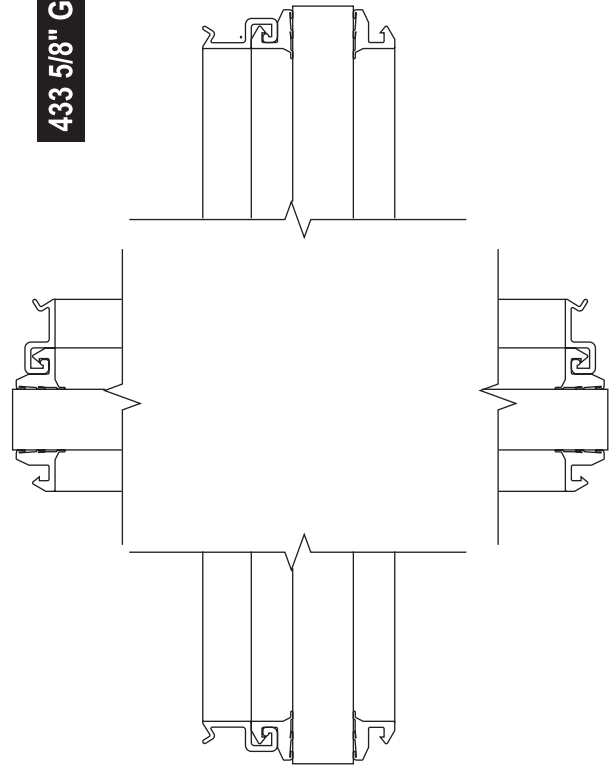
433 1" Glazing



433 1/2" Glazing



433 5/8" Glazing



Product Data Sheet



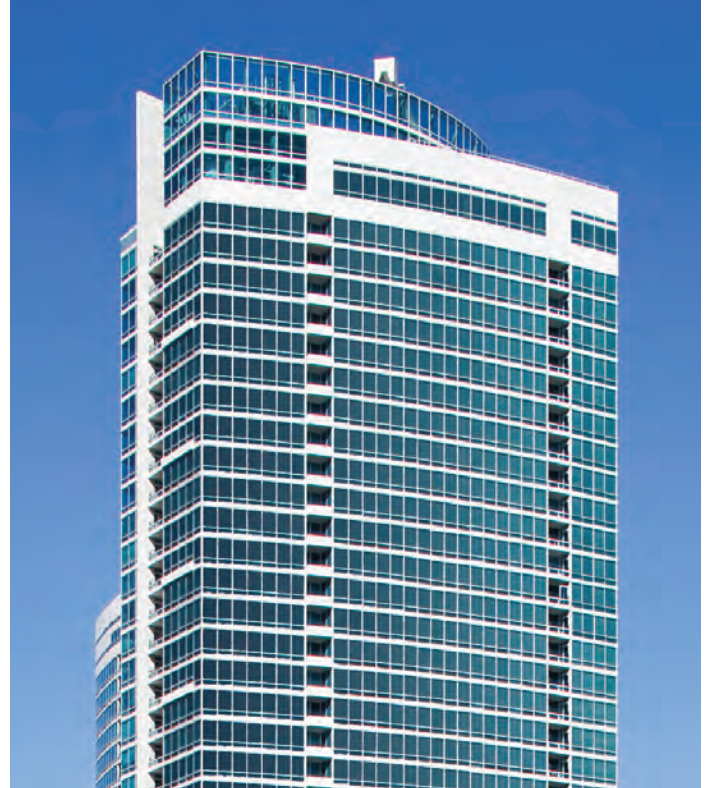
Aesthetic Description

Solarban® 60 solar control, low-e glass by Vitro Architectural Glass (formerly PPG Glass) was engineered to control solar heat gain, which is essential to minimizing cooling costs. In a standard one-inch insulating glass unit (IGU), *Solarban*® 60 glass offers an exterior appearance similar to clear, uncoated glass.

With a very good Solar Heat Gain Coefficient (SHGC) of 0.39, *Solarban*® 60 glass blocks 66 percent of the total solar energy while allowing 70 percent of the visible light to pass through. This combination produces an excellent Light to Solar Gain (LSG) ratio of 1.79, along with exceptional insulating performance, as evidenced by its 0.29 winter nighttime U-value.

Aesthetic Options

Solarban® 60 glass can be coated on *Starphire*® glass and paired with *Starphire*® glass to produce an IGU with exceptional clarity and solar control characteristics. For even more color and performance options, it can be coated on the second (#2) surface of nearly all Vitro's wide range of tinted glasses. It also can be combined in an IGU with any Vitro tinted glass, *Solarcool*® reflective glass or *Vistacool*® subtly reflective, color-enhanced glass (see performance data on back page).



Prudential Center

Location: Newark, NJ | Product: *Solarban*® 60 Glass | Architect: Morris Adjmi Architects | Glass Contractor: Josloff Glass | Glass Fabricator: J.E. Berkowitz, LP

Supporting Sustainable Design

Vitro Architectural Glass provides abundant opportunities for architects and building owners to realize their sustainability objectives.

Energy Use & Operating Cost Reduction: An energy modeling study conducted by an independent energy design and consulting firm showed that a building can potentially save millions of dollars over its lifetime with *Solarban*® 60 glass instead of less advanced glasses. The study showed that by substituting *Solarban*® 60 glass instead of dual-pane tinted glass, a typical glass-walled, eight-story office building in Boston could lower its initial HVAC investment by nearly \$350,000 and its annual energy costs by more than

\$80,000. Carbon emissions from the same building also were reduced by more than 300 tons per year.

Sustainability Documentation: Vitro Architectural Glass is the first U.S. float glass manufacturer to have its entire selection of products recognized by the *Cradle to Cradle Certified*™ program, and the first in North America to publish third-party verified EPDs for its Flat Glass and Processed Glass products.

For additional credit opportunities and supporting documentation, visit vitroglazings.com/LEED

LEED Credit Opportunities

Possible Points	LEED Credit	<i>Solarban</i> ® 60 Feature	Path/Option Satisfied
18	Energy & Atmosphere (EA) Optimize Energy Performance	Excellent SHGC, U-value and Tvis performance	Whole Building Energy Simulation (Option 1) or Prescriptive Compliance: ASHRAE Advanced Energy Design Guide (Option 2)
5	Innovation (IN) Innovation in Design	Exceeds minimum performance mandated by local energy codes	Innovation (Option 1), Pilot (Option 2) and Exemplary Performance (Option 3)
3	Indoor Environmental Quality (EQ) Daylight	Exhibits high light transmission	Simulation: Spatial Daylight Autonomy and Annual Sunlight Exposure (Option 1), Simulation: Illuminance Calculations (Option 2) or Measurement (Option 3)

Solarban® 60 Glass

Fabrication and Availability

Solarban® 60 glass is available exclusively through the Vitro Certified™ Network. Vitro Certified™ Fabricators can meet tight construction deadlines and accelerate the delivery of replacement glass before, during and after construction. Solarban® 60 glass is manufactured using the sputter-coating process and is available for annealed, laminated, heat-strengthened and tempered applications.

Request Samples

To obtain samples of any Vitro Glass product, call 1-855-VTRO-GLS (877-6457) or visit samples.vitroglazings.com.

Insulating Glass Unit Performance Comparisons | 1-inch (25mm) units with 1/2-inch (13mm) airspace and two 1/4-inch (6mm) lites

Outdoor Lite: Coating if Any (Surface) Glass	Glass Type + Indoor Lite: Coating if Any (Surface) Glass	Visible Light Transmittance (VLT)	Visible Light Reflectance		(BTU/hr ² ft ² °F) NFRC U-Value		Solar Heat Gain Coefficient (SHGC)	Light to Solar Gain (LSG)
			Exterior %	Interior %	Winter Nighttime	Winter Argon		

Solarban® 60 Solar Control Low-E Glass

Solarban® 60 (2) Clear + Clear	70	11	12	0.29	0.24	0.39	1.79
Solarban® 60 (2) Starphire® + Starphire®	74	11	12	0.29	0.24	0.41	1.80
Solarban® 60 (2) Solexia® + Clear	61	9	12	0.29	0.24	0.32	1.91
Solarban® 60 (2) Atlantica® + Clear	53	8	11	0.29	0.24	0.27	1.96
Solarban® 60 (2) Azuria® + Clear	54	8	11	0.29	0.24	0.28	1.93
Solarban® 60 (2) Solarblue® + Clear	45	7	11	0.29	0.24	0.28	1.61
Solarban® 60 (2) Pacifica® + Clear	34	6	10	0.29	0.24	0.22	1.55
Solarban® 60 (2) Solarbronze® + Clear	42	7	11	0.29	0.24	0.28	1.50
Solarban® 60 (2) Optigray® + Clear	50	8	11	0.29	0.24	0.30	1.67
Solarban® 60 (2) Solargray® + Clear	35	6	10	0.29	0.24	0.25	1.40
Solexia® + Solarban® 60 (3) Clear	61	10	10	0.29	0.24	0.37	1.65
Atlantica® + Solarban® 60 (3) Clear	53	9	10	0.29	0.24	0.31	1.71
Azuria® + Solarban® 60 (3) Clear	54	9	10	0.29	0.24	0.31	1.74
Solarblue® + Solarban® 60 (3) Clear	45	7	9	0.29	0.24	0.33	1.36
Pacifica® + Solarban® 60 (3) Clear	34	6	9	0.29	0.24	0.25	1.36
Solarbronze® + Solarban® 60 (3) Clear	42	7	9	0.29	0.24	0.32	1.31
Optigray® + Solarban® 60 (3) Clear	50	8	9	0.29	0.24	0.35	1.43
Solargray® + Solarban® 60 (3) Clear	35	7	9	0.29	0.24	0.29	1.21
GraylitE II + Solarban® 60 (3) Clear	7	4	8	0.29	0.24	0.13	0.54

Vistacool® and Solarcool® with Solarban® 60 Solar Control Low-E (3)*

Vistacool® (2) Azuria® + Solarban® 60 (3) Clear	42	20	24	0.29	0.24	0.26	1.62
Vistacool® (2) Pacifica® + Solarban® 60 (3) Clear	26	11	23	0.29	0.24	0.21	1.24
Solarcool® (2) Solexia® + Solarban® 60 (3) Clear	24	24	29	0.29	0.24	0.19	1.26
Solarcool® (2) Azuria® + Solarban® 60 (3) Clear	21	19	29	0.29	0.24	0.17	1.24
Solarcool® (2) Solarblue® + Solarban® 60 (3) Clear	17	14	29	0.29	0.24	0.18	0.94
Solarcool® (2) Pacifica® + Solarban® 60 (3) Clear	13	10	29	0.29	0.24	0.15	0.87
Solarcool® (2) Solarbronze® + Solarban® 60 (3) Clear	17	14	29	0.29	0.24	0.18	0.94
Solarcool® (2) Solargray® + Solarban® 60 (3) Clear	14	11	29	0.29	0.24	0.17	0.82

* Data based on using Starphire® glass for both interior and exterior lites.

All performance data calculated using LBNL Window 7.3 software and represents center of glass performance data. For detailed information on the methodologies used to calculate the aesthetic and performance values in this table, please visit www.ppgideascape.com or request our Architectural Glass Catalog.

For more information about Solarban® 60 low-e glass and other Cradle to Cradle Certified™ architectural glasses by Vitro Glass, visit vitroglazings.com, or call 1-855-VTRO-GLS (887-6457).





WAUSAU TILE LOK-DOWN SYSTEM

TECHNICAL ADVANTAGES

- Paver thicknesses from 2" – 2 3/4" thick
- Tested to withstand wind speeds of more than 145 mph
- Custom surfaces and textures are available
- 7 different bolt and cap colors to choose from

STANDARD SIZES

Pavers available in thickness ranging from 2" - 2 3/4" depending on paver size.

SQUARES



30" sq.



24" sq.

RECTANGLES



24" x 48"

TECHNICAL INFORMATION

PROPERTY	ADVANCED TESTING VALUE	TEST METHOD
Compressive Strength	> 8,000 PSI avg. with no individual unit less than 7,500 PSI	ASTM C 140
Water Absorption	< 6%	ASTM C 140
Flexural Strength	> 1,200 pound average	ASTM C 140
Freeze/Thaw	< 1% loss of dry weight (100 cycles)	ASTM C 1262
Center Load	1,850 lbs.	WTCL 99

Testing based on 24"x24"x2" pressed paver

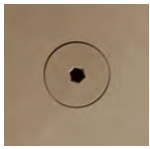


LOK-DOWN SYSTEM CAP COLORS

Custom colors available in top plate and screw.



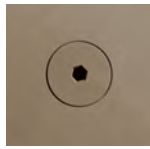
LD_10 Cream



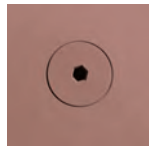
LD_20 Tan



LD_30 Gray



LD_40 Brown



LD_50 Red

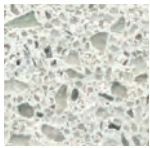


LD_60 Black

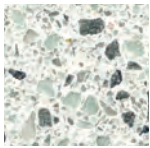


LD_White

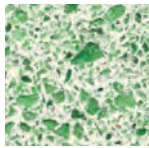
BLASTED GLASS



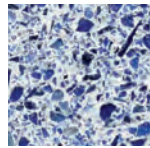
BG-10
**64



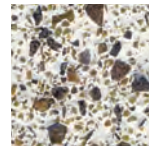
BG-20
**53



BG-30
**58

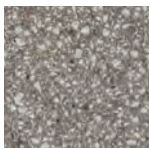


BG-40
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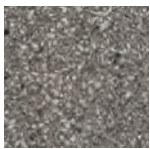


BG-50

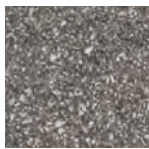
ECOPREMIER



EP-10
**32



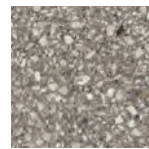
EP-20
**31



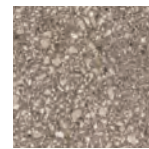
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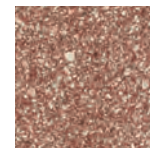
EP-40
**33



EP-50
**25

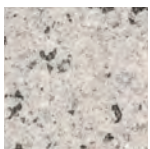


EP-60
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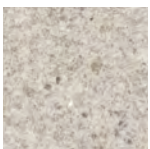


EP-70
**31

EXPRESSIONS



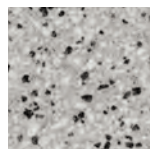
XP-10
**58



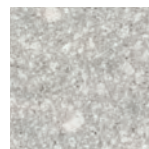
XP-20
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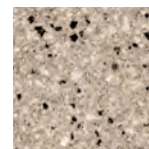
XP-30
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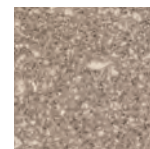
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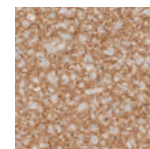
XP-50
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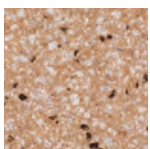
XP-60
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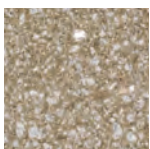
XP-70
**52



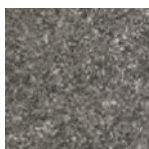
XP-80
**46



XP-90



XP-100
**40

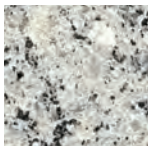


XP-110



XP-120

EXTERIOR TERRAZZO



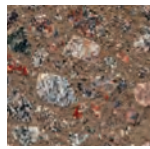
*ET-10
**40



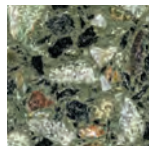
*ET-20
**38



*ET-30
**41



*ET-40

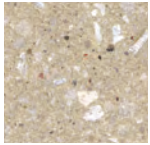


*ET-50

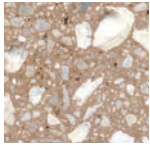
Pavers available in thickness ranging from 2" - 2 7/8" depending on the size.

**Sealed*

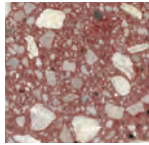
OCEAN VIEW



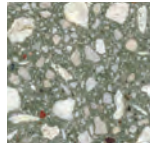
*SEA-10
**56



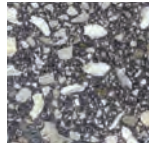
*SEA-20
**53



*SEA-30



*SEA-40

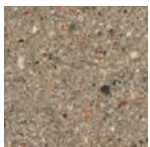


*SEA-50

Pavers available in thickness ranging from 2" - 2 7/8" depending on the size.

**Sealed*

SAND SERIES



SS-10
**34



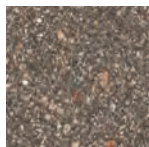
SS-20
**25



SS-30
**25



SS-40

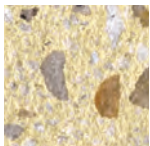


SS-50

SERIES SESTO™



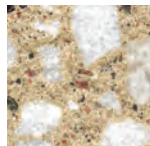
*SSP-510
**70



*SSP-520
**70



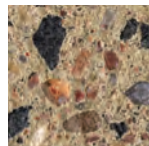
*SSP-530
**63



*SSP-540
**60



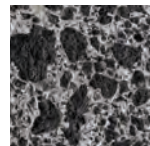
*SSP-550
**48



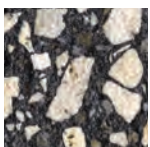
*SSP-560
**40



*SSP-570
**42



*SSP-580
**26

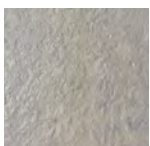


*SSP-590
**33

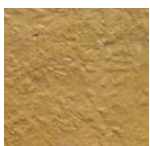
Pavers available in thickness ranging from 2" - 2 7/8" depending on the size.

**Unsealed*

STONEY CREEK



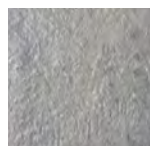
*SC-10
**50



*SC-20
**35



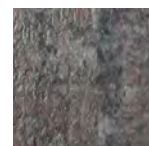
*SC-30
**38



*SC-35



*SC-40



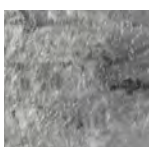
*SC-45



*SC-50



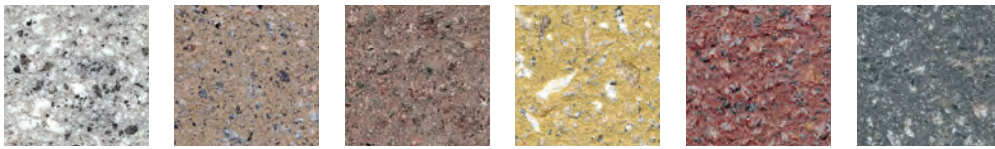
*SC-60



*SC-65

**Sealed*

TEXTURED GRANITE



UG-10
**39

UG-20
**30

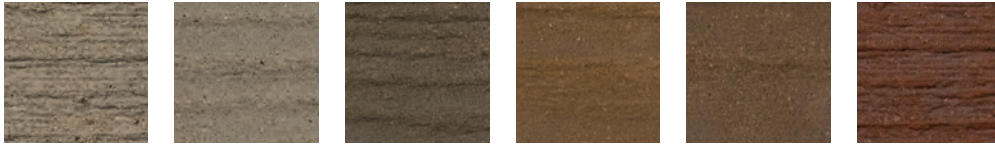
UG-30
**20

UG-40
**44

UG-50
**25

UG-60
**12

TIMBER



TB-10

TB-15

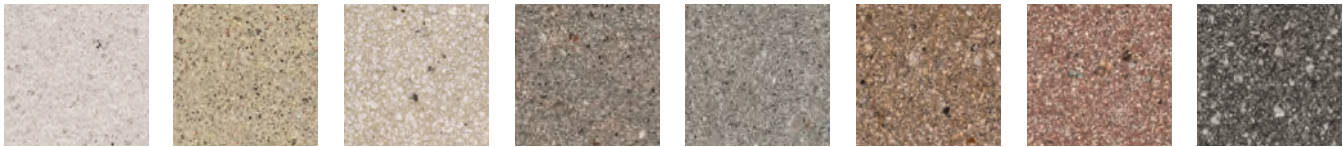
TB-30

TB-40

TB-45

TB-50

ULTRAFACE



UF-15
**78

UF-20
**43

UF-25
**56

UF-30
**27

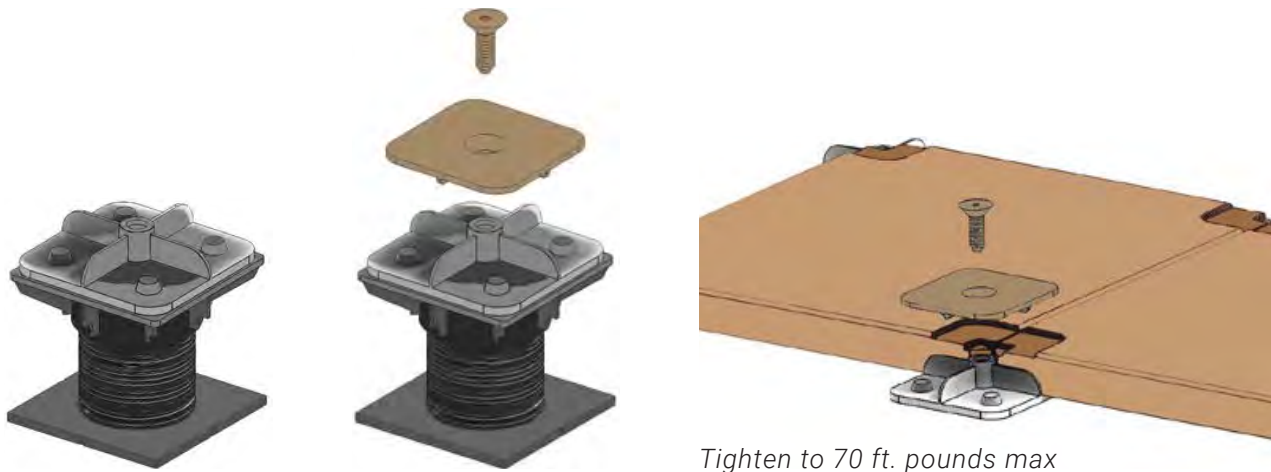
UF-35
**29

UF-40
**27

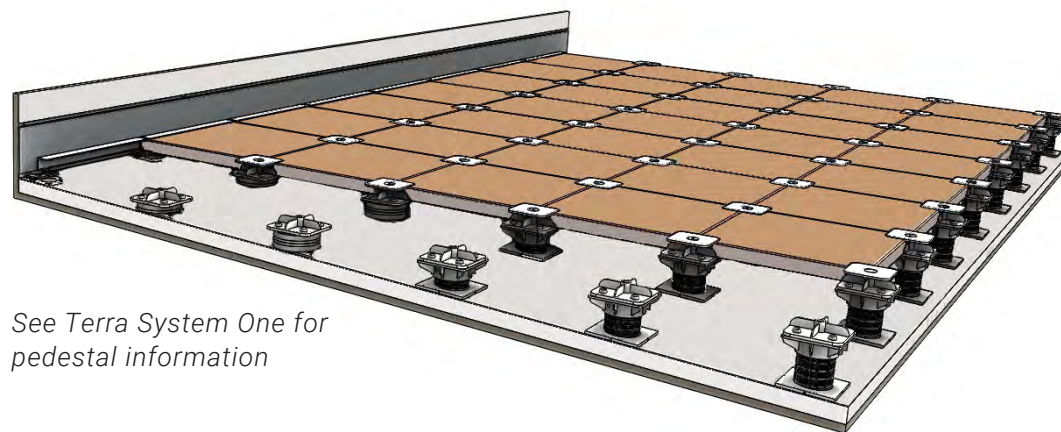
UF-50
**25

UF-60
**13

LOK-DOWN INSTRUCTIONS



Tighten to 70 ft. pounds max



*See Terra System One for
pedestal information*



Maintaining Wausau Pavers

Wausau Tile pavers can be maintained to retain the attractive appearance and prolong the life of the pavers. When using maintenance materials, please follow the product manufacturer's instructions regarding the use of any equipment or cleaning materials described here. Be sure to angle the spray and limit the pressure to 2,000 PSI, as not to damage the surface of the paver when using a pressure washer. For specific or unusual problems, please call us at 800-388-8728.

Weekly Maintenance:

Sweep or pressure wash deck. In areas of high traffic, such as doorways, daily cleaning may be required.

Semiannual Maintenance (Spring and Fall):

Power sweep, then pressure wash total deck surface. Spot clean any stained areas using procedures described in "Cleaning Heavily Soiled Areas."

Remove pavers located over drains on open joint systems. Clean Debris from all drain covers to prevent plugging of drains and replace pavers.

Check pavers for rocking, low or high edges, joint spacing, alignment and broken or chipped pavers. If minor settling or movement has occurred, pavers can be leveled and adjusted with shims. Chipped or broken pavers should be replaced.

Cleaning Heavily Soiled Areas:

Soiled areas should be cleaned as soon as possible to avoid staining. The type of material causing the soiling determines the correct procedures.

A. Oil or Petroleum Products

Remove as much of the material as possible with hot water high pressure washer. Apply degreaser cleaner directly to the soiled area. With a stiff nylon brush or broom, scrub the area. Rinse the area with hot water high pressure washer. In some cases, a second cleaning may be required.

B. Rust Stains

Soak area with water. Scrub rust stains with masonry cleaner products per manufacturer's recommendations. (Be extremely careful around any metal surfaces). Rinse area thoroughly.

C. Soiling from Normal Foot Traffic, Road Salts, Everyday Use

Wash area thoroughly with hot water high pressure washer. On heavily soiled areas, spray the area with a commercial grade cleaner and scrub with a nylon brush. Rinse thoroughly.

D. Gum or Tar

Apply dry ice directly on top of the gum or tar. After freezing, use a putty knife or scraper to remove the gum or tar from the surface.

E. Tobacco Stains on Light Colored Pavers

After pressure washing with hot water, saturate a paper towel with household bleach. Apply towel directly to stain and cover with minimum 3 mil poly. Tape poly to surface to hold in place. Leave stain covered for 24 to 48 hours. Remove to see if stain is gone or lightened. Repeat if necessary.

Cleaner Recommendations (Follow all manufacturer instructions):

- Techniseal - Paver Prep (HD) Heavy Duty Efflorescence Cleaner
- Prosoco - Sure Klean 600 (New Masonry Cleaner)
- Rain Guard Restore-N-Prep

Snow Removal:

Snow can be cleaned from the deck using shovels, walk-behind snow blowers or power brushes. A four wheeled garden tractor, weight not exceeding 1,700 lbs. manned, can also be used. Nylon or rubber scrapers are recommended to avoid scratching of pavers. Tire chains can cause minor scratching and extra care should be taken with chains.

The use of snow melt materials should be minimal and in accordance with manufacturer's recommendations. Some types of snow melt are not recommended for use on new concrete and can cause surface damage to the paver.

De-Icer Recommendations (Follow all manufacturer instructions):

- Melt-Off - Ice Melter
- Premier - Ice Melter
- Road Runner - Ice Melt

Open Joint Installations:

Open joint installation is unique in that the pavers are elevated to allow water and air to flow through the joints of the pavers. It is essential that all the joints and all drains stay open, clean and free of dirt and debris. Failure to maintain clean joints may result in performance issues.

Efflorescence in Colored Pavers:

Efflorescence is a condition which appears as a white stain on some colored concrete and masonry products. It is a common occurrence in new concrete, created by sodium and sulfate compounds of several hydroxides, minerals, chlorides and nitrates which deposit on the surface and pores. It is the result of moisture evaporation and is most common on darker colored pavers and fabricated surfaces.

Water (rain, humidity, or ground water which "wicks") penetrates the pavers and dissolves latent salt. Sun draws the salt in solution to the surface and as moisture evaporates it is deposited on the surface. Efflorescence clears up as paver's age and eventually dissipates. The length of time varies with weather conditions and wear. Efflorescence can also be caused when salts in the sub-base material wick up around and through the pavers and joints and deposit on the paver surface and sides.



Efflorescence Cleaner Recommendations (Follow all manufacturer instructions):

- Techniseal - Paver Prep (HD) Heavy Duty Efflorescence Cleaner
- Quickrete - Efflorescence & Rust Remover
- Techniseal - Paver Prep & Efflo Cleaner

Wausau Tile Warranty:

Wausau Tile products are warranted to be free from defect in material and workmanship during manufacturing based on applicable industry standards. Warranty periods begin on delivery date of the warranted product and extend for the period listed below:

- Precast terrazzo products are warranted for two years.
- Terrazzo tile, plastic and metal pieces are warranted for one year.
- Framing and aluminum products are warranted for two years.
- Powder coating is warranted for two years.
- Thermo-plastic coating is warranted for five years.
- Concrete site furnishings are warranted for two years.
- Pavers are warranted for three years if properly installed according to both project specifications and Wausau Tile installation recommendations. Placing pavers on non-Wausau Tile pedestals voids this LIMITED WARRANTY.



WAUSAU TILE ACCESSORIES



ROOF DECK PEDESTAL SYSTEM

The TerraSystem One pedestal system helps to navigate the challenges of a pitched surface with ease, designed for roof deck applications as well as roof plazas, parking garages, roof terraces and more.

This system provides a level surface for installation of concrete pavers over a pitched surface from $\frac{1}{8}$ " to $21\frac{1}{2}$ ". It also ensures precise paver alignment with even spacing to allow drainage and air circulation critical to the health of a deck installed over any waterproof membrane. It allows for easier access to the subsurface for scheduled maintenance or repairs without damage to the paved surface.

TERRA-STAND

Adjustable pedestal that screws up, down and tilts from side to side to provide a level surface for the paver installation.

TerraStand Pedestals are made of a high impact copolymer polypropylene that adjust from 3" to 21 1/2" in height, with slope compensating up to 5/8" to provide a level installation.

Outside base dimension of 7" x 7" provides contact surface of 49" square. It is installed on previously established grid lines, adjusted for height and slope and ready for installation. Average compressive strength of 3,000 pounds per pedestal.



LOK DOWN:

Mechanism designed for areas where high-wind conditions exist. Pavers are locked together to create a rafting effect. The Lok Down system can be used in conjunction with TerraStand pedestals or waffle reducers. Several colors are available to match pavers.



WAFFLE REDUCER

Waffle Reducers are manufactured to accommodate height adjustments of 1/2" to 3". With Terra Tab placed on top, the unit consists of one base with 3 pieces of 3/8" waffle rings and 2 pieces of 3/4" waffle rings. An outside base diameter of 6" provides surface contact of 28 square inches. The waffle reducer is made of high impact copolymer polypropylene.





TERRA-TAB

Terra-Tabs allow for perfect spacing between paver joints. They allow for expansion, air circulation, drainage and precise paver alignment. Available in the following sizes:

#5 - $\frac{3}{8}$ " thick, 5" sq, $\frac{3}{16}$ " wide spacer

#5a - $\frac{3}{8}$ " thick, 5" sq, $\frac{1}{8}$ " wide spacer

Terra-Tabs are used in conjunction with Terra Stand Pedestals and Waffle reducers. They can be used by itself when no elevation or leveling is needed.



TERRA-SHIM PLATES

Manufactured to coincide with Terra-Tab. Irregularities in deck sub-surfaces will increase the number of shims required.

#5 - $\frac{1}{16}$ " thick, 5" sq.

#5 - $\frac{1}{8}$ " thick, 5" sq.

#5 - $\frac{1}{4}$ " thick, 5" sq.

Terra-Tabs and Terra-Shims can be set directly on the waterproof membrane, on an optional protection pad or insulation without harm.



RUBBER SPACERS

Allows for $\frac{1}{8}$ ", $\frac{3}{16}$ " or $\frac{1}{4}$ " spacing; used in conjunction with Terra-Shim plates.



TERRA-PAD

Terra-Pad is an 8" x 8" x $\frac{1}{8}$ " rubber protection pad which can be used under the Terra Stand and Waffle reducer to protect your waterproof membrane.



BLOK HANDLE

Made of 10-gauge HRCQ steel, Blok Handles are available for 12", 18" and 24" Terra-Pavers. Precise sizing of the handle provides for easy manipulation during installation without harm to the paver or other components, while allowing for $\frac{3}{16}$ " (4.76 mm) joints. The handle also makes removal easy should repairs to subsurface components be necessary.

BIG-BLOK HANDLE

Made of steel, unit is adjustable to work with 24", 30" and 36" pavers. Requires two people to operate.

Optional wheel attachment that allows for a one man operation is available.

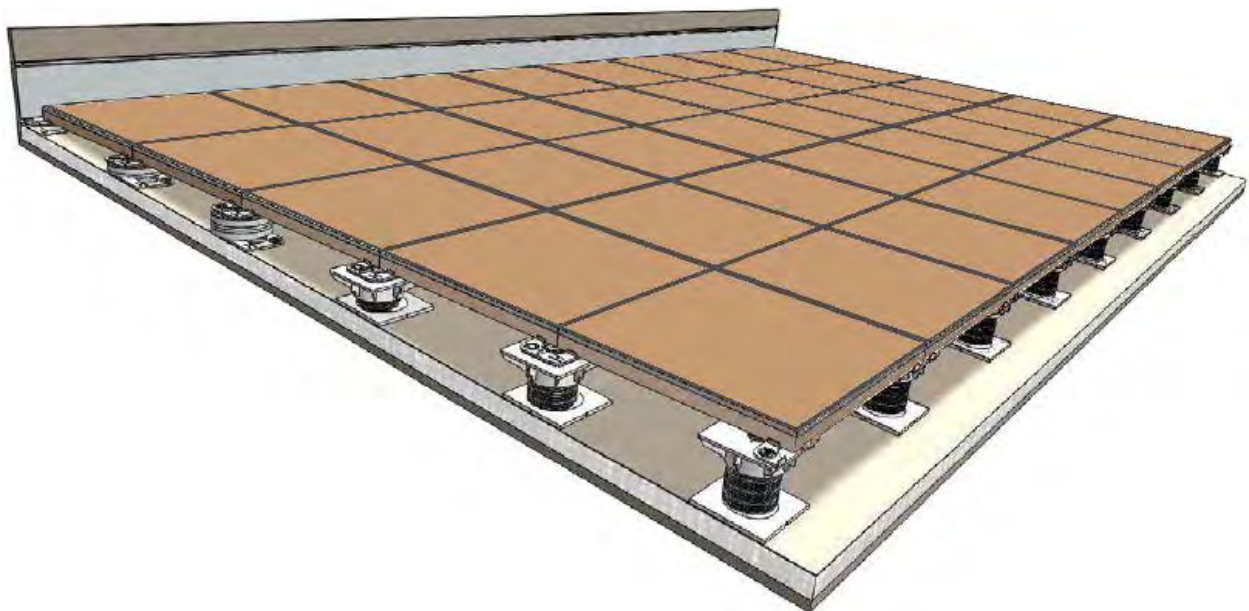




TERRA-STAND PEDESTAL SYSTEM INSTALLATION

Pavers can be Install on top of pedestals 2 different ways:

- 1 - Installation can start at the center of pedestal grid, and work toward the edges. Edge pavers will need to be cut to fit.
- 2 - Installation can start at a wall with full size pavers. As grid is filled, edge pavers will need to be cut.



A	B	C	D	E
Waffle Reducer	6" Terra Stand	11" Terra Stand	16" Terra Stand	21" Terra Stand
Adjusts 1/2" - 3"	Adjusts 3" - 6.5"	Adjusts 3.5" - 11.5"	Adjusts 6" - 16.5"	Adjusts 11" - 21.5"



A



B



C

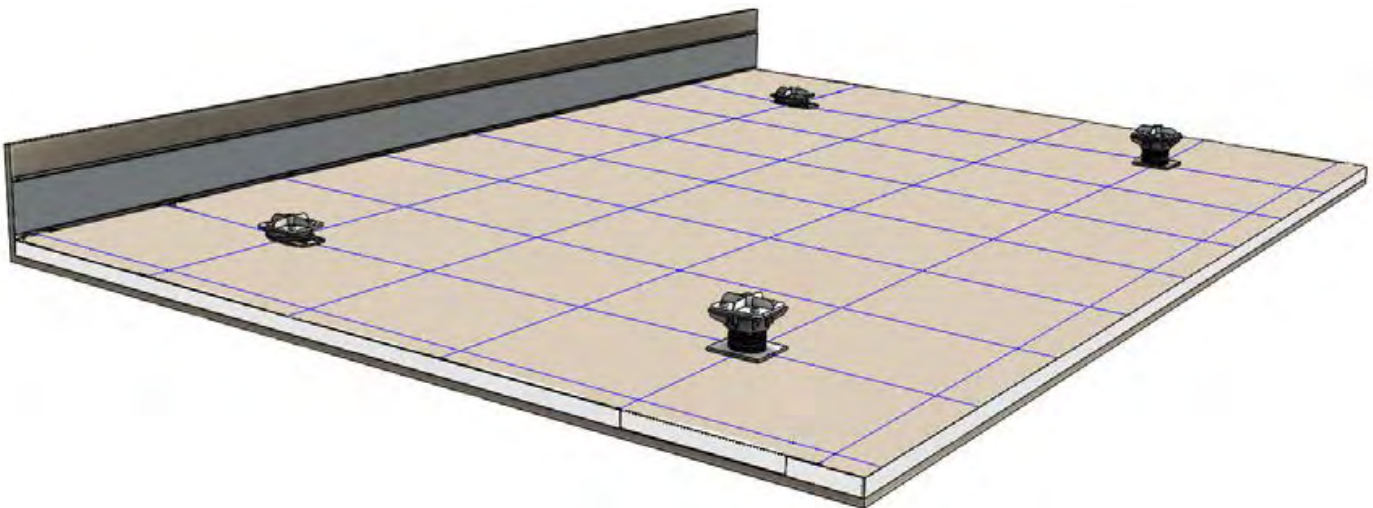


D

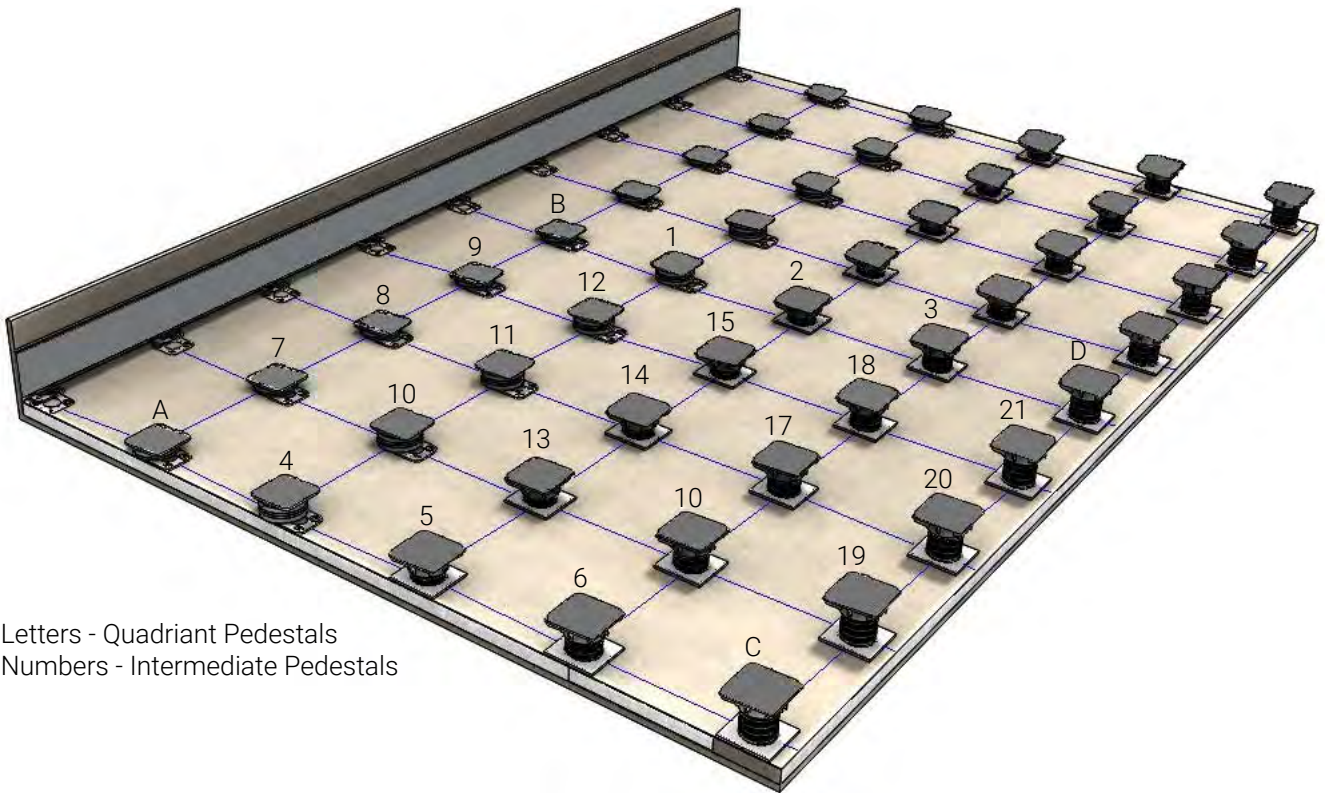
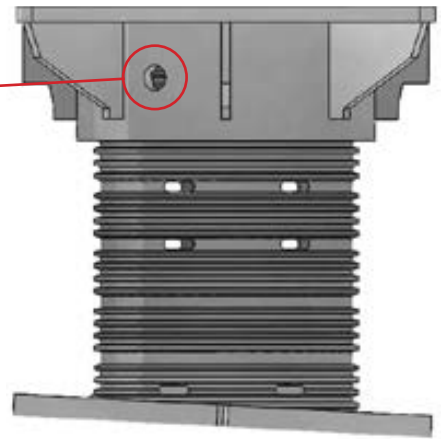


E

- Determine paver height.
- Establish paver grid lines. Grid can be centered in the area or aligned with a wall.
- Set quadrant pedestals at required height.
- Use a transit or laser level to determine pedestals height.

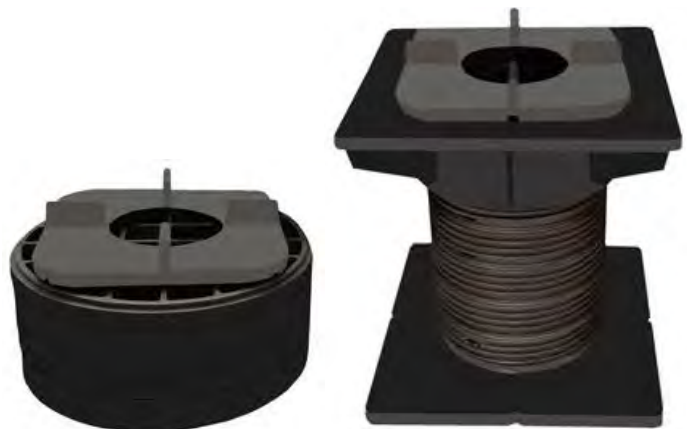


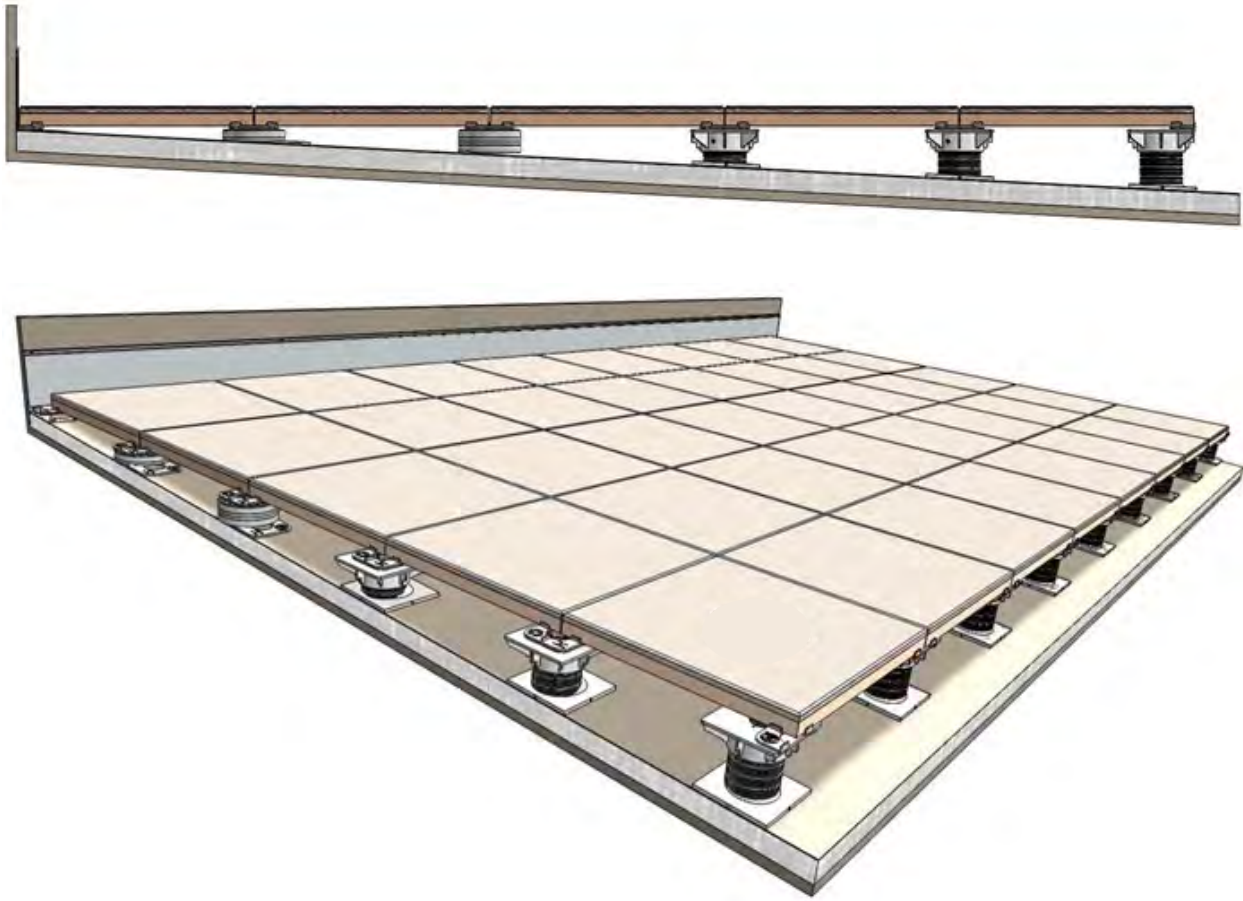
- With base flat on sloped roof, level pedestal top and tighten base nut.
- Pedestal core must be visible through side inspection hole.
- Make final height adjustments by rotating top of pedestal.
- Pedestal cores are cut to length, discarding open end piece.



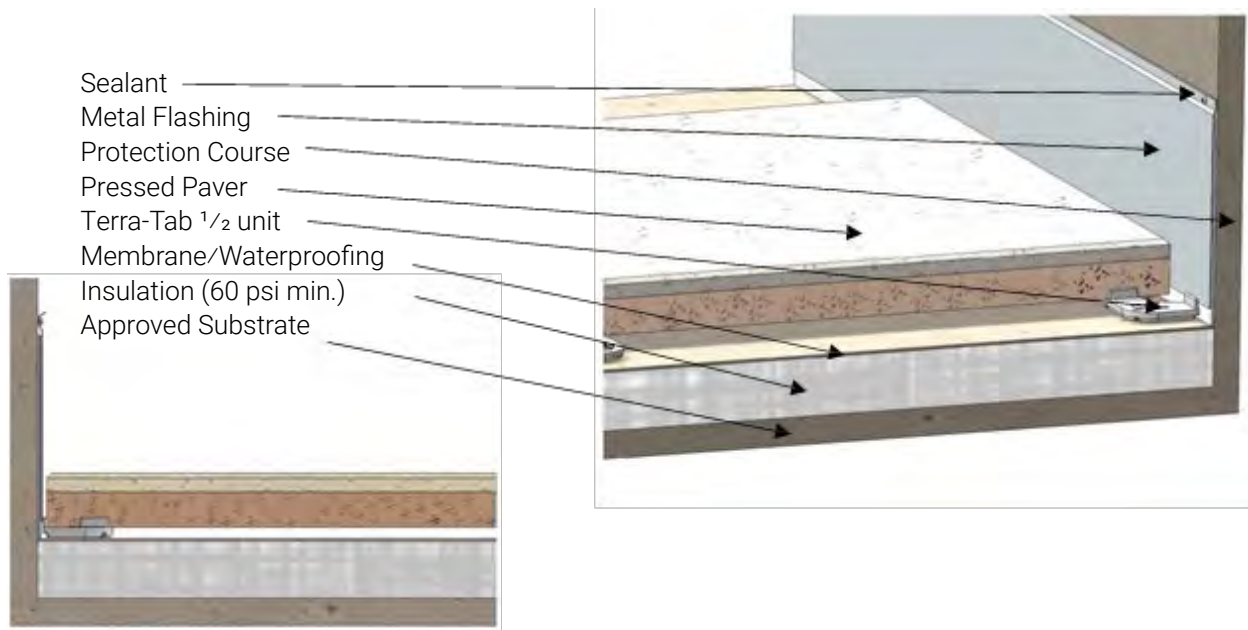
Letters - Quadriant Pedestals
 Numbers - Intermediate Pedestals

- Position intermediate pedestals at the grid intersection lines between quadriant pedestals.
- Use a straight edge to set intermediate pedestals to desired height. Screw to bottom of Bar & Lock.
- Terra Tabs provide spacing between pavers. They are placed on top of the Waffle Reducers and Terra Stand Pedestals.

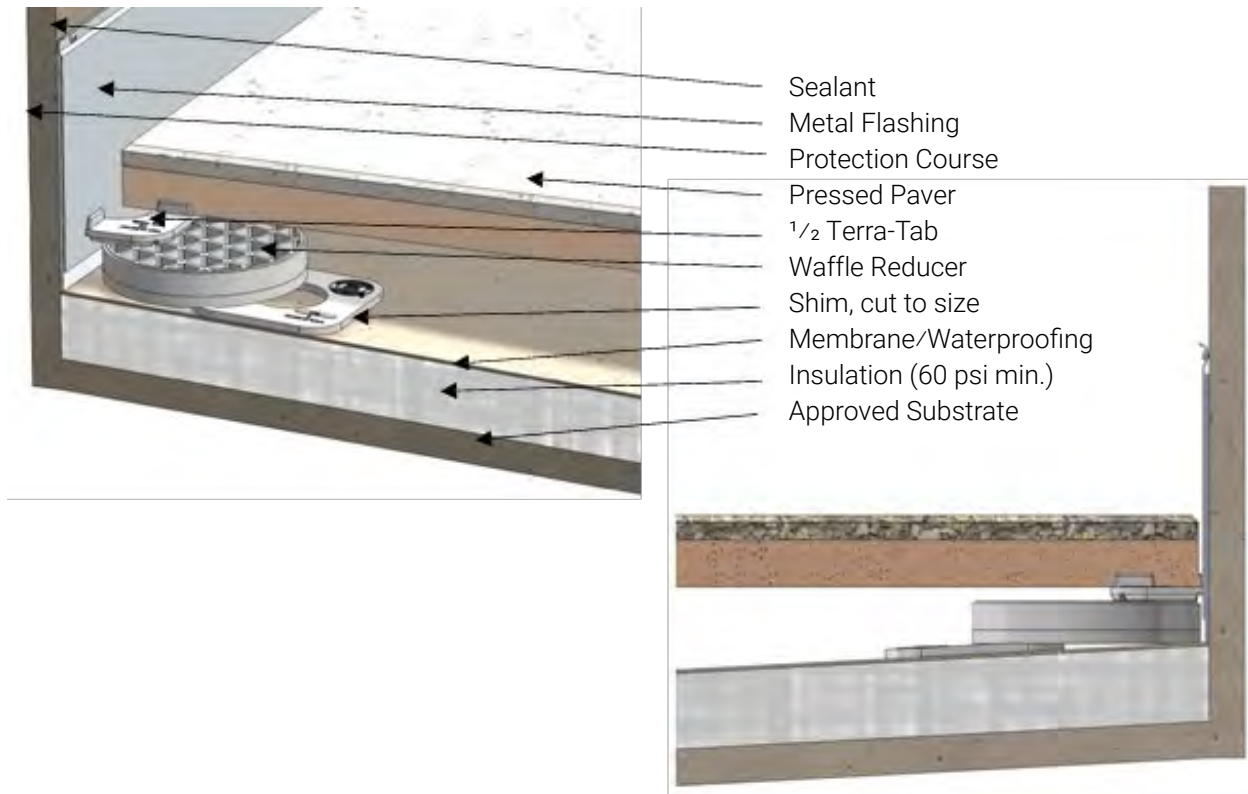




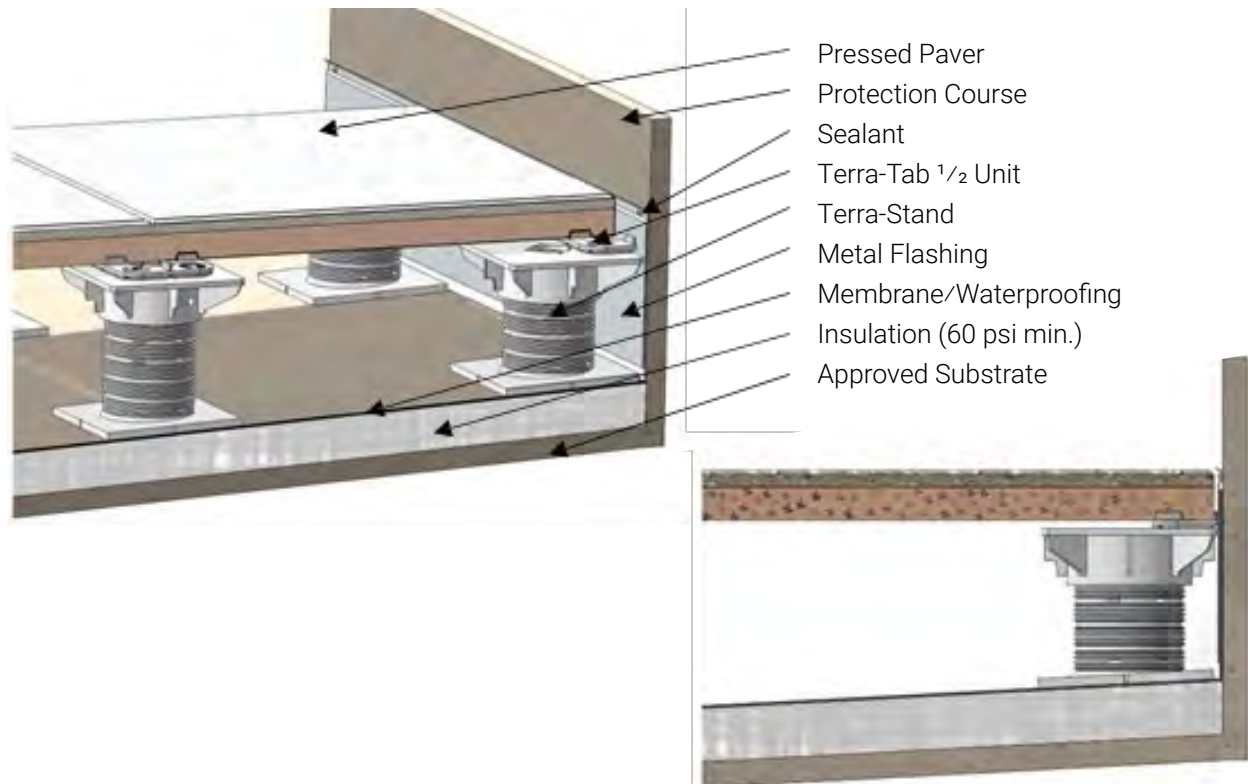
WALL / BUILDING TERMINATION USING TERRA-TAB



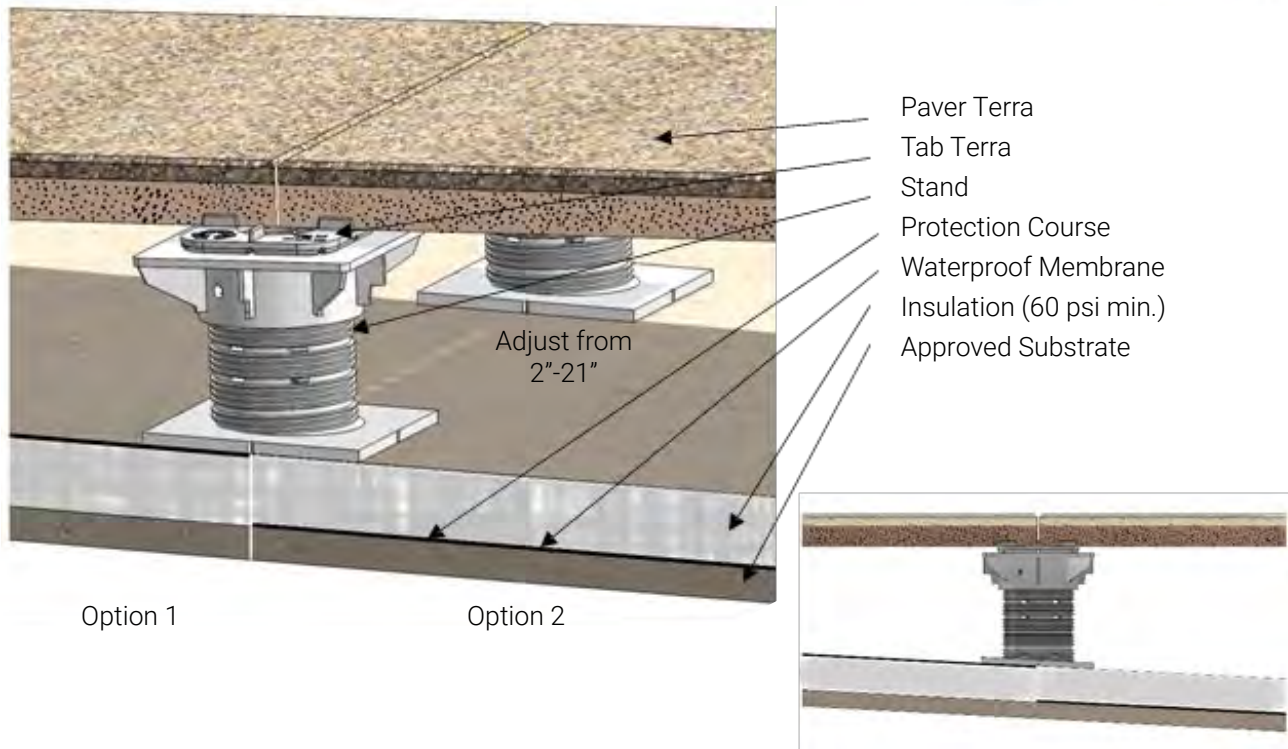
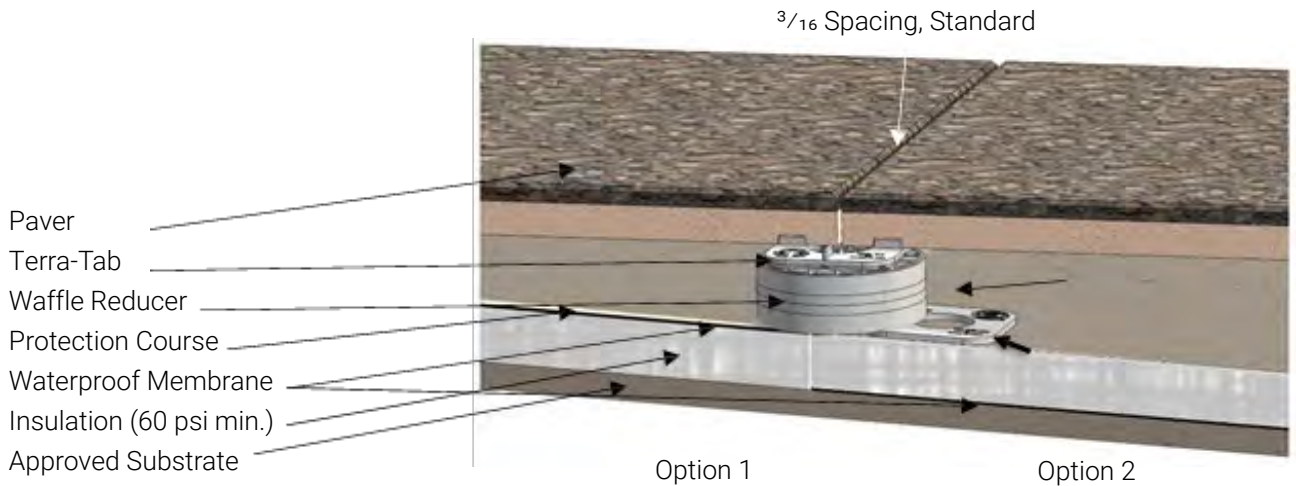
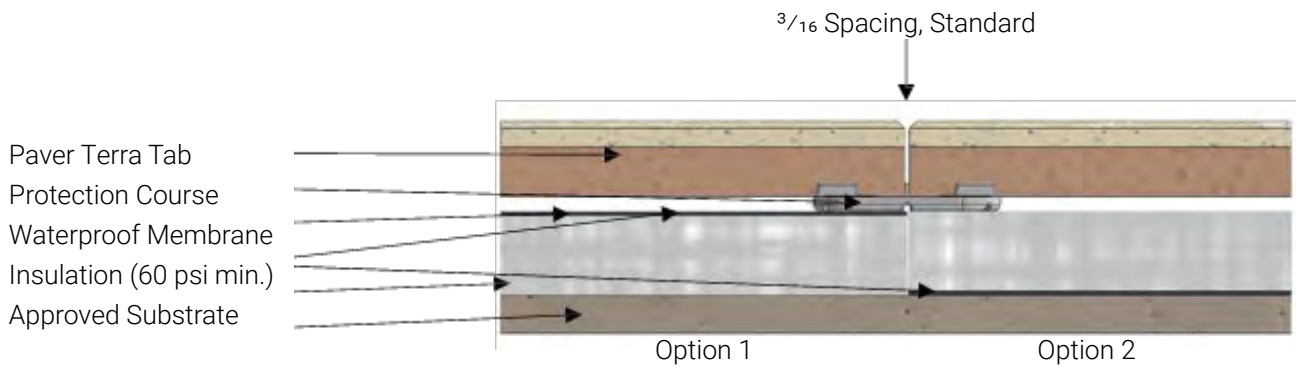
WALL / BUILDING TERMINATION USING WAFFLE REDUCER



WALL / BUILDING TERMINATION USING TERRA-STAND



PAVER JOINT





Maintaining Wausau Pavers

Wausau Tile pavers can be maintained to retain the attractive appearance and prolong the life of the pavers. When using maintenance materials, please follow the product manufacturer's instructions regarding the use of any equipment or cleaning materials described here. Be sure to angle the spray and limit the pressure to 2,000 PSI, as not to damage the surface of the paver when using a pressure washer. For specific or unusual problems, please call us at 800-388-8728.

Weekly Maintenance:

Sweep or pressure wash deck. In areas of high traffic, such as doorways, daily cleaning may be required.

Semiannual Maintenance (Spring and Fall):

Power sweep, then pressure wash total deck surface. Spot clean any stained areas using procedures described in "Cleaning Heavily Soiled Areas."

Remove pavers located over drains on open joint systems. Clean Debris from all drain covers to prevent plugging of drains and replace pavers.

Check pavers for rocking, low or high edges, joint spacing, alignment and broken or chipped pavers. If minor settling or movement has occurred, pavers can be leveled and adjusted with shims. Chipped or broken pavers should be replaced.

Cleaning Heavily Soiled Areas:

Soiled areas should be cleaned as soon as possible to avoid staining. The type of material causing the soiling determines the correct procedures.

A. Oil or Petroleum Products

Remove as much of the material as possible with hot water high pressure washer. Apply degreaser cleaner directly to the soiled area. With a stiff nylon brush or broom, scrub the area. Rinse the area with hot water high pressure washer. In some cases, a second cleaning may be required.

B. Rust Stains

Soak area with water. Scrub rust stains with masonry cleaner products per manufacturer's recommendations. (Be extremely careful around any metal surfaces). Rinse area thoroughly.

C. Soiling from Normal Foot Traffic, Road Salts, Everyday Use

Wash area thoroughly with hot water high pressure washer. On heavily soiled areas, spray the area with a commercial grade cleaner and scrub with a nylon brush. Rinse thoroughly.

D. Gum or Tar

Apply dry ice directly on top of the gum or tar. After freezing, use a putty knife or scraper to remove the gum or tar from the surface.

E. Tobacco Stains on Light Colored Pavers

After pressure washing with hot water, saturate a paper towel with household bleach. Apply towel directly to stain and cover with minimum 3 mil poly. Tape poly to surface to hold in place. Leave stain covered for 24 to 48 hours. Remove to see if stain is gone or lightened. Repeat if necessary.

Cleaner Recommendations (Follow all manufacturer instructions):

- Techniseal - Paver Prep (HD) Heavy Duty Efflorescence Cleaner
- Prosoco - Sure Klean 600 (New Masonry Cleaner)
- Rain Guard Restore-N-Prep

Snow Removal:

Snow can be cleaned from the deck using shovels, walk-behind snow blowers or power brushes. A four wheeled garden tractor, weight not exceeding 1,700 lbs. manned, can also be used. Nylon or rubber scrapers are recommended to avoid scratching of pavers. Tire chains can cause minor scratching and extra care should be taken with chains.

The use of snow melt materials should be minimal and in accordance with manufacturer's recommendations. Some types of snow melt are not recommended for use on new concrete and can cause surface damage to the paver.

De-Icer Recommendations (Follow all manufacturer instructions):

- Melt-Off - Ice Melter
- Premier - Ice Melter
- Road Runner - Ice Melt

Open Joint Installations:

Open joint installation is unique in that the pavers are elevated to allow water and air to flow through the joints of the pavers. It is essential that all the joints and all drains stay open, clean and free of dirt and debris. Failure to maintain clean joints may result in performance issues.

Efflorescence in Colored Pavers:

Efflorescence is a condition which appears as a white stain on some colored concrete and masonry products. It is a common occurrence in new concrete, created by sodium and sulfate compounds of several hydroxides, minerals, chlorides and nitrates which deposit on the surface and pores. It is the result of moisture evaporation and is most common on darker colored pavers and fabricated surfaces.

Water (rain, humidity, or ground water which "wicks") penetrates the pavers and dissolves latent salt. Sun draws the salt in solution to the surface and as moisture evaporates it is deposited on the surface. Efflorescence clears up as paver's age and eventually dissipates. The length of time varies with weather conditions and wear. Efflorescence can also be caused when salts in the sub-base material wick up around and through the pavers and joints and deposit on the paver surface and sides.



Efflorescence Cleaner Recommendations (Follow all manufacturer instructions):

- Techniseal - Paver Prep (HD) Heavy Duty Efflorescence Cleaner
- Quickrete - Efflorescence & Rust Remover
- Techniseal - Paver Prep & Efflo Cleaner

Wausau Tile Warranty:

Wausau Tile products are warranted to be free from defect in material and workmanship during manufacturing based on applicable industry standards. Warranty periods begin on delivery date of the warranted product and extend for the period listed below:

- Precast terrazzo products are warranted for two years.
- Terrazzo tile, plastic and metal pieces are warranted for one year.
- Framing and aluminum products are warranted for two years.
- Powder coating is warranted for two years.
- Thermo-plastic coating is warranted for five years.
- Concrete site furnishings are warranted for two years.
- Pavers are warranted for three years if properly installed according to both project specifications and Wausau Tile installation recommendations. Placing pavers on non-Wausau Tile pedestals voids this LIMITED WARRANTY.



Price List 2021

A POLYCOR INC. COMPANY



**DO IT ONCE.
DO IT WITH STONE.**

GRANITE STEPS

Cut from our own Woodbury Gray granite, our steps offer a wide variety of beautiful styles to choose from, and all of them will offer you a lifetime of maintenance-free enjoyment. We carry an extensive supply, in a wide assortment of stock sizes, at all of our Granite Works locations to fit most applications, and we will gladly produce steps to your specifications. Our stock steps are 7" thickness. See our Granite Step Worksheet on page 13!



SPLIT FACE

Natural guillotine edges, thermal top.

Stock lengths*:

3'-0" to 8'-0"

Stock widths:

1'-1", 1'-6", 2'-0", 3'-0", 4'-0"

Price per square foot:

\$37.00



ROCK FACE

Heavy relief, hand cut (chiseled) edges, thermal top, sawn backs.

Stock lengths*:

3'-0" to 8'-0"

Stock widths:

1'-1", 1'-6", 2'-0", 3'-0", 4'-0"

Price per square foot:

\$45.00



CUSHION EDGE**

Natural guillotine sides, eased antiqued edges, thermal top.

Standard lengths*:

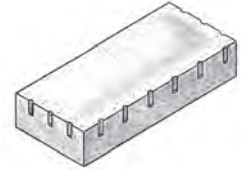
3'-0" to 8'-0"

Standard widths:

1'-1", 1'-6", 2'-0", 3'-0", 4'-0"

Price per square foot:

\$46.00



YANKEE STYLE**

Drilled and split edges with drill holes exposed, thermal top.

Standard lengths*:

3'-0" to 8'-0"

Standard widths:

1'-1", 1'-6", 2'-0", 3'-0", 4'-0"

Price per square foot:

\$46.00

For cushion edge (antiqued finish, add \$13.00/sq. ft.)

NEW!



LANDSCAPE STEP

4'-0" x 1'-4" x 6" split face steps in Woodbury Gray and in Carolina Coral.

Price:

\$234.00 ea.

All of our steps are available in other thicknesses and colors priced upon request.† Approximately 97 lbs. per square foot.

STEP FILLERS

Stock size: \$20.75 per linear foot



COLONIAL

Natural guillotine split top, bottom and ends, thermal front, sawn back.

Stock lengths*:

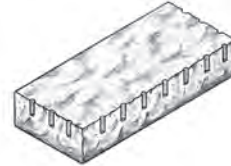
3'-0" to 6'-0"

Stock width:

1'-2" +/-

Price per square foot:

\$36.00



OLD YANKEE STYLE

Drilled and split edges and top with drill holes exposed.

Stock lengths*:

3'-0" to 8'-0"

Stock width:

1'-3" +/-

Price per square foot:

\$72.00

For cushion edge (antiqued finish, add \$13.00/sq. ft.)



RADIUS STEPS (1/2 MOON)

Heavy relief, hand cut (chiseled) edges, thermal top.

4'-0" long, 2'-0" wide:

\$459.00 each

6'-0" long, 3'-0" wide:

\$1,005.00 each

8'-0" long, 4'-0" wide:

\$1,785.00 each

* Lengths come in full foot increments.

** Produced to order.

† Other colors include: Concord Gray, Bethel White, Caledonia, Carolina Coral, Autumn Pink, Deer Isle and Cambrian Black.

MAILBOX POSTS

Replace your unsightly mailbox post and enjoy our granite mailbox post for a lifetime. We carry our most popular styles in stock, all are 7" x 7" x 7'-0", and include a black single-scroll wrought iron mailbox bracket mounted on the post. Other bracket options and styles are available (see page 11).

WOODBURY GRAY

SPLIT FACE-2

THERMAL-2:

\$279.00 ea.

ROCK FACE-2

THERMAL-2:

\$325.00 ea.

TAPERED MAILBOX POST

ROCK FACE-2

THERMAL-2:

\$409.00 ea.

CALEDONIA

ROCK FACE-2

THERMAL-2:

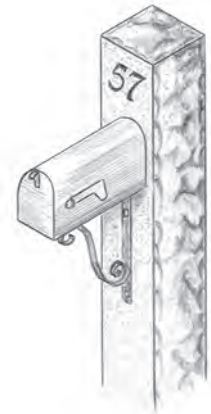
\$365.00 ea.

CAROLINA CORAL

ROCK FACE-2

THERMAL-2:

\$409.00 ea.



ENGRAVING

Your address, street or family name, or just about anything else you can think of, can be sandblasted into any of our posts, and will be brought to life using long-lasting lithochrome paint. Standard engraving costs are \$120.00 for the first thermal side, \$80.00 for the second thermal side, and include up to four characters (up to 3" high each) per side. Additional characters, logos, etc. are quoted separately. **We can also engrave benches, signs, pavers and more. Ask your sales associate for more details.**

DELIVERY AND INSTALLATION

Swenson Granite can deliver any of our products to your home or job site, and will even install a front set of steps, a lamp post, or mailbox post. Ask your Granite Works representative for details and pricing.

GRANITE TREADS / HEARTHES / MANTELS / WALL CAPS

Cut from Woodbury Gray or Caledonia granite, thermal top and split face edges, sawn bottom. These are perfect for adding the finishing touch to your stone or brick steps, fireplace, and decorative walls. Other thicknesses, colors and finishes are available, and quoted separately. Other colors include: Concord Gray, Bethel White, Caledonia, Carolina Coral, Autumn Pink, Deer Isle and Cambrian Black.

	2" THICKNESS STOCK LENGTHS*	2" THICKNESS STOCK WIDTHS*	2" THICKNESS PRICE PER SQ. FT.	4" THICKNESS STOCK LENGTHS*	4" THICKNESS STOCK WIDTHS*	4" THICKNESS PRICE PER SQ. FT.
WOODBURY GRAY	4'-0" to 8'-0"	8"	\$23.99	4'-0" to 8'-0"	8" 1'-0"	\$34.85
		1'-0"				
		1'-2"				
		1'-6"				
		1'-8"				
		2'-0"				
CALEDONIA	4'-0" to 8'-0"	1'-0"	\$26.99			

*Other sizes and colors available and quoted separately.

STONE TREADS / HEARTHES / MANTELS / WALL CAPS

	FULL FOOT INCREMENTS STOCK LENGTHS	STOCK WIDTHS	2" THICKNESS PRICE PER SQ. FT.
INDIANA LIMESTONE Classic gray color, rock face front, sawn smooth balance.	4'-0" to 8'-0" (Lengths are oversize by 1")	1'-0"	\$11.85
	FULL FOOT INCREMENTS STOCK LENGTHS	STOCK WIDTHS	1 1/2" THICKNESS PRICE PER SQ. FT.
BLUESTONE Premium blue-gray color, thermal top, front and ends, with a sawn smooth balance.	4'-0" to 8'-0"	1'-0" 1'-2" 1'-8"	\$16.55 \$16.55 \$17.89

Other sizes available and quoted separately.

GRANITE POSTS



Our classic Woodbury Gray granite posts are great for fences, entry gates, establishing property lines and more. We stock them at 7'-0" long, with a hand-chiseled 5'-0" reveal on all rock face finishes.

SIDES ARE:	SAWED-2 SPLIT FACE-2	THERMAL-2 SPLIT FACE-2	THERMAL-2 ROCK FACE-2	OLD YANKEE (DRILLED & SPLIT)	ROCK FACE 4 SIDES	APPROX. WEIGHT PER POST
6" x 6"	\$145.00 ea.	\$157.00 ea.	\$189.00 ea.	N/A	\$409.00 ea.	300 lbs.
7" x 7"	\$169.00 ea.	\$195.00 ea.	\$237.00 ea.	\$419.00	\$485.00 ea.	400 lbs.
10" x 10"	\$275.00 ea.*	\$299.00 ea.	\$355.00 ea.	\$660.00*	\$849.00 ea.*	800 lbs.
12" x 12"	\$320.00 ea.*	\$365.00 ea.	\$439.00 ea.	\$779.00*	\$1,069.00 ea.*	1200 lbs.

*Produced to order.

Other sizes and colors available and quoted separately.

STREET NUMBER / 911 I.D. POST

Highly visible, permanent address marker for 911 identification for your home.



6" x 6" x 5'-0"

Woodbury Gray granite post, thermal-2 sides, split face-2 sides finish, with up to four numbers engraved

\$255.00

HITCHING POSTS

These posts add an old-fashioned charm to your yard, walkway and driveway.



6" x 6" x 5'-0"

Woodbury Gray granite, thermal-2 sides, split face-2 sides finish, black wrought iron ring installed

\$197.00

LAMP POSTS

Light up your yard, walkway, driveway or business with our classic Woodbury Gray granite lamp posts. Each post comes drilled for wiring, and ready to accept mounting hardware and your lamp fixture (see lamp flange kit below). All in-stock lamp posts come with a thermal-2 sides, rock face-2 sides finish. Lamp fixtures are not included, except for walkway lamp posts.



	DIMENSIONS	WEIGHT	PRICE
	6" x 6" x 4'-6" (low-profile)	200 lbs.	\$225.00 ea.
WOODBURY GRAY	6" x 6" x 8'-0"	375 lbs.	\$355.00 ea.
	7" x 7" x 8'-0"	490 lbs.	\$399.00 ea.
CAROLINA CORAL	7" x 7" x 8'-0"	490 lbs.	\$479.00 ea.
CALEDONIA	7" x 7" x 8'-0"	490 lbs.	\$459.00 ea.
WOODBURY GRAY WALKWAY (recessed fixture included)	7" x 7" x 2'-6"	155 lbs.	\$299.00 ea.
LAMP FLANGE KIT	3" diameter aluminum flange with tube of epoxy		\$37.50 ea.

LAMP POST CAPS & PILLAR CAPS

Top off the classic look of your granite post or stone pillar with one of our hand-crafted granite caps. Lamp post caps are drilled through the middle to line up with the hole in your lamp post. Pillar caps are split face on all four sides, and add a bold statement to your stone pillar.



	DIMENSIONS	STYLE	PRICE
WOODBURY LAMP POST CAPS	8" x 8" x 2"	rock face four sides	\$89.00 ea.
	10" x 10" x 2"	rock face four sides	\$99.00 ea.
	8" x 8" x 2"	four-sided apex top	\$169.00 ea.
	10" x 10" x 2"	four-sided apex top	\$179.00 ea.
CALEDONIA	10" x 10" x 2"	rock face four sides	\$109.00 ea.
AZEK CAP W/ FLANGE	6" x 6" L. Post		\$165.00 ea.
AZEK CAP W/ FLANGE	7" x 7" L. Post		\$175.00 ea.
WOODBURY PILLAR CAPS	24" x 24" x 4"	split face four sides	\$149.00 ea.
	26" x 26" x 4"	split face four sides	\$159.00 ea.
	32" x 32" x 4"	split face four sides	\$239.00 ea.
	36" x 36" x 4"	split face four sides	\$289.00 ea.

Other colors include: Concord Gray, Bethel White, Caledonia, Carolina Coral, Autumn Pink, Deer Isle and Cambrian Black.

INDIANA LIMESTONE SILLS

Cut from historic Indiana Limestone, our full color blend sills have a rock face front, sawn smooth balance, and a drip edge underneath. They offer the perfect clean finish for your next project.

4'-0" x 3" x 2¼"	\$5.70/L.F.
4'-0" x 4" x 2¼"	\$7.30/L.F.

BOUND POSTS

Permanent boundary marker for your property or subdivision, each has a ¾" diameter hole, drilled ½" deep on top.

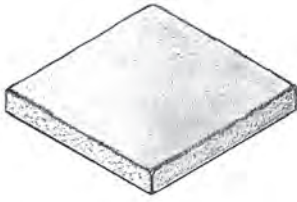
	2'-0" LONG	3'-0" LONG	4'-0" LONG
4" x 4"	\$27.00 ea.	\$36.00 ea.	\$45.00 ea.
6" x 6"		\$49.00 ea.	\$60.00 ea.

GRANITE SIGNS

Make a statement about your business, school, country club or other organization with one of our custom granite signs. With a variety of colors and finishes, coupled with our creative sales staff and production crew, we will work with you to make your vision a reality. See our website and color brochure for some ideas, or bring your concept, logos and other artwork and we will create a lasting symbol you will be proud to display for all to see.



GRANITE & STONE PAVERS



Ideal for walkways, patios and stepping paths, granite pavers hold up to anything Mother Nature can throw at them, and they weather beautifully.

PATTERN PAVERS

All pavers are thermal top, sawn balance, and are stocked in sizes ranging from 12" x 12" to 24" x 36", in 6" increments (modular cut, i.e.: 12" x 12" actually 11½" x 11½", etc.).

Woodbury Gray - modular cut for Woodbury is ¾" (not ½")	1½" thick	\$17.99/sq. ft.
Caledonia	2" thick	\$24.35/sq. ft.
Indiana Limestone (full color blend, sawn top) - modular cut for limestone is ¾" (not ½")	1½" thick	\$11.79/sq. ft.
Blue Mist	1¼" thick	\$15.59/sq. ft.

SPLIT EDGE PAVERS

These provide a unique look for small areas, borders, driveway entrance strips, etc. All are thermal top, split face four edges.

Woodbury Gray	8" x 4" x 4"	\$6.59 ea.
	4" x 4" x 4"	\$4.55 ea.

Larger quantities priced upon request.

BUSH-HAMMERED PAVERS

Finished by hand, these pavers have one tumbled side, and one side with a bush-hammered finish, and work well for a variety of uses.

Stock sizes all approx. 2½" thick	6" x 12"	\$20.25/sq. ft.
	12" x 12"	
	12" x 18"	
	12" x 24"	
	18" x 18"	
	18" x 24"	\$25.25/sq. ft.
	24" x 24"	
	24" x 30"	
	24" x 36"	
	30" x 30"	

COBBLESTONES



These tumbled cobbles lend that rustic, old world look to your landscaping design.

JUMBO

approx. 10" x 7" x 4" (105 pcs./plt.)

Gray	\$4.59 ea.
Rose	\$6.79 ea.
Black	\$7.49 ea.
Yellow	\$7.69 ea.

JUMBO THIN

approx. 10" x 7" x 3" (105 pcs./plt.)

Gray	\$4.49 ea.
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STANDARD

approx. 9" x 5" x 5" (146 pcs./plt.)

Gray	\$3.45 ea.
Rose	\$5.25 ea.
Black	\$6.09 ea.
Yellow	\$6.19 ea.

CUBES

approx. 4" x 4" x 4" (500 pcs./plt.)

Gray	\$1.35 ea.
Rose	\$1.75 ea.
Black	\$1.89 ea.
Yellow	\$1.89 ea.

CLASSIC GRAY FULL-SIZE

approx. 12" x 6" x 3" (144 pcs./plt.)

Gray	\$4.65 ea.
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CLASSIC GRAY HALF-SIZE

approx. 6" x 6" x 3" (294 pcs./plt.)

Gray	\$2.29 ea.
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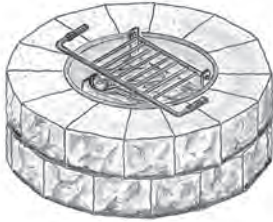
LANDSCAPE GRAY

approx. 8" x 4" x 4" (250 pcs./plt.)

Gray	\$3.09 ea.
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SPECIALTY PRODUCTS

Granite mill wheels, compasses, fountains and fire pits offer some beautiful ways to bring a touch of elegance and function within your overall landscaping design. Priced in Woodbury Gray granite. Other sizes, colors* and finishes are available and quoted separately.



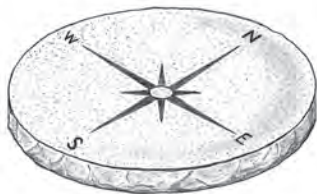
FIRE PITS

*All pricing includes metal insert with tilt back cooking grate.

	ROUND -16 blocks per tier, 7" thick -Approx. 50lbs. per block			SQUARE -10 blocks per tier, 7" thick -Approx. 70lbs. per block
	Woodbury sawn joint	Woodbury split joint	Caledonia sawn joint	Woodbury sawn joint
1-Tier Fire Pit	\$959.00	\$815.00	\$1,047.00	\$825.00
2-Tier Fire Pit	\$1,585.00	\$1,297.00	\$1,760.00	\$1,315.00
3-Tier Fire Pit	\$2,210.00	\$1,777.00	\$2,473.00	\$1,805.00

- 30" diameter cast iron ring and tilt-back cooking grate (included in above pricing) \$335.00
- Same as above, with a removable cooking grate \$399.00
- 30" diameter cast iron ring (no cooking grate) \$255.00
- Round iron fire pit screen \$359.00
- Square iron fire pit screen \$269.00

*Split Joints will have larger gaps between blocks than Sawn Joints.

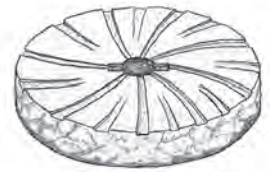


COMPASSES

Thermal top, rock face edges. Other designs and wording can be engraved onto our compasses, and are quoted separately.

WOODBURY GRAY	SIZE	ENGRAVED	BLANK
Compass or Chessboard	2'-6" diameter, 2" thick	\$485.00 ea.	\$279.00 ea.
Compass or Chessboard	1'-6" diameter, 2" thick	\$355.00 ea.	\$165.00 ea.
Compass	2'-0" diameter, 2" thick	\$409.00 ea.	\$209.00 ea.
New England States Compass	2'-6" diameter, 2" thick	\$585.00 ea.	
New England States Compass	1'-6" diameter, 2" thick	\$439.00 ea.	
NEW! Carolina Coral Compass	2'-6" diameter, 2" thick	\$555.00 ea.	\$295.00 ea.
Carolina Coral Compass	1'-6" diameter, 2" thick	\$379.00 ea.	\$185.00 ea.

*Other colors include: Concord Gray, Bethel White, Caledonia, Carolina Coral, Autumn Pink, Deer Isle and Cambrian Black.



ANTIQUED MILL WHEELS

2'-6" Diameter 4" Thick	\$719.00 ea.
4'-0" Diameter 7" Thick	\$1,405.00 ea.
4'-0" x 2'-0" x 7" ½ Moon Step	\$605.00 ea.
6'-0" x 3'-0" x 7" ½ Moon Step	\$1,139.00 ea.

Other mill wheel designs are possible, and are quoted separately.



FOUNTAINS (2-PIECE)

Variety of unique sizes and shapes.

Starting at	\$375.00 ea.
Fountain Pump	\$69.00 ea.

GRANITE BIRD BATHS

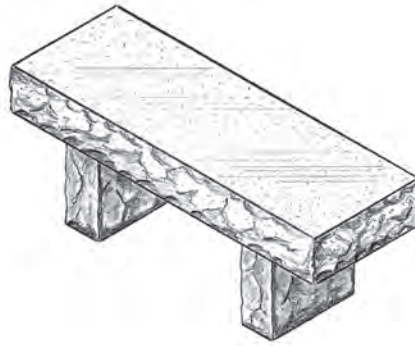
You and your winged friends will enjoy the classic good looks of our granite bird baths. We combine handwork and state-of-the-art equipment to provide you with exceptional quality and function. All of our bird baths can be left outside year-round. Other colors may be available, and are quoted separately.



	WOODBURY GRAY	CAROLINA CORAL	BETHEL WHITE	CALEDONIA	AUTUMN PINK	DEER ISLE
Octagon Style octagon bath and square base	\$159.00 ea.	\$169.00 ea.	special order only	special order only	special order only	special order only
Lo-boy Style round bath and 12" high round base	\$239.00 ea.	\$265.00 ea.	\$269.00 ea.	\$279.00 ea.	\$289.00 ea.	\$379.00 ea.
Standard Apex Style round bath and 18" high base	\$259.00 ea.	special order only	\$295.00 ea.	\$299.00 ea.	\$309.00 ea.	\$409.00 ea.
Classic Apex Style round bath and 36" high pedestal	\$330.00 ea.	special order only	\$375.00 ea.	\$389.00 ea.	\$399.00 ea.	\$485.00 ea.

GRANITE BENCHES

Our granite benches are handcrafted from many granite colors for anyone's taste.* We have an excellent supply of stock benches in a variety of finishes, and we have a granite bench for any budget. Custom-made benches are available and priced upon request. ALL PRICING INCLUDES BASES.



STANDARD RECTANGULAR

48" x 14" x 4" thick bench top, split face all edges

Top Finish	Woodbury Gray	Other colors from
Sandblast	\$275.00 ea.	\$295.00 ea.
Polished	\$295.00 ea.	\$345.00 ea.

CLASSIC RECTANGULAR

48" x 14" x 4" thick bench top, rock face all edges

Top Finish	Woodbury Gray	Other colors from
Sandblast	\$385.00 ea.	\$485.00 ea.
Polished	\$409.00 ea.	\$509.00 ea.

CLASSIC LARGE RECTANGULAR

60" x 14" x 4" thick bench top, rock face all edges

Top Finish	Woodbury Gray	Other colors from
Sandblast	\$419.00 ea.	\$529.00 ea.
Polished	\$465.00 ea.	\$565.00 ea.

ANTIQUE STYLE RECTANGULAR

48" x 14" x 4" thick bench top, antiqued edges

Top Finish	Woodbury Gray	Other colors from
Sandblast or Thermal	\$419.00 ea.	\$465.00 ea.

SEAT WALL STYLE BENCH

72" x 18" x 18" sandblasted radius top and ends, rock face front and back

	Woodbury Gray	Other colors from
	\$1,479.00 ea.	\$1,729.00 ea.

*Other stock colors include: Bethel White, Caledonia, Autumn Pink and Deer Isle. Concord Gray, Carolina Coral and Cambrian Black granites are available and quoted separately.

STANDARD KIDNEY STYLE

46" long, 4" thick bench top, rock face all edges, rectangular bases

Top Finish	Woodbury Gray	Other colors from
Sandblast	\$355.00 ea.	\$429.00 ea.
Polished	\$375.00 ea.	\$449.00 ea.

CLASSIC KIDNEY STYLE

51" long, 6" thick bench top, rock face all edges, round bases

Top Finish	Woodbury Gray	Other colors from
Sandblast	\$545.00 ea.	\$735.00 ea.
Polished	\$575.00 ea.	\$789.00 ea.

CLASSIC TREE STYLE

48" x 14" x 4" curved bench top, rock face all edges

Top Finish	Woodbury Gray	Other colors from
Sandblast	\$455.00 ea.	\$545.00 ea.
Polished	\$475.00 ea.	\$565.00 ea.

PARK STYLE BENCH W/ BACKREST

Sandblast or polished seat and backrest, rock face all edges

Length	Woodbury Gray	Other colors from
48" Long w/arched back	\$1,655.00 ea. \$1,745.00 ea.	\$1,939.00 ea. \$2,025.00 ea.
60" Long w/arched back	\$1,815.00 ea. \$1,919.00 ea.	\$2,155.00 ea. \$2,259.00 ea.
72" Long w/arched back	\$1,999.00 ea. \$2,109.00 ea.	\$2,369.00 ea. \$2,485.00 ea.

GRANITE SUNDIALS & SEATS

Reward yourself for all of your landscaping efforts with one of our gorgeous granite sundials or relax on one of our versatile granite seats. They come in a variety of colors, and can be displayed year-round. We also stock an assortment of unique composite or metal sundials at each of our Granite Works locations, so come on in and see our selection today! Other colors may be available, and are quoted separately.



	WOODBURY GRAY	BETHEL WHITE	CALEDONIA	AUTUMN PINK	DEER ISLE
Lo-boy Style round granite top and 12" high round base	\$189.00 ea.	\$229.00 ea.	\$215.00 ea.	\$225.00 ea.	\$309.00 ea.
Standard Apex Style round granite top and 18" high base	\$209.00 ea.	\$255.00 ea.	\$235.00 ea.	\$245.00 ea.	\$339.00 ea.
Classic Apex Style round granite top and 36" high pedestal	\$280.00 ea.	\$335.00 ea.	\$325.00 ea.	\$335.00 ea.	\$415.00 ea.
Lo-boy Seat round granite seat and 12" high round base (polished or sandblast top) – Perfect for around our fire pits!	\$189.00 ea.	\$229.00 ea.	\$215.00 ea.	\$225.00 ea.	\$309.00 ea.

GRANITE EDGING

Give your driveway, walkway or garden area the distinguished look of our Woodbury Gray granite edging. All of our edging has a thermal top, and split face four edges, and is stocked in varying lengths, from 3'-0" to 8'-0" (most commonly 3'-0" to 6'-0"). We will also gladly cut any of our granite edging to specific lengths for an additional charge.

	SIZE	PRICE PER L.F.	APPROX. WEIGHT PER L.F.
Economy Edging	3" x 4" x random length	\$5.25	14 lbs.
Garden Edging	3" x 7" x random length	\$6.49	25 lbs.
Driveway Edging	4" x 7" x random length	\$8.69	32 lbs.
Heavy Edging – Can also be used as Step Risers, cut to length.	4" x 12" x random length	\$14.35	56 lbs.

GRANITE CURBING

Typically used along town and state roads, our high quality gray granite curbing is also great for large parking lots and driveways. Any curbing can be cut to specific lengths at an additional cost. Produced to order and priced upon request.

STRAIGHT VERTICAL CURBING

random lengths only, from 4'-0" to 10'-0"

WIDTH	RISE	PRICE PER L.F.	APPROX. WEIGHT PER L.F.
4"	17" +/- 1"	\$15.20	80 lbs.
5"	17" +/- 1"	\$19.20	100 lbs.
6"	18" +/- 1"	\$23.20	120 lbs.

CIRCULAR VERTICAL CURBING

Produced to order and priced upon request. Linear footage and number of pieces is determined by outside arc measurement.

SLOPE CURBING

random lengths only, from 2'-6" to 10'-0"

WIDTH	RISE	PRICE PER L.F.	APPROX. WEIGHT PER L.F.
3½"	11" +/- 1"	\$12.95	43 lbs. Mass slope
4"	12" +/- 1"	\$14.20	56 lbs. Mass slope
5"	12" +/- 1"	\$16.50	70 lbs. ME slope
6"	12" +/- 1"	\$17.20	83 lbs. NH slope

FLAGSTONE

Ideal products for walkways, patios and stepping stones, we offer a variety of colors and shapes.

IRREGULAR FLAGSTONE

All sold by pallet (averaging 1.5 to 2 tons per pallet), and coverage will vary with product type. Most available by pound for smaller projects.

	PRICE
Tumbled Bluestone Mosaic approx. 1.5 tons	\$519.00/pallet
Tumbled Bluestone Mosaic Half Pallets approx. .75 tons	\$329.00/half pallet
Irregular Bluestone approx. 1.5 tons	\$465.00/pallet

PATTERN BLUESTONE

All are stocked from 12" x 12" to 24" x 36" in 6" increments (modular cut, i.e.: 12" x 12" actually 11½" x 11½", etc.).

	PRICE	
	1" THICK	1½" THICK
Thermal Top Full Color Bluestone sawn edges	\$7.55/sq. ft.	special order
Thermal Top Blue Select Bluestone sawn edges	\$8.69/sq. ft.	special order
Tumbled Bluestone Pavers 12" x 12" eased, antiqued edges	N/A	\$11.69 ea.
Tumbled Bluestone Pavers 12" x 18" eased, antiqued edges	N/A	\$19.99 ea.

THIN VENEER STONE

All material is ¾" to 1¼" thickness on average, ideal for covering over brick, block, concrete, drywall and wood applications. Other colors and stone types available upon request, such as square and rectangular, ledge, and Ashlar patterns. Most of our thin veneer is available in a full bed version (3" to 5" bed depth) as well. Please ask your sales associate for pricing and ordering details.

NEW! WOODBURY GRAY BERKSHIRE

Split face front and ends, sawn top, bottom and back.

	PRICE
FLATS	
25 s.f. crate	\$22.85/s.f.
150 s.f. crate	\$19.95/s.f.
CORNERS	
25 l.f. crate	\$29.39/l.f.

* Sold by the full crate only.

* Other granite colors available and priced upon request.

INDIANA LIMESTONE - FLATS

Rockford Estate Blend®	\$13.89/sq. ft.
Berkshire™	\$13.69/sq. ft.

FLATS Use this material for the body of area you are covering.

	MOSAIC	SQUARE & RECT.
Boston Blend	\$12.15/sq. ft.	special order only
Connecticut Blend	\$10.95/sq. ft.	special order only
Hispania	\$10.99/sq. ft.	special order only
	ROUND	
Boston Blend	\$15.25/sq. ft.	
Old New England	\$11.75/sq. ft.	
	LEDGE	
Boston Blend	\$13.75/sq. ft.	
Connecticut Blend	\$11.15/sq. ft.	

INDIANA LIMESTONE - CORNERS

Rockford Estate Blend®	\$17.39/L.F.
Berkshire™	\$17.35/L.F.

CORNERS Finish off your corners and match your flats beautifully. Measured by the height of each individual corner.

	MOSAIC	SQUARE & RECT.
Boston Blend	\$20.65/L.F.	special order only
Connecticut Blend	\$17.39/L.F.	special order only
Hispania	\$19.59/L.F.	special order only
	ROUND	
Boston Blend	\$20.65/L.F.	
Old New England	\$18.25/L.F.	
	LEDGE	
Boston Blend	\$20.65/L.F.	
Connecticut Blend	\$19.95/L.F.	

WROUGHT IRON & ALUMINUM ACCESSORIES

All accessories have long-lasting black powdercoat paint applied to them.

	PRICE	INSTALLED ON GRANITE
Single-Scroll Mailbox Bracket standard on stock mailbox posts	\$73.00 ea.	\$93.00 ea.
Double-Scroll Mailbox Bracket	\$110.00 ea.	\$130.00 ea.
Mail and Paper Box Bracket, Single Scroll	\$94.00 ea.	\$114.00 ea.
Mail and Paper Box Bracket, Double Scroll	\$135.00 ea.	\$155.00 ea.
Round Newspaper Tube	\$169.00 ea.	N/A
Aluminum Mailbox Bracket	\$92.00 ea.	\$112.00 ea.
Square Aluminum Newspaper Box	\$80.00 ea.	N/A
Mailbox Bracket, "L" Shape	\$65.00 ea.	\$85.00 ea.
Double Mailbox Bracket fit two boxes side-by-side	\$105.00 ea.	\$125.00 ea.
Mailbox Kit includes box, mounting plate and hardware	\$50.00 ea.	N/A
Azek Mailbox Bracket	\$255.00 ea.	\$280.00 ea.
Azek Mailbox Bracket w/Newspaper Box	\$289.00 ea.	\$314.00 ea.
Azek Mailbox Post Cap	\$120.00 ea.	N/A
Hitching Ring	\$32.00 ea.	\$52.00 ea.
Hitching Ring (Stem Only)	\$17.00 ea.	\$37.00 ea.
Fence Rail Hanger for 4X4 Railing* Available in aluminum and wrought iron	\$18.50 ea.	\$28.50 ea.
Stockade/Picket Fence Hanger*	\$13.50 ea.	\$23.50 ea.
Boot Scraper	\$81.00 ea.	\$116.00 ea.
Sign Bracket - Small	\$88.00 ea.	\$108.00 ea.
Sign Bracket - Large	\$119.00 ea.	\$139.00 ea.
Plant Hanger - Single Arm	\$87.00 ea.	\$107.00 ea.
Plant Hanger - Double Arm	\$135.00 ea.	\$165.00 ea.

*Discount for large quantities.

STONE CUTTING TOOLS

	CARBIDE	STEEL
7/8" Hand Point	\$110.00 ea.	\$75.00 ea.
Heavy Hand Point	\$120.00 ea.	N/A
2" Hand Set	\$170.00 ea.	\$125.00 ea.
2" Offset Hand Set	\$170.00 ea.	\$125.00 ea.
2" Tracer	\$159.00 ea.	\$125.00 ea.
2" Heavy Tracer	\$179.00 ea.	N/A
16 oz. Bush Hammer	\$275.00 ea.	N/A
3 lb. Striking Hammer	N/A	\$149.00 ea.
3/8" Wedge and Shim Set	N/A	\$11.75 set
1/2" Wedge and Shim Set	N/A	\$12.25 set
5/8" Wedge and Shim Set	N/A	\$12.25 set
3/4" Wedge and Shim Set	N/A	\$15.25 set

Other heavy hammers and specialty chisels also available at all locations. We stock a good assortment of lifting straps, tie-downs and protective corners. Please ask your sales associate for more details.

STONE CUTTING TOOLS

	PRICE
4" Diamond Blade	\$43.00 ea.
7" Economy Diamond Blade	\$48.00 ea.
7" Diamond Blade	\$100.00 ea.
10" Diamond Blade	\$175.00 ea.
12" Diamond Blade	\$215.00 ea.
14" Economy Diamond Blade	\$150.00 ea.
14" Diamond Blade	\$245.00 ea.
4" Diamond Cup Grinder	\$155.00 ea.
7" Masonry Blade	\$11.00 ea.
Curb Lifting Tongs	\$1,070.00 ea.
Step Lifting Clamps	\$2,339.00 ea.

GLOSSARY OF TERMS

ROCK FACE Heavy relief, hand cut (chiseled) finish.

SPLIT FACE Natural grain split, produced by hydraulics or wedges and shims.

SAWN Dull, smooth finish created by wire or diamond saw. May show blade marks.

THERMAL Slightly pebbled, non-slip finish produced by applying high temperature flame.

SANDBLAST Slightly textured, produced with abrasives under high pressure.

POLISHED Mirror gloss finish, achieved by rubbing the stone with a series of abrasives.

ANTIQUED (cushion edge) Mottling of edges and corners with high temperature flame.

HONED Non-reflective dull sheen finish achieved by rubbing the stone with a series of abrasives.

BUSH-HAMMERED A corrugated finish, with interrupted parallel markings, produced by utilizing pneumatic tools.

OLD YANKEE Drilled and split by hand, using wedges and shims. Very rustic appearance.

Please note: prices may change without notice due to cost fluctuations of raw materials.

SWENSON GRANITE WORKS

Granite Step Worksheet



A POLYCOR INC. COMPANY

Pad Size: _____

Notes:

A) Length: _____

B) Height: _____

C) Depth: _____

D) Depth: _____

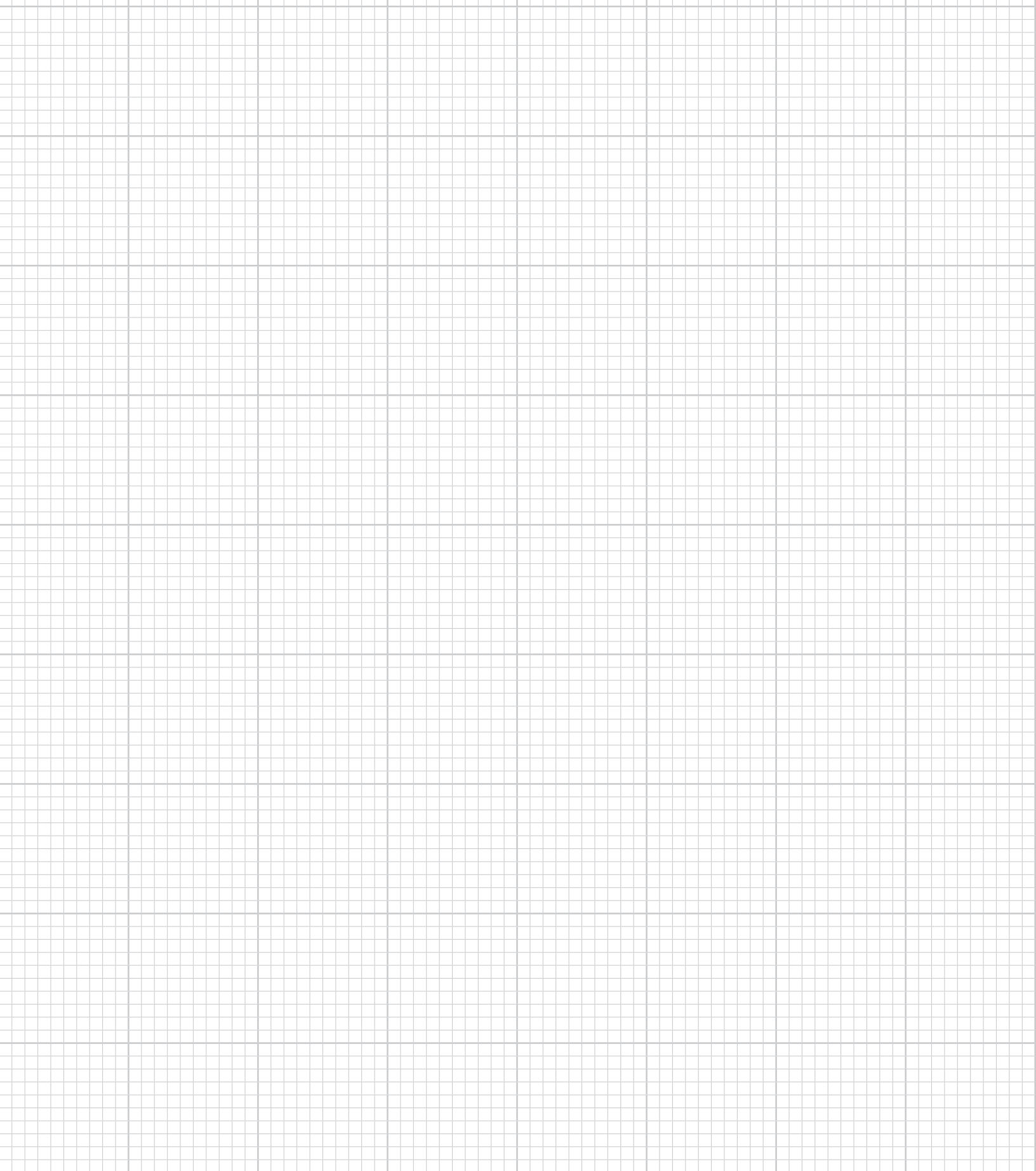
E) Threshold Height:

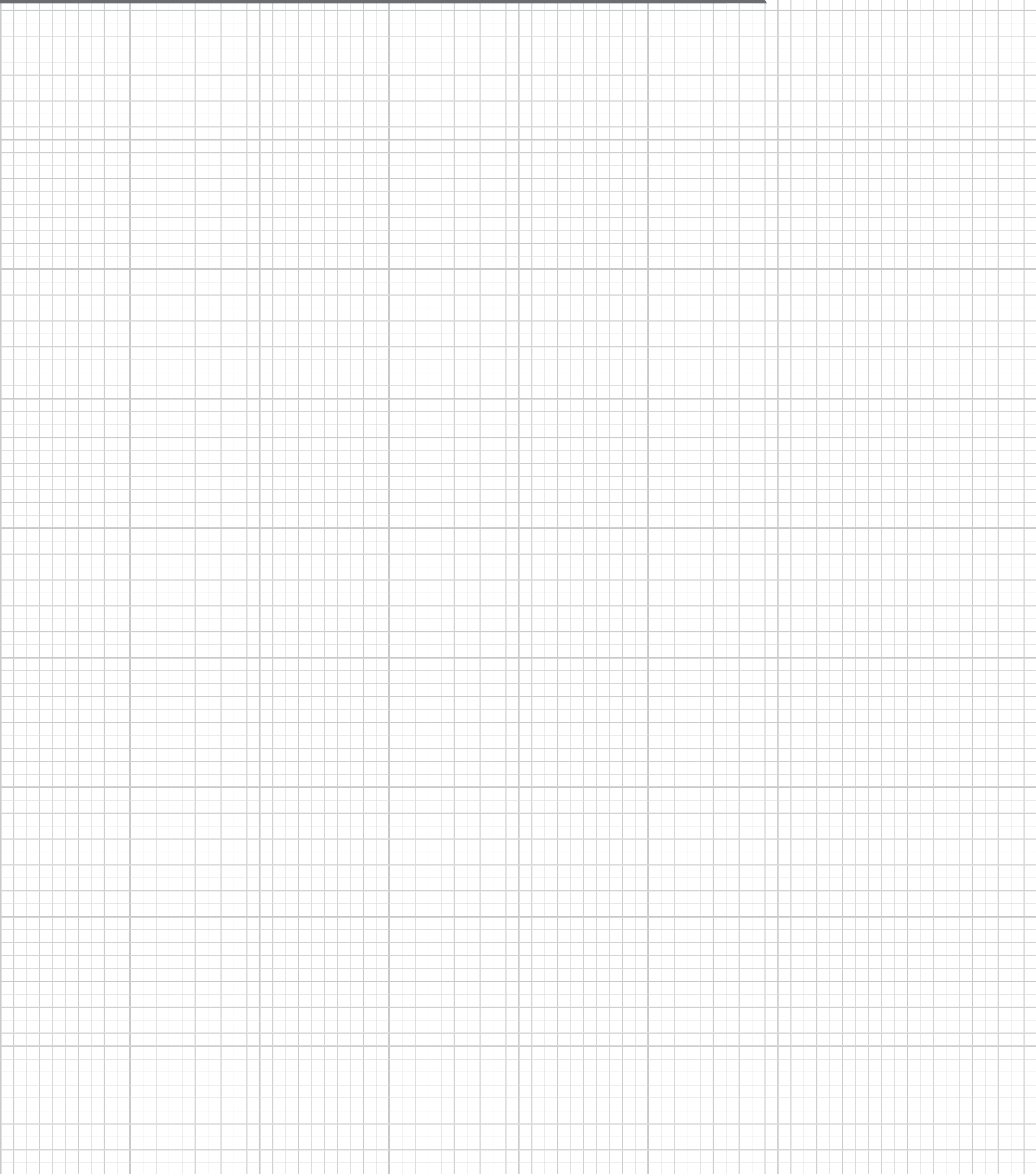
**F) Overall Length
(to outside of trim)**



www.swensongranite.com

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NEWTOWN

292 South Main Street
Newtown, CT 06470
203.270.6644

AMHERST

86 State Route 101A
Amherst, NH 03031
603.672.7827

CONCORD

369 North State Street
Concord, NH 03301
603.225.4322

HANOVER

742 Washington Street
Hanover, MA 02339
781.829.0233

MEDWAY

10 Main Street
Medway, MA 02053
508.533.2882

ROWLEY

125 Newburyport Turnpike
Rowley, MA 01969
978.948.3363

SHREWSBURY

874 Hartford Turnpike,
Shrewsbury, MA 01545
508.365.1340

SOUTH HADLEY

489 Granby Road,
South Hadley, MA 01075
413.322.8881

WESTBROOK

582 Bridgton Road
Westbrook, ME 04092
207.797.4500





STEPS & TREADS

Technical Specifications

- 100% natural stone direct from our North American quarries
- Virtually maintenance free
- Backed by our lifetime warranty
- Custom fabrication available to accommodate special sizes
- Naturally durable, will withstand freeze-thaw cycle
- We carry an extensive supply of standard sizes in stock.

Step Style Options

- Rock Face
- Split Face
- Cushion Edge
- New Yankee Style
- Old Yankee Style
- Colonial
- Radius Steps (1/2 Moon)

Other Edge Finishes Available

- Sawn
- Honed
- Thermal
- Polished
- Sandblast

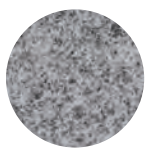
All steps are prepared with a thermal top

Variety of Sizes in Stock

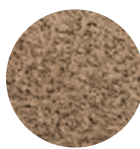
- Stock lengths: 3'-0" to 8'-0"
- Stock widths: 1'-1" to 4'-0"

Approximately 97 pounds per square foot. Stock steps are 7" thickness.

Material Choices



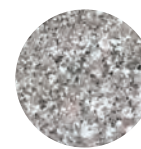
WOODBURY GRAY



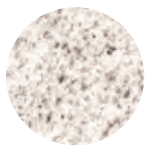
AUTUMN PINK
*CUSTOM ORDER



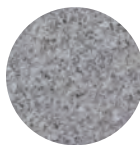
CALEDONIA
*CUSTOM ORDER



DEER ISLE
*CUSTOM ORDER



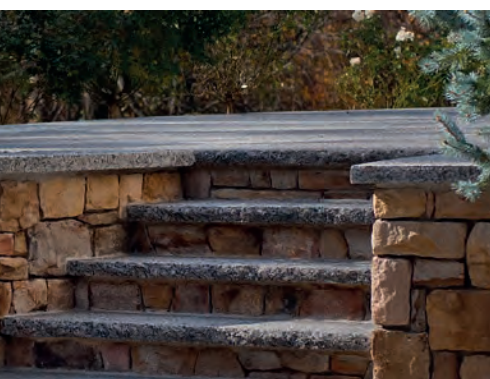
BETHEL WHITE
*CUSTOM ORDER



CONCORD GRAY
*CUSTOM ORDER



CAMBRIAN BLACK
*CUSTOM ORDER













Gravel Pad Preparation for Installation of Granite Steps

**** Please Read ****

Very large sets of steps may require a concrete pad. Please speak with a Swenson Granite Works Representative prior to starting your base preparation to confirm which would be best for you.

Also, please note that Swenson Granite Works cannot be responsible for improperly prepared bases that may cause settling or shifting of the steps over time.

Tools

NECESSARY			HELPFUL		
					
Rake	Shovel	Hand Tamper	Pick	Wheelbarrow	Gas Operated Plate Compactor
					
4'0" Level		2" x 4" x 8'			

MATERIALS		
Type	Dimensions	Calculate Material Needed
<p>Processed gravel, also known as driveway base, ¾" or 1" base or crushed bank run contains the appropriate amounts of crushed stone, sand and other fine materials to create excellent compaction.</p> <p>Please note that pea stone, small crushed stone and sand do not compact well and may shift or wash out.</p>	<p>Length of Pad = A <input type="text"/> inches (Left to Right)</p> <p>Width of Pad = B <input type="text"/> inches (Front to Back)</p> <p>Depth of Pad = C <input type="text"/> *</p> <p><i>* For depth dimension ONLY take the depth of your pad and divide by 12. For example, a 6" pad would be listed as 6/12 or .50</i></p>	<p>To calculate approximate material needs multiply A X B X C and divide by 144 to get cubic feet.</p> <p>For example: Material for a 48" X 36" X 6" pad would be calculated as (48" X 36" X .5)/144 which would equal 6.00 cubic/feet.</p>



Gravel Pad Preparation for Installation of Granite Steps

STEP 1

Excavate an area approximately 1' deep that is 6" longer (Left to right) than the outside dimension of your set of steps. Make sure this area has been properly located with regard to your doorway and has been compacted prior to adding your processed gravel.

NOTE: It may be necessary to excavate deeper depending on existing soil conditions to insure a well compacted, good draining base.

STEP 2

Using processed gravel, as specified above; fill the excavated area with 3"-4" layers, compacting each layer as you go. A gas operated plate compactor works very well. If a compactor is not available, reduce the thickness of the layers, wet down and use a hand tamper or roller to achieve compaction.

STEP 3

Compact the final layer at the level where you desire the bottom of your first step (your Swenson Granite Works Representative will help you determine the proper height). Use your 4' level, with a 2" X 4" if necessary, to confirm that your base is level both left to right and front to back.

STEP 4

Swenson Granite Works personnel are trained to install granite steps on a prepared base only.

If the base area is not prepared prior to the arrival of our delivery truck the steps cannot be installed. If this is the case a second delivery attempt will be scheduled and a second delivery fee will be assessed.

Thank you once again for choosing Swenson Granite Works as your supplier of fine manufactured granite products.












Concrete Pad Preparation for Installation of Granite Steps

Ask your Swenson Granite Works representative for the proper dimensions for your particular step configuration.

Also, please note that Swenson Granite Works cannot be responsible for improperly prepared bases that may cause settling or shifting of the steps over time

Finally, very large steps may require your concrete pad to be anchored to your foundation wall. Please speak with a Swenson Granite Works representative for more information regarding your specific application.

Tools

NECESSARY			HELPFUL		
 Rake	 Shovel	 Hand Tamper	 Pick	 Wheelbarrow	 Gas Operated Plate Compactor
 4'0" Level		 Ready Mix Concrete			
 2" x 4" x 8' and 2" x 6" x 8'					

Visit our website for a Swenson Granite Works store in your area.

www.swensongranite.com



Concrete Pad Preparation for Installation of Granite Steps

MATERIALS

Type

Ready Mix concrete is typically a pre-blended mix of fine and coarse aggregate and Type 10 Portland cement.

Please review the manufacturer's instructions for volume specific information and mixing instructions

Dimensions

Length of Pad = A inches

Width of Pad = B inches

Depth of Pad = C *

** For depth dimension ONLY take the depth of your pad and divide by 12. For example, a 6" pad would be listed as 6/12 or .50*

Calculate Material Needed

To calculate approximate material needs multiply A X B X C and divide by 144 to get cubic feet.

For example: Material for a 48" X 36" X 6" pad would be calculated as (48" X 36" X .5)/144 which would equal 6.00 cubic/feet.

STEP 1

Excavate an area approximately 6" deep that is 2" longer (Left to right) than the outside dimension of your set of steps that have been properly located with regard to your doorway. Make sure this area has been properly located with regard to your doorway and has been compacted prior to adding your concrete.

NOTE: It may be necessary to excavate deeper depending on existing soil conditions to insure a well compacted, good draining base.

STEP 2

Form up area with 2" X 6" wood to create a box at the appropriate height from the top of the threshold. These wood forms must be level in both directions from left to right and front to back.

STEP 3

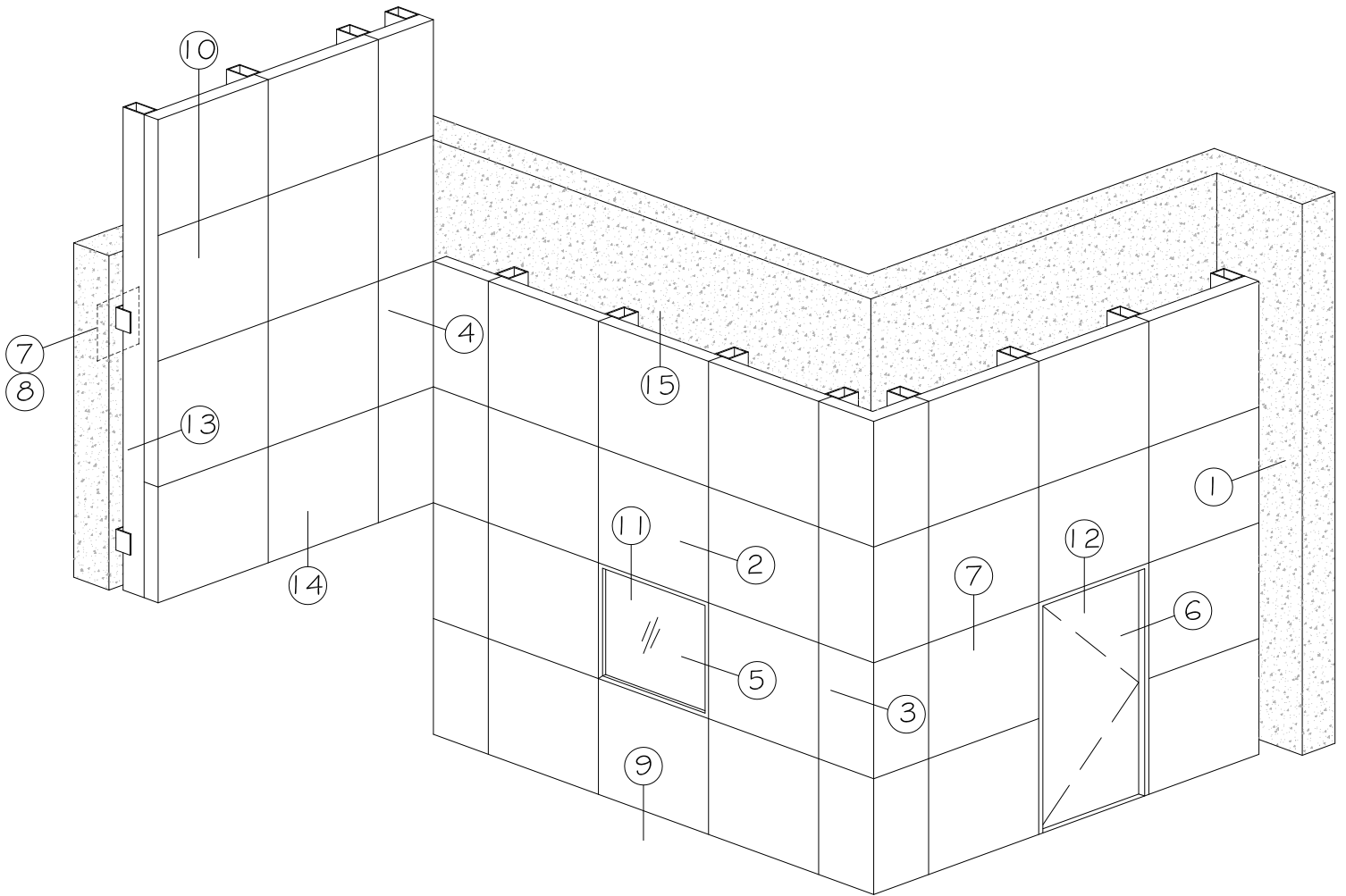
After slightly overfilling your form with concrete, use a 2" X 4" in a side-to-side sawing motion to screed off any excess using the top of your form as a guide. After the concrete has hardened the wood forms can be removed.

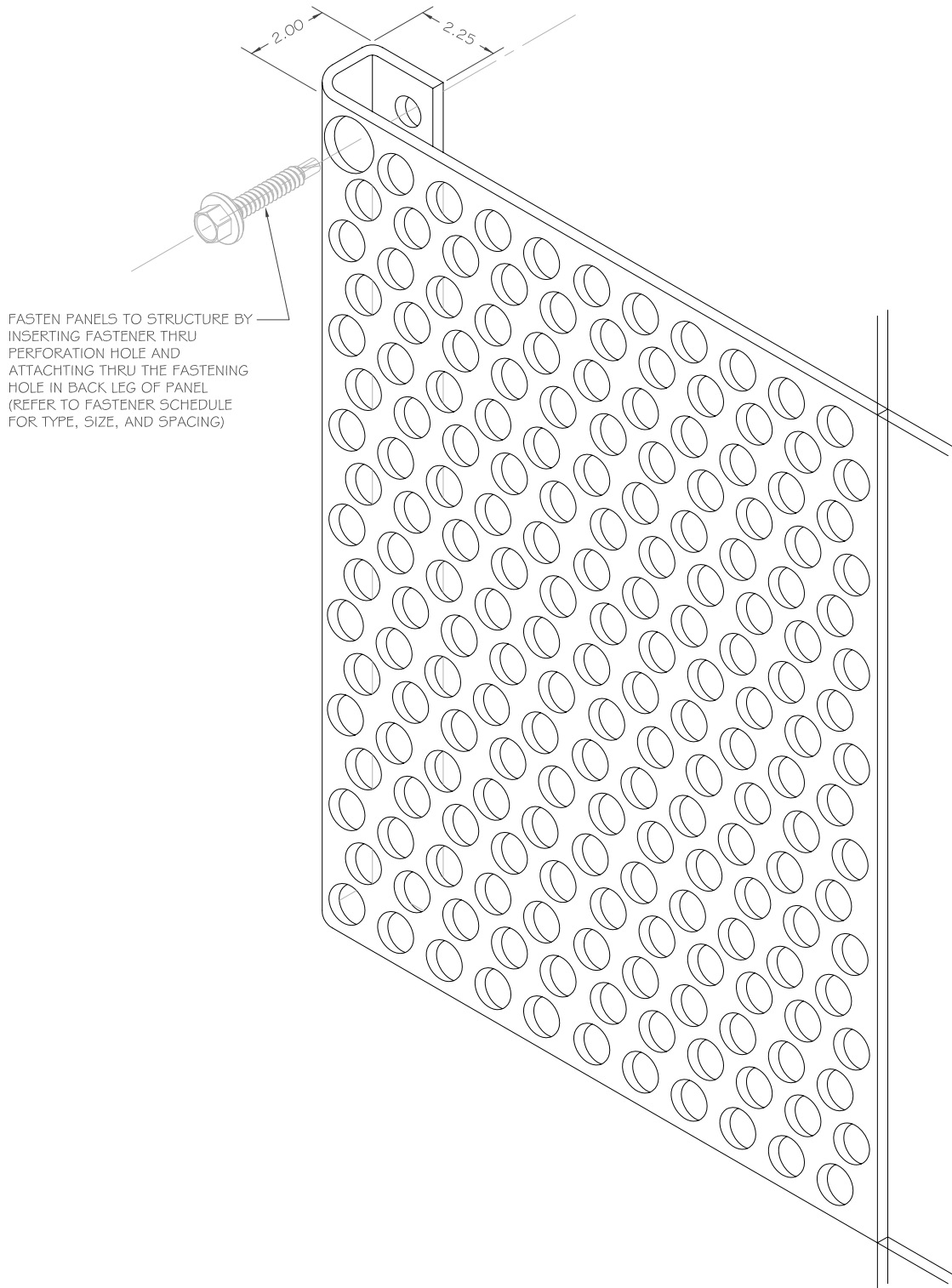
If the base area is not prepared prior to the arrival of our delivery truck the steps cannot be installed. If this is the case a second delivery attempt will be scheduled and a second delivery fee will be assessed.

Thank you once again for choosing Swenson Granite Works as your supplier of fine manufactured granite products.

Visit our website for a Swenson Granite Works store in your area.

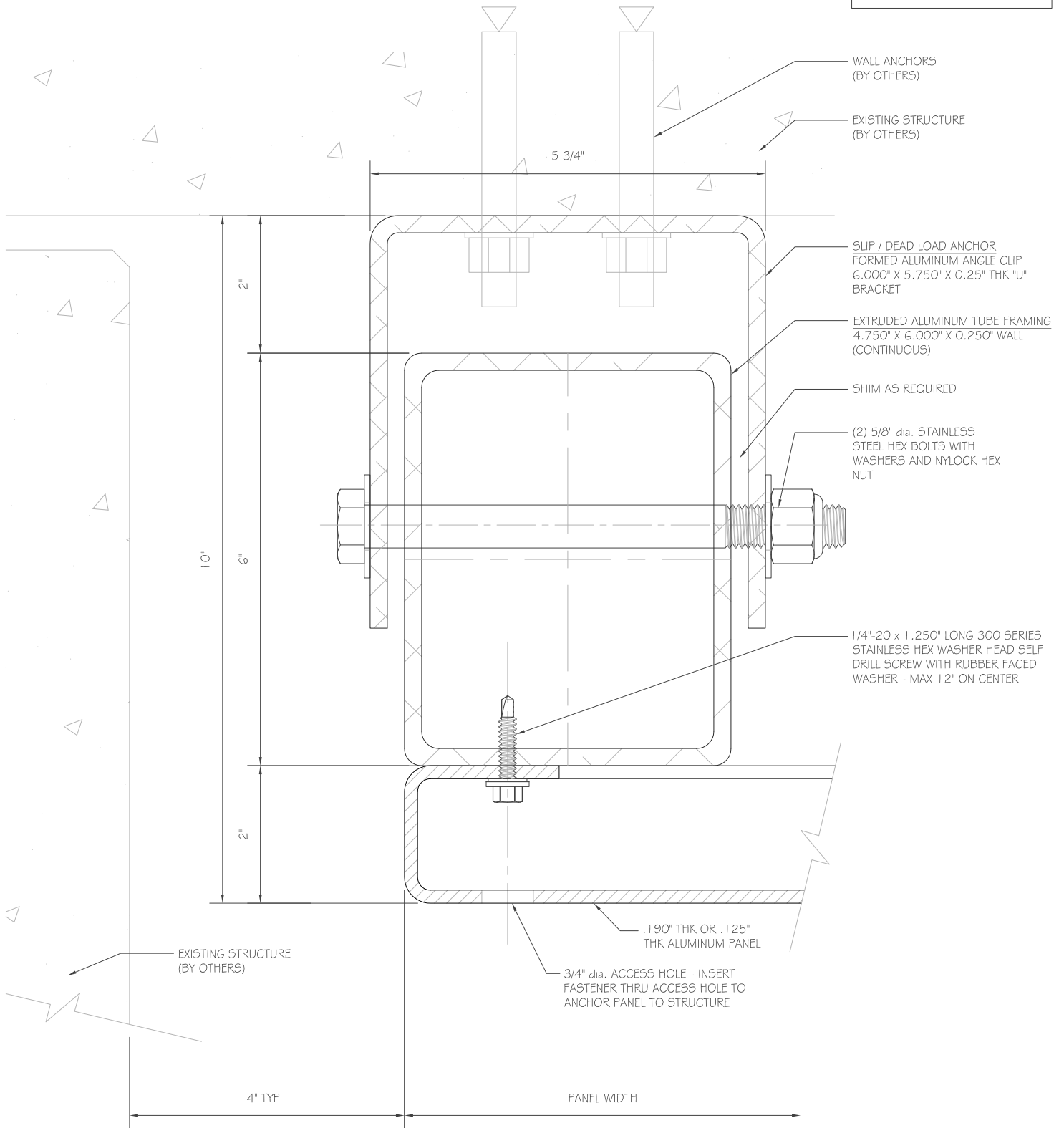
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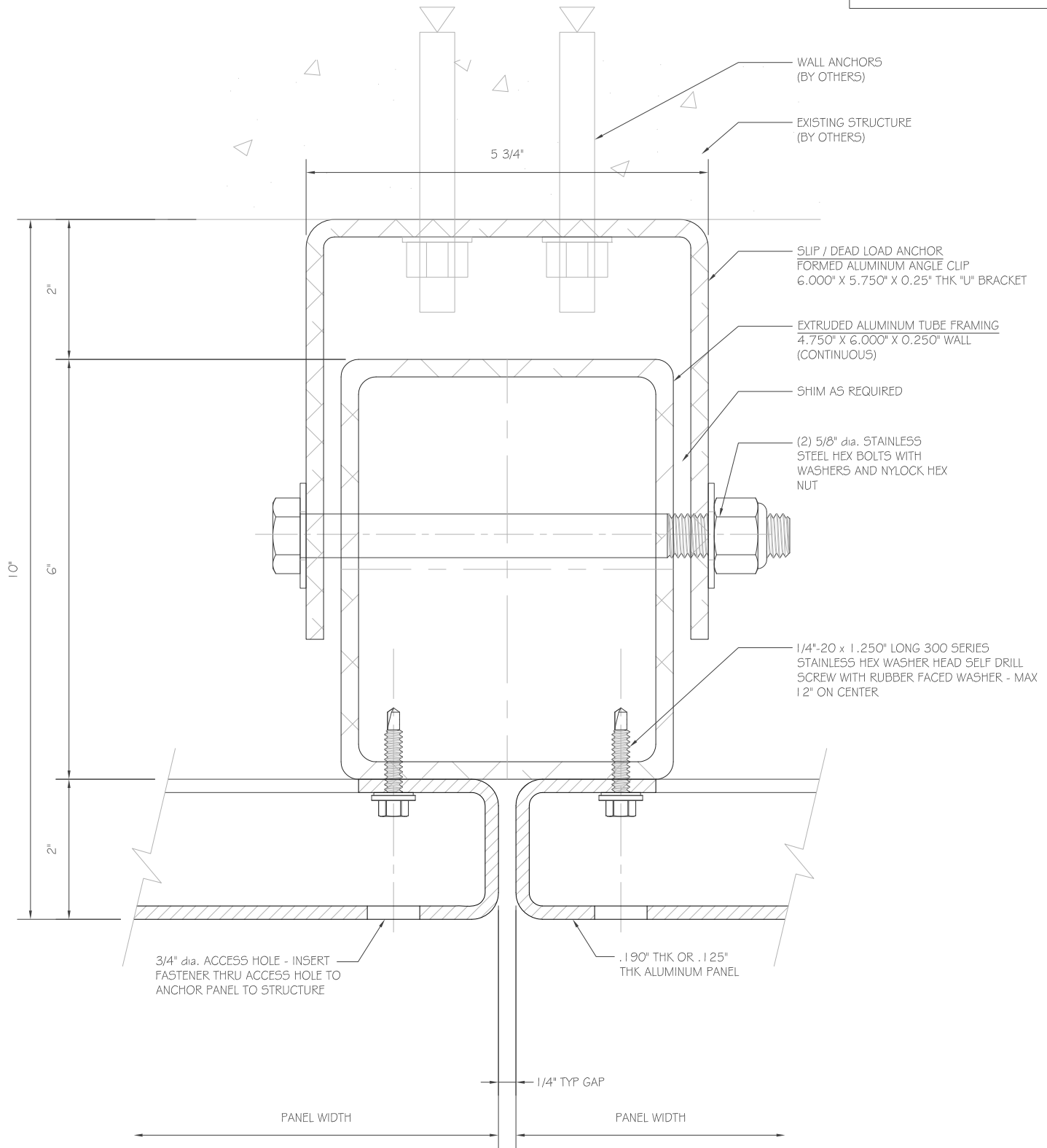
TYP PANEL FASTENING DETAIL

PROVIDE NEOPRENE SPACER OR ISOLATION TAPE WHERE ALL ALUMINUM FRAMING COMES IN CONTACT WITH CONCRETE OR STEEL CONSTRUCTION



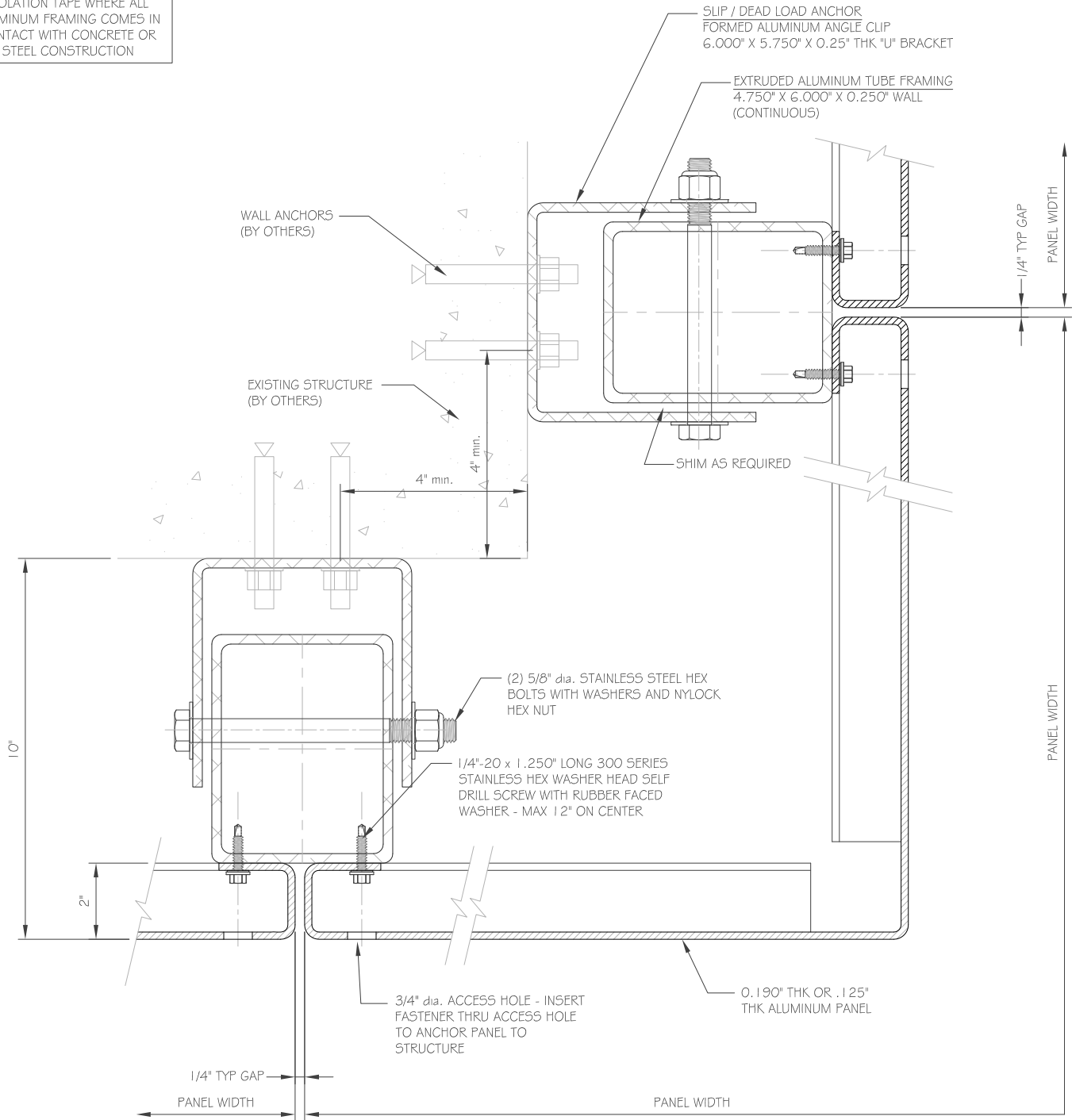
1 END WALL DETAIL

PROVIDE NEOPRENE SPACER OR ISOLATION TAPE WHERE ALL ALUMINUM FRAMING COMES IN CONTACT WITH CONCRETE OR STEEL CONSTRUCTION



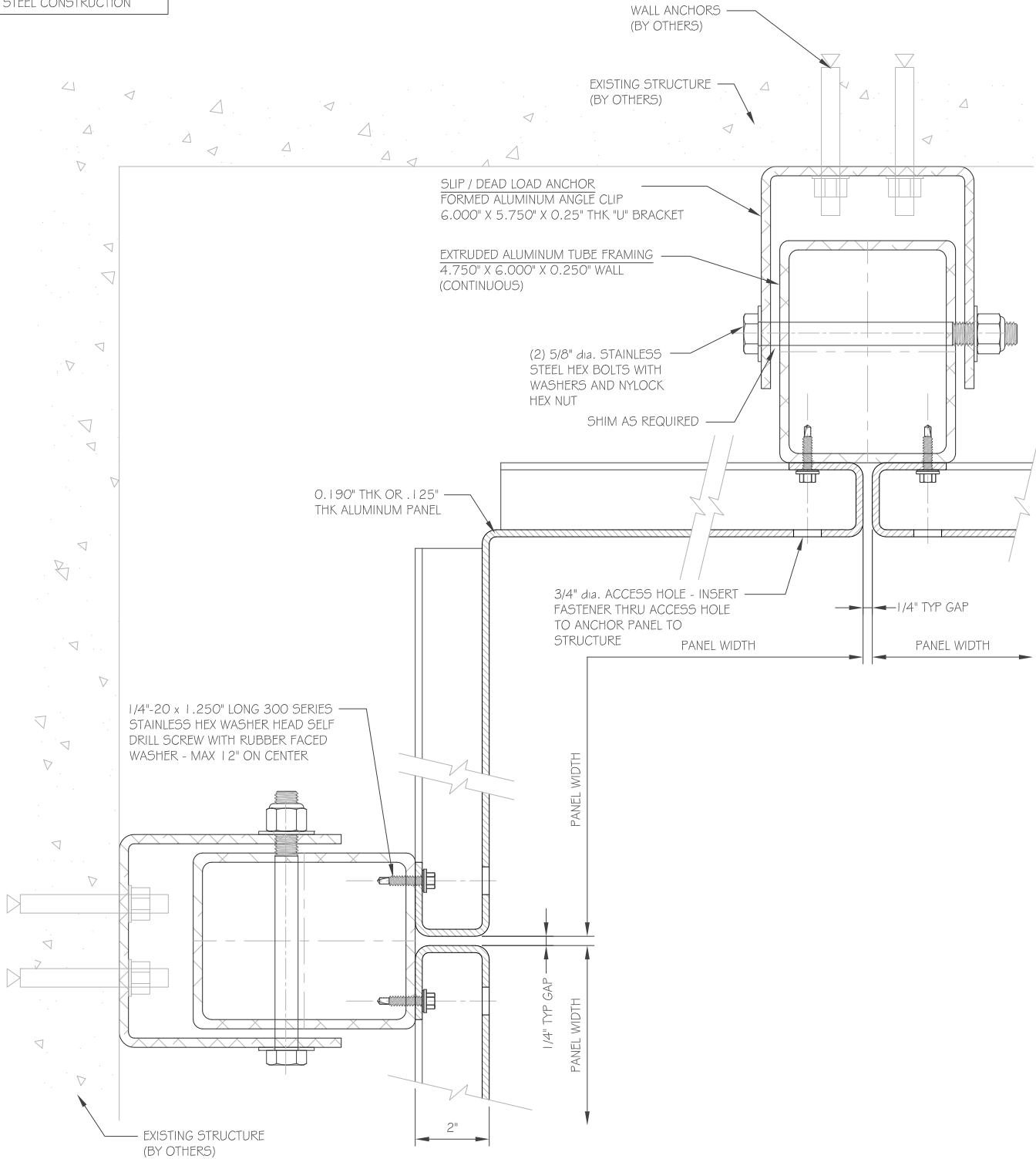
2 VERTICAL JOINT

PROVIDE NEOPRENE SPACER OR ISOLATION TAPE WHERE ALL ALUMINUM FRAMING COMES IN CONTACT WITH CONCRETE OR STEEL CONSTRUCTION



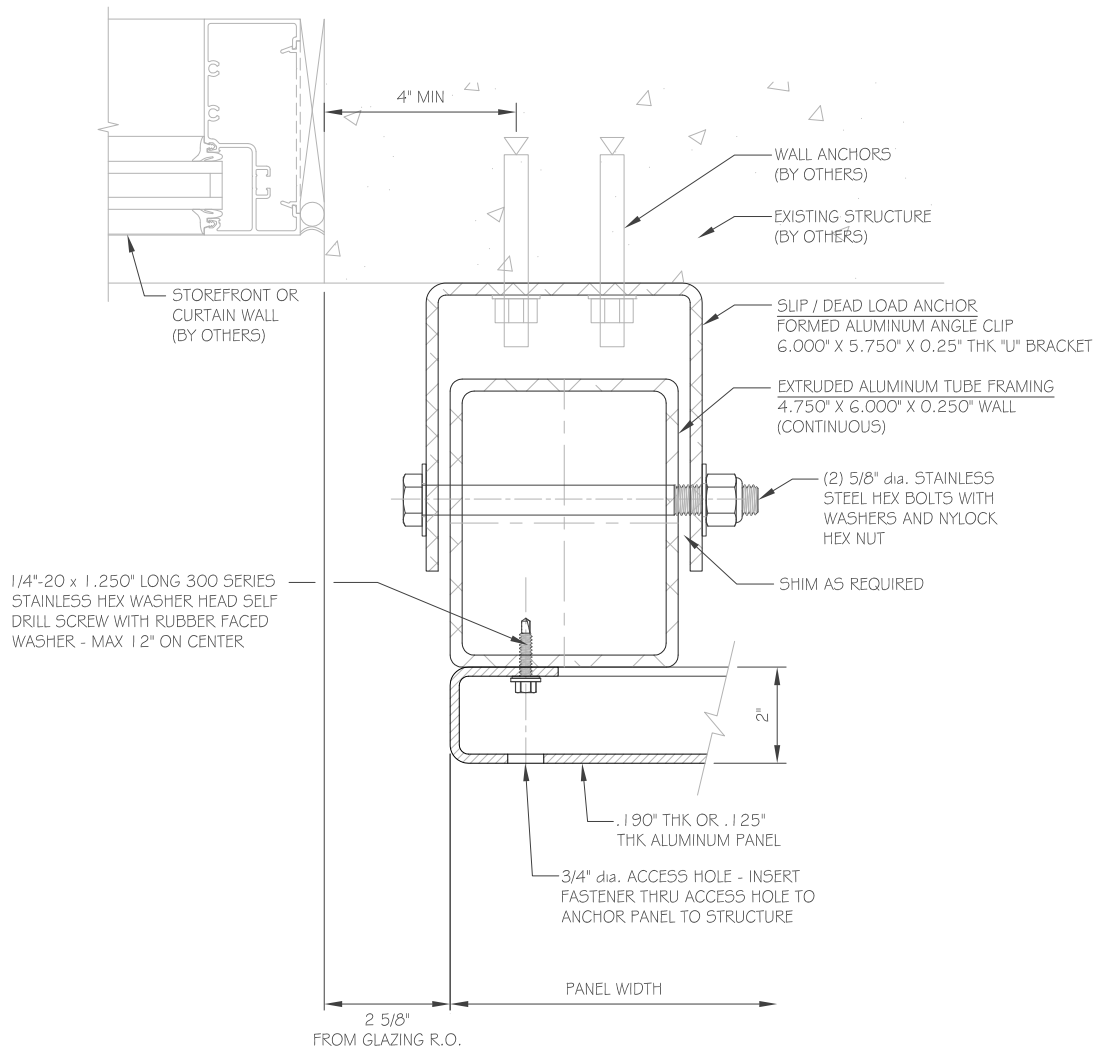
3 OUTSIDE CORNER

PROVIDE NEOPRENE SPACER OR ISOLATION TAPE WHERE ALL ALUMINUM FRAMING COMES IN CONTACT WITH CONCRETE OR STEEL CONSTRUCTION



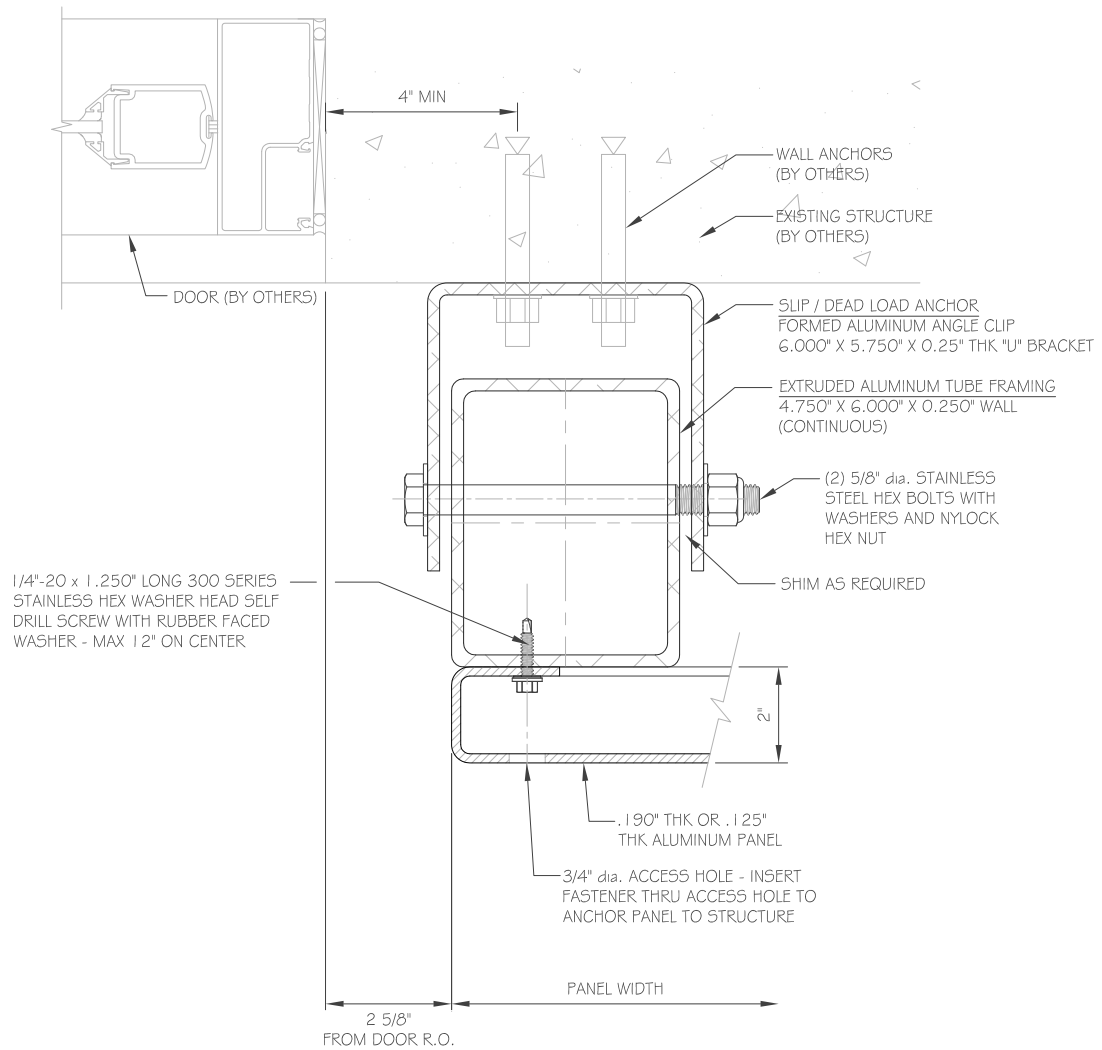
4 INSIDE CORNER

PROVIDE NEOPRENE SPACER OR ISOLATION TAPE WHERE ALL ALUMINUM FRAMING COMES IN CONTACT WITH CONCRETE OR STEEL CONSTRUCTION

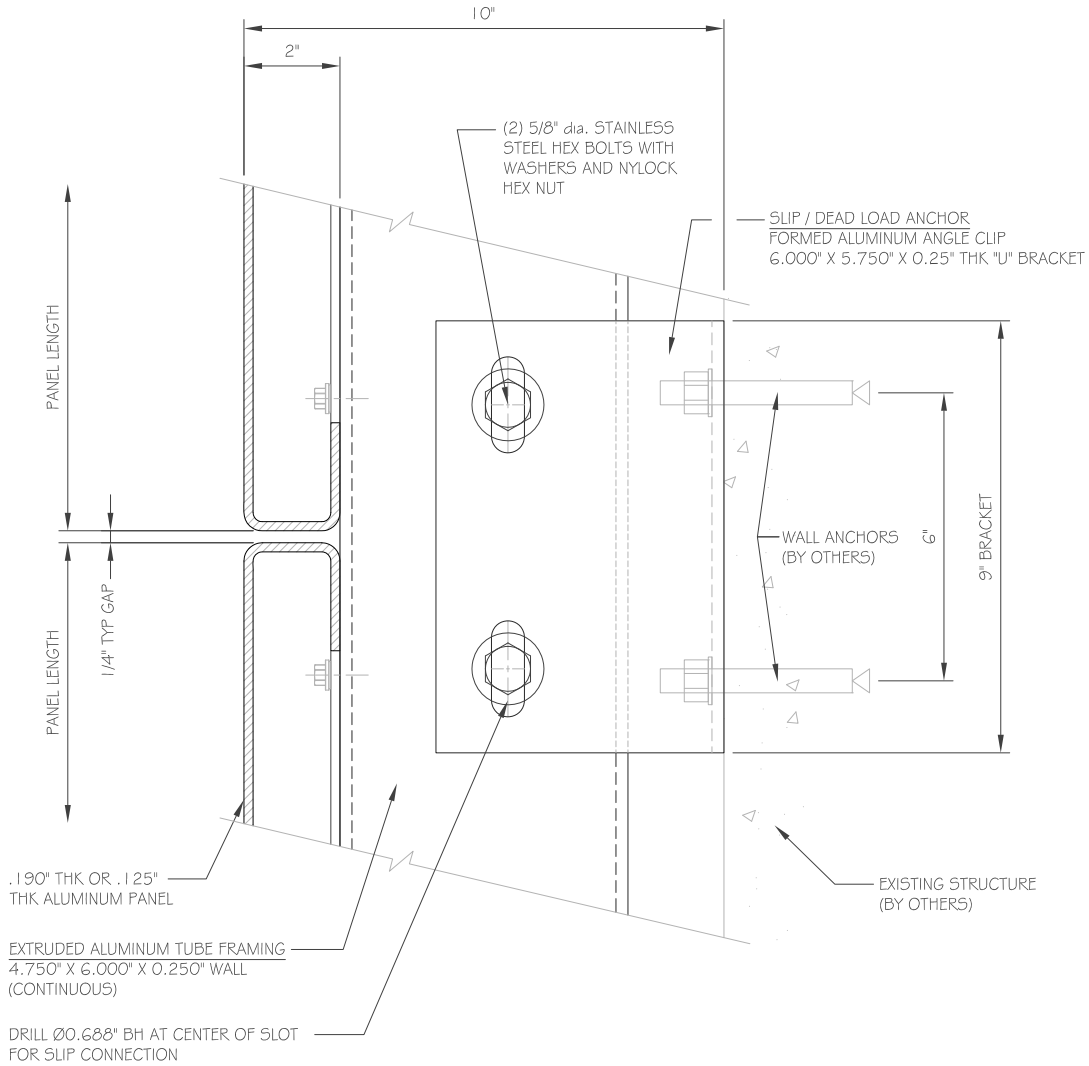


5 WINDOW JAMB

PROVIDE NEOPRENE SPACER OR ISOLATION TAPE WHERE ALL ALUMINUM FRAMING COMES IN CONTACT WITH CONCRETE OR STEEL CONSTRUCTION

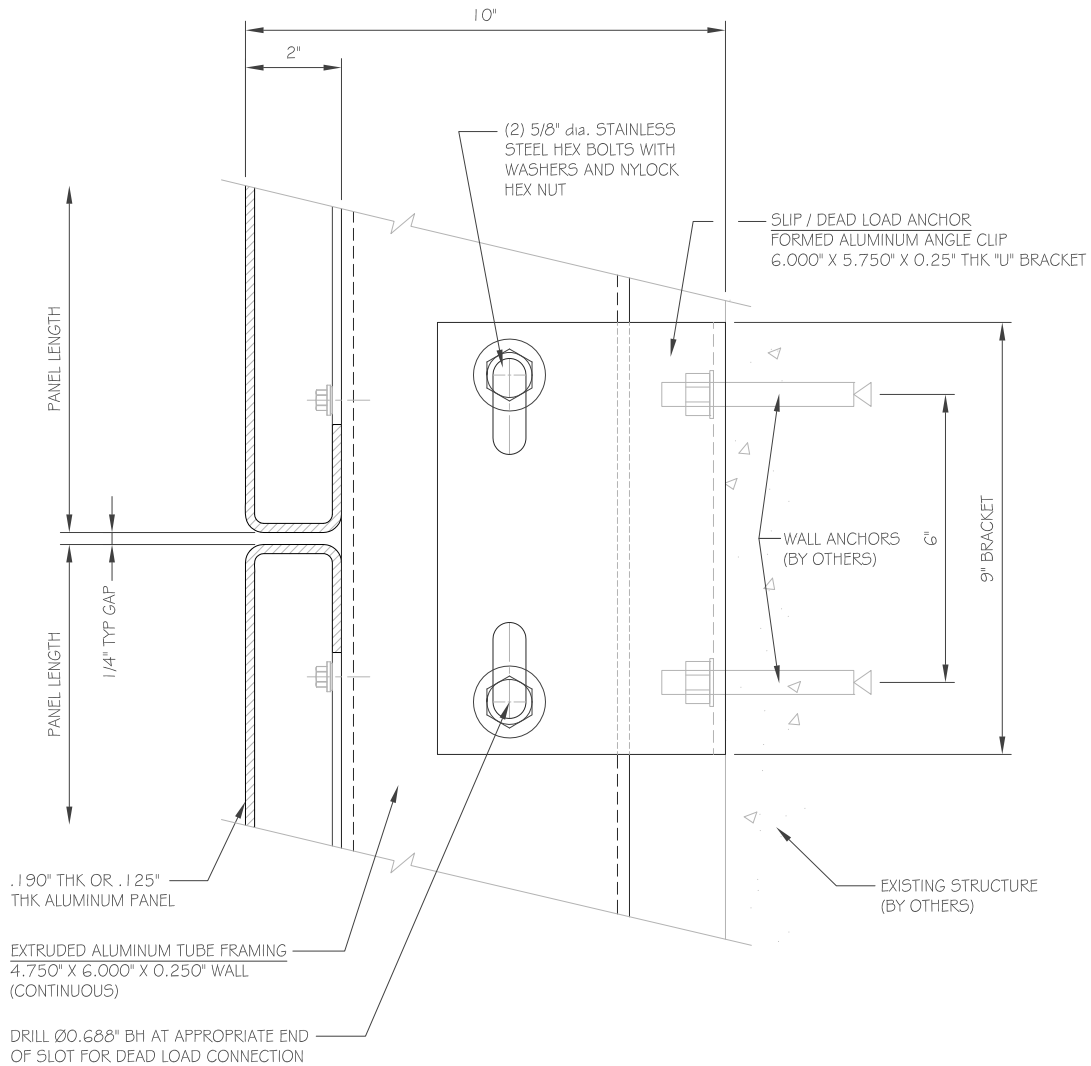


PROVIDE NEOPRENE SPACER OR ISOLATION TAPE WHERE ALL ALUMINUM FRAMING COMES IN CONTACT WITH CONCRETE OR STEEL CONSTRUCTION

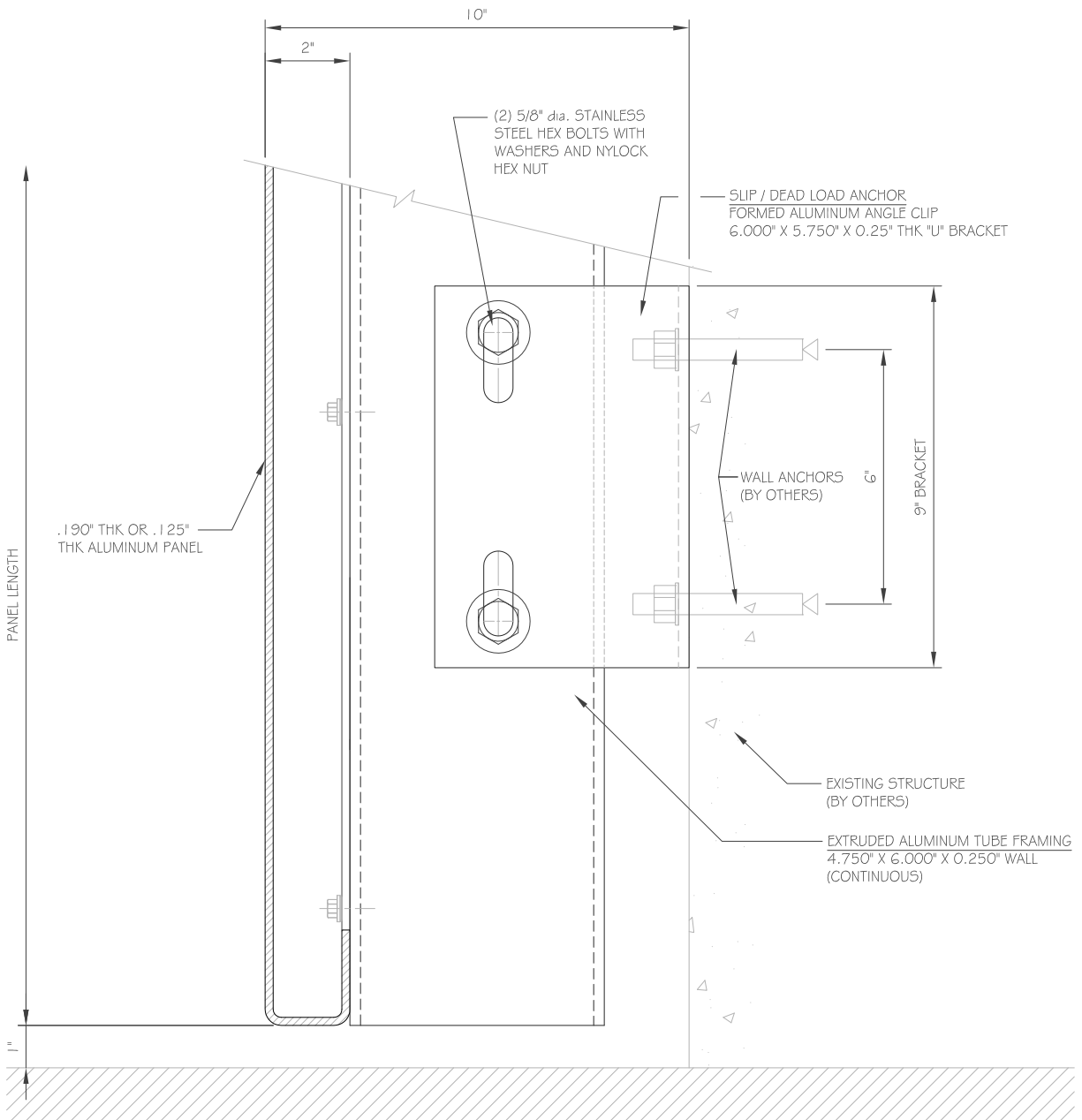


7 HORIZONTAL JOINT SLIP CONNECTION

PROVIDE NEOPRENE SPACER OR ISOLATION TAPE WHERE ALL ALUMINUM FRAMING COMES IN CONTACT WITH CONCRETE OR STEEL CONSTRUCTION

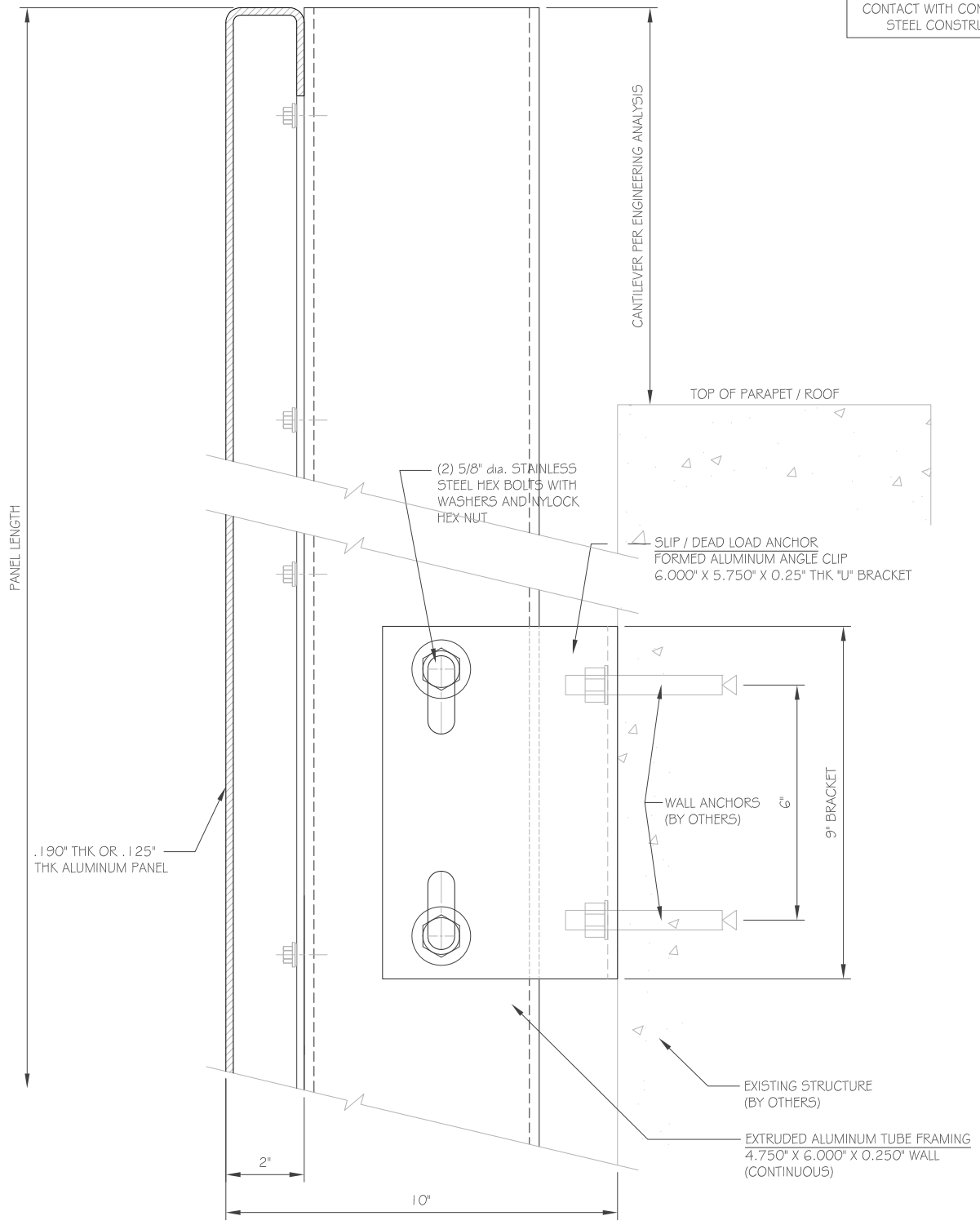


PROVIDE NEOPRENE SPACER OR ISOLATION TAPE WHERE ALL ALUMINUM FRAMING COMES IN CONTACT WITH CONCRETE OR STEEL CONSTRUCTION

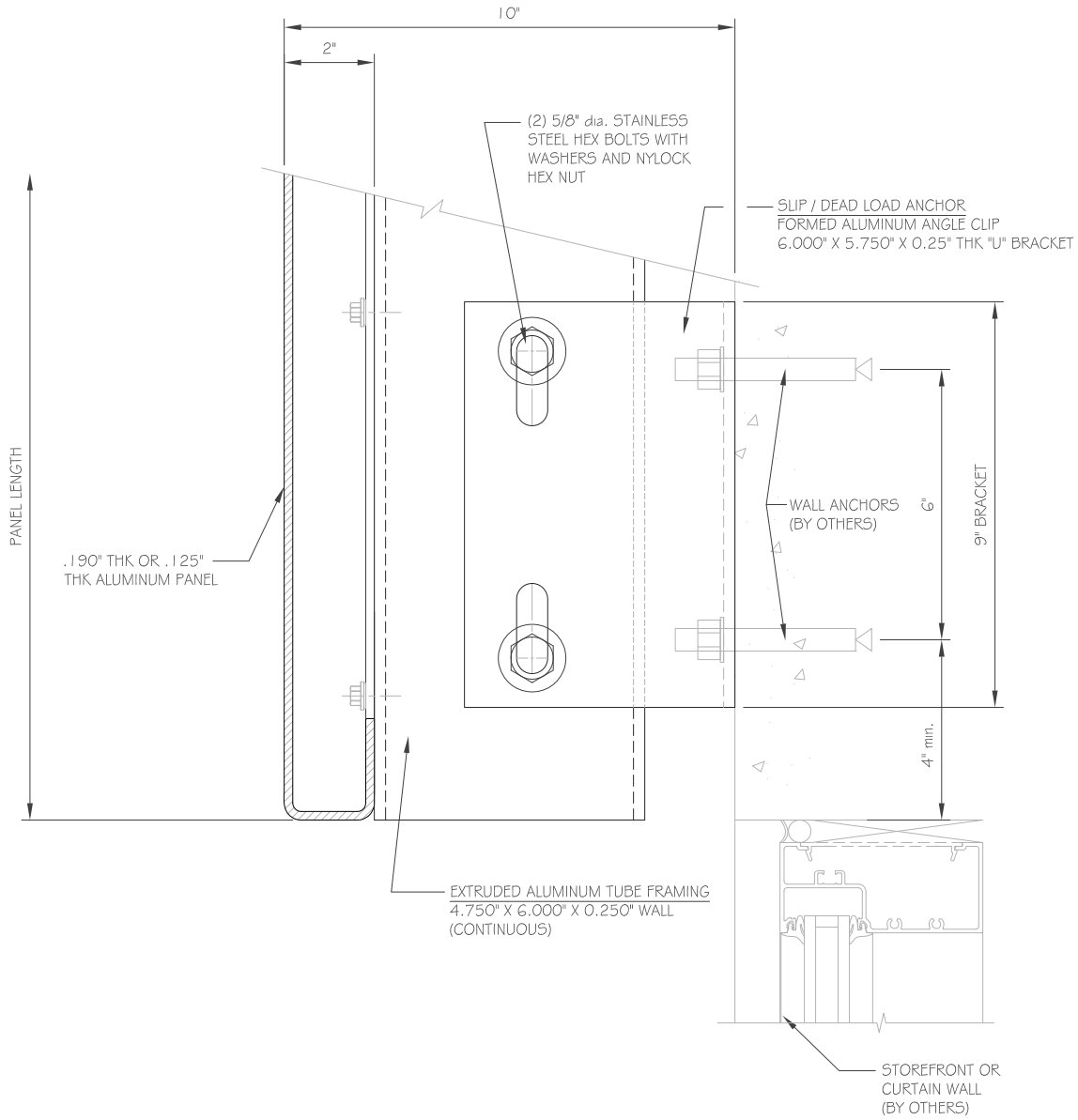


9 BOTTOM CONDITION

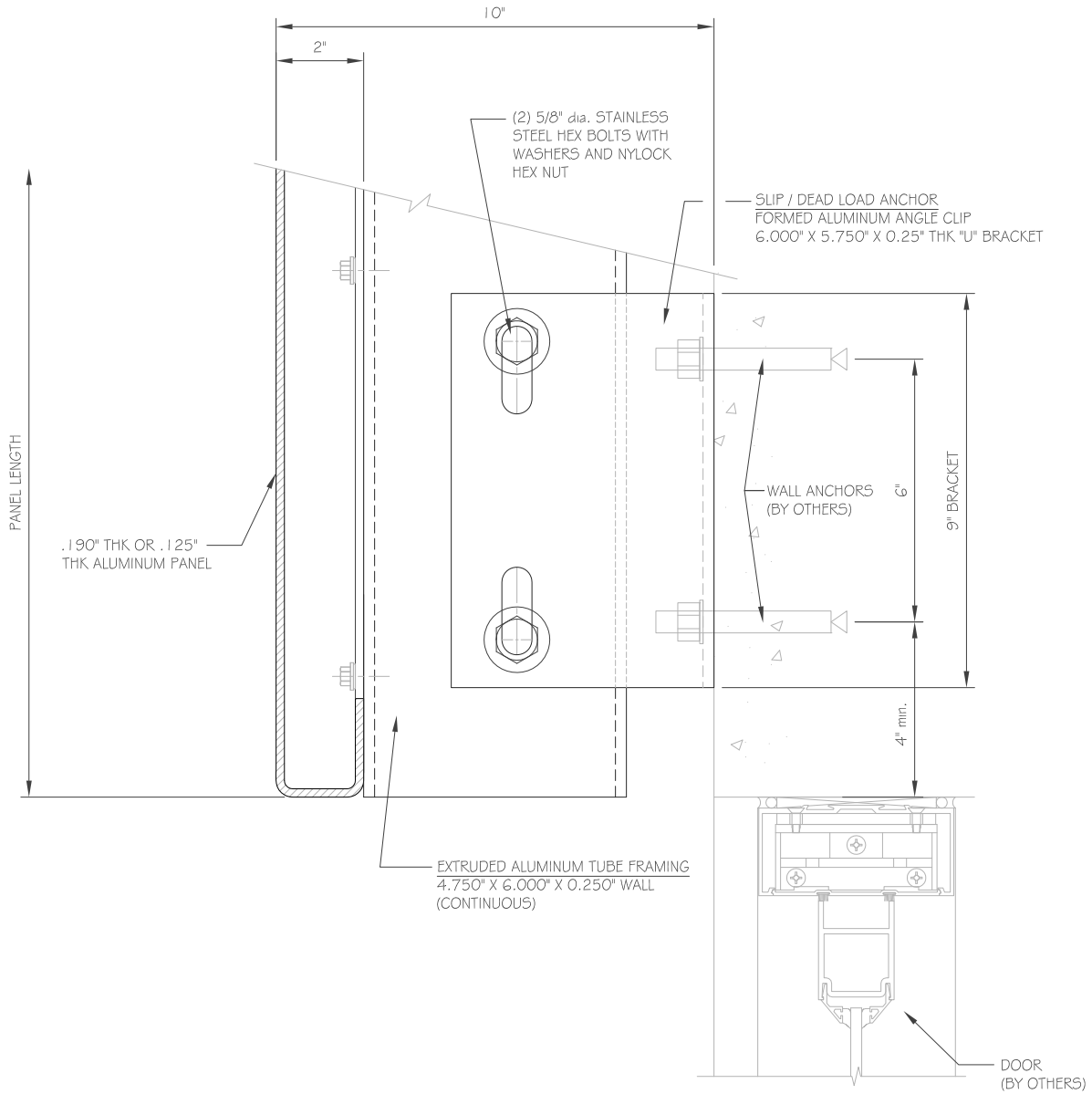
PROVIDE NEOPRENE SPACER OR ISOLATION TAPE WHERE ALL ALUMINUM FRAMING COMES IN CONTACT WITH CONCRETE OR STEEL CONSTRUCTION



PROVIDE NEOPRENE SPACER OR ISOLATION TAPE WHERE ALL ALUMINUM FRAMING COMES IN CONTACT WITH CONCRETE OR STEEL CONSTRUCTION

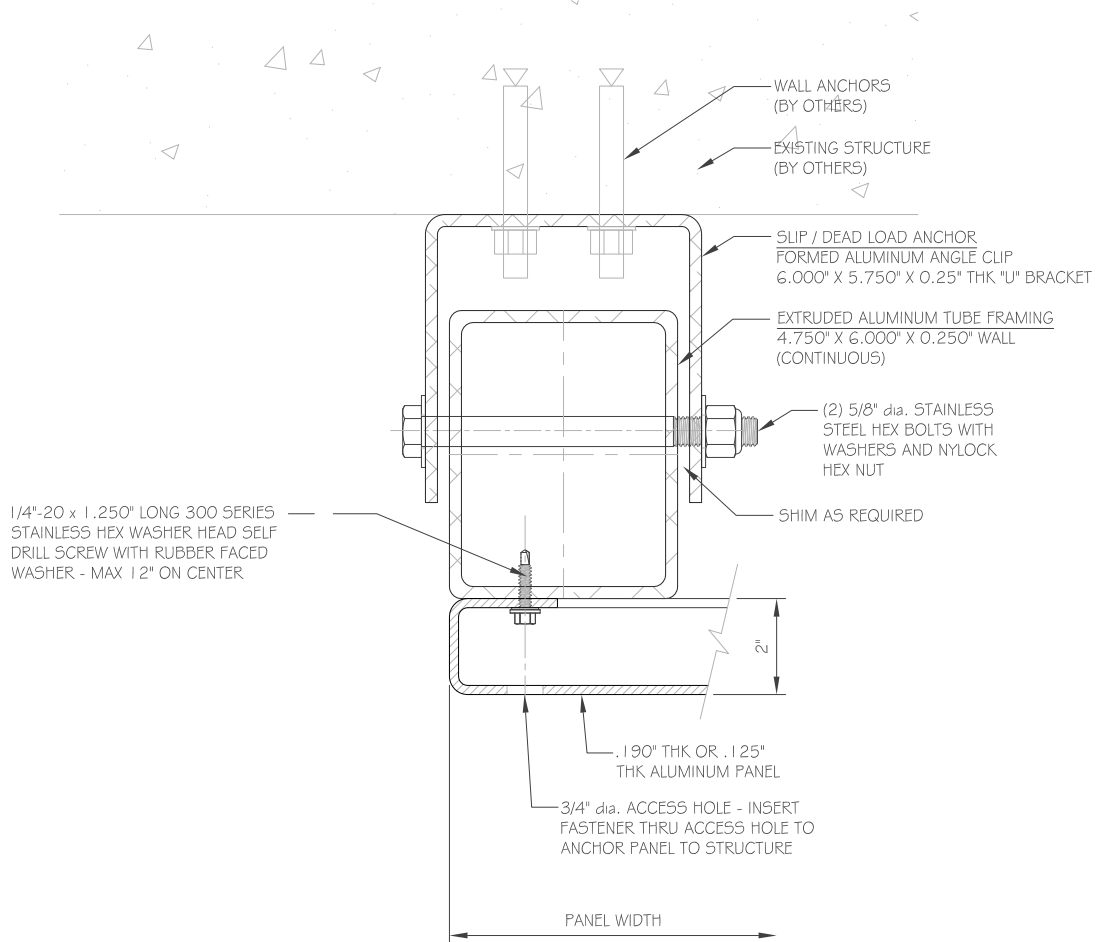


PROVIDE NEOPRENE SPACER OR ISOLATION TAPE WHERE ALL ALUMINUM FRAMING COMES IN CONTACT WITH CONCRETE OR STEEL CONSTRUCTION

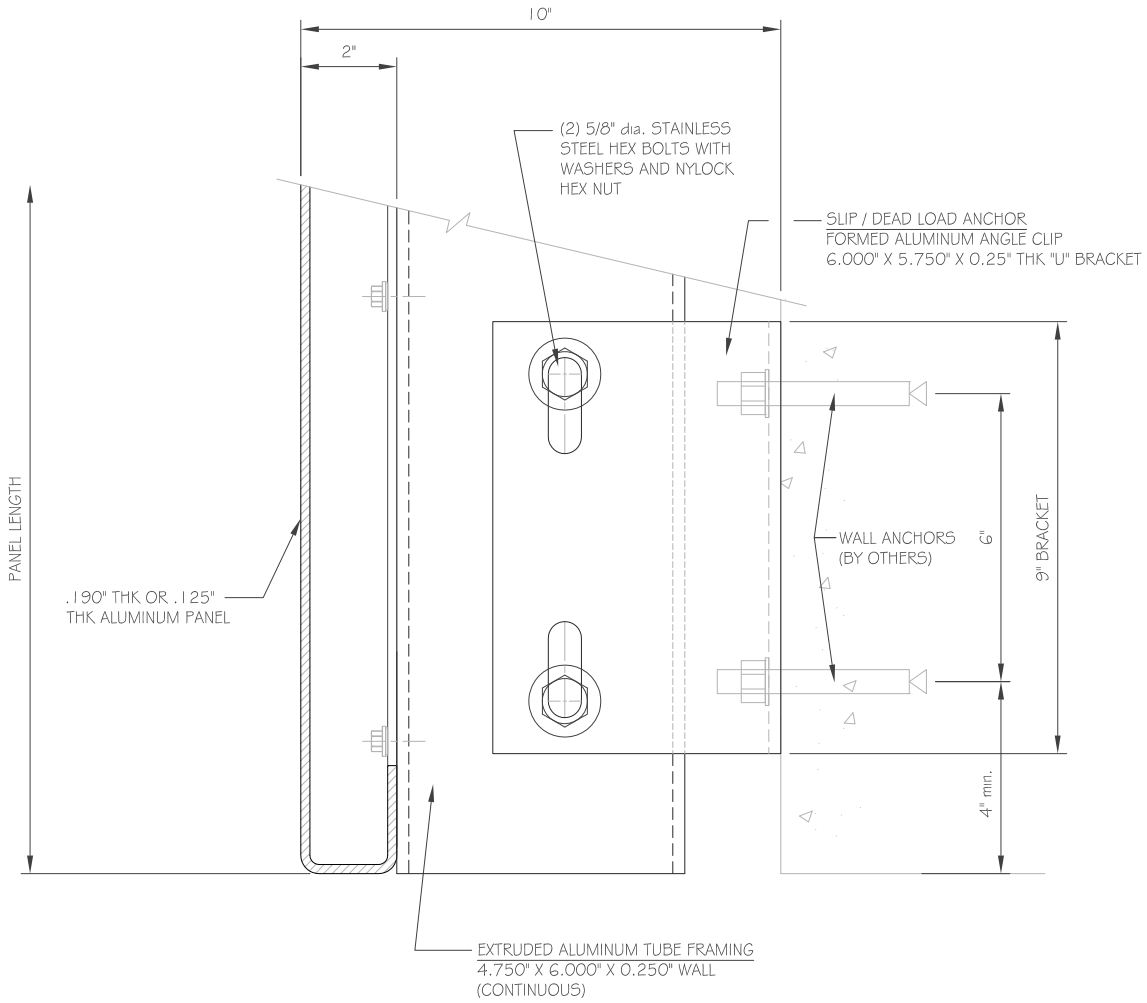


12 DOOR HEAD

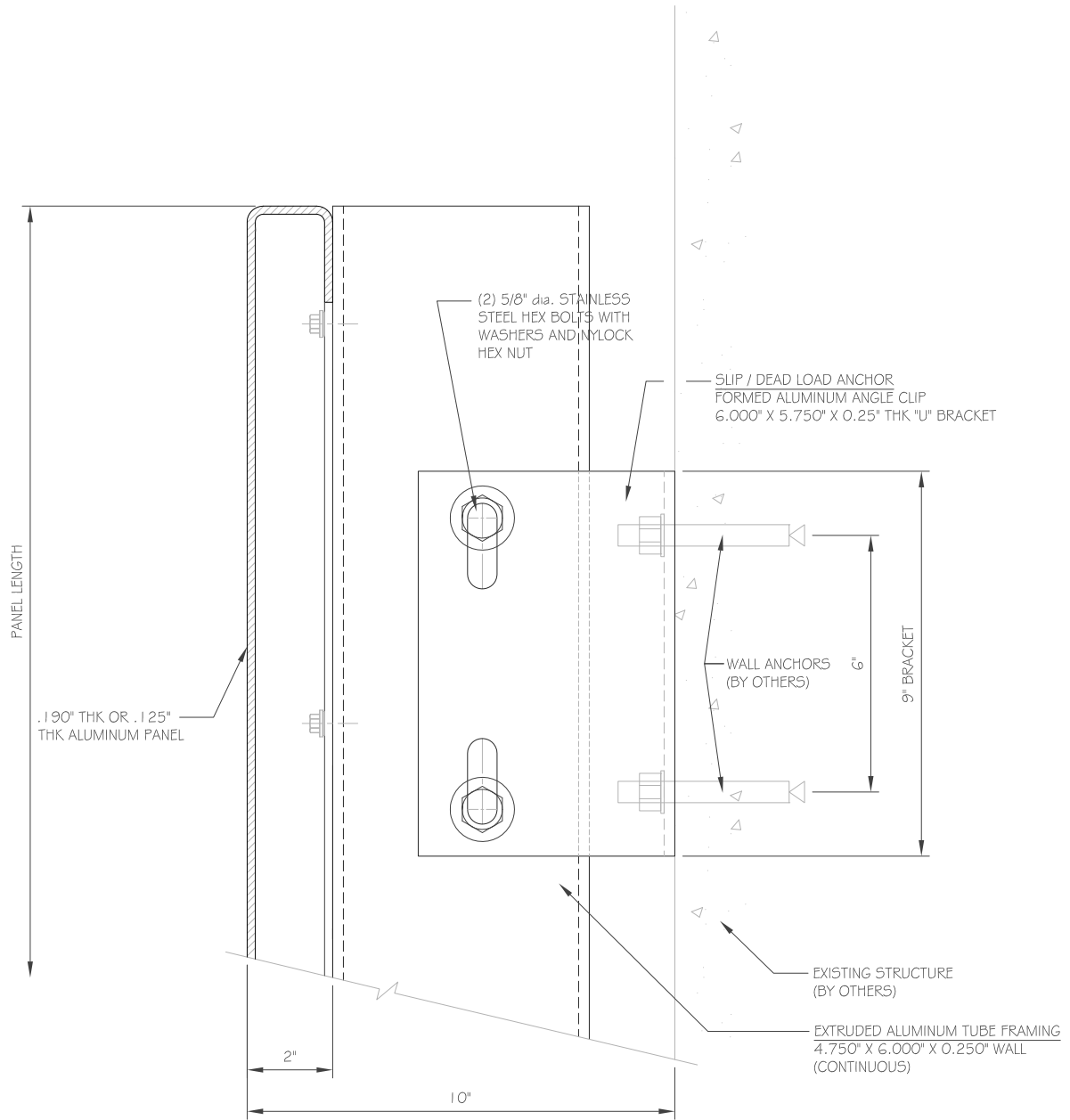
PROVIDE NEOPRENE SPACER OR ISOLATION TAPE WHERE ALL ALUMINUM FRAMING COMES IN CONTACT WITH CONCRETE OR STEEL CONSTRUCTION

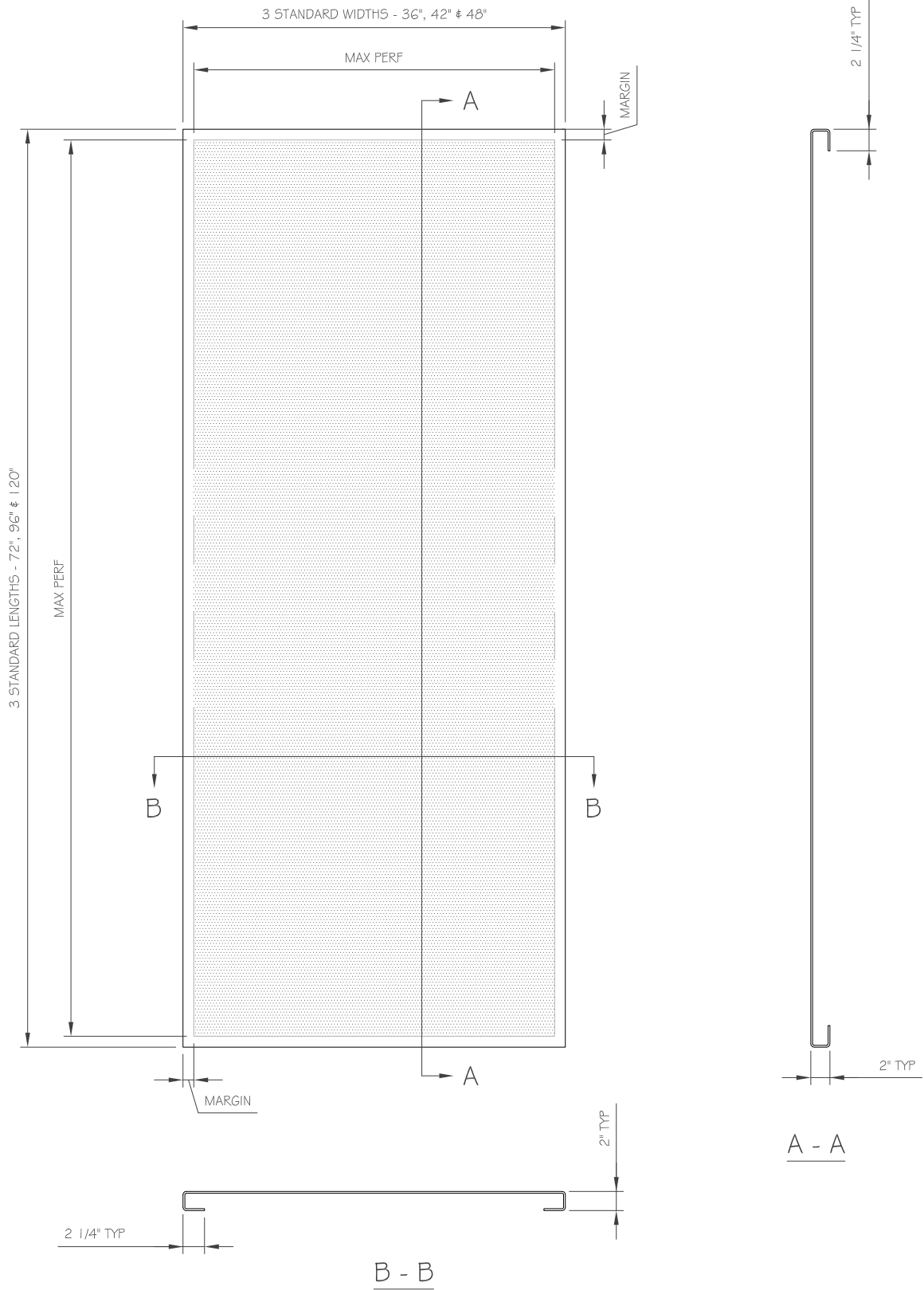


PROVIDE NEOPRENE SPACER OR ISOLATION TAPE WHERE ALL ALUMINUM FRAMING COMES IN CONTACT WITH CONCRETE OR STEEL CONSTRUCTION



PROVIDE NEOPRENE SPACER OR ISOLATION TAPE WHERE ALL ALUMINUM FRAMING COMES IN CONTACT WITH CONCRETE OR STEEL CONSTRUCTION





MARGIN = 1.125" (0.190" THK AL) MARGIN = 0.750" (0.125" THK AL)

1/8" (.125") THICK 5052-H32 ALUMINUM

PANEL WIDTH BY PERF PATTERN & WIND LOAD PRESSURE					
PERF PATTERN INFO			MAX. PANEL WIDTH		
PERF DIAMETER (IN)	CENTER SPACING (IN)	% OPEN AREA	30 PSF	50 PSF	70 PSF
0.250	0.500	22.7	48	36	-
0.375	0.625	32.6	42	36	-
0.375	0.750	22.7	48	36	-
0.500	0.750	40.3	42	-	-
0.500	1.000	22.7	48	36	-
0.750	1.000	51.0	36	-	-
0.750	1.250	32.6	42	36	-
1.000	1.250	58.0	36	-	-
1.000	2.000	22.7	48	36	-
1.500	1.750	66.6	-	-	-
2.000	2.250	71.7	-	-	-
3.000	3.250	77.3	-	-	-

**NOTE: PANELS TO BE 36", 42" OR 48" WIDE.

3/16" (.190") THICK 5052-H32 ALUMINUM

PANEL WIDTH BY PERF PATTERN & WIND LOAD PRESSURE					
PERF PATTERN INFO			MAX. PANEL WIDTH		
PERF DIAMETER (IN)	CENTER SPACING (IN)	% OPEN AREA	30 PSF	50 PSF	70 PSF
0.250	0.500	22.7	48	48	48
0.375	0.625	32.6	48	48	48
0.375	0.750	22.7	48	48	48
0.500	0.750	40.3	48	48	42
0.500	1.000	22.7	48	48	48
0.750	1.000	51.0	48	42	36
0.750	1.250	32.6	48	48	48
1.000	1.250	58.0	48	42	36
1.000	2.000	22.7	48	48	48
1.500	1.750	66.6	48	42	36
2.000	2.250	71.7	48	42	36
3.000	3.250	77.3	48	42	36

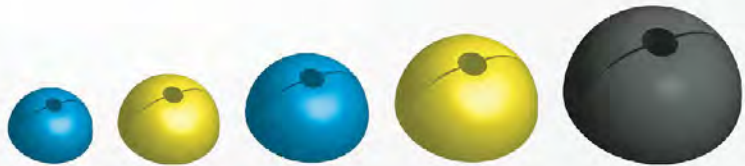
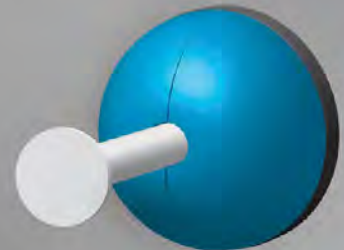
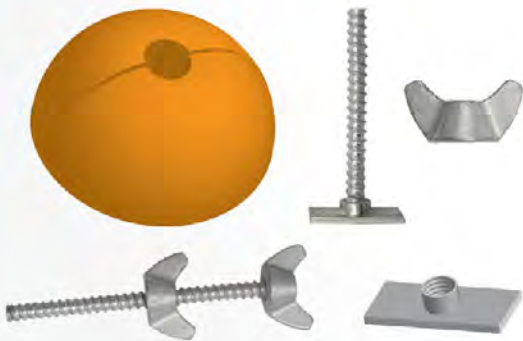
**NOTE: PANELS TO BE 36", 42" OR 48" WIDE.

- PANEL SYSTEM REQUIREMENTS & SPECIFICATIONS
- PANELS TO BE MADE FROM 0.125" OR 0.190" THK AL 5052-H32
 - PANELS TO BE ATTACHED ON THE LONG VERTICAL EDGES ONLY.
 - PANEL FASTENERS TO BE SPACED AT MAXIMUM 12" ON CENTER.
 - STANDARD PANEL WIDTHS TO BE 36", 42" & 48"
 - STANDARD PANEL LENGTHS TO BE 72", 96" & 120"
 - MAXIMUM DEFLECTION TO BE 1/60.
 - PANEL WIND LOADING: 30 PSF, 50 PSF, 70 PSF

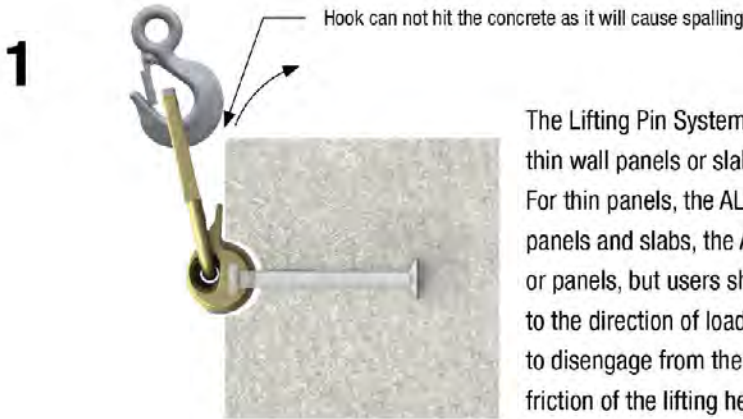
ALP[®] LIFTING PIN SYSTEM

**ALP[®] LIFTING PIN ANCHORS
ALP[®] LIFTING EYES
RECESS MEMBERS & HARDWARE**

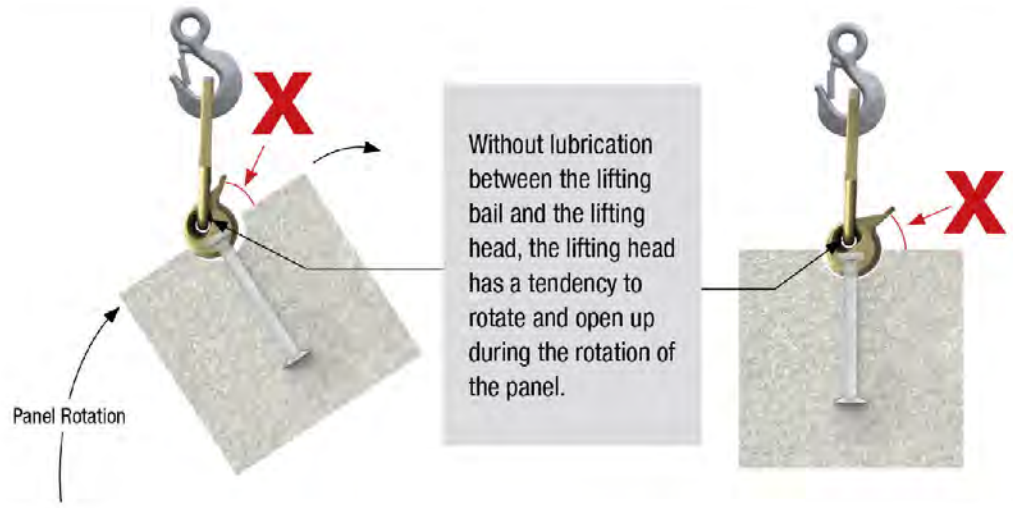
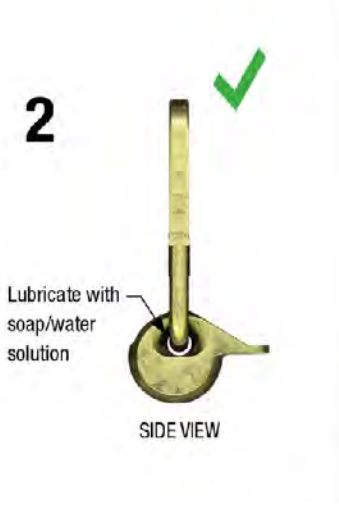
- Economical and Versatile System
- Multidirectional Loading
- High Quality Steel



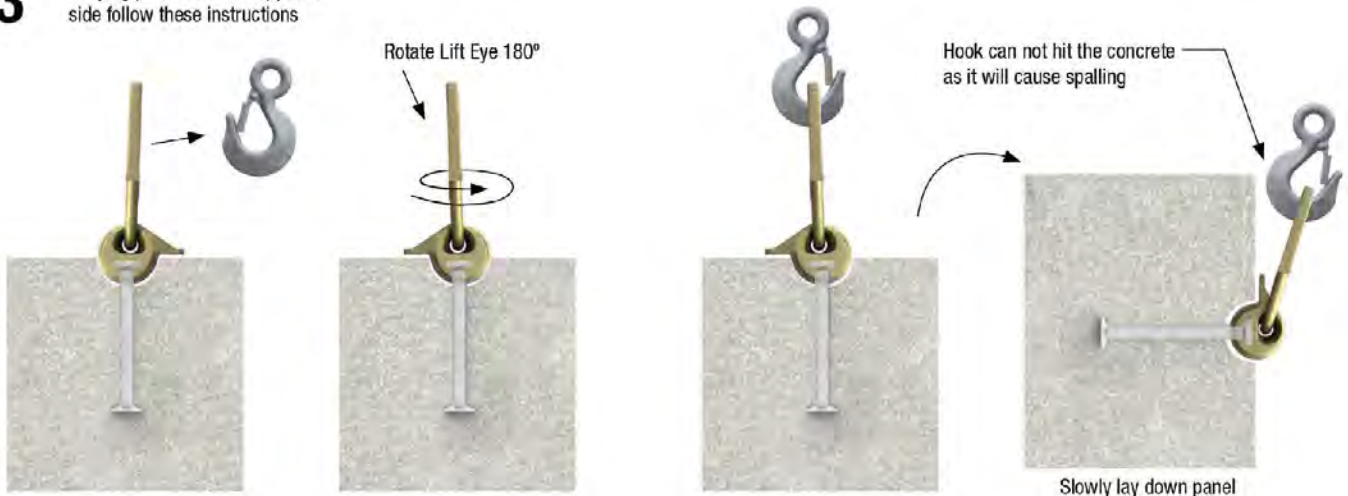
EDGE LIFTING OF SLABS AND WALL PANELS



The Lifting Pin System is **not typically recommended** for lifting in the edge of thin wall panels or slabs due to the system's low shear capacity in that application. For thin panels, the ALP Supply® QUIKLIFT® System should be used. In thicker panels and slabs, the ALP Supply® Lifting Pin System can be used to rotate slabs or panels, but users should monitor the orientation of the lifting head in relation to the direction of load. Without proper lubrication of the lifting head, it can start to disengage from the lifting anchor as the panel is rotated up. This is due to the friction of the lifting head and the bail.

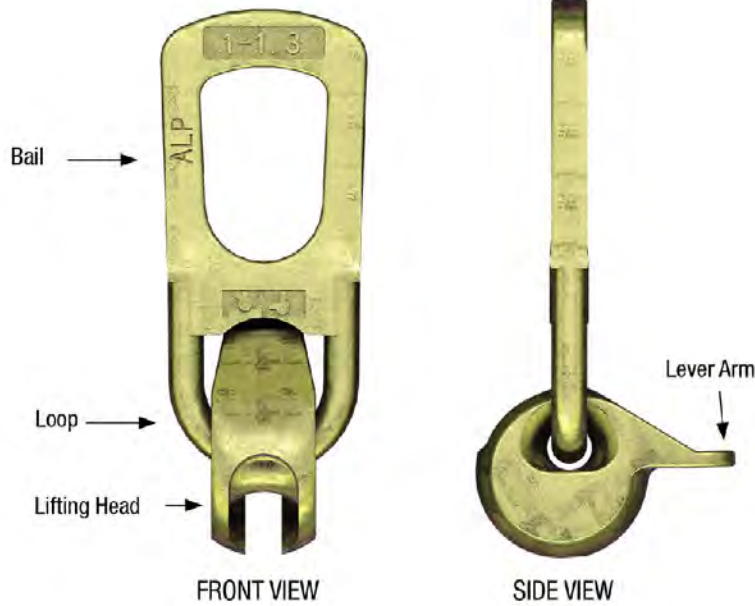


3 If laying panel down on opposite side follow these instructions



It may be necessary to disengage the lifting eye from the hook

ALP® LIFTING EYE TERMINOLOGY AND INSPECTION



INSPECT ALL LIFT EYES FOR THE FOLLOWING:

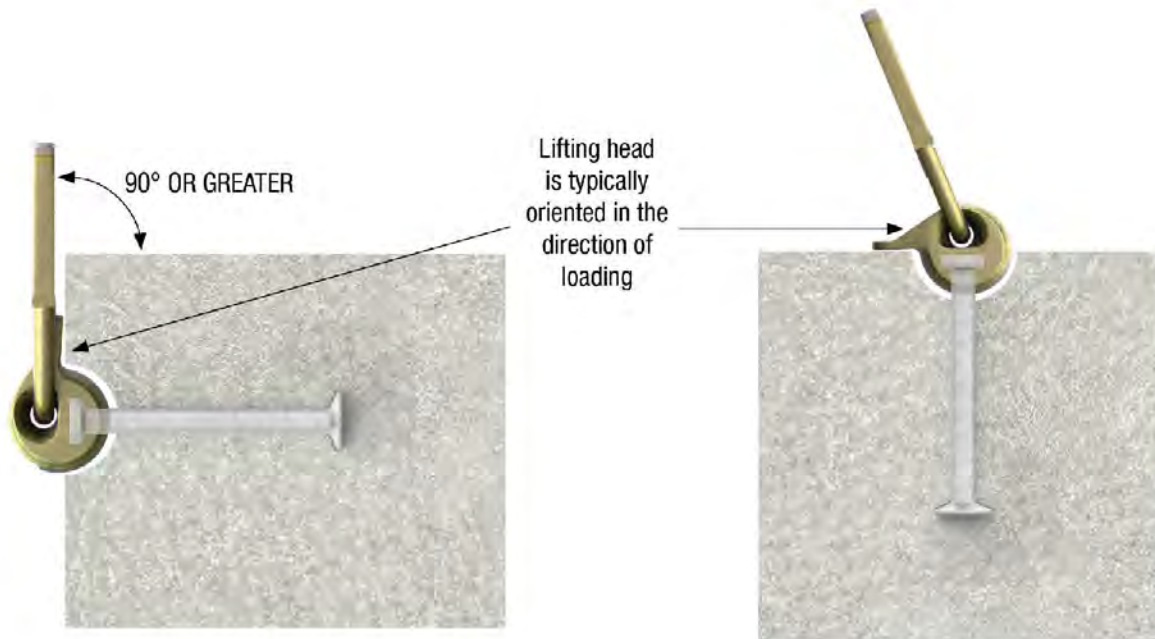
- Inspect the Bail and Lifting Head for cracks.
- Inspect the Bail and Loop for any bends.
- Inspect and remove from service if there are signs that excessive external heat was applied to any parts.

WHEN TO REMOVE LIFT EYES FROM SERVICE:

- If the Bail has been bent.
- If a weld has been fractured.

See ALP Supply® website for Inspection and Maintenance Guidelines for routine inspection of lifting hardware.

ALP® LIFTING EYE GENERAL USE



ALP® LIFTING PIN ANCHORS



All ALP® Lifting Pin Anchors are manufactured using high strength steel with forged ends. The head design provides uniform engagement with the Lifting Eye, and the large forged anchor foot is embedded in the concrete to create the lifting capacity. These Lifting Pin Anchors are designed to meet the OSHA requirements of a 4 to 1 Safety Factor. **Standard Finish is Hot-Dipped Galvanized.**

Safe Working Loads (SWL) displayed in the below chart apply to loading in any direction.

Part Number	Ton	Length	Weight Per Piece (lbs)	Anchor Capacity in Concrete, 4:1 SWL				Min. Edge Distances	
				1500 PSI (lbs)	2500 PSI (lbs)	3500 PSI (lbs)	5000 PSI (lbs)	Tension	Shear
LPA1T238G	1T	2-3/8"	0.13	1,045	1,350	1,600	1,910	8"	12"
LPA1T258G	1T	2-5/8"	0.14	1,160	1,500	1,770	2,000	8"	12"
LPA1T338G	1T	3-3/8"	0.16	1,900	2,000	2,000	2,000	8"	12"
LPA1T434G	1T	4-3/4"	0.21	2,000	2,000	2,000	2,000	10"	12"
LPA2T234G	2T	2-3/4"	0.32	1,375	1,775	2,100	2,510	8"	12"
LPA2T338G	2T	3-3/8"	0.35	2,000	2,700	3,250	3,900	8"	12"
LPA2T434G	2T	4-3/4"	0.45	3,250	4,000	4,000	4,000	10"	15"
LPA2T512G	2T	5-1/2"	0.48	4,000	4,000	4,000	4,000	11"	17"
LPA2T634G	2T	6-3/4"	0.58	4,000	4,000	4,000	4,000	11"	17"
LPA2T11G	2T	11"	0.85	4,000	4,000	4,000	4,000	11"	17"
LPA4T212G	4T	2-1/2"	0.64	1,400	1,810	2,150	2,560	8"	12"
LPA4T3G	4T	3"	0.73	1,960	2,530	2,990	3,570	8"	12"
LPA4T312G	4T	3 1/2"	0.82	2,275	2,935	3,475	4,150	8"	12"
LPA4T334G	4T	3-3/4"	0.85	2,550	3,250	3,950	4,700	8"	12"
LPA4T414G	4T	4-1/4"	0.91	3,000	3,850	4,550	5,450	9"	13"
LPA4T434G	4T	4-3/4"	0.98	3,650	4,700	5,600	6,700	10"	15"
LPA4T512G	4T	5-1/2"	1.08	4,550	5,850	6,950	8,000	11"	17"
LPA4T718G	4T	7-1/8"	1.32	6,900	8,000	8,000	8,000	15"	22"
LPA4T912G	4T	9-1/2"	1.60	8,000	8,000	8,000	8,000	17"	26"
LPA8T434G	8T	4-3/4"	2.15	4,050	5,200	6,200	7,450	10"	15"
LPA8T634G	8T	6-3/4"	2.50	7,000	9,000	10,750	12,850	14"	21"
LPA8T834G	8T	8-3/4"	3.03	12,940	16,000	16,000	16,000	18"	27"
LPA8T10G	8T	10"	3.40	14,790	16,000	16,000	16,000	20"	30"
LPA8T1338G	8T	13-3/8"	4.25	16,000	16,000	16,000	16,000	27"	41"
LPA8T2634G	8T	26-3/4"	7.90	16,000	16,000	16,000	16,000	27"	41"
LPA16T778G	16T	7-7/8"	6.60	7,000	9,000	10,750	12,850	14"	21"
LPA20T10G	20T	10"	8.25	11,750	15,150	17,950	21,500	20"	30"
LPA20T1934G	20T	19-3/4"	13.50	26,000	33,800	40,000	40,000	40"	48"

☐ - Shaded area indicates the capacity in concrete is limited by the mechanical capacity of the anchor

- Table is based on normal weight concrete (145-150PCF)
- Loads are listed at varying concrete strengths (PSI) to accommodate varying conditions at time of loading
- Above capacities are based upon mechanical testing, concrete testing and available industry data
- Proper rigging and all lifting angle load magnifications are to be used to determine actual applied loads
- Minimal reinforcement required to achieve above load values
- Capacities in radius sections are reduced - consult ALP Supply® Tech Support.
- For lifting and handling of thin slabs, design needs to ensure slab is properly reinforced to prevent flexural stresses from cracking slab
- To achieve published values a minimum concrete cover of 1" below the foot of anchor is required.
- Minimum anchor spacing is 2x the published edge distance.

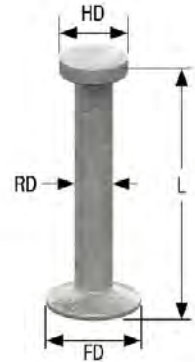
LIFTING PIN ANCHOR - DIMENSIONS AND MECHANICAL CAPACITIES

Ton	L - Length	HD - Head Diameter	RD - Rod Diameter	FD - Foot Diameter	Head Marking	Foot Marking	Anchor Ultimate Mechanical Load in Tension (lbs)
1T	Varies	3/4"	3/8"	1"	1T ALP	Lot #	8,000
2T	Varies	1"	9/16"	1-3/8"	2T ALP		16,000
4T	Varies	1-7/16"	3/4"	2"	4T ALP		32,000
8T	Varies	1-13/16"	1-1/8"	2-3/4"	8T ALP		64,000
16T	Varies	2-3/4"	1-9/16"	3-7/8"	16T ALP		128,000
20T	Varies	2-3/4"	1-9/16"	3-7/8"	20T ALP		160,000

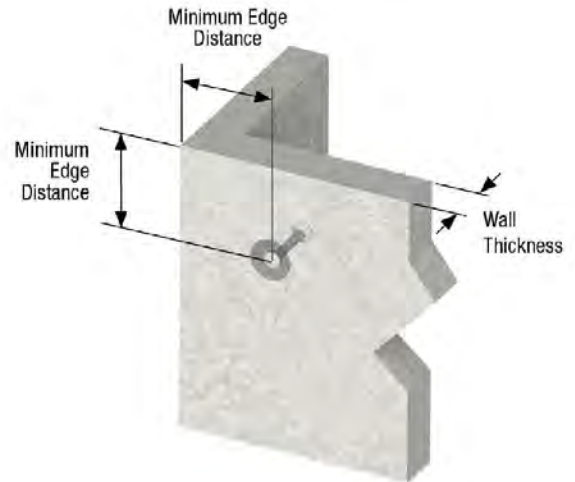
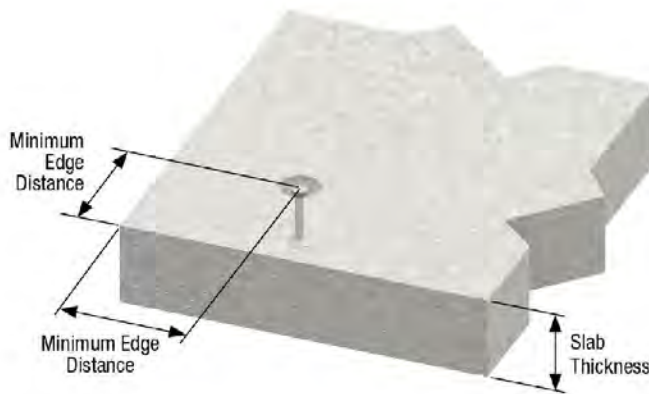
HEAD MARKING



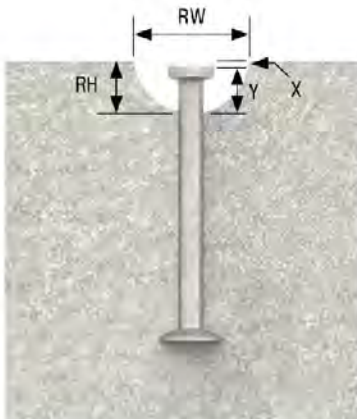
FOOT MARKING



ALP® LIFT PIN ANCHOR - MINIMUM EDGE DISTANCES

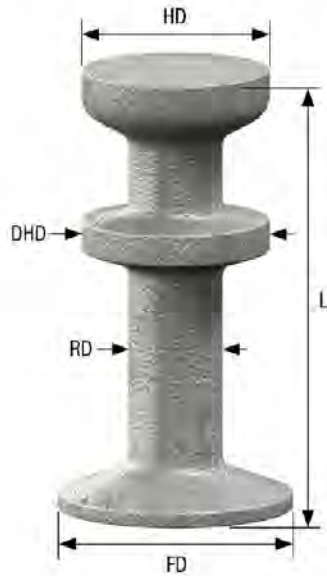


LIFT PIN ANCHOR DIMENSIONS IN CONCRETE



Lift Pin Anchor Tonnage	X	Y	Rubber Recess System		Plus Recess System	
			RW	RH	RW	RH
1T	3/8"	7/8"	2-3/8"	1-3/16"	-	-
2T	3/8"	1-3/16"	3"	1-9/16"	3-1/4"	1-7/16"
4T	9/16"	1-1/4"	3-3/4"	1-13/16"	4"	1-7/8"
8T	9/16"	1-3/4"	5"	2-5/16"	5"	2-1/8"
16T/20T	11/16"	2-5/16"	6-1/2"	3"	-	-

ALP® DOUBLE HEADED LIFTING PIN ANCHORS - S STYLE



The ALP® Double Headed Lifting Pin anchors are a unique version of the standard Lifting Pin anchors, which have an additional head, that is used to seal up the steel recess member in automated concrete pipe equipment. The lifting head and double head are both machined to precise tolerances to ensure a proper fit in the pipe equipment. Markings on the top of the anchor are recessed to ensure that they do not interfere with magnetic locators in the pipe machine.

STANDARD FOOT

LIFTING PIN DOUBLE HEADED ANCHOR - DIMENSIONS

Part Number	Ton	L - Length	RD - Rod Diameter	DHD - Double Head Diameter	HD - Head Diameter	FD- Foot Diameter	Head Marking	Foot Marking	Anchor Ultimate Mechanical Load in Tension (lbs)	Weight Per Piece (lbs)
LPDHS2T338G	2T	3-3/8"	9/16"	1"	1"	1-3/8"	2T ALP	Lot #	16,000	0.39
LPDHS2T312G	2T	3-1/2"	9/16"	1"	1"	1-3/8"	2T ALP		16,000	0.40
LPDHS4T338G	4T	3-3/8"	3/4"	1-7/16"	1-7/16"	1-3/4"	4T ALP		32,000	0.91
LPDHS4T312G	4T	3-1/2"	3/4"	1-7/16"	1-7/16"	1-3/4"	4T ALP		32,000	0.93

• Above capacities are based on mechanical testing.



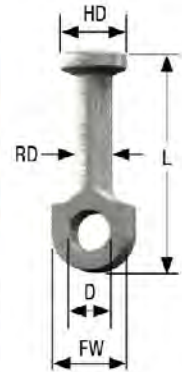
ALP® LIFTING PIN EYE ANCHORS

The Lifting Pin Eye Anchor utilizes rebar reinforcement which transfers tension loads deep into the concrete element and produces high safe working loads in thin wall sections.

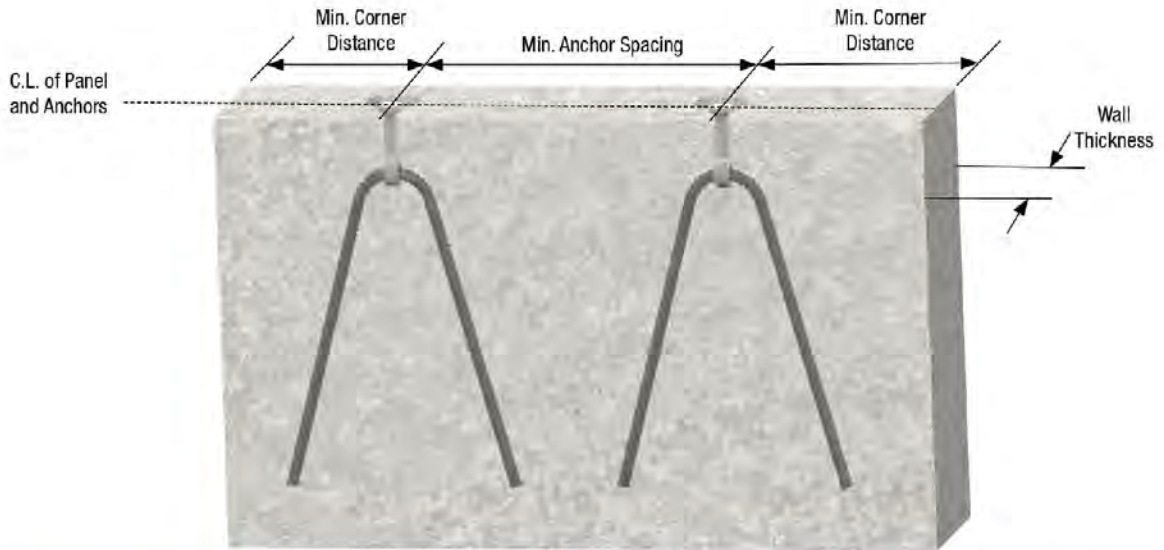
**LIFTING PIN EYE ANCHOR
DIMENSIONS AND CAPACITIES WITH REBAR**

Anchor Capacity in Concrete
4:1 SWL in tension at 2,000 PSI

Part Number	Ton	L Length	HD - Head Diameter	RD - Rod Diameter	D Diameter	FW Foot Width	Anchor Ultimate Mechanical Load in Tension (lbs)	Weight Per Piece (lbs)	Min. Wall Thickness	Min. Corner Distance	Min. Anchor Spacing	Tension w/rebar (lbs)
LPEA1TG	1T	2-9/16"	3/4"	3/8"	3/8"	7/8"	8,000	0.18	3"	8"	16"	2,000
LPEA2TG	2T	3-1/2"	1-1/32"	9/16"	9/16"	1-5/16"	16,000	0.38	3"	4"	8"	4,000
LPEA4TG	4T	4-3/4"	1-7/16"	3/4"	7/8"	1-11/16"	32,000	0.97	4"	5"	10"	8,000
LPEA8TG	8T	7-1/16"	1-7/8"	1-1/8"	1-1/8"	2-3/8"	64,000	2.75	5"	7"	14"	16,000
LPEA20TG	20T	9-7/8"	2-3/4"	1-9/16"	1-9/16"	3-5/16"	160,000	7.25	6-1/2"	8-1/2"	17"	40,000



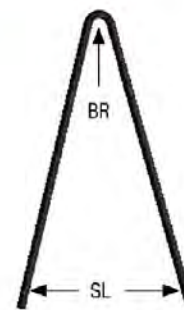
- Safe work loads are based on Anchors with tension bar installed.
- Above capacities are based on ACI 318 criteria and mechanical testing.
- Anchors must be centered in wall thickness when installed, otherwise deviations will result in a reduction of safe working loads.



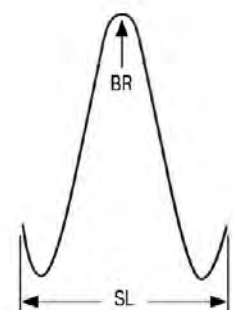
TENSION BAR SELECTION CHART

Anchor Load Rating	Grade 60 Rebar Size	Rebar Total Length	SL - Spread Length		BR - Bending Radius (Minimum)
			Min.	Max.	
1T	0.306" Wire	40"	14"	14"	3/4"
2T	#3	41"	6"	7-1/2"	1-1/8"
4T	#5	51"	7"	10"	1-7/8"
8T	#6	81"	10"	15"	2-1/4"
20T	#10	149"	12-1/2"	20"	4-1/2"

- Rebar is typically fabricated by precast producer
- Tension Bar Selection Chart is based on ACI-318 criteria
- .306" wire is medium grade, high carbon steel



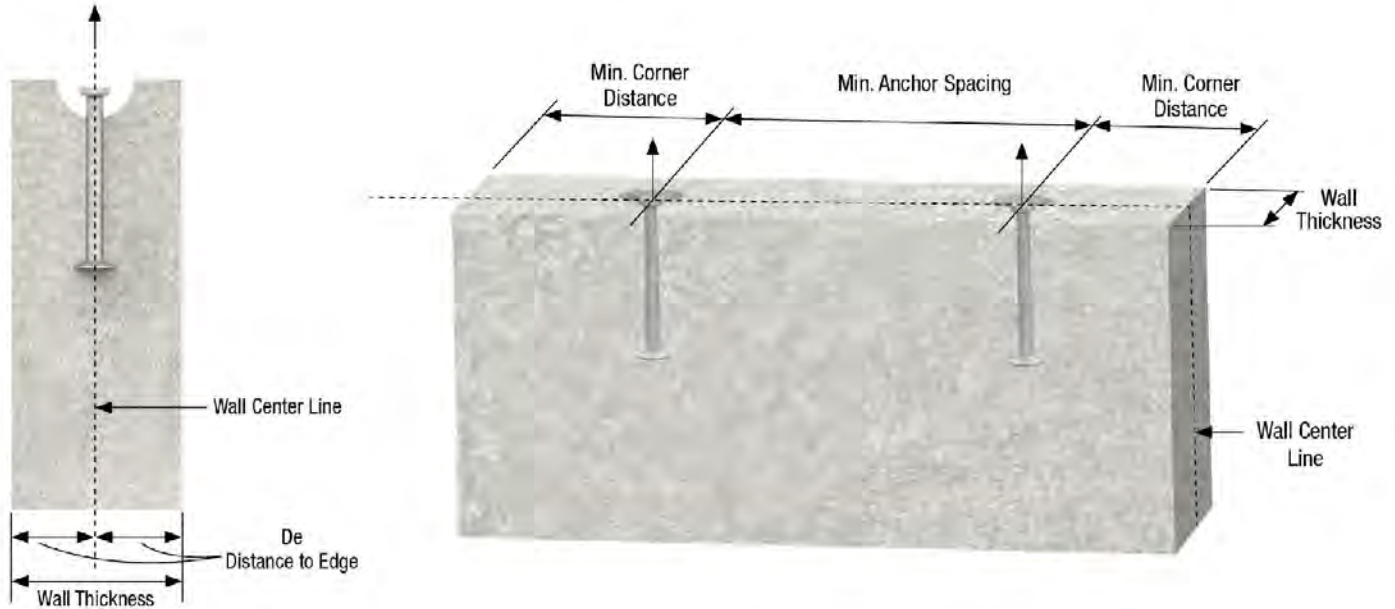
2T-20T Anchors



1T Anchor Only

ALP® LIFTING PIN ANCHORS IN THIN WALLS - TENSION ONLY

The ALP® Lifting Pin System can be used in tension for lifting thin walls using the following load values.



TENSILE CAPACITY IN THIN WALLS

Anchor Capacity in Concrete, 4:1 SWL in Tension at 4,500 PSI

Lifting Pin Anchor Size	Wall Thicknesses (2 x De)	De Distance to Edge	Corner Distance		
			8"	12"	18" or >
1 Ton x 4-3/4" Long	2-1/2"	1-1/4"	1,000 lbs	1,200 lbs	1,300 lbs
	2-3/4"	1-3/8"	1,100 lbs	1,300 lbs	1,400 lbs
	3"	1-1/2"	1,200 lbs	1,400 lbs	1,600 lbs
	3-1/2"	1-3/4"	1,400 lbs	1,700 lbs	1,800 lbs
	4"	2"	1,600 lbs	1,900 lbs	2,000 lbs
	4-1/2"	2-1/4"	1,800 lbs	2,000 lbs	2,000 lbs

Lifting Pin Anchor Size	Wall Thicknesses (2 x De)	De Distance to Edge	6"	12"	18"	24" or >
			1,700 lbs	1,800 lbs	2,000 lbs	2,200 lbs
2 Ton x 6-3/4" Long	3"	1-1/2"	1,900 lbs	2,000 lbs	2,200 lbs	2,400 lbs
	3-1/4"	1-5/8"	2,000 lbs	2,200 lbs	2,400 lbs	2,600 lbs
	3-1/2"	1-3/4"	2,300 lbs	2,500 lbs	2,700 lbs	3,000 lbs
	4"	2"	2,900 lbs	3,100 lbs	3,400 lbs	3,700 lbs
	5"	2-1/2"	3,500 lbs	3,700 lbs	4,000 lbs	4,000 lbs
	6"	3"	2,100 lbs	2,700 lbs	2,900 lbs	3,100 lbs
2 Ton x 11" Long	3"	1-1/2"	2,300 lbs	2,900 lbs	3,200 lbs	3,400 lbs
	3-1/4"	1-5/8"	2,500 lbs	3,200 lbs	3,400 lbs	3,600 lbs
	3-1/2"	1-3/4"	2,900 lbs	3,600 lbs	3,900 lbs	4,000 lbs
	4"	2"	3,600 lbs	4,000 lbs	4,000 lbs	4,000 lbs
	5"	2-1/2"	4,000 lbs	4,000 lbs	4,000 lbs	4,000 lbs
	6"	3"	4,000 lbs	4,000 lbs	4,000 lbs	4,000 lbs

- For applications where the anchors need to be grouped together less than the required minimum spacing, consult with technical support at 800-332-7090.
- Above capacities are based upon mechanical testing and available industry data.

ALP® LIFTING PIN ANCHORS IN THIN WALLS - TENSION ONLY

TENSILE CAPACITY IN THIN WALLS

Anchor Capacity in Concrete, 4:1 SWL in Tension at 4,500 PSI

Lifting Pin Anchor Size	Wall Thickness (2 x De)	De Distance to Edge	Corner Distance				
			10"	15"	20"	24"	30"
4 Ton x 9-1/2" Long	3-3/4"	1-7/8"	2,900 lbs	3,200 lbs	3,400 lbs	3,500 lbs	3,800 lbs
	4"	2"	3,100 lbs	3,400 lbs	3,600 lbs	3,600 lbs	4,000 lbs
	5"	2-1/2"	3,600 lbs	4,300 lbs	4,600 lbs	4,800 lbs	5,100 lbs
	6"	3"	4,600 lbs	5,200 lbs	5,500 lbs	5,700 lbs	6,100 lbs
	7"	3-1/2"	5,400 lbs	6,000 lbs	6,400 lbs	6,700 lbs	7,200 lbs
	8"	4"	6,200 lbs	6,900 lbs	7,300 lbs	7,600 lbs	8,000 lbs

			12"	18"	24"	36"	45"
			8 Ton x 13-3/8" Long	5"	2-1/2"	4,800 lbs	5,800 lbs
6"	3"	5,800 lbs		7,000 lbs	7,400 lbs	8,100 lbs	8,700 lbs
7"	3-1/2"	6,800 lbs		8,200 lbs	8,600 lbs	9,500 lbs	10,200 lbs
8"	4"	7,800 lbs		9,300 lbs	9,900 lbs	10,900 lbs	11,700 lbs
10"	5"	9,800 lbs		11,700 lbs	12,300 lbs	13,600 lbs	14,600 lbs
12"	6"	11,700 lbs		13,900 lbs	14,700 lbs	16,000 lbs	16,000 lbs

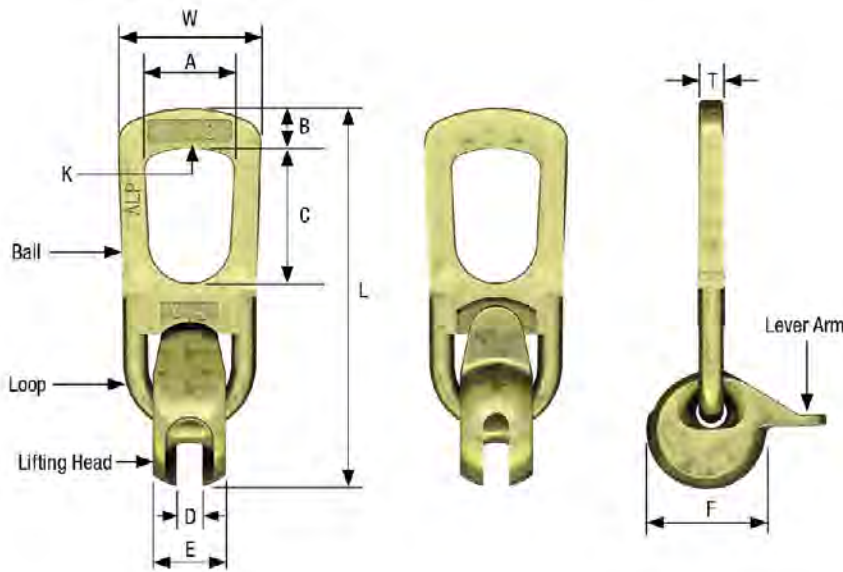
			12"	18"	24"	36"	45"
			20 Ton x 19-3/4" Long	6-1/2"	3-1/4"	7,000 lbs	9,000 lbs
7"	3-1/2"	8,000 lbs		10,000 lbs	11,500 lbs	12,500 lbs	13,200 lbs
8"	4"	9,200 lbs		11,200 lbs	13,000 lbs	14,400 lbs	15,100 lbs
10"	5"	11,500 lbs		14,300 lbs	16,000 lbs	18,000 lbs	19,000 lbs
12"	6"	14,000 lbs		17,300 lbs	20,000 lbs	21,500 lbs	22,800 lbs
14"	7"	16,200 lbs		20,200 lbs	23,000 lbs	25,000 lbs	26,600 lbs

- For applications where the anchors need to be grouped together less than the required minimum spacing, consult with technical support at 800-332-7090.
- Above capacities are based upon mechanical testing and available industry data.

To adjust the Safe Working Load for anchors used in less than 4,500 PSI, multiply the Safe Working Loads by the below factors.

Convert from 4,500 PSI to Lower PSI	Reduction Factor
4,000 PSI	$\sqrt{4,000} / \sqrt{4,500} = 0.94$
3,500 PSI	$\sqrt{3,500} / \sqrt{4,500} = 0.88$
3,000 PSI	$\sqrt{3,000} / \sqrt{4,500} = 0.81$
2,500 PSI	$\sqrt{2,500} / \sqrt{4,500} = 0.74$
2,000 PSI	$\sqrt{2,000} / \sqrt{4,500} = 0.66$

ALP® LIFTING EYE - STANDARD



Designed as an attachment link for lifting and transport of precast concrete units in combination with the ALP® Lifting Pin Anchor System. The Lifting Eye consists of a Lifting Head with a protruding lever arm and a high strength Ball. The Lifting Head has a "T" slot that engages the head of a Lifting Pin Anchor. The rotation capabilities allow the lifting eye to stay oriented in the direction of loading without binding up.

See pages 12 and 13 for Lifting Eye usage information.

See ALP Supply® website for Inspection and Maintenance Guidelines for routine inspection of lifting hardware.

Part Number	Description	L	W	T	A	B	C	D	E	F	Weight Each (lbs)	K Load Range (Tons)	Ultimate Capacity in Tension (lbs)
LPLE1T	1T Lift Eye	7-11/32"	3"	1/2"	1-3/4"	7/8"	2-3/4"	15/32"	1-5/16"	2-1/8"	2.20	1T-1.3T	13,000
LPLE2T	2T Lift Eye	9"	3-1/2"	5/8"	2-1/8"	1"	3-3/8"	11/16"	1-5/8"	2-9/16"	3.60	1.5T-2.5T	25,000
LPLE4T	4T Lift Eye	11"	4-11/16"	11/16"	2-5/8"	1-15/32"	3-7/16"	29/32"	2-1/4"	3-3/8"	7.65	3T-5T	50,000
LPLE8T	8T Lift Eye	15-1/2"	6-1/4"	1-1/16"	3-1/8"	2"	4-3/8"	1-1/4"	2-15/16"	4-1/2"	21.70	6T-10T	100,000
LPLE20T	20T Lift Eye	20"	7-11/16"	1-3/8"	4-3/8"	2-13/16"	5-15/16"	1-11/16"	4-3/8"	5-5/8"	44.10	12T-20T	200,000

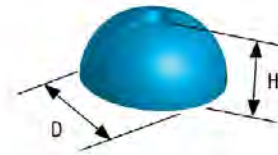
Rated load has a 5:1 safety factor.

ALP® LIFTING PIN RUBBER RECESS MEMBERS



The ALP® Lifting Pin Rubber Recess Members are designed to create a recess for the Lifting Eyes to engage the head of a Lifting Pin anchor.

Part Number	Size	Color	D - Diameter	H - Height	Weight Per Piece (lbs)
LPRM1T	1T	Blue	2-3/8"	1-3/16"	0.15
LPRM2T	2T	Yellow	3"	1-9/16"	0.30
LPRM4T	4T	Blue	3-3/4"	1-13/16"	0.60
LPRM8T	8T	Yellow	5"	2-5/16"	1.12
LPRM20T	20T	Black	6-1/2"	3"	2.45



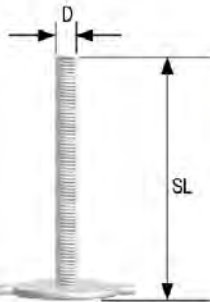
ALP® LIFTING PIN STUD PLATES AND WINGNUTS



The Stud Plate and Wingnut combination is designed to attach the Lifting Pin Recess Member to the form.



Part Number	Description	Size	Weight Per Piece (lbs)
LPWN1T	For 1T Stud Plate	8mm	0.06
LPWN248T	For 2T, 4T, 8T Stud Plates	12mm	0.26
LPWN20T	For 20T Stud Plate	18mm	0.50



Part Number	Size	Stud Diameter	Stud Length	Weight Per Piece (lbs)
LPSP1T	1T	8mm	3-3/16"	0.07
LPSP2T	2T	12mm	4"	0.19
LPSP4T	4T	12mm	4"	0.22
LPSP8T	8T	12mm	4"	0.25
LPSP20T	20T	18mm	4"	0.75

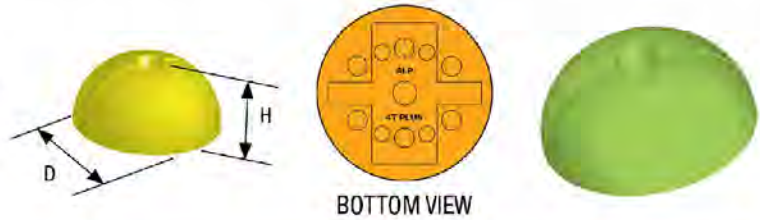
ALP® LIFTING PIN MAGNETIC PROFILE HOLDING PLATE (2-PIECE)



Part Number	Size	Fits Recess Member
LPMHP1T	1T	LPRM1T
LPMHP2T	2T	LPRM2T
LPMHP4T	4T	LPRM4T
LPMHP8T	8T	LPRM8T
LPMHP20T	20T	LPRM20T

ALP® LIFTING PIN PLUS URETHANE RECESS MEMBER

The ALP Supply® Lifting Pin Plus Recess Member is constructed of a durable polyurethane material which improves tear, heat, and chemical resistance compared to the standard rubber material. ALP Supply® Plus Stud Plate, Wing Nut, Holding Rod, and Tapped Plates are designed so that they are interchangeable for all sizes of recess members.



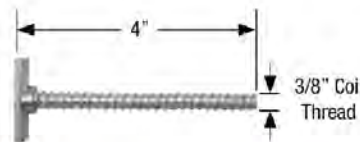
Part Number	Size	Color	D - Diameter	H - Height	Weight Per Piece (lbs)
LPPRM2T	2T	Yellow	3-1/4"	1-7/16"	0.25
LPPRM4T	4T	Orange	4"	1-7/8"	0.45
LPPRM8T	8T	Green	5"	2-1/8"	0.85

ALP® LIFTING PIN PLUS STUD PLATE AND WINGNUT - 3/8" COIL

ONE SIZE FITS ALL 2T, 4T AND 8T RECESS MEMBERS.

The ALP Supply® Stud Plate is used to mount the Plus Reccess Members to the form using the following steps:

- Install the stud plate into the recess member.
- Insert the lift pin into the recess member.
- Insert the stud plate through a hole in the form.
- The 3/8" wing nut is then used to tighten the recess member to the outside of the form.



Part Number	Fits Size	Weight Per Piece (lbs)
LPPSP	2T, 4T, 8T	0.15

Part Number	Fits Size	Weight Per Piece (lbs)
LPWN38	2T, 4T, 8T	0.08

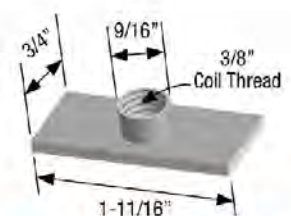
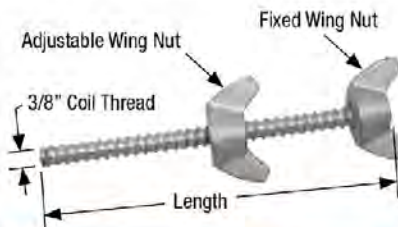
ALP® HOLDING ROD AND TAPPED PLATE - 3/8" COIL

ONE SIZE FITS ALL 2T, 4T AND 8T RECESS MEMBERS.

The ALP Supply® Holding Rods and Tapped Plate are used to mount the Plus Reccess Members to the form. **Standard Finish: Plated**

Installation Instructions:

- Insert the tapped plate into the recess member.
- Insert the lifting pin to the recess member.
- Align the recess member to a pre-drilled hole in the form. The holding rod is then threaded into the recess using the fixed end coil nut until the thread bottoms out.
- The movable wing nut is then tightened down until it is snug against the side of the form.



Part Number	Fits Size	Length	Weight Per Piece (lbs)
QL202	2T, 4T, 8T	6"	0.25
QL202-12		12"	0.47

Part Number	Fits Size	Weight Per Piece (lbs)
LPPTP	2T, 4T, 8T	0.13

ALP® LIFTING PIN PLUS MAGNETIC HOLDING PLATE (2-PIECE)

Part Number	Size	Fits Reccess Member
LPPMHP2T	2T	LPPRM2T
LPPMHP4T	4T	LPPRM4T
LPPMHP8T	8T	LPPRM8T



ALP® LIFTING PIN DISPOSABLE RECESS MEMBERS

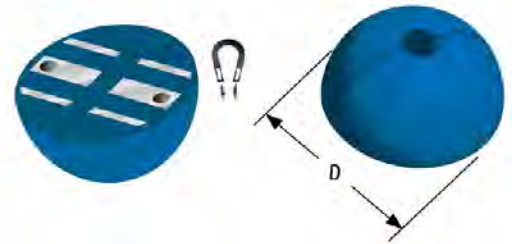
The ALP® Lifting Pin Plastic Recess Member comes in 4T and 8T sizes and is typically used for wet setting applications.



Part Number	Size	Color	D - Diameter	Weight Per Piece (lbs)
LPRMD4T	4T	Orange	3-5/8"	0.13
LPRMD8T	8T	Green	4-5/8"	0.31

ALP® LIFTING PIN 1 PIECE MAGNETIC RECESS MEMBERS

The ALP® Lifting Pin 1 Piece Magnetic Recess Members are used to avoid drilling of steel forms. The magnets are integral to the urethane recess member for efficient mounting of Lifting Pins to the form.



Part Number	Size	Color	D - Diameter	Weight Per Piece (lbs)
LPRM1TM	1T	Blue	2-3/8"	0.26
LPRM2TM	2T	Yellow	2-7/8"	0.56
LPRM4TM	4T	Blue	3-3/4"	0.90
LPRM8TM	8T	Yellow	4-5/8"	1.40
LPRM20TM	20T	Black	6-3/8"	2.60

LIFT COVERS

Lift covers are an Injection molded, plastic cosmetic cover, commonly used for covering the recessed pockets created by lifting devices including ALP® Lifting Pin and QUIKLIFT® anchors. Lift covers are required to use DAP Dynaflex 230 Caulk or NPC Solar Seal #900 Caulk when being bonded. Nylon Nail-It fasteners are an alternate method of fastening. Two sizes are available to fit 2T-4T anchors and 8T anchors. Standard color is light gray. Other colors made to order.



Part Number	Fits Lifter Size	Diameter	A - Lip	QTY Per Carton	Weight Per Piece (lbs)
CVLC6	2T, 4T	6"	1/2"	100	0.15
CVLC818	8T	8-1/8"	1-1/8"	100	0.26

ALP® LIFTING PIN MOUNTING INSTRUCTIONS

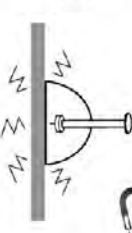
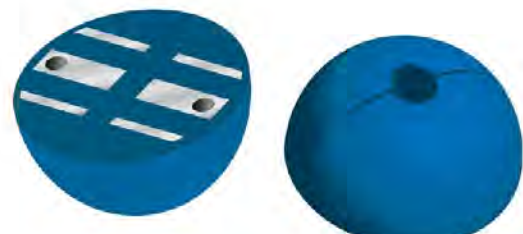


Plus Urethane Recess Members



Rubber Recess Members

<p>STUD PLATE AND WING NUT</p> 		
<p>HOLDING ROD AND TAPPED PLATE</p> 		
<p>MAGNETIC PROFILE HOLDING PLATE AND RECESS</p> 		

<p>1 PIECE MAGNETIC RECESS</p> 	
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