

**Scala, Mary Joy**

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**From:** Andrew Garlock <agarlock@TheBCGroup.com>  
**Sent:** Monday, March 14, 2016 4:54 PM  
**To:** Scala, Mary Joy  
**Subject:** RE: Status of William Taylor Plaza - Fairfield Inn & Suites COA  
**Attachments:** Pilkington Glazing Specs - Dual Low-E Coatings.pdf

Good afternoon Mary Joy,

Below, I have put together a few responses to the current BAR concerns.  
Please let me know if you have any questions. I appreciate all of your help through this process.

Best Regards,  
Andrew

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**Corner Plaza Bike Bollards** – A protective barrier around the plaza is required. We prefer the bike bollards vs. a perimeter wall, as it allows for the corner to remain open, emphasizing the plaza as public space. The bike bollards also promote bike transportation with their direct visibility and relationship to the sidewalk.

**Corner Plaza Brick Façade** – Our design emphasis here was to detail and frame the brick tower facing ridge street and not erode the corner of the building with glazing/storefronts. With some minor modifications to the design, we could extend the storefront system to the corner. We hesitate to wrap the brick corner with the storefront and disturb the integrity of the Cherry Ave. brick facades. Extending the storefront across the Ridge Street façade will open it up much more and also break the brick wall plane up. We could make these design changes and resubmit for approval if the current design is not approved.

**Site Lighting Color Temperature** – For clarification, all site lighting to be 3000k color temp. We will resubmit final site plans with this change.

**Site Lighting Controls** – Marriott requires that exterior lighting be daylight automated due to life safety concerns. They do not allow user control of lighting intensity (dimming not possible). Luminaire intensity (lumens) has been scheduled at values which provide code compliant site lighting.

**Pilkington Glazing VLT** – See PDF attached for glazing spec. This spec was brought to the November BAR meeting and approved with the other building materials. I apologize for not including it in the final submission.

**Signage at Corner** – All public (visible from the street) hotel signage is located on the Cherry Avenue brick facades. We avoided placing the hotel signage on the Ridge Street façade, as the 12sf requirement was too restrictive for the size of the sign we needed. A blade sign is an interesting possibility, depending on how it is oriented and which district signage requirements would apply. We will continue thinking about the options here and make any revisions during the separate signage review package that will be submitted at a later date.

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**ANDREW T. GARLOCK** | NCARB | AIA  
Project Architect

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**From:** Scala, Mary Joy [<mailto:scala@charlottesville.org>]  
**Sent:** Monday, March 14, 2016 12:44 PM  
**To:** Andrew Garlock  
**Subject:** Re: Status of William Taylor Plaza - Fairfield Inn & Suites COA

Yes

Sent from my iPhone

On Mar 11, 2016, at 2:26 PM, Andrew Garlock <[agarlock@TheBCGroup.com](mailto:agarlock@TheBCGroup.com)> wrote:

Thank you Mary Joy. I will put together a response to the concerns/questions you have sent and send it to you on Monday next week. Would that be ok?

**ANDREW T. GARLOCK** | NCARB | AIA  
Project Architect

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**From:** Scala, Mary Joy [<mailto:scala@charlottesville.org>]  
**Sent:** Friday, March 11, 2016 2:02 PM  
**To:** Andrew Garlock  
**Subject:** Re: Status of William Taylor Plaza - Fairfield Inn & Suites COA

I have actually added it to the end of their agenda this Tuesday. They have sent comments by email that require discussion. I do not expect you to attend the meeting on short notice. I will forward their comments and perhaps you would care to respond before the meeting. I'd really like to get this wrapped up.

Sent from my iPhone

On Mar 11, 2016, at 1:41 PM, Andrew Garlock <[agarlock@TheBCGroup.com](mailto:agarlock@TheBCGroup.com)> wrote:

Good afternoon Mary Joy,

I hope you are doing well.

I am emailing you to confirm the status of the COA for the William Taylor Plaza Fairfield Inn & Suites project. Please let me know if the project has received final approval on the documents I had emailed to you on February 23<sup>rd</sup>. If you need anything else, please do not hesitate to contact me at any time.

Best Regards,

**ANDREW T. GARLOCK** | NCARB | AIA

Project Architect

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## Pilkington Sun Management Calculator Results

11 November 2015 9:44

### Details

**Outboard:** 6 mm (1/4") Pilkington Energy Advantage™ on the #2 surface

**Fill:** Air 13 mm (1/2")

**Inboard:** 6 mm (1/4") Pilkington Energy Advantage™ on the #3 surface

<b>Visible Light</b>	Transmittance	68%	UV Transmittance	29%
	Exterior Reflectance	17%	U-Factor Summer (W/m2 °C)	1.70
	Interior Reflectance	17%	U-Factor Summer (Btu/hr.sq.ft °F)	0.30
<b>Solar Energy</b>	Transmittance	47%	U-Factor Winter (W/m2 °C)	1.76
	Reflectance	15%	U-Factor Winter (Btu/hr.sq.ft °F)	0.31
Damage-Weighted Trans. Tdw - ISO		0.55	Solar Heat Gain Coefficient	0.60
			Shading Coefficient	0.69

[Click here for Tech Bulletins](#)

IGDB Version 30.0 Values are calculated using the LBNL Window 6.3 program and represent the 'center-of-glass' region of the glazing



# AB Fieldstone®



[allanblock.com](http://allanblock.com)

## Check out:

- Product Information
- Series & Colors
- Easy to Understand Installation Graphics and Details





# AB Fieldstone is easy to install - Friendly



## Gravity Walls

Taller gravity walls can be achieved using the long anchoring units. This eliminates the need for geogrid reinforcement. Check maximum gravity wall heights in the table below.



## Reinforced Walls

AB Fieldstone can also be built using the short anchoring units with geogrid reinforcement. Check the maximum wall height chart and the soil reinforcement chart for proper placement.

## Maximum Wall Heights - AB Gravity Walls

Condition above retaining wall	Soil Type	Friction Angle	6" (60#) All Purpose Short Anchoring Unit (SAU)	8" (80#) All Purpose Long Anchoring Unit (LAU)
Level	Clay	27°	3 ft. 7 in. 1.1 m	5 ft. 10 in. 1.8 m
	Silty Sand	32°	5 ft. 0 in. 1.5 m	8 ft. 6 in. 2.6 m
	Sand/Gravel	36°	5 ft. 8 in. 1.7 m	9 ft. 3 in. 2.8 m
Slope 3:1 (41°)	Clay	27°	1 ft. 8 in. 0.5 m	4 ft. 0 in. 1.2 m
	Silty Sand	32°	3 ft. 7 in. 1.1 m	7 ft. 0 in. 2.1 m
	Sand/Gravel	36°	4 ft. 2 in. 1.3 m	8 ft. 0 in. 2.4 m
Slope 3:1	Clay	27°	2 ft. 8 in. 0.8 m	4 ft. 4 in. 1.3 m
	Silty Sand	32°	4 ft. 4 in. 1.3 m	7 ft. 4 in. 2.3 m
	Sand/Gravel	36°	5 ft. 1 in. 1.5 m	8 ft. 7 in. 2.6 m

Tables based on clay soil having an internal friction angle of 27° (20% or better) and a sandy soil having an internal friction angle of 32° (30% or better) and a sand/gravel soil having an internal friction angle of 36° (30% or better). All heights based on gravity wall height and length and are approximate. The gravity wall height shown above is not meant to be used as a design. Check with a local engineer for code requirements. Final designs for retaining walls must be performed by a local registered Professional Engineer, using the actual conditions of the proposed site. The maximum height category above contains a table surface such as concrete, asphalt or pavers having a suitable supporting subgrade.

## Example

A 6 ft high wall (1.8 m) built in sandy soil with a level surface above the wall will require geogrid - four layers, 4 ft wide (1.2 m). With long anchoring units (LAU), it will require no additional reinforcement, but will require review by a local professional engineer.

## Soil Reinforcement Chart for Residential Wall Applications

CONDITION ABOVE WALL	WALL HEIGHT**	AB Fieldstone Collection	
		CLAY SOIL No. of Layers	Width (ft.)
Level	3 ft. (0.9 m)	0	0
	4 ft. (1.2 m)	2	0
	5 ft. (1.5 m)	3	3
	6 ft. (1.8 m)	4	4
Slope 3:1 (41°)	3 ft. (0.9 m)	1	0
	4 ft. (1.2 m)	2	0
	5 ft. (1.5 m)	3	3
	6 ft. (1.8 m)	4	4
Slope 3:1	3 ft. (0.9 m)	2	0
	4 ft. (1.2 m)	2	2
	5 ft. (1.5 m)	3	3
	6 ft. (1.8 m)	4	4

Tables based on clay soil having an internal friction angle of 27° (20% or better) and a sandy soil having an internal friction angle of 32° (30% or better). Soil reinforcement increases the strength of the wall by creating a reinforced mass of soil behind the blocks. The width of the reinforcing soil mass compares with the blocks for a 1:1 slope. Take it for reducing the slope of the wall. For walls in the sand/gravel category above, on the top layer of geogrid, it is required to be placed on top of an additional 2 ft (0.6 m). To achieve these longer grid lengths, the standard reinforcement grid must be installed perpendicularly to the soil (boxed out from the back of the block to the back of the reinforced soil). The enlarged locking category above contains a table for the soil reinforcement. As wall powers having a stable supporting subgrade. \*\* Wall heights are for reference only.



# More from Allan Block - Retaining Walls

## AB Europa Collection



### AB Dover

Approx. 1 blk./ft<sup>2</sup> (11 blk./m<sup>2</sup>)  
8 in. H x 10.5 in. D x 18 in. L  
(200 mm H x 265 mm D x 460 mm L)  
80 lbs (36 kg)



### AB Palermo

Approx. 2 blk./ft<sup>2</sup> (22 blk./m<sup>2</sup>)  
8 in. H x 9.5 in. D x 9 in. L  
(200 mm H x 240 mm D x 230 mm L)  
35 lbs (16 kg)



### AB Barcelona

Approx. 2 blk./ft<sup>2</sup> (22 blk./m<sup>2</sup>)  
4 in. H x 10.5 in. D x 18 in. L  
(100 mm H x 265 mm D x 460 mm L)  
40 lbs (18 kg)



### AB Bordeaux

Approx. 4 blk./ft<sup>2</sup> (44 blk./m<sup>2</sup>)  
4 in. H x 10.5 in. D x 9 in. L  
(100 mm H x 265 mm D x 230 mm L)  
20 lbs (9 kg)

The *AB Europa Collection* captures the hand-laid stone effect that brings distinction to any project. The blocks can be used separately or blended together for outstanding results. The unique texture creates a stunning look and gives old world charm to any landscape.



Specifications are approximate, contact local representative for availability, exact specifications, sizes and colors for all Allan Block products.

See [allanblock.com](http://allanblock.com) for more information





Desired Look - Allan Block  
Fieldstone Europa - Abbey Blend



# A Complete Family of Wall Products

The Allan Block Collections give you a choice of styles to meet your site and design requirements. Use the basic gravity wall system for smaller wall projects. For taller wall projects use geogrid to reinforce the wall, or consider optional techniques using masonry, no-fines, rock bolts, soil nails, or earth anchors.

**AB® Collection - Classic Cut Style**



The **AB® Collection** has been a favorite of wall builders for years and offers the perfect blend of performance and style with maximum results.

**AB Europa® Collection - Old World Antique**



The **AB Europa® Collection** captures the hand-laid stone effect that brings old world charm and distinction to any project in beautiful marbled colors.

**AB Fieldstone® Collection - Green, Natural, Friendly**



The **AB Fieldstone® Collection** is a "Green/Eco-Friendly" retaining wall product that maintains the beautiful look and feel of natural stone. Installing and performing like our other Collections, AB Fieldstone truly is a friendly product.



# PROMENADE™ PLANK PAVER

Clean, sleek lines are essential to any modern design. Choose the size, finish and color from Unilock's Promenade™ Plank Paver series for long narrow paving 'planks' to create a dynamic linear aesthetic to complement any design.



## CUSTOM FINISH OPTIONS



**BELPASSO®**  
Enamel Finish



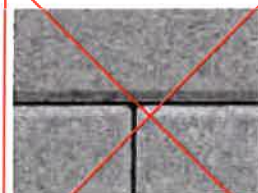
**UMBRIANO®**  
Mottled Finish



**SERIES 3000®**  
Exposed Aggregate Finish



**IL CAMPO®**  
Brushed Finish



**SMOOTH/PREMIER**  
Finish

## CUSTOM COLOR OPTIONS\*

Ask your Unilock Representative about locally stocked colors.



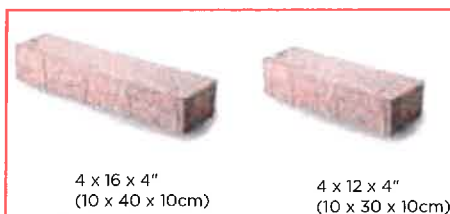
## PRODUCT SPECIFICATIONS



8 x 24 x 4"  
(20 x 60 x 10cm)



6 x 24 x 6"  
(15 x 60 x 15cm)



4 x 16 x 4"  
(10 x 40 x 10cm)

4 x 12 x 4"  
(10 x 30 x 10cm)



3 x 12 x 4"  
(7 x 30 x 10cm)

*Promenade™ can be manufactured in a variety of custom colors and textures. Minimum quantities will apply. Please contact your Unilock Representative for more details.*



*Permeable version 3 x 12", Eco-Promenade™ is available by special order. See page 53.*







Umbriano®

Pattern C




## Architectural Products

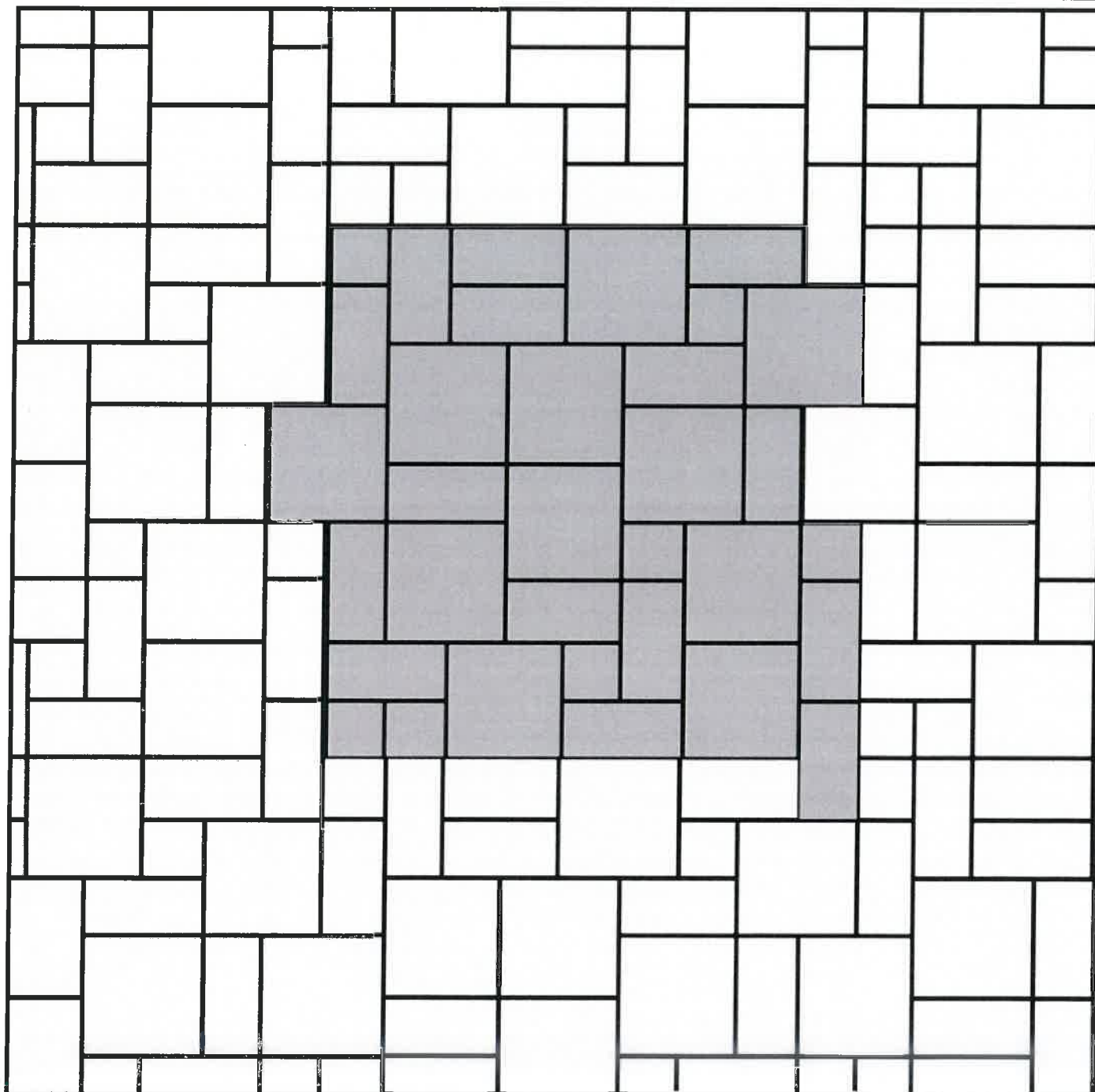
www.unilock.com 1-800-UNILOCK

### Notes:

AutoCAD® hatch pattern files can be downloaded from [www.unilock.com](http://www.unilock.com) for use in architectural drawings.

Some patterns may not necessarily reflect the percentages of stone sizes within a particular bundle configuration. In some cases you may have extras in one or more of the sizes. This must be accounted for in your planning and design.

	54% 16" x 16"
	37% 8" x 16"
	9% 8" x 8"



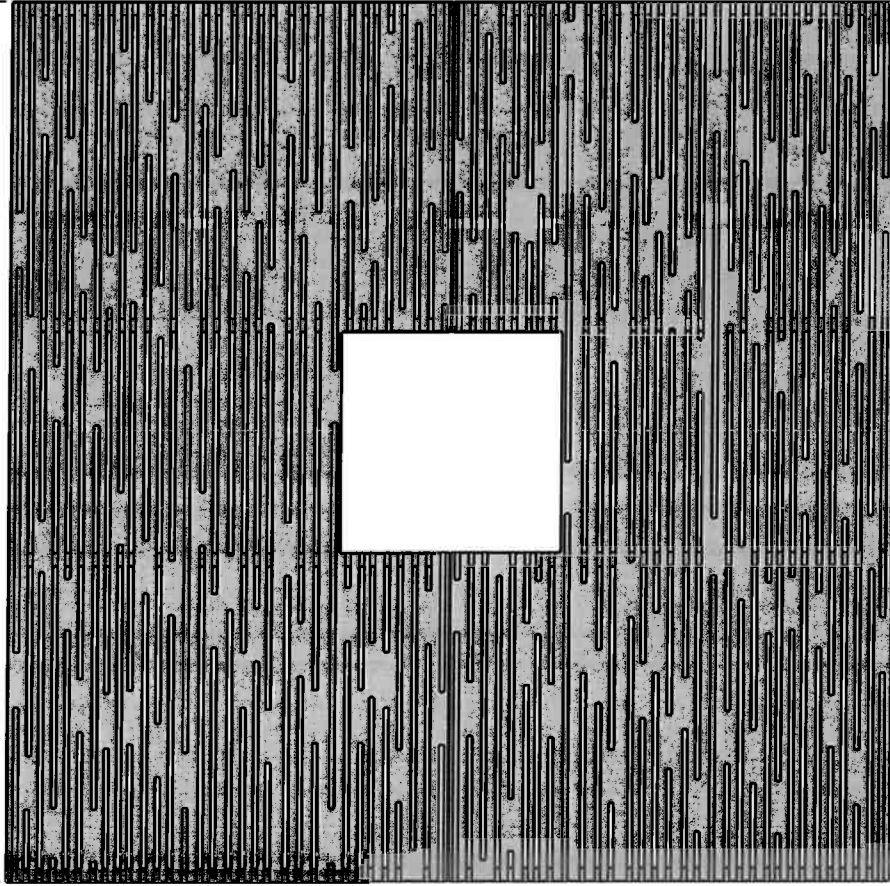
Copyright 2010 Hengestone Holdings, Inc.

Boston Buffalo Chicago Cleveland Detroit New York Philadelphia Toronto

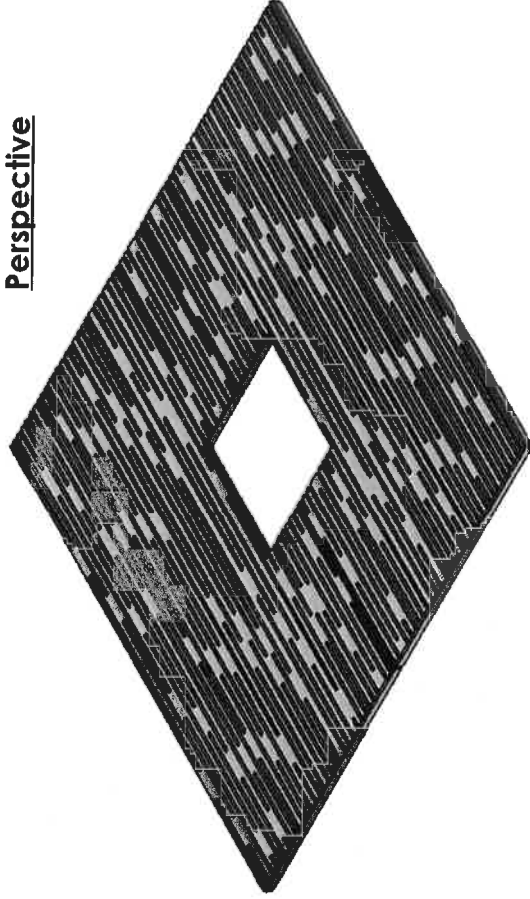


Top

47.875"sq.



Perspective



**IRON AGE** 2104 SW 152nd st #4 TEL 206.276.0925  
DESIGNS Burien, WA 98166 FAX 206.257.0318  
w w w . i r o n a g e d e s i g n s . c o m

Rain 48" sq. Tree Grate CONCEPT

JOB NO. ...

Drawn by: JH

Date: 1/1/14

DWG. NO. 01-Rai.I.48sq

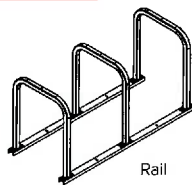
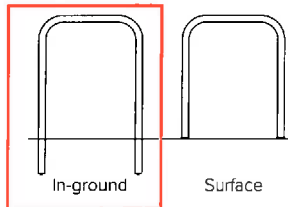
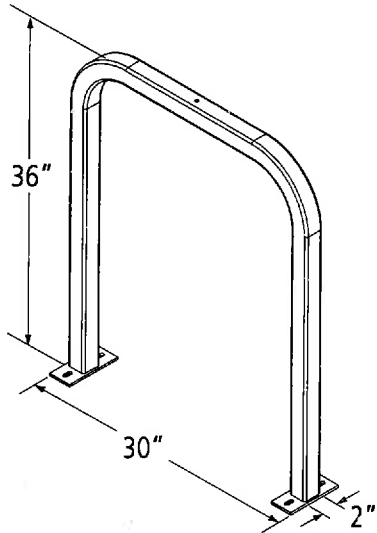
Scale: Not to Scale

NOTES:

1. Material: cast iron
2. Finish: Natural
3. Edge thickness: 1"
4. Fits frame by: Iron Age
5. Heelproof; No openings greater than 1/4"
6. Weight approx. N/A
7. Due to casting inconsistencies all dimensions are nominal

# DOWNTOWN RACK

## Submittal Sheet



### CAPACITY

2 Bikes

### MATERIALS

2" x 2" x 3/16" square tube - mild steel  
2" x 2" x 11g square tube - stainless steel

### FINISHES



#### Galvanized

An after fabrication hot dipped galvanized finish is our standard option. 250 TGIC powder coat colors, thermoplastic coating, PVC dip, and stainless steel finishes are also available as alternate options.



#### Powder Coat

Our powder coat finish assures a high level of adhesion and durability by following these steps:

1. Sandblast
2. Epoxy primer electrostatically applied
3. Final thick TGIC polyester powder coat

color - black



#### Thermoplastic

In addition to an increased thickness (8-10mils), the thermoplastic finish offers superior impact resistance over powder coating.



#### Stainless

Stainless Steel: 304 grade stainless steel material finished in either a high polished shine or a satin finish.

### MOUNT OPTIONS



#### In-ground

In ground mount is embedded into concrete base. Specify in ground mount for this option.



#### Surface

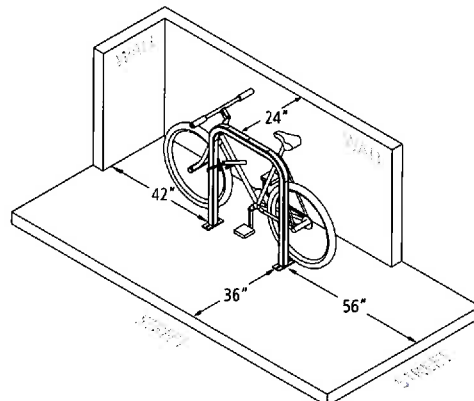
Foot Mount has two 2.5"x6"x.25" feet with two anchors per foot. Specify foot mount for this option.



#### Rail

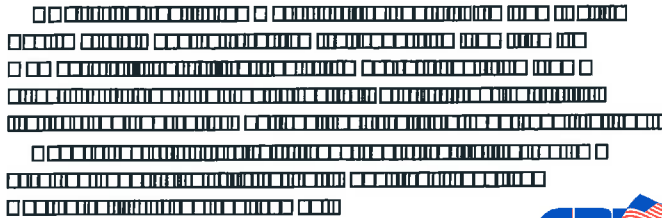
Rail Mounted Downtown Racks are bolted to two parallel rails which can be left freestanding or anchored to the ground. Rails are heavy duty 3"x1.4"x3/16" thick galvanized mounting rails. Specify rail mount for this option.

### SETBACKS



**DERO**  
A PLAYCORE Company

## CRL ARS Aluminum Railing System



### Design Options

- Exterior and Interior Hand Rails and Guard Rails
- Infill Panel Options: Aluminum Pickets, Aluminum Pattern Panels, Clear or Coated Structural Glass, or Stainless Steel Cable
- Custom Gates
- ADA Compliant Grab Rails
- Attractive Low-Voltage, Post Mounted Lighting System for Our Railing Systems. Using a Safe, 12 Volt Power Source, These Lights Provide a Subtle Glow That is Sure to Enhance Any Balcony Environment

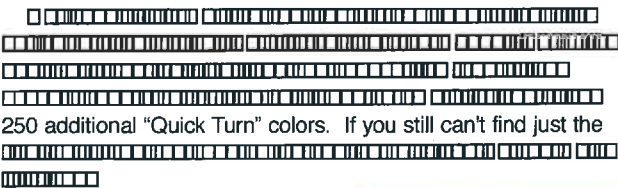


### Component Features and Benefits

- Innovative Design Details for Standard or Custom Applications
- Extruded Aluminum for Durability, Weather Resistance, and Low Maintenance
- Heavy Gauge Materials and Steel Embeds for Strength
- Uses 1/4" to 1/2" (6 to 12 mm) Tempered Glass for Safety and Impact Resistance

### Color Selection

- Tough, Powder-Coated or Optional Kynar Paint Colors for Superior Color Retention and Weather Resistance
- Special Coating for Resistance to Salt Water Corrosion



### Standard Colors

- In-House Factory Applied
- Baked on TGIC Polyester Powder Coat Paint System
- Excellent Weatherability and Durability
- Meets AAMA 2603-98 Specification

### Additional Color Options

- A Variety of Textured and Performance Enhanced Powder Coat Paint Systems
- Custom Color Matching
- 50% and 70% Kynar Paint Systems to Meet Stringent AAMA 2604-98 and 2605-98 Commercial Specifications
- All Paint Systems Will Be Applied Over State-of-the-Art Chromate Pre-Treatment

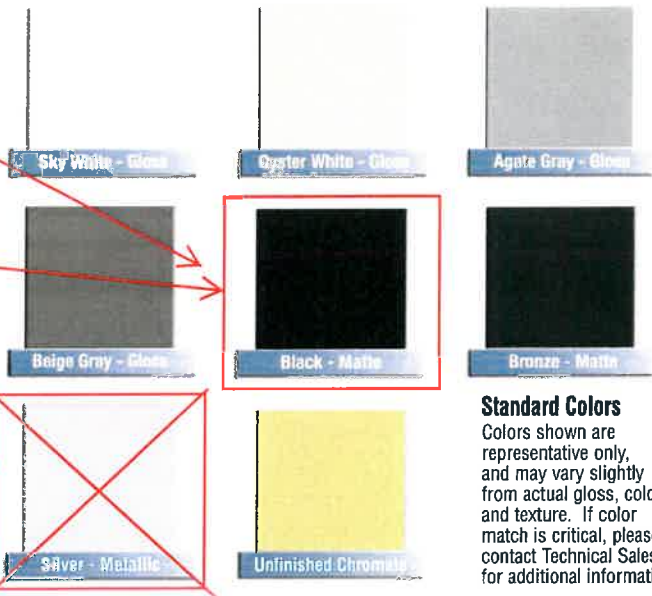


- 2-3/8" and 4" (60.3 and 101.6 mm) Square Posts Available
- Seven Standard Powder Paint Colors Available, Plus Unfinished Chromate
- Custom Colors Also Available

Retaining Wall  
Picket Railing

Cherry Ave/Stair  
Cable Railings

Cherry Avenue  
Cable Railing



**Standard Colors**  
Colors shown are representative only, and may vary slightly from actual gloss, color, and texture. If color match is critical, please contact Technical Sales for additional information.

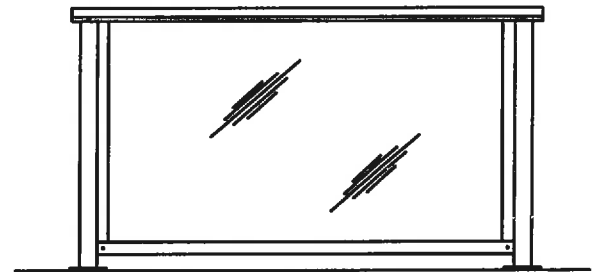


# CRL ARS ALUMINUM RAILING SYSTEMS

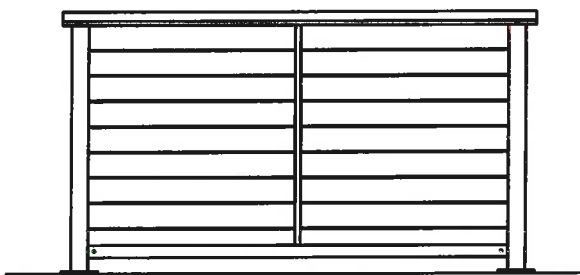
For Pricing Visit Our Web Site or Call Us Toll Free  
at the Phone Numbers Shown on the Back Cover



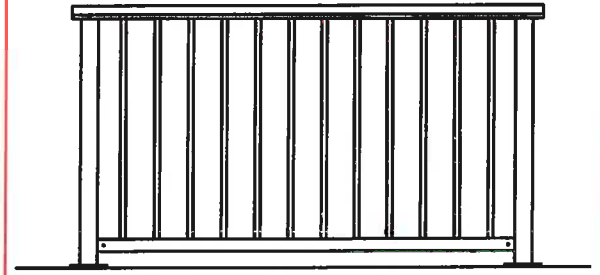
## Infill Options



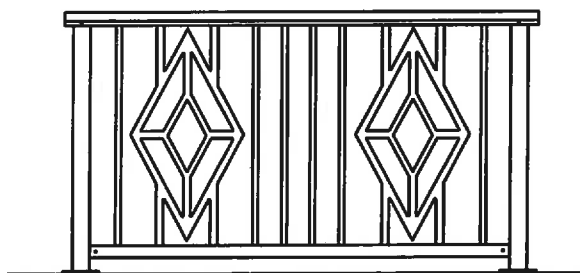
1/4" (6 mm) through 1/2" (12 mm) Tempered Glazing



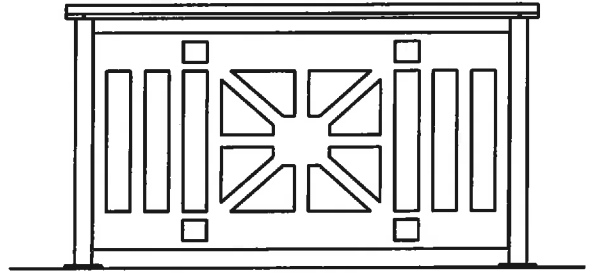
Horizontal 1/8" (3.2 mm) Diameter Type 316 Stainless Steel Cable



3/4" (19 mm) Square or Round Aluminum Picket Panels



Cast Aluminum Panels



Custom Water Jet/Laser Cut Panels



## Series 7000/700 Aluminum Picket Fence

*Strong, Durable, and Maintenance-Free Beauty!*

**Superior Series 7000 and 700 Picket Fence** can be found where a touch of elegance, function and security are a must. This **maintenance-free fencing** is an excellent choice for perimeter and pool fencing, as well as dividers on residential, commercial, institutional, multi-housing and municipal installations.

Superior Picket Fence **utilizes all the advantages of aluminum – strong, durable, and rust- and corrosion-free.** These characteristics make it a practical, sound investment for the budget-minded buyer.

The smart, contemporary design is an added plus. Our unique, no-weld design utilizes simple, cast aluminum fittings or machined openings for a **no-hassle, easy installation.**

To make our fencing even more versatile, cast aluminum ornaments, inserts and scrolls are available to mount on top of posts and on pickets for a custom decorative appearance.

Superior Picket Fence comes with 2", 2 1/2" or 4" square posts and 3/4" square pickets with a formed spear, a cast spear or a flat top. Options for picket spacing include 3", 4 1/2" or 6" centers, as well as custom spacing.

Superior fencing comes in standard 6' lengths, as well as custom lengths, in 2, 3 or 4-line styles. Ordering standard 6' lengths reduces lead times and cost.

Fencing is also available in any height. Standard heights include **60"** and 72". For heights above 60", 3 or 4-line styles are recommended.



### NEW! Concealed Picket Screws

A new product design for Series 7000 and 700 Fence features a screw cover to conceal picket screws on top and bottom rail assemblies for a cleaner, more streamlined look.

### Finishes

Smart, decorative finishes add a distinctive touch. Whether baked-on enamel, anodized or duranodic, these finishes are guaranteed to endure for years of continued service and maintenance-free beauty.



### SERIES 7000



Series 7000 Picket Fence features machined post openings, eliminating the need for brackets. The result is a clean, rigid design with added strength.

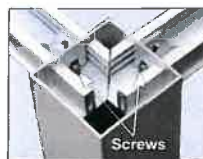
### Easy Assembly and Installation!



View of the underside of bottom rail to show rail wedge location.



Tightening rail wedge on shortened section.



Rail wedge screws to secure corner and end posts.

**Series 7000 Picket Fence is not only easy to assemble and install, but the machined post openings and factory assembled sections facilitate quick turn-around and cost savings.**

All posts are machined with openings to receive top and bottom rails. If the fence is angled vertically or horizontally, specify the angle so the proper openings can be machined into the post. As assembled fence is inserted into the openings, rail wedges located in the top and bottom rails will ensure proper insertion of 1 1/4" inside the post.

If a fence section or sections need to be shortened, simply saw an equal amount from each rail end with the use of a miter or circular saw. Reinstall and tighten the rail wedge using an 1/8" Allen Wrench on both the top and bottom rails so 1 1/4" protrudes through the post openings.

For securing a corner or end post, a screw is provided for each rail wedge to prevent the post from moving outward.

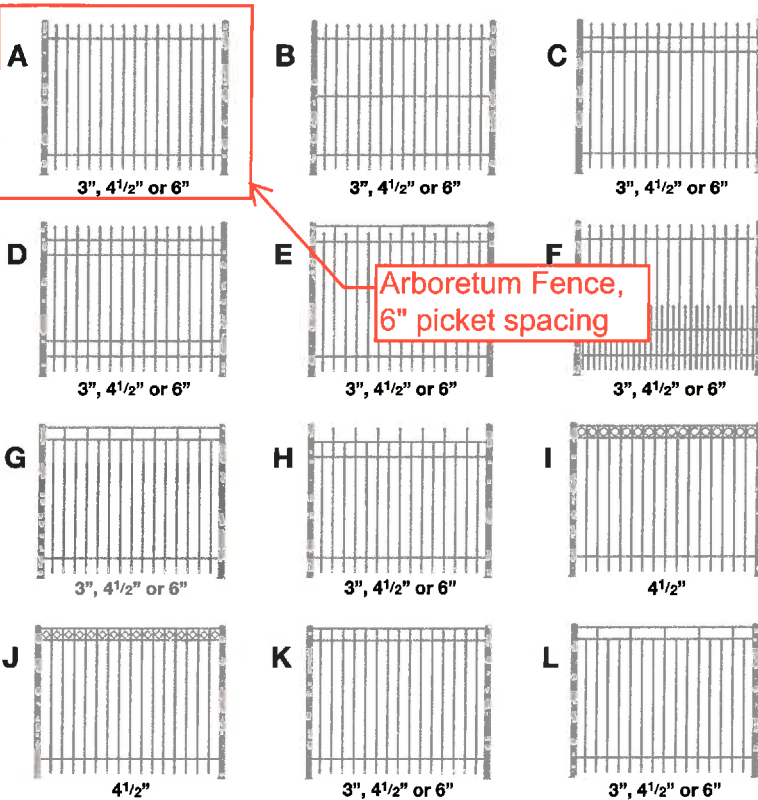






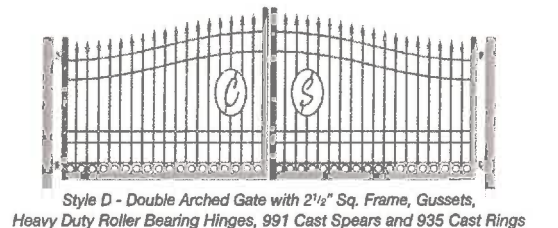
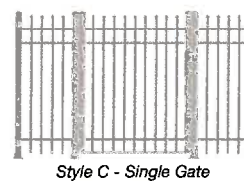
## Picket Fence Design Styles

To order, choose design A, B, C, etc., and specify picket center spacing.



## Custom Aluminum Gates

Superior manufactures attractive, aluminum gates to any size and design configuration. The durable, all-welded gate construction coupled with electrostatic painting or anodizing, means years of trouble-free service. Gates can be equipped with standard or custom security locks. See example gate configurations below.



Ask about snap-in privacy liner to hide equipment and/or items out of view.

1-800-344-5917

Since 1946

[ABOUT](#)[CONSTRUCTION](#)[STEEL FABRICATION](#)[GALVANIZING](#)[SIGNAGE](#)[CONTACT US](#)[BACK TO GUARDRAIL PRODUCT OVERVIEW](#)**CONSTRUCTION-GUARDRAIL PRODUCTS****Semi-Rigid Barrier System***Weathering Steel (Corten) Guardrail**Powder Coated / Colored Guardrail**Aesthetic Timber Barrier / Wood Guardrail**Steel Backed Timber Guardrail**Median Barrier Steel Guardrail**Thrie-Beam Steel Guardrail**Box Beam Steel Guardrail**W-Beam Steel Guardrail**Bridge Rail***Flexible Barrier Systems***Weak Post W-Beam Guardrail**High Tension Cable Guardrail Systems**Low Tension Cable Guardrail***Guardrail End Treatments and Impact Attenuators***Recycled Guardrail End Cap**Roll-over End Section**Terminal End Sections (Boxing Glove)**Trail End Guardrail Sections**Guardrail Bridge Attachment**Impact Attenuators**Guardrail End Treatments**Bull Nose End Treatment***Work Zone Barriers***Temporary Impact Attenuators***Fencing and Railing***Pedestrian Hand Rail***Guardrail Accessories***Guardrail Accessories***Aesthetic Timber Barrier / Wood Guardrail**

Aesthetic Timber Barriers / Wood Guardrail are frequently used on private property or parking lots where aesthetic concerns are considered a high priority. There are numerous wood guardrail options, including a variety of guardrail "panel" measurements and post styles. Wood guardrail is commonly installed on brown (poly-coated or Corten) guardrail posts to achieve an aesthetically pleasing look, or can be mounted on wood posts. Please view our gallery and explore our site for some Wood Guardrail examples or consult one of our specialists to attain your desired option.

**TO BE STAINED  
DARK WALNUT**

**WELCOME**

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Design Build  
Guardrail Installation  
Guardrail Products  
Commercial Guardrail  
Impact Attenuators  
Highway Sign Installation  
Frequently Asked Questions  
Videos

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Steel Fabrication  
Guardrail Products  
Bridge Rail

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Galvanizing  
Why Galvanize?  
The Process  
Durability  
Sustainability

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Quality - Service - Integrity - Safety

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# D-Series Size 1 LED Area Luminaire

d®series



Catalog  
Number

Notes

Type

For more information, visit [www.lithonia.com](http://www.lithonia.com).

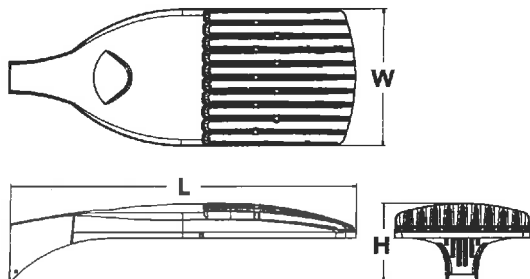
## Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment.

The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing 100 – 400W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

## Specifications

<b>EPA:</b>	1.2 ft <sup>2</sup> (0.11 m <sup>2</sup> )
<b>Length:</b>	33" (83.8 cm)
<b>Width:</b>	13" (33.0 cm)
<b>Height:</b>	7-1/2" (19.0 cm)
<b>Weight (max):</b>	27 lbs (12.2 kg)



## Ordering Information

**EXAMPLE: DSX1 LED 60C 1000 40K T3M MVOLT SPA DDBXD**

### DSX1LED

Series	LEDs	Drive current		Color temperature		Distribution			Voltage	Mounting	
DSX1 LED	<b>Forward optics</b>	530	530 mA	<b>30K</b>	3000 K	T1S	Type I Short	TFTM	Forward Throw Medium	MVOLT <sup>3</sup>	<b>Shipped included</b>
	30C 30 LEDs (one engine)	700	700 mA	40K	4000 K	T2S	Type II Short			120 <sup>3</sup>	SPA Square pole mounting
	40C 40 LEDs (two engines)	1000	1000 mA (1 A)	50K	5000 K	T2M	Type II Medium	TSVS	Type V Very Short	208 <sup>3</sup>	RPA Round pole mounting
	60C 60 LEDs (two engines)			AMBPC	Amber phosphor converted <sup>2</sup>	T3S	Type III Short	TSS	Type V Short	240 <sup>3</sup>	WBA Wall bracket
	<b>Rotated optics<sup>1</sup></b>					T3M	Type III Medium	TSM	Type V Medium	277 <sup>3</sup>	SPUMBA Square pole universal mounting adaptor <sup>5</sup>
	60C 60 LEDs (two engines)					T4M	Type IV Medium	TSW	Type V Wide	347 <sup>4</sup>	RPUMBA Round pole universal mounting adaptor <sup>5</sup>
									480 <sup>4</sup>	<b>Shipped separately</b>	
											KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) <sup>5</sup>

Control options	Other options	Finish
<b>Shipped installed</b>	<b>Shipped installed</b>	<b>Shipped installed</b>
PER NEMA twist-lock receptacle only (no controls) <sup>7</sup>	HS House-side shield <sup>16</sup>	DDBXD Dark bronze
PER5 Five-wire receptacle only (no controls) <sup>7,8</sup>	WTB Utility terminal block <sup>17</sup>	DBLXD Black
PER7 Seven-wire receptacle only (no controls) <sup>7,8</sup>	SF Single fuse (120V, 277, 347V) <sup>18</sup>	DNAXD Natural aluminum
DMG 0-10V dimming driver (no controls) <sup>9</sup>	DF Double fuse (208, 240, 480V) <sup>18</sup>	DWHXD White
DCR Dimmable and controllable via ROAM® (no controls) <sup>10</sup>	L90 Left rotated optics <sup>19</sup>	DBTDX Textured dark bronze
DS Dual switching <sup>11,12</sup>	R90 Right rotated optics <sup>19</sup>	DBLXD Textured black
PIR Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc <sup>13</sup>		DNATXD Textured natural aluminum
PIRH Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc <sup>13</sup>		DWHGXD Textured white

## Controls & Shields

DL1127F 1.5 CU	Photocell - SSL twist-lock (120-277V) <sup>20</sup>
DL1347F 1.5 CU	Photocell - SSL twist-lock (347V) <sup>20</sup>
DL1480F 1.5 CU	Photocell - SSL twist-lock (480V) <sup>20</sup>
SC U	Shorting cap <sup>20</sup>
DSX1HS 30C U	House-side shield for 30 LED unit
DSX1HS 40C U	House-side shield for 40 LED unit
DSX1HS 60C U	House-side shield for 60 LED unit
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish)
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) <sup>4</sup>

### NOTES

- Rotated optics available with 60C only.
- AMBPC only available with 530mA or 700mA.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120V, 208V, 240V or 277V options only when ordering with fusing (SF, DF options).
- Not available with single board, 530mA product (30C 530 or 60C 530 DS). Not available with BL30, BL50 or PNMT options.
- Available as a separate combination accessory: PUMBA (finish) U; 1.5 G vibration load rating per ANSI C136.31.
- Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
- Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option.
- If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Not available with DCR.
- DMG option for 347V or 480V requires 1000mA.
- Specifies a ROAM® enabled luminaire with 0-10V dimming capability; PER option required. Additional hardware and services required for ROAM® deployment; must be purchased separately. Call 1-800-442-6745 or email: [sales@roamservices.com](mailto:sales@roamservices.com). not. N/A with DS, PER5, PER7, BL30, BL50 or PNMT options.

- Requires 40C or 60C. Provides 50/50 luminaire operation via two independent drivers on two separate circuits. N/A with PER, DCR, WTB, PIR or PIRH.
- Requires an additional switched circuit.
- PIR and PIRH1FC3V specify the SensorSwitch SBGR-10-ODP control; PIRH and PIRH1FC3V specify the SensorSwitch SBGR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard. Not available with PER5 or PER7. Ambient sensor disabled when ordered with DCR. Separate on/off required.
- Dimming driver standard. MVOLT only. Not available with 347V, 480V, DCR, DS, PER5, PER7 or PNMT options.
- Dimming driver standard. MVOLT only. Not available with 347V, 480V, DCR, DS, PER5, PER7, BL30 or BL50.
- Also available as a separate accessory; see Accessories information.
- WTB not available with DS.
- Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
- Available with 60 LEDs (60C option) only.
- Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item from Acuity Brands Controls.



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DSX1-LED  
Rev. 10/27/15  
Page 1 of 4



## D-Series Size 2

### LED Wall Luminaire

d<sup>2</sup>series

## Specifications Luminaire

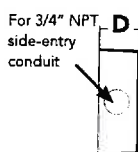
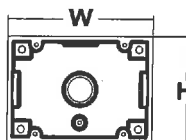
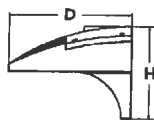
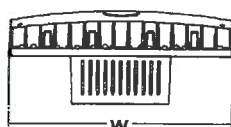
**Width:** 18-1/2" (47.0 cm) **Weight:** 21 lbs (9.5 kg)

**Depth:** 10" (25.4 cm)

**Height:** 7-5/8" (19.4 cm)

### Back Box (BBW)

<b>Width:</b>	5-1/2" (14.0 cm)	<b>BBW Weight:</b>	1 lbs (0.5 kg)
<b>Depth:</b>	1-1/2" (3.8 cm)		
<b>Height:</b>	4" (10.2 cm)		



For 3/4  
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## Ordering Information

**EXAMPLE: DSXW2 LED 30C 700 40K T3M MVOLT DDBTXD**

**DSXW2 LED**

Series	LEDs	Drive Current	Color temperature	Distribution	Voltage	Mounting	Control Options	Other Options	Finish <i>(required)</i>
DSXW2 LED	20C 20 LEDs (two engines)	350 350 mA	<b>30K</b> 3000 K	T2S Type II Short	MVOLT <sup>1</sup>	<b>Shipped included</b> (blank) Surface mounting bracket	<b>Shipped installed</b> PE Photoelectric cell, button type <sup>4</sup>	<b>Shipped installed</b> SF Single fuse (120, 277, 347V) <sup>7</sup>	DDBXD Dark bronze
		530 530 mA	40K 4000 K		120 <sup>1</sup>				DBLXD Black
	30C 30 LEDs (three engines)	700 700 mA	50K 5000 K	T2M Type II Medium	208 <sup>1</sup>	<b>Shipped separately</b> <sup>3</sup> BBW Surface-mounted back box (for conduit entry)	PER NEMA twist-lock receptacle only (no controls)	DF Double fuse (208, 240, 480V) <sup>7</sup>	DNAXD Natural aluminum
		1000 1000 mA (1 A)	AMBPC Amber phosphor converted	T3S Type III Short	240 <sup>1</sup>				DWHXD White
				T3M Type III Medium	277 <sup>1</sup>				DSSXD Sandstone
				T4M Type IV Medium	347 <sup>2</sup>			HS House-side shield <sup>3</sup>	DBBTXD Textured dark bronze
				TFTM Forward Throw Medium	480 <sup>2</sup>			SPD Separate surge protection <sup>8</sup>	<b>DBLBXD</b> Textured black
				ASYDF Asym-metric diffuse			DCR Dimmable and control-able via ROAM® (no controls) <sup>5</sup>	<b>Shipped separately</b> <sup>3</sup> BSW Bird-deterrent spikes	DNATXD Textured natural aluminum
							PIRH 180° motion/ambient light sensor, 15-30' mtg ht <sup>6</sup>	WG Wire guard	DWHGXD Textured white
								VG Vandal guard	DSSTXD Textured sandstone

## NOTES

- 1 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options), or photocontrol (PE option).
- 2 Available with 30 LED/700mA options only (DSXWZ LED 30C 700). DMG option not available.
- 3 Also available as a separate accessory; see Accessories information.
- 4 Photocontrol (PE) requires 120, 208, 240 or 277 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
- 5 Specifies a ROAM® enabled luminaire with 0-10V dimming capability; PER option required. Not available with 347V, 480V or PIRH. Additional hardware and services required for ROAM® deployment; must be purchased separately. Call 1-800-442-6745 or email: [sales@roamservices.net](mailto:sales@roamservices.net).
- 6 Specifies the [Sensor Switch SBGR-6-ODP](#) control; see [Motion Sensor Guide](#) for details. Includes ambient light sensor. Not available with "PE" option (button type photocell) or DCR. Dimming driver standard.
- 7 Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
- 8 See the electrical section on page 2 for more details.
- 9 Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item.

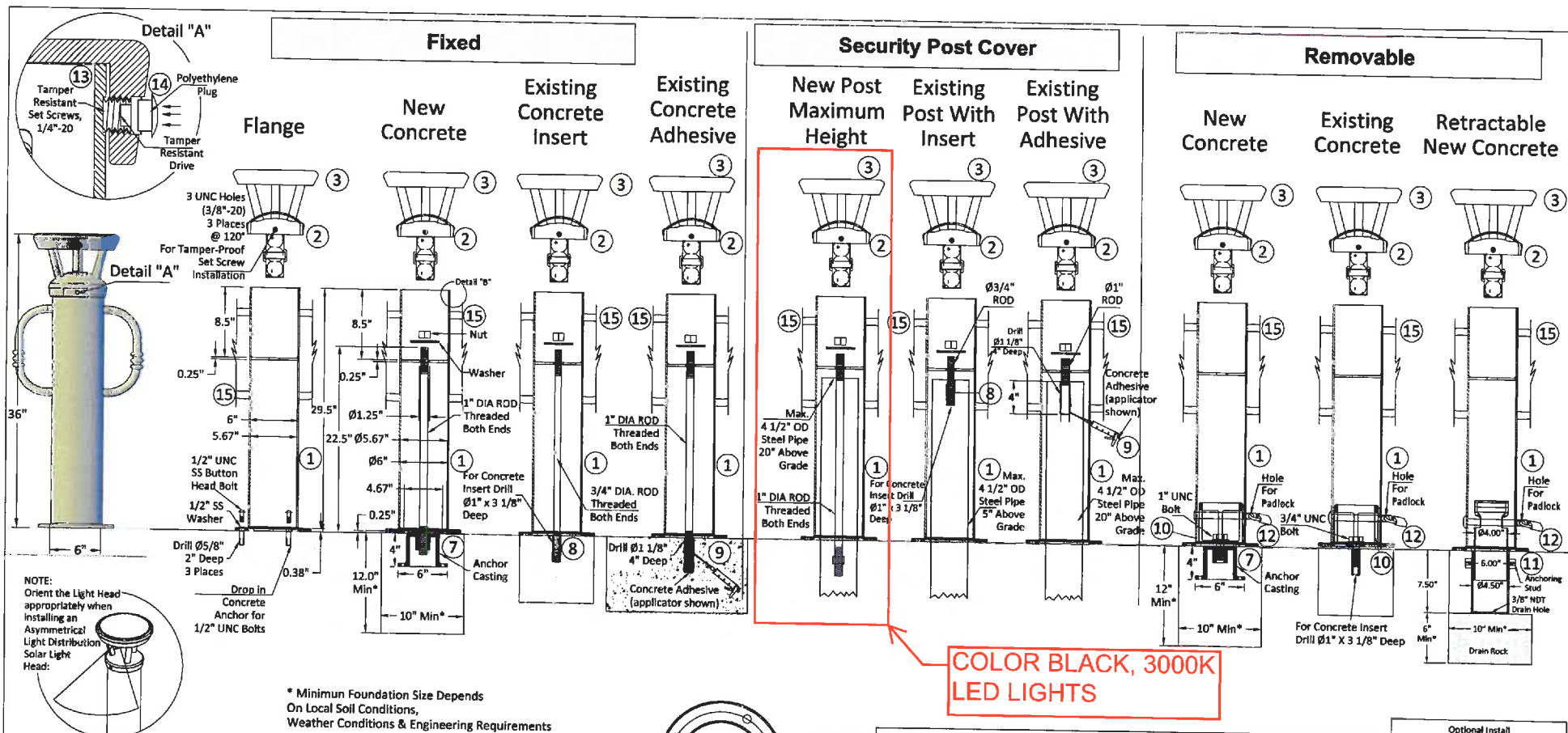
## Accessories

Ordered and shipped separately

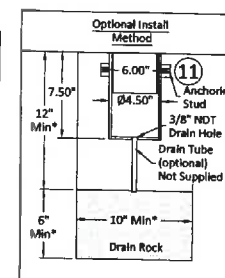
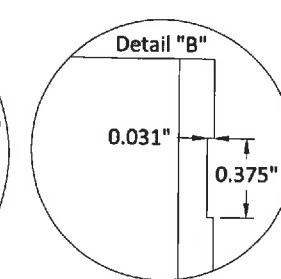
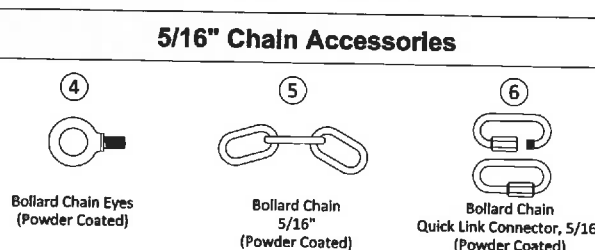
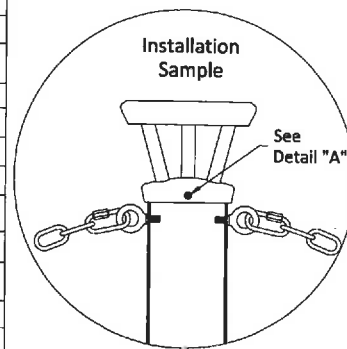
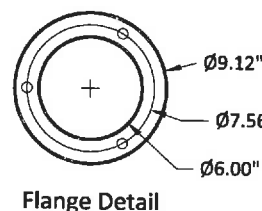
DLL127F 1.5 UJ	Photocell - SSL twist-lock (120-277V) *
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) *
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) *
SC U	Shorting cap *
DSXWH5 U	House-side shield (one per light engine)
DSXWBS5 U	Bind-deterrent spikes
DSXWZ6G U	Wire guard accessory
DSXWZ6V U	Vandal guard accessory
DSXWZBBW	Back box accessory
DRDX U	(specify finish)



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Solar Light Bollard				
Item	Part Number	Description	Material	Weight
1	R-9810-FL	Bollard Post	Steel	31.5 lbs.
2	R-9810-B3	Solar Light Battery (1 comes with light, but also available as an additional accessory)	Pure Lead, Spiral Wound, Absorbed Glass Mat (AGM)	3.2 lbs.
3	R-9810-AL	Head Assembly, c/w Integral Light Kit	Aluminum	13.2 lbs
4	7500-E	Chain Eye Loop	Steel - Forged	
5	R-7500-CH	Chain, 5/16" (Measured In Feet)	Steel - Plated	
6	R-7500-Q	Chain Quick Link	Steel - Plated	
7	R-7500-AN	Anchor Casting	Ductile Iron (ASTM A536, Grade 65-45-12)	
8	INSERT 1	Concrete Insert, 3/4" UNC	Steel - Plated	
9	R-7500	Concrete Adhesive	Concrete Adhesive	
10	R-7500	Removable Mount	Steel	
11	R-7600	Removable/Retractable Mount	Steel	
12	Padlock 936	Padlock, marine grade (OPTIONAL)	Brass; chrome plated with stainless steel shackle	
12	Padlock 835	Padlock (OPTIONAL)	Brass	
13		Tamper Resistant Set Screw 1/4" - 20 x 1 1/2" long, Pinned hex drive, 3pcs.	Stainless Steel	
14		Polyethylene Plug, 1/4" - Black, 3 pcs.	Polyethylene	
15		Bike Bollard Arms	316 Stainless Steel	4.5 lbs



REV	DATE	DESCRIPTION	DR
<p>Unit 207, 6450 - 148 Street, Surrey, BC, Canada V3S-7G7 1-888-735-5680 - info@reliance-foundry.com www.reliance-foundry.com   www.bollards.ca   www.bike-parking.ca</p> <p><b>Solar Light Bollard, Model R-9810-FL-B</b></p>			
SCALE	NTS	DRAWING NUMBER	SIZE
DESIGN			REV.
DATE	03/14/2013	R-9810-FL-B	A A





Project:

Type:

Prepared By:

Date:

**Driver Info**

Type:	Constant Current
120V:	0.25A
208V:	0.16A
240V:	0.14A
277V:	0.12A
Input Watts:	29W
Efficiency:	90%

**LED Info**

Watts:	26W
Color Temp:	<del>4000K (Neutral)</del>
Color Accuracy:	85 CRI
L70 Lifespan:	100,000
Lumens:	1,461
Efficacy:	51 LPW

13 & 26 Watt Dome Shade LED Gooseneck Luminaire designed to match the architecture of Main Street storefronts and building perimeters. LED Gooseneck Dome Shade with 24" Goose Arm Style 1.

Color: White

Weight: 11.0 lbs

**Technical Specifications****Listings****UL Listing:**

Suitable for wet locations. Suitable for mounting within 1.2m (4ft) of the ground.

**IESNA LM-79 & IESNA LM-80 Testing:**

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

**LED Characteristics****Lifespan:**

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

**LED:**

Single multi-chip, 26W high-output, long-life LED.

**Correlated Color Temp. (Nominal CCT):**

4000K

**Color Stability:**

LED color temperature is warranted to shift no more than 200K in CCT over a 5 year period.

**Color Uniformity:**

RAB's range of CCT (Correlated color temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2008.

**Construction****Fixture:**

The GN1LED26NSADW comes with the GOOSE1W Arm.

**Thermal Management:**

Custom heat sink assembly in thermal contact with die-cast aluminum housing for superior heat sinking.

**Housing:**

Precision die-cast aluminum housing, lens frame and mounting plate.

**Gaskets:**

High Temperature Silicone

**Mounting:**

Heavy-duty mounting arm with "O" ring seal and stainless steel screw.

**Cold Weather Starting:**

The minimum starting temperature is -40°F/-40°C

**Finish:**

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals. Offers significantly improved gloss retention and resistance to color change.

**Green Technology:**

Mercury and UV free, and RoHS compliant. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

**Electrical****Driver:**

Constant Current, Class 2, 100-277V, 50/60 Hz, 0.48 A, THD≤20%, PF 97.9%.

**Surge Protection:**

4kv

**Other****Shades:**

15" Angled Dome Shade offered.

**Equivalency:**

The GNLED26 is equivalent in delivered lumens 120W incandescent, 75W MH or 42W CFL.

**California Title 24:**

Goosenecks complies with 2013 California Title 24 building and electrical codes as a commercial outdoor non-pole-mounted fixture < 30 Watts when used with a photosensor control. Select catalog number PCS900(120V) or PCS900/277 to order a photosensor.

**Patents:**

The design of the Gooseneck is protected by patents pending in US, Canada, China and Taiwan.

**Warranty:**

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

**Country of Origin:**

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

**Buy American Act Compliant:**

This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act.

**Recovery Act (ARRA) Compliant:**

This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods— Buy American Act— Construction Materials (October 2010)

**Trade Agreements Act Compliant:**

This product is a COTS item manufactured in the United States, and is compliant with the Trade Agreements Act.

# GN1LED26NSADW



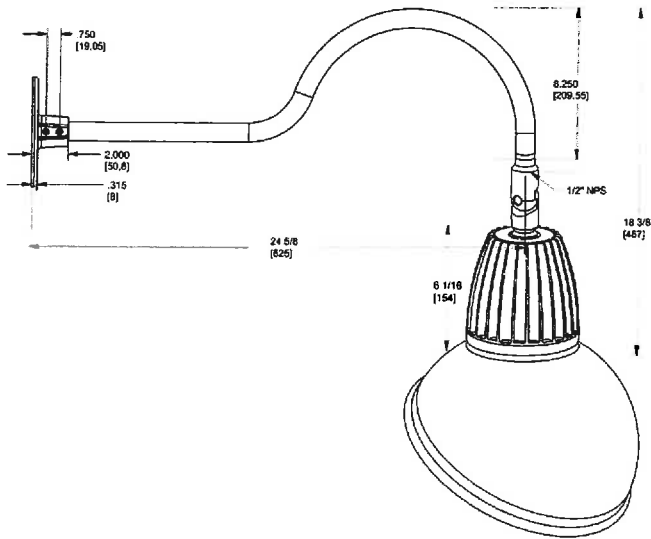
## Technical Specifications (continued)

### Other

#### GSA Schedule:

Suitable in accordance with FAR Subpart 25.4

### Dimensions



### Features

- Adjustable 45° swivel joint
- Superior heat sink
- Die-cast aluminum housing
- 5 year LED warranty

### Ordering Matrix

Family	Watts	Color Temp	Reflector	Shade	ShadeSize	Finish
GN1LED	26	<del>N</del>	S	AD		<del>W</del>
	13 = 13W	Y = 3000K	= Flood	AD = Angled Dome	11 = 11"	B = Black
	26 = 26W	N = 4000K	R = Rectangular		= 15"	W = White
			S = Spot			A = Bronze
						S = Silver
						G = Hunter Green
						YL = Yellow
						LB = Light Blue
						BL = Royal Blue
						BWN = Brown
						I = Ivory
						R = Red

## DESCRIPTION

Recessed 6-inch LED lens downlight is available in various distributions, lumen and CRI/CCT options. Suitable for commercial construction and can be used for both new or renovation work. Insulation must be kept 3" from top and sides of housing. Use for general area lighting where high efficiency and visual comfort are required.

**Recessed Canned Fixtures  
beneath Canopies**

## SPECIFICATION FEATURES

### MECHANICAL

#### Frame

Boat shaped galvanized steel frame with adjustable plaster lip accommodates ceilings up to 1/2" - 2" thick. May be used for new construction or remodeling installations. Provided with (2) remodel clips to secure frame when installed from below the ceiling.

#### Mounting Brackets

Bar hanger receivers adjusts 2" vertically from above the ceiling or thru the aperture. Use with No Fuss™ bar hangers or with 1/2" EMT. Removable to facilitate installation from below the ceiling.

#### No Fuss™ Bar Hangers

Captive preinstalled bar hanger locks to tee grid with a screwdriver or pliers. Centering mechanism allows consistent positioning of fixtures.

### OPTICAL

#### LED Module

Proximity phosphors over chip on board LEDs provide a uniform source with high efficiency and no pixilation. Available in 80 or 90 CRI minimum, accuracy within 3 SDCM provides color uniformity. See ordering information for available CRI / CCT options. Passive thermal management achieves L70 at 50,000 hours in non IC applications. Integral diffuse lens provides visual shielding. Integral connector allows quick connection to housing flex.

### Reflector

One piece parabolic aluminum reflector provides cutoff for a visually comfortable optic. Attaches to LED module with (3) speed clamps minimizing light leaks to lens. Self-flanged standard with an optional white painted flange.

#### Trim Retention

Reflectors are retained with two torsion springs holding the flange tightly to the finished ceiling surface.

### ELECTRICAL

#### Junction Box

(6) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (12) #12 AWG (six in, six out) 90°C conductors and feed thru branch wiring.

#### Driver

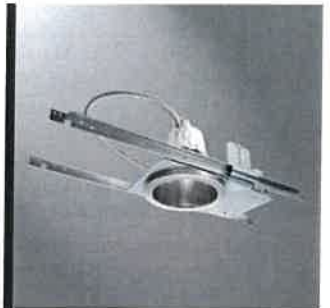
Integral UNV 120 - 277V 50/60 Hz constant current driver provides noise free operation. For 347V input use Halo transformer H347 or H347200. Continuous, flicker-free dimming from 100% to 10% with leading or trailing edge phase cut at 120V or 0 - 10V analog control.

#### Emergency Option

Provides 90 minutes of standby lighting meeting most life safety codes for egress lighting. Available with both integral or remote charge indicator and test switch.

### Compliance

- cULus listed for wet location
- cCSAus listed for wet location
- IP66 Ingress Protection Rated
- Insulation must be kept 3" from top and sides.
- Airtight per ASTM-E283.
- Optional City of Chicago environmental air (CCEA) marking for plenum applications.
- EMI/RFI emissions per FCC 47CFR Part 18 non-consumer limits.
- Contains no mercury or lead and RoHS compliant.
- Photometric testing in accordance with IES LM-79-08.
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11.
- Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire.
- ENERGY STAR® listed for commercial applications, reference database for current listings.



**PD610  
PD615  
PD620  
PD630**

**PDM6A**

**61V**

**1000, 1500,  
2000 & 3000  
Lumen Series**

**LED  
6-Inch Aperture  
Lens Downlight**

THD: ≤ 20%

PF: ≥ 0.90

T Ambient -30 - +40°C

Sound Rating ≤ 22dba

Lumens	1000 Series	
Input Voltage	120V	277V
Input Current	.103 A	.058 A
Input Power	12.1 W	13.2 W
Efficiency	88 LPW	88 LPW
Inrush Current	.048 A	.080 A

Lumens	1500 Series	
Input Voltage	120V	277V
Input Current	.146 A	.1 A
Input Power	17.1 W	17.9 W
Efficiency	87 LPW	87 LPW
Inrush Current	1.920 A	0.960 A

Lumens	2000 Series	
Input Voltage	120V	277V
Input Current	.175 A	.536 A
Input Power	20.78 W	21.06 W
Efficiency	89 LPW	89 LPW
Inrush Current	.064 A	.128 A

Lumens	3000 Series	
Input Voltage	120V	277V
Input Current	.299 A	.145 A
Input Power	35.72 W	36.4 W
Efficiency	82 LPW	82 LPW
Inrush Current	.096 A	.928 A

## ORDERING INFORMATION

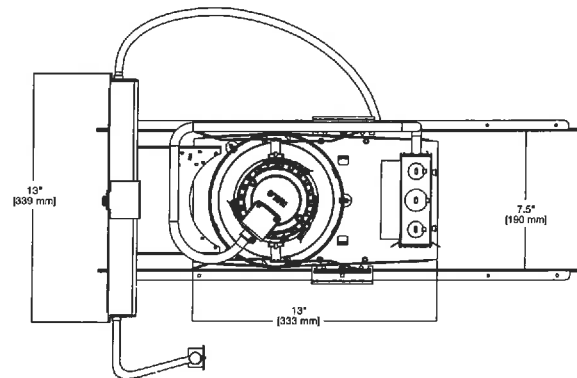
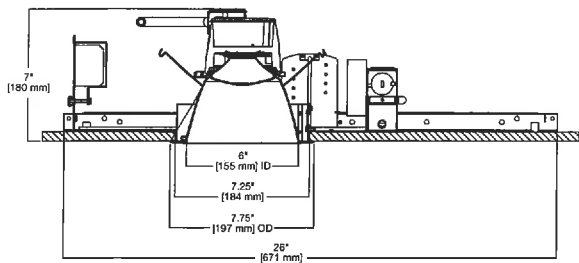
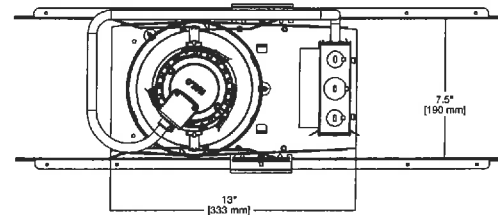
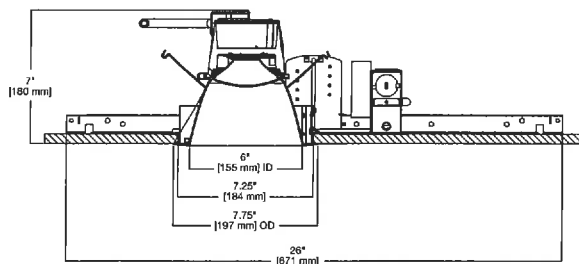
**SAMPLE NUMBER:** PD610ED010REM-PDM6A827-61VC

A complete luminaire consists of a housing, LED module and reflector, order separately.

Reflector	Lumens	Driver	Options	LED Module	CRI/CCT
<b>PD6</b> = 6" aperture LED downlight <b>PD6CP</b> = 6" aperture LED downlight, CCEA listed for City of Chicago plenum requirements	<b>10</b> = 1,000 lumens (nominal) <b>15</b> = 1,500 lumens (nominal) <b>20</b> = 2,000 lumens (nominal)  <b>30</b> = 3,000 lumens (nominal)	<b>ED010</b> = 120-277V 50/60Hz, 0-10V and LE/TE phase cut dimming  <b>D010</b> = 120-277V 50/60Hz, 0-10V dimming (3,000 lumen only)	<b>REM</b> = Emergency operation with remote indicator and test switch  <b>IEM</b> = Emergency operation with Integral indicator and test switch, 60 Hz only (REM and IEM options not available with PD6CP housing)	<b>PDM6A</b> = Downlight LED module for PD6 housing, provides 1,000, 1,500, 2,000, or 3,000 lumens (nominal) depending on connected housing type	<b>827</b> = 80 CRI, 2700K CCT <b>927</b> = 90 CRI, 2700K CCT <b>830</b> = 80 CRI, 3000K CCT <b>930</b> = 90 CRI, 3000K CCT <b>835</b> = 80 CRI, 3500K CCT <b>935</b> = 90 CRI, 3500K CCT <b>840</b> = 80 CRI, 4000K CCT <b>940</b> = 90 CRI, 4000K CCT

Reflector	Finish Option	Flange Option	Accessories
<b>61V</b> = 6" vertical parabolic reflector <b>61VEM</b> = 6" vertical parabolic reflector for IEM	<b>C</b> = Specular clear <b>G</b> = Specular gold <b>H</b> = Semi-specular clear <b>W</b> = White (white flange) <b>BB</b> = Black baffle (white flange) <b>WB</b> = White baffle (white flange)	<b>Blank</b> = Polished flange standard with C, G & H reflector finishes <b>Blank</b> = White flange standard with W, BB, & WB <b>WF</b> = White flange option available with C, G, & H reflector finishes	<b>HB128APK</b> = L channel hanger bar, 26", 'No-Fuss', pair (replacement) <b>RMB22</b> = 22" long wood joist mounting bars, pair <b>H347</b> = Step down transformer for 347V input <b>H347</b> = Step down transformer for 347V input, 75VA max <b>H347200</b> = Step down transformer for 347V input, 200VA max

## DIMENSIONS



















































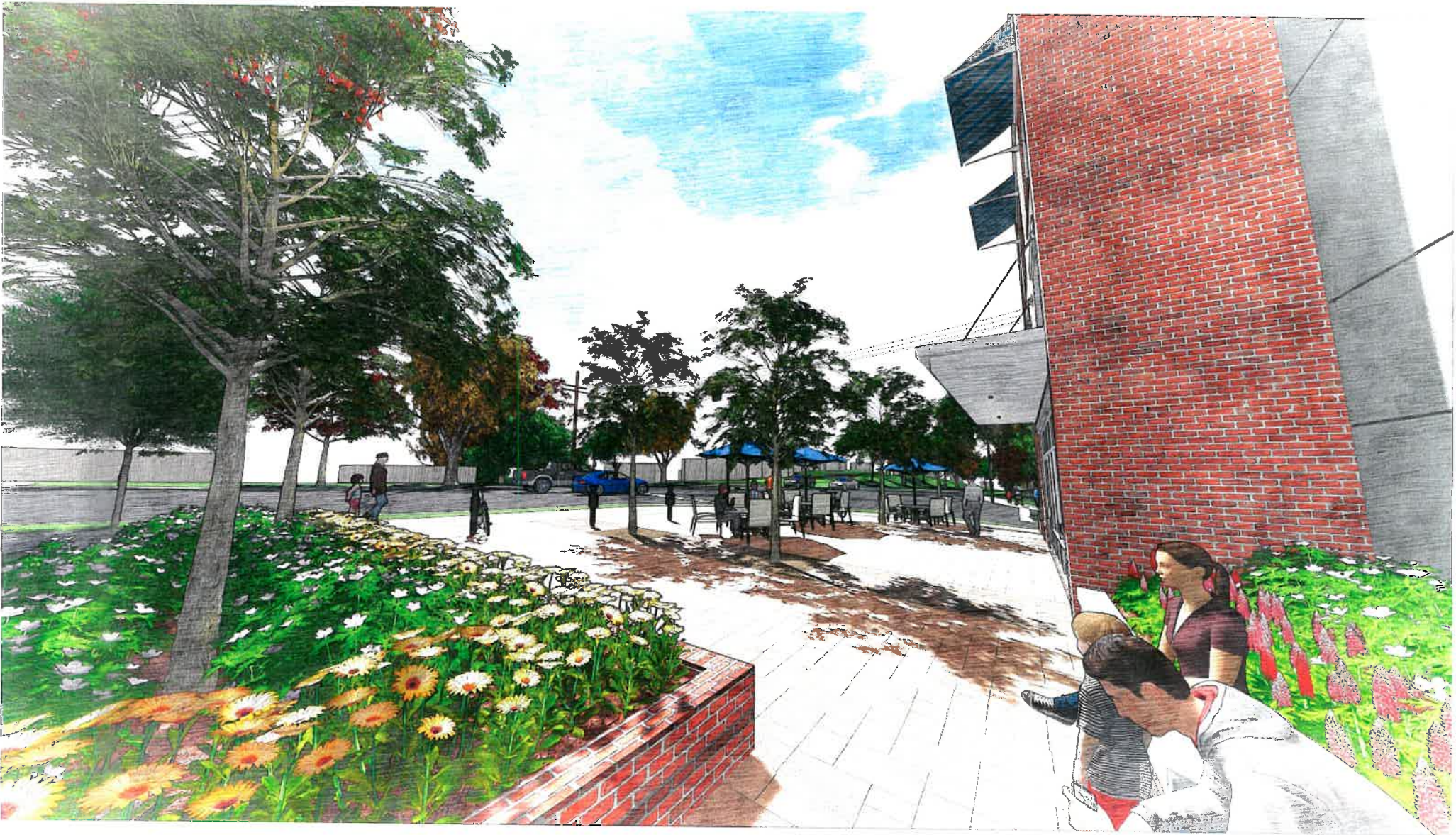




























































































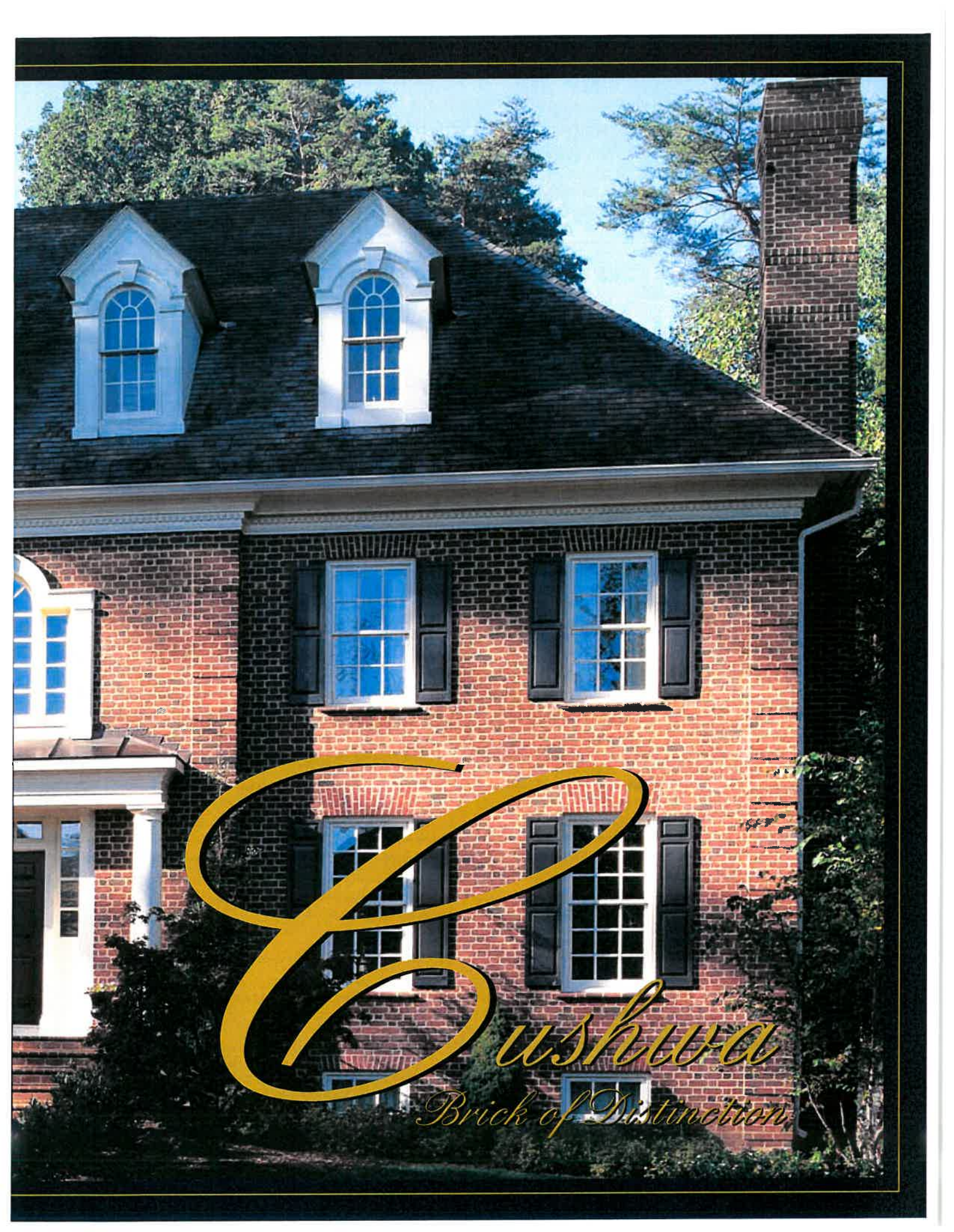










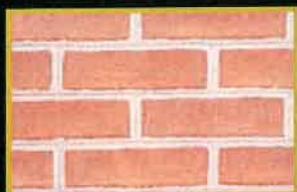


*Eushwa*  
*Brick of Distinction*



# Machine Moulded

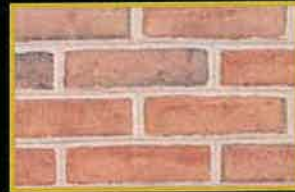
The rich texture, color and appeal of Cushwa machine moulded brick enhances the appearance of any building, and creates a classic look that will stand the test of time. Moulded bricks have characteristics that give both residential and commercial exteriors a unique warmth and depth. Cushwa's modern manufacturing processes make machine moulded brick a lasting value for any project.



#10 Rose Red



#30 Rose Full Range



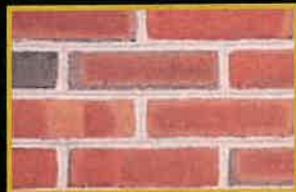
#40 Santa Fe



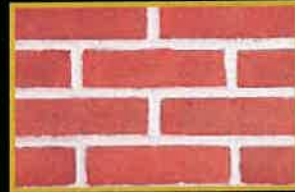
#60 Cameo Rose



#82 Pastel Rose



#103 Georgian



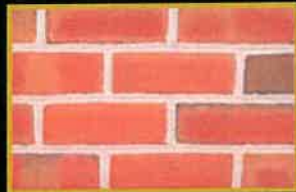
#104 Victorian



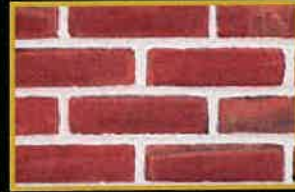
#115 Shenandoah



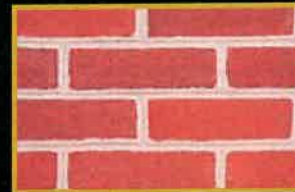
#150 Antietam Blend



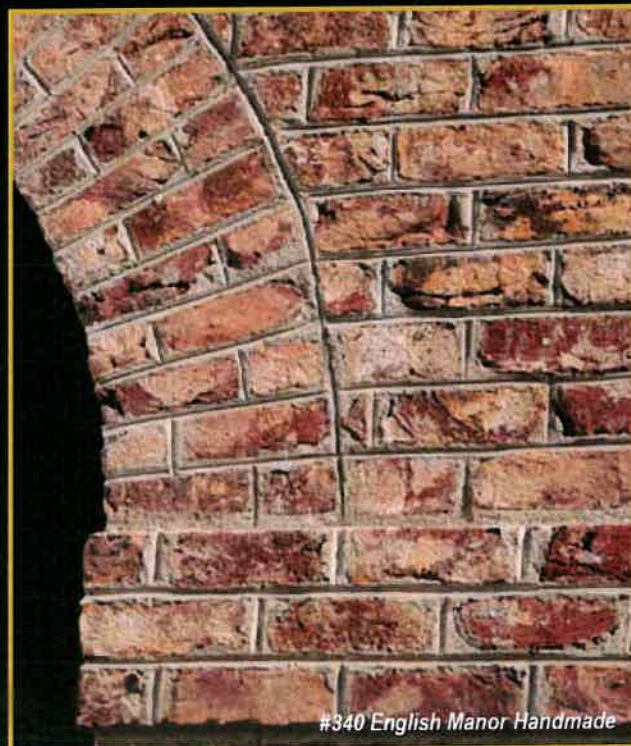
#151 Somerset



#154 Montgomery



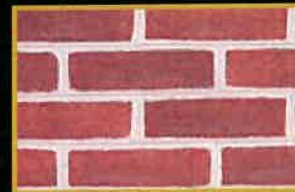
#170 Camden Blend



#340 English Manor Handmade



#237 Cambridge



#238 Lexington



#250 Terra Blend



#312 Provincial



#450 Hunt Valley



#500 Tiber Island





BUFFSTONE



EASTERN MOUNTAIN



BARLEY

# ARCHITECTURAL STONE SOLUTIONS

MANUFACTURED BY READING ROCK, INC.



RIESLING

HOLI CRAIL TAVERN & GRILL



# PRODUCT OVERVIEW

## 12 STANDARD COLORS

Colors available in all textures — ask an associate for details



BRINDLE\*



BUCKSKIN\*\*



BUFFSTONE\*\*



COMMONWEALTH\*



CRÈME BUFF\*\*



CRYSTAL WHITE\*\*



FLAX\*



RIESLING\*\*



SAVANNAH\*



SLATE\*



SMOKE GRAY\*



WHEATSTONE\*

\*Blended Color // \*\*Monotone Color

## ASHLAR SERIES



BRINDLE



OLD OHIO



SANDSTONE



STONE CREEK

## PRAIRIE® STONE

Available in chiseled and smooth.



ASH



BAMBOO



CRAB ORCHARD



GRIS



STONE



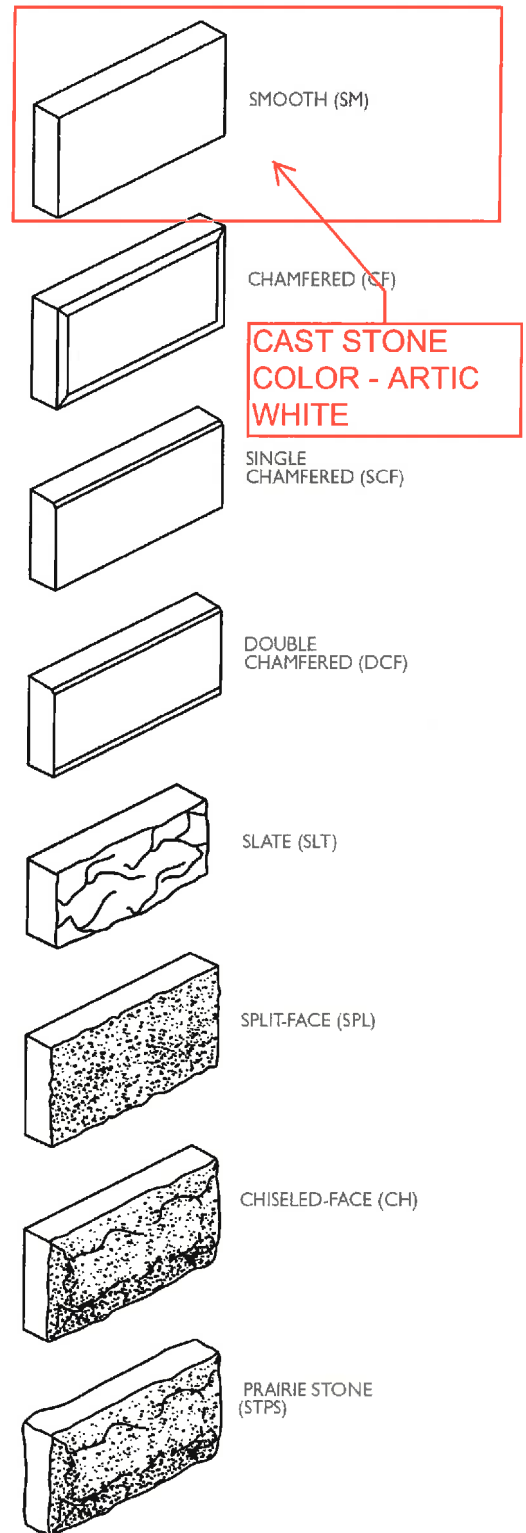
SUNSET

## CUSTOM CAPABILITIES

Reading Rock specializes in creating custom colors and is experienced in matching our RockCast architectural stone products to complement existing materials on site. Our manufacturing capabilities provide customers with unlimited color solutions that are sure to meet any design requirement.



## SHAPES





**PFS PREMIUM FIBERED STUCCO**888.702.9915  
[www.totalwall.com](http://www.totalwall.com)**Concentrate Premium Fibered Stucco****AMERICA'S EIFS AND STUCCO COMPANY!**

TOTAL WALL Premium Fibered Stucco Concentrate is a dry mix containing Portland cement, chopped strand fiberglass reinforcement, micro-fibers for added strength and crack resistance, graded aggregates, and specialty modifiers designed to enhance workability and cure.

TOTAL WALL Premium Fibered Stucco Concentrate requires sand to be added in addition to water.

TOTAL WALL Premium Fibered Stucco Concentrate:

- Can be used as standard stucco or as one-coat, hi-lift stucco.
- Is available in 50# bags in standard gray or in a white finish grade without the larger fibers.
- May be top-coated with TOTAL WALL Premium Fibered Stucco White Finish (Tintable), T-Wall Lastic Elastomeric Coating, or any TOTAL WALL Synthetic Textured Finish Coat.

**Features**

- **Standard, One-Coat or Hi-Lift**
- **High Impact Resistance**
- **Extremely High Impact Resistance**
- **Fireproof and Mildew Resistant**
- **Pre-Sanded, Just Add Water**

**Coverage****Estimated Coverage Per 50 LB Bag Of Mix:**

- 55-65 square feet at 1/4"
- 35-40 square feet at 3/8"
- 25-30 square feet at 1/2"
- 20-25 square feet at 5/8"
- 18-20 square feet at 3/4"
- 15-18 square feet at 7/8"



## Description

### Mixing Instructions

Add up to 120 pounds of clean silica sand per 50 pound bag of Total Wall Premium Fibered Stucco Concentrate. Add approximately 2-3/4 gallons of clean water per batch (50-pound bag of TOTAL WALL Premium Fibered Stucco and 10 pounds of sand). Use low-speed mixing. After initial mixing, allow the mix to stand for 2-5 minutes then remix, adding a small amount of water to adjust workability if necessary. Mix pot-life will vary depending on temperature and batch size. An average pot-life of 40 minutes can be anticipated. TOTAL WALL Premium Fibered Stucco may be re-tempered one time if mix becomes too stiff. Final consistency should be a creamy light and easily trowelable mixture.

### Options

1. TOTAL WALL Liquid acrylic Additive may be used to replace up to 20% of the mix water during job site mixing. TOTAL WALL Liquid acrylic Additive will improve the physical strength characteristics of the product and reduce the incidence of cracking.

2. TOTAL WALL Tinted-Liquid Acrylic Additive may be added to TOTAL WALL Premium Fibered Stucco White Finish to achieve a limited range of pastel colors at the job site.

3. TOTAL WALL Synthetic Finishes or T-Wall Lastic may be used for an attractive and durable finish coating. TOTAL WALL Synthetic Finishes and T-Wall Lastic are available in several textures and unlimited colors.

### Application

TOTAL WALL Premium Fibered Stucco may be applied directly to sound raw masonry without the use of netting or lath or other reinforcement. If desired or specified, a T-Wall Bonding Agent may be applied to the substrate prior to application. If application is over painted masonry, mechanically fastened lath reinforcement plus joint and trim accessories are required. For wood or gypsum-based sheathing, a moisture barrier is required as the first layer over the

sheathing followed by mechanically fastened lath reinforcement with joint and trim accessories. All lathing must be galvanized and self-furring. Trim accessories must be galvanized, solid zinc or custom PVC components. Apply TOTAL WALL Premium Fibered Stucco using a trowel in one or more passes or lifts to achieve the prescribed thickness. When useful, employ tools such as a darby or slicker to assist in leveling the coating. If TOTAL WALL Liquid Acrylic Additive or Acrylic Tint has been added to the mix, do not moist cure the coating as the acrylic assists in the proper cure process. Coating thickness may range from a minimum of 1/4" and a maximum of 1 1/2". TOTAL WALL Premium Fibered Stucco Finish Coat may be applied once the combination brown and scratch coat base is firm and dry. TOTAL WALL Synthetic Finish may be applied within 18 hours. It is advisable to allow the TOTAL WALL Premium Fibered Stucco to cure at least 48 hours before applying T-Wall Lastic Coating.

### Handling and Storage

Do not apply to frozen or saturated surfaces. Do not apply if precipitation is forecast within 8 hours of application. Do not apply if the temperature cannot be maintained

above 40F for 24 hours. Shelf life in unopened bags is 12-18 months when stored in dry conditions. Store under cover.

### Maintenance

If damage occurs to an installed system, please contact Total Wall for information on repair.

### Precautions

This product is a Portland cement based material. Do not ingest. Avoid contact with skin and eyes. In case of contact with product or mix, flush with water. For contact with eyes, get immediate medical attention in addition to flushing. Wear safety glasses and protective clothing. Keep out of reach of children and pets. eyes, get immediate medical attention in addition to flushing. Wear safety glasses and protective clothing.

### Limitations

Apply in accordance with standard lath and plastering practices. Do not apply to frozen walls or in temperatures below freezing. Use only clean potable mix water. When possible, schedule work to avoid application in direct sun. Moist curing of product is acceptable unless TOTAL WALL Liquid acrylic Additive has been added.



## Technical Data

Meets ASTM C595 specifications for Blended Hydraulic Cement

**Chemistry** - Portland cement meets standard ASTM C150

**Aggregates** - meet standards ASTM C33, ASTM C144 and ASTM C778

**Hydration Control** - balanced lime blend meets standard ASTM C207

**Modifiers** - specialty hydrating agents and wetting agents

**Reinforcement** - natural mineral fibers plus chopped strand fiberglass

**Appearance:** Dry, gray powder

**pH (wet):** Approx. 10.5

**Density (wet):** 1.6-1.8 grams/cc

**Chemistry:** Portland cement

888.702.9915 Phone

888.702.9916 Fax

[www.totalwall.com](http://www.totalwall.com)





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WILLIAMS.**



102.01

# SUPERPAINT<sup>®</sup>

## Exterior Latex

## Flat

## A80-1100 Series

As of 06/30/2015, Complies with:			
OTC	Yes	LEED® 09 CI	N/A
SCAQMD	Yes	LEED® 09 NC	N/A
CARB	Yes	LEED® 09 CS	N/A
CARB SCM 2007	Yes	LEED® H	N/A
MPI	-	NGBS	N/A

### CHARACTERISTICS

SuperPaint Exterior Latex Flat, with improved resistance to early dirt pick up, provides outstanding performance on properly prepared aluminum and vinyl siding, wood, hardboard, masonry, cement, brick, block, stucco, and metal down to a surface and air temperature of 35°F.

**VinylSafe™ Color Technology** allows the use of many darker colors on vinyl siding that cannot be made in most other coatings.

**Color:** Most colors  
To optimize hide and color development, always use the recommended P-Shadow primer

**Coverage:** 350 - 400 sq ft/gal  
@ 4 mils wet; 1.4 mils dry

**Drying Time, @ 50% RH:**  
@ 35-45°F @ 45°F+  
Touch: 2 hour 2 hours  
Recoat: 24-48 hours 4 hours

Drying and recoat times are temperature, humidity, and film thickness dependent

**Flash Point:** N/A

**Finish:** 0-5 units @ 85°

**Tinting with CCE:**

Base	oz/gal	Strength
Extra White	0-5	100%
Deep Base	4-12	100%
Ultradeep Base	4-12	100%
Light Yellow	4-12	100%

**Vehicle Type:** Acrylic

**Extra White A80W01151**

**VOC (less exempt solvents):**  
<50 g/L; <0.42 lb/gal

As per 40 CFR 59.406 and SOR/2009-264, s.12

**Volume Solids:** 36 ± 2%

**Weight Solids:** 53 ± 2%

**Weight per Gallon:** 11.38 lb

**WVP Perms (US)** 30.1  
grains/(hr ft<sup>2</sup> in Hg)

### Mildew Resistant

This coating contains agents which inhibit the growth of mildew on the surface of this coating film.

### SPECIFICATIONS

SuperPaint Exterior Latex Flat can be self-priming when used directly over existing coatings, or bare drywall, plaster and masonry (with a cured pH of less than 8). The first coat acts like a coat of primer and the second coat provides the final appearance and performance. Please note that some specific surfaces require specialized treatment.

#### Aluminum & Aluminum Siding<sup>1</sup>, Galvanized Steel<sup>1</sup>, Vinyl Siding

2 cts. SuperPaint Exterior Latex

#### Concrete Block, CMU, Split Face Block

1 ct. Loxon Block Surfer

2 cts. SuperPaint Exterior Latex

#### Brick

1 ct. Loxon Conditioner<sup>2</sup>

2 cts. SuperPaint Exterior Latex

#### Cement Composition Siding/Panels

1 ct. Loxon Concrete & Masonry Primer<sup>2</sup>

or Loxon Conditioner<sup>2</sup>

2 cts. SuperPaint Exterior Latex

#### Stucco, Cement, Concrete

1 ct. Loxon Concrete & Masonry Primer<sup>2</sup>

2 cts. SuperPaint Exterior Latex

#### Plywood

1 ct. Exterior Latex Wood Primer

2 cts. SuperPaint Exterior Latex

#### Wood (Cedar, Redwood)<sup>3</sup>

1 ct. Exterior Oil-Based Wood Primer<sup>2</sup>

2 cts. SuperPaint Exterior Latex

<sup>1</sup> On large expanses of metal siding, the air, surface, and material temperatures must be 50°F or higher.

<sup>2</sup> Not for use at temperatures under 50°F. See specific primer label for that product's application conditions.

<sup>3</sup> Knots and some woods, such as redwood and cedar, contain a high amount of tannin, a colored wood extract. For best results on these woods, use a coat of Exterior Oil-Based Wood Primer.

Other primers may be appropriate. Standard latex primers cannot be used below 50°F. See specific primer label for that product's application conditions.

When repainting involves a drastic color change, a coat of primer will improve the hiding performance of the topcoat color.

### SURFACE PREPARATION

**WARNING!** Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

Remove all surface contamination by washing with an appropriate cleaner, rinse thoroughly and allow to dry. Scrape and sand peeled or checked paint to a sound surface. Sand glossy surfaces dull. Seal stains from water, smoke, ink, pencil, grease, etc. with the appropriate primer/sealer.

#### Aluminum and Galvanized Steel

Wash to remove any oil, grease, or other surface contamination. All corrosion must be removed with sandpaper, wire brush, or other abrading method.

#### Cement Composition Siding/Panels

Remove all dirt, dust, grease, oil, loose particles, laitance, foreign material, and peeling or defective coatings. Allow the surface to dry thoroughly. If the surface is new, test it for pH, if the pH is higher than 8, prime with Loxon Concrete & Masonry Primer.





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102.01

# **SUPERPAINT®**

## **Exterior Latex Flat A80-1100 Series**

### **SURFACE PREPARATION**

#### **Masonry, Concrete, Cement, Block**

All new surfaces must be cured according to the supplier's recommendations—usually about 30 days. Remove all form release and curing agents. Rough surfaces can be filled to provide a smooth surface. If painting cannot wait 30 days, allow the surface to cure 7 days and prime the surface with Loxon Concrete & Masonry Primer. Cracks, voids, and other holes should be repaired with an elastomeric patch or sealant.

#### **Steel**

Rust and mill scale must be removed using sandpaper, wire brush, or other abrading method. Bare steel must be primed the same day as cleaned.

#### **Stucco**

Remove any loose stucco, efflorescence, or laitance. Allow new stucco to cure at least 30 days before painting. If painting cannot wait 30 days, allow the surface to dry 7 days and prime with Loxon Concrete & Masonry Primer. Repair cracks, voids, and other holes with an elastomeric patch or sealant.

#### **Vinyl**

Clean the surface thoroughly by scrubbing with warm, soapy water. Rinse thoroughly.

#### **Wood, Plywood, Composition Board**

Sand any exposed wood to a fresh surface. Patch all holes and imperfections with a wood filler or putty and sand smooth. All patched areas must be primed.

#### **Caulking**

Gaps between windows, doors, trim, and other through-wall openings can be filled with the appropriate caulk after priming the surface.

### **SURFACE PREPARATION**

#### **Mildew**

Remove before painting by washing with a solution of 1 part liquid bleach and 3 parts water. Apply the solution and scrub the mildewed area. Allow the solution to remain on the surface for 10 minutes. Rinse thoroughly with water and allow the surface to dry before painting. Wear protective eyewear, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach/water solution.

### **APPLICATION**

When the air temperature is at 35°F, substrates may be colder; prior to painting, check to be sure the **air, surface, and material temperature** are above 35°F and at least 5°F above the dew point. Avoid using if rain or snow is expected within 2-3 hours.

Do not apply at air or surface temperatures below 35°F or when air or surface temperatures may drop below 35°F within 48 hours.

No reduction necessary.

#### **Brush**

Use a nylon/polyester brush.

#### **Roller**

Use a 3/8" - 3/4" nap synthetic cover.

#### **Spray—Airless**

Pressure..... 2000 psi

Tip ..... .015"-.019"

### **CLEANUP INFORMATION**

Clean spills, spatters, hands and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with a compliant cleanup solvent to prevent rusting of the equipment. Follow manufacturer's safety recommendations when using solvents.

### **CAUTIONS**

For exterior use only.  
Protect from freezing.  
Non-photochemically reactive.  
Not for use on floors.

**CAUTION** contains **CRYSTALLINE SILICA** and **ZINC**. Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NIOSH approved) or leave the area. Adequate ventilation required when sanding or abrading the dried film. If adequate ventilation cannot be provided wear an approved particulate respirator (NIOSH approved). Follow respirator manufacturer's directions for respirator use. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. **FIRST AID:** In case of eye contact, flush thoroughly with large amounts of water. Get medical attention if irritation persists. If swallowed, call Poison Control Center, hospital emergency room, or physician immediately. **DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE.** Abrading or sanding of the dry film may release crystalline silica which has been shown to cause lung damage and cancer under long term exposure. **WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.**

HOTW 06/30/2015 A80W01151 29 36

Viet, KOR

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative or visit [www.paintdocs.com](http://www.paintdocs.com) to obtain the most current version of the PDS and/or an SDS.




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## SW 6349 Pennywise

Interior / Exterior

Locator Number: 125-C6

STUCCO COLOR  
AT PARKING  
GARAGE (SEE  
RENDERINGS)



### Color Details

Color Family: Oranges

RGB Value: R-162 | G-88 | B-58

Hexadecimal Value: #A2583A

LRV: 15

*Due to individual computer monitor limitations, colors seen here may not accurately reflect the selected color. To confirm your color choices, visit your neighborhood Sherwin-Williams store and refer to our in-store color cards.*

### STORE NEAR YOU

491 FACTORY ST  
Watertown, NY 13601-2765  
(315) 788-3130

### NOTES:

### FAVORITE STORE

491 FACTORY ST  
Watertown, NY 13601-2765  
(315) 788-3130

We can also be reached by phone at: 1-800-4-SHERWIN (1-800-474-3794)







## SW 7046 Anonymous



### Color Details

Color Family: Neutrals

RGB Value: R-129 | G-122 | B-110

Hexadecimal Value: #817A6E

LRV: 20

*Due to individual computer monitor limitations, colors seen here may not accurately reflect the selected color. To confirm your color choices, visit your neighborhood Sherwin-Williams store and refer to our in-store color cards.*

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Watertown, NY 13601-2765  
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**\$10 OFF**  
**\$50 OR MORE**



Valid on retail sales of retail products only. Minimum purchase of 50 dollars in a single transaction, before sales tax and after all discounts have been applied. Savings is applied to qualifying items purchased on a prorated basis any refunds will be given in the prorated amount, which will reduce your savings. May be combined with a percent-off coupon or sale event. Multiple dollars-off coupons will not be honored. Must surrender coupon at time of redemption. Cash value: 1/100 of 1¢. Offer excludes previous purchases and purchases of gift cards. Other exclusions may apply, see store for details. Void if transferred, purchased, sold, altered, duplicated, or where prohibited by law. Valid at Sherwin-Williams and Sherwin-Williams operated retail paint stores only. We reserve the right to accept, refuse, or limit the use of any coupon. Offer valid through 12/31/15. ©2015 The Sherwin-Williams Company





## SW 6122 Camelback



## Color Details

Color Family: Yellows

RGB Value: R-197 | G-170 | B-133

Hexadecimal Value: #C5AA85

LRV: 42

*Due to individual computer monitor limitations, colors seen here may not accurately reflect the selected color. To confirm your color choices, visit your neighborhood Sherwin-Williams store and refer to our in-store color cards.*

## STORE NEAR YOU

491 FACTORY ST  
Watertown, NY 13601-2765  
(315) 788-3130

## NOTES:

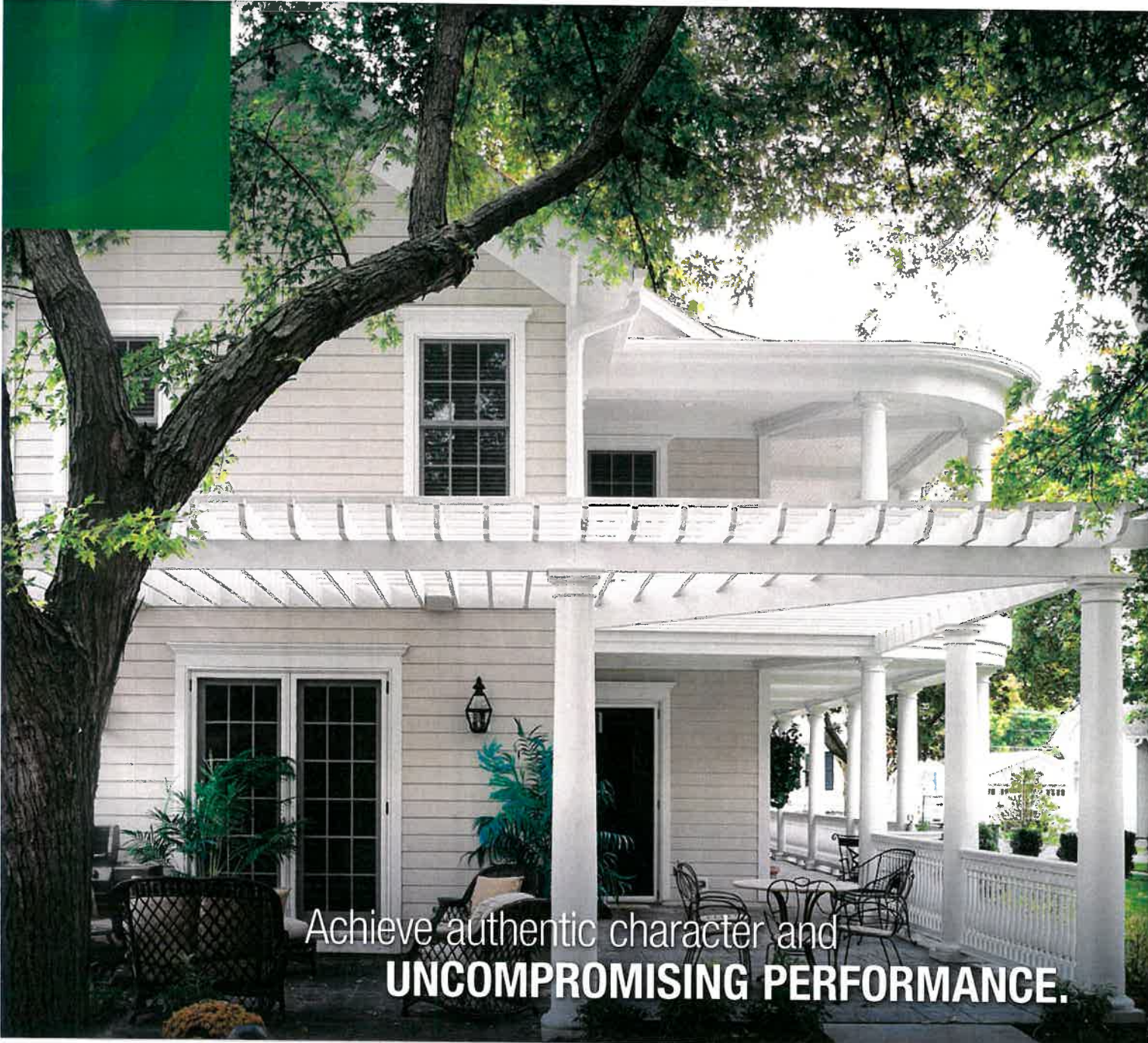
## FAVORITE STORE

491 FACTORY ST  
Watertown, NY 13601-2765  
(315) 788-3130

*We can also be reached by phone at: 1-800-4-SHERWIN (1-800-474-3794)*







**NORTHEAST**  
Product Catalog



Siding



Trim



Soffit

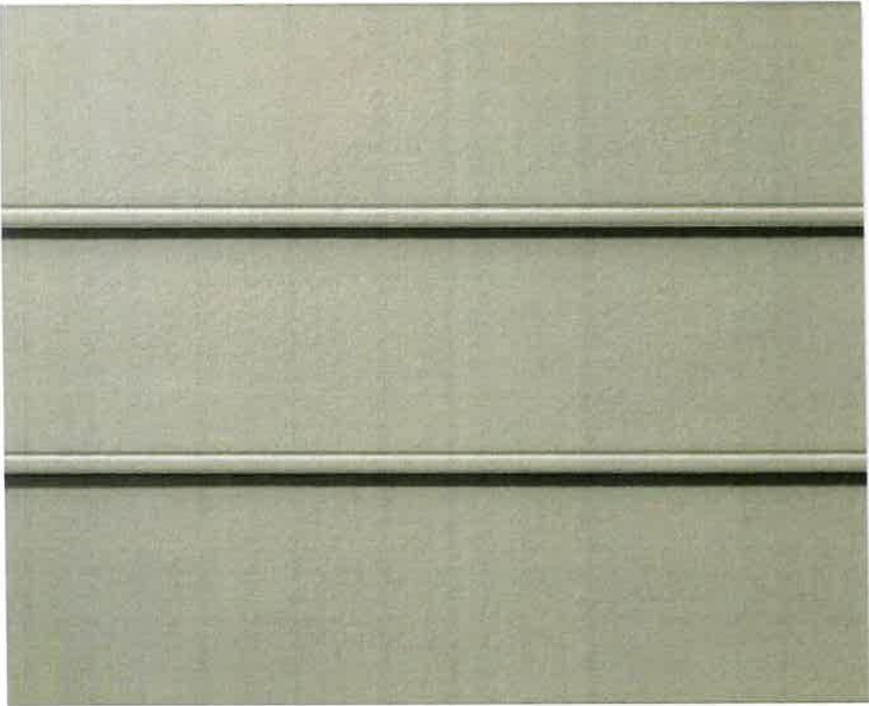


ABOUT JAMES HARDIE

PRODUCTS

COLOR





**BEADED SMOOTH\***

*Heathered Moss*

Thickness	5/16 in.
Length	12 ft. planks
Width	8.25 in.
Exposure	7 in.
ColorPlus Pcs./Pallet	210
Prime Pcs./Pallet	240
Pcs./Sq.	14.3

Available Colors



[View all HardiePlank Lap Siding Products](#)

\*Beaded Smooth not available primed in Pittsburgh, Philadelphia and New England.



# Trifab® VG (VersaGlaze®)

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

Design Versatility  
with Unmatched  
Fabrication Flexibility



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

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

## Aesthetics

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



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

## Economy

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

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



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

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

clip are engineered to eliminate the perimeter sill fasteners and their associated blind seals and are compatible with all glass planes.

## Performance

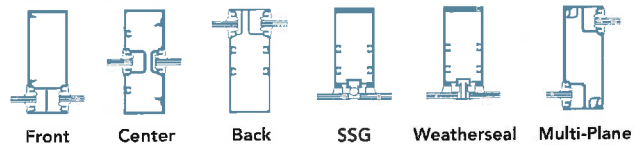
Kawneer's IsoLock™ Thermal Break option is available on Trifab® VG 451T. This process creates a composite section and prevents dry shrinkage.

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

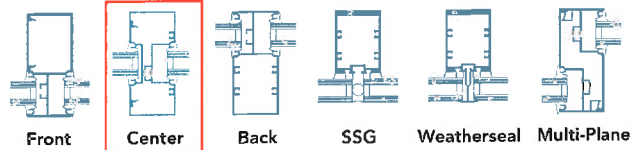
### Performance Test Standards

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

### Trifab VG 450



### Trifab VG 451/451T



## Finishes

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

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

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

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

kawneer.com  
770 . 449 . 5555





### **Features**

- Trifab® VG 451/451T is 4-1/2" deep with a 2" sightline
- Front, Center, Back or Multi-Plane glass applications
- Flush glazed from either the inside or outside
- Screw Spline, Shear Block, Stick or Type-B fabrication
- SSG / Weatherseal option
- Isolock® lanced and debridged thermal break option with Trifab® VG 451T
- Infill options up to 1-1/8" thickness
- Permanodic® anodized finishes in 7 choices
- Painted finishes in standard and custom choices

### **Optional Features**

- High performance interlocking flashing
- Acoustical rating per AAMA 1801 and ASTM E 1425
- Project specific U-factors (See Thermal Charts)

### **Product Applications**

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

For specific product applications,  
Consult your Kawneer representative.

Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.  
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<b>PICTORIAL VIEWS .....</b>	<b>5-9</b>
<b>CENTER .....</b>	<b>11-22</b>
<b>CENTER (LARGE MISSILE IMPACT) .....</b>	<b>23-25</b>
<b>FRONT .....</b>	<b>27-42</b>
<b>BACK .....</b>	<b>43-49</b>
<b>MULTI-PLANE .....</b>	<b>51-57</b>
<b>CHARTS (WINDLOAD, DEADLOAD, END REACTION &amp; THERMAL) .....</b>	<b>59-98</b>

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

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

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

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

Kawneer reserves the right to change configurations without prior notice when deemed necessary for product improvement.

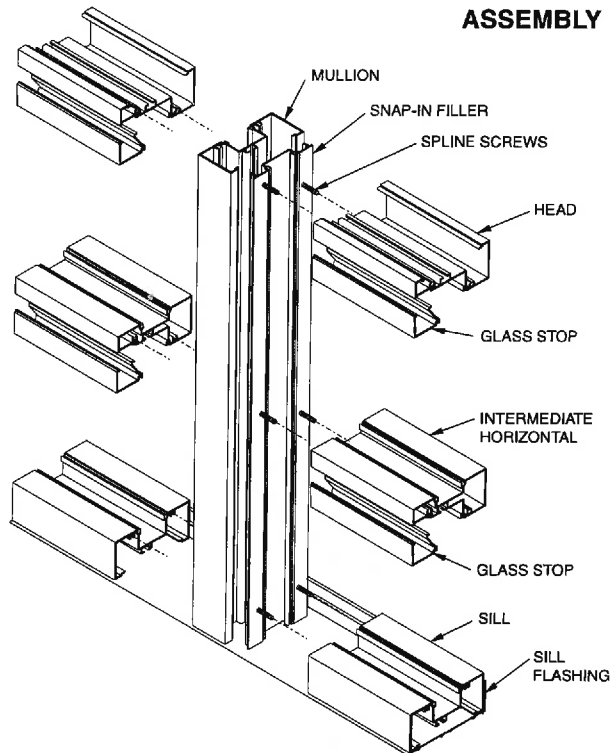
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.

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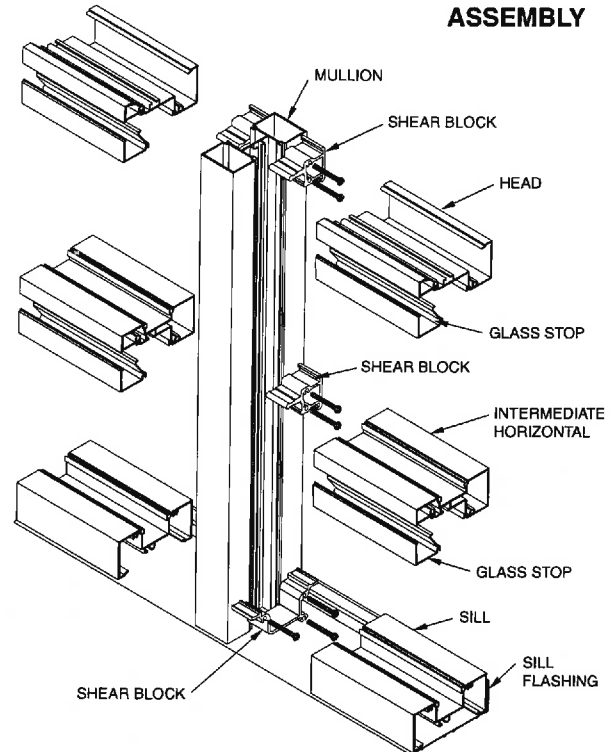
The split vertical in the **Screw Spine** system allows a frame to be installed from unitized assemblies. Screws are driven through the back of the verticals into splines extruded in the horizontal framing members. The Individual units are then snapped together to form a complete frame.

### SCREW SPLINE ASSEMBLY

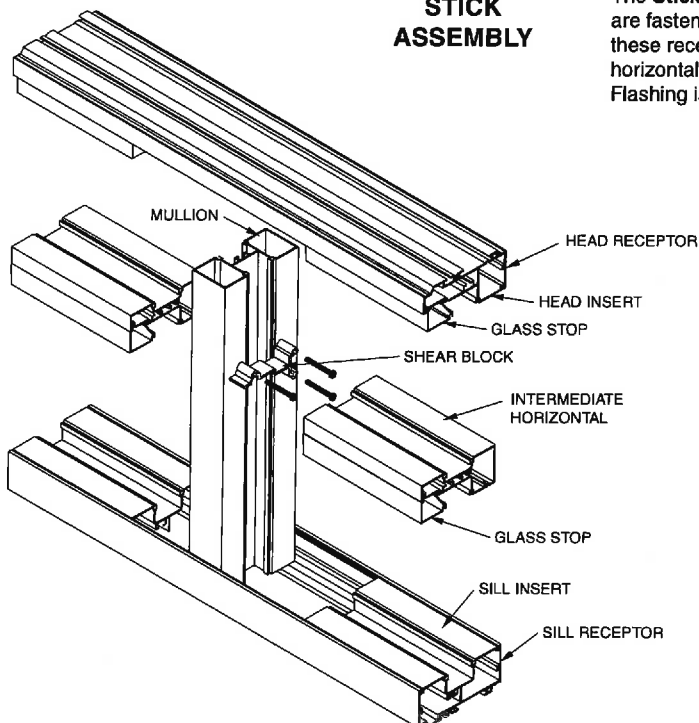


The **Shear Block** system of fabrication allows a frame to be pre-assembled as a single unit. Horizontals are attached to the verticals with shear blocks.

### SHEAR BLOCK ASSEMBLY



### STICK ASSEMBLY



The **Stick** system allows on-site construction. Head and sill receptors are fastened to the surround. Vertical mullions are then installed in these receptors and are held in place by snap-in inserts. Intermediate horizontal members are attached to the verticals with shear blocks. Flashing is not required.

#### NOTE:

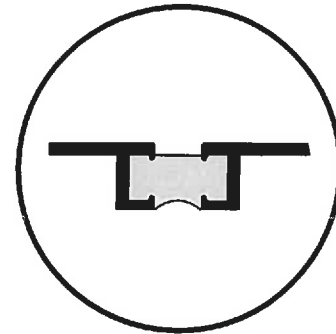
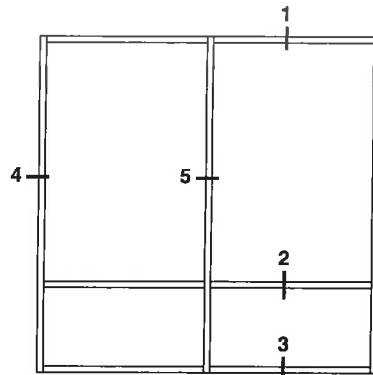
If the end reaction of the mullion (mullion spacing (ft.) times height (ft.) times specified windload (psf) divided by two) is more than 500 lbs., the optional mullion anchors must be used. (See page 14)

Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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SCALE 3" = 1'-0"



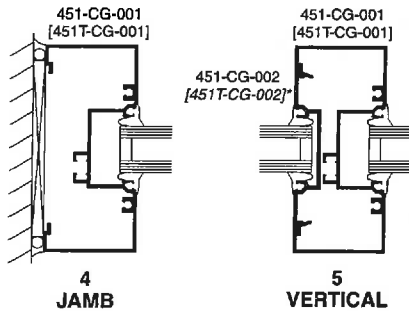
\*Note: See Misc. Details  
for Thermal Pocket Filler  
and Thermal Flashing.

ELEVATION IS NUMBER KEYED TO DETAILS

NUMBERS IN BRACKETS ARE  
THERMALLY BROKEN MEMBERS

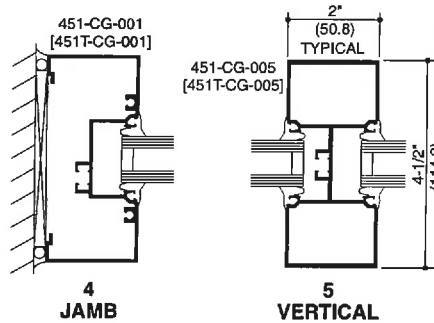
## SCREW SPLINE

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(TF451T) = TF\_VG\_451T-SS-Center-CAD.zip



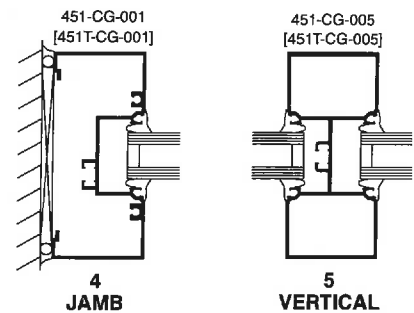
## SHEAR BLOCK

CAD Details (TF451) = TF\_VG\_451-SB-Center-CAD.zip  
(TF451T) = TF\_VG\_451T-SB-Center-CAD.zip



## STICK

CAD Details (TF451) = TF\_VG\_451-Stick-Center-CAD.zip  
(TF451T) = TF\_VG\_451T-Stick-Center-CAD.zip



Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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\*See Page 14 for Thermal Flashing and  
Optional High Performance Flashing

\*See Page 14 for Thermal Flashing and  
Optional High Performance Flashing



SCALE 3" = 1'-0"

## CAD Details - SCREW SPLINE

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(TF451T) = TF\_VG\_451T-SS-Center--CAD.zip

## CAD Details - SHEAR BLOCK

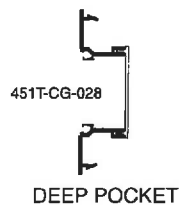
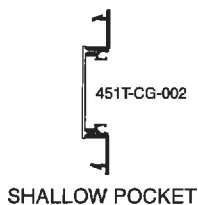
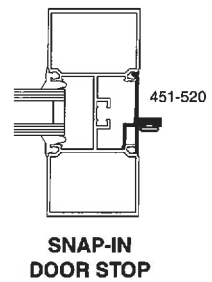
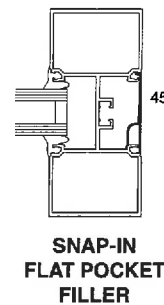
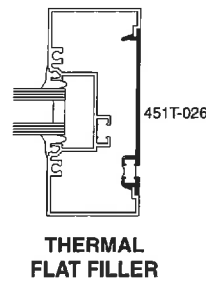
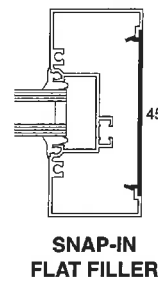
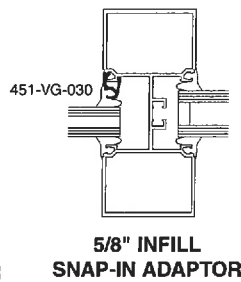
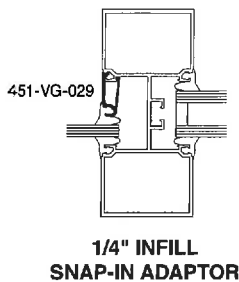
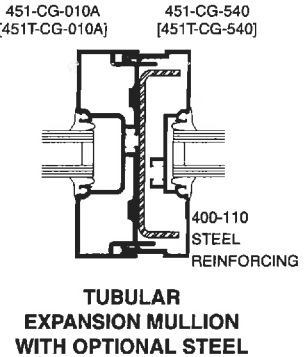
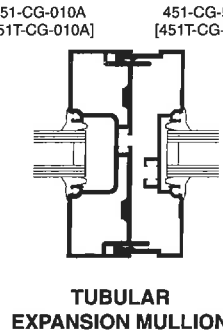
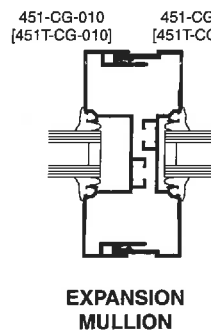
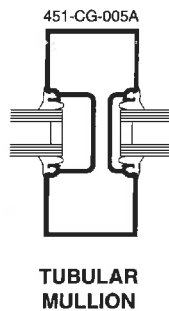
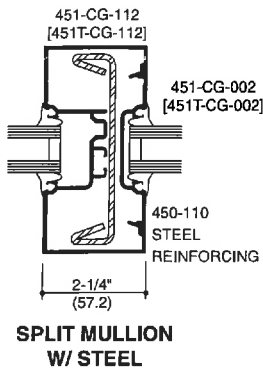
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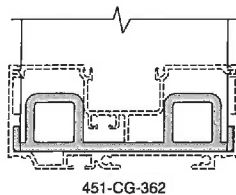
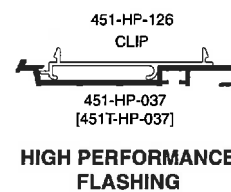
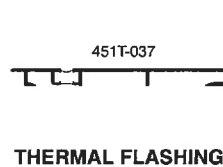
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## THERMAL POCKET FILLERS

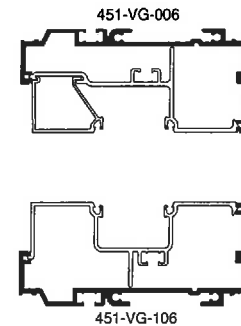
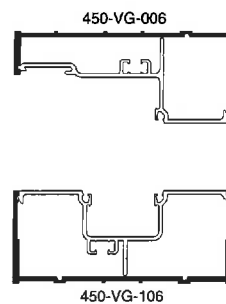


## NOTE:

If the end reaction of the mullion (mullion spacing (ft.) times height (ft) times specified windload (psf), divided by two) is more than 500 LBS., the optional mullion anchor must be used. Consult Application Engineering.

## NOTE:

Mullion Anchor not used with Lightweight Receptor.



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SCALE 3" = 1'-0"

CAD Details - **SCREW SPLINE**

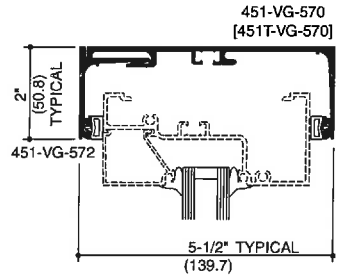
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CAD Details - **SHEAR BLOCK**

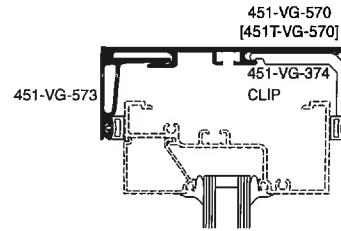
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CAD Details - **STICK**

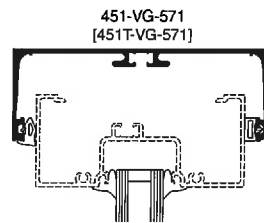
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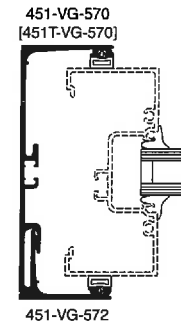
**STANDARD  
HEAD  
COMPENSATING RECEPTOR**



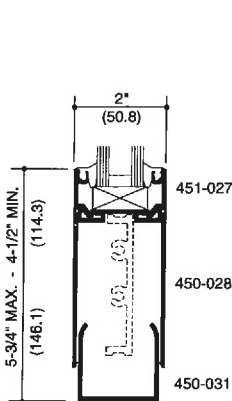
**HEAVY WEIGHT  
HEAD  
COMPENSATING RECEPTOR**



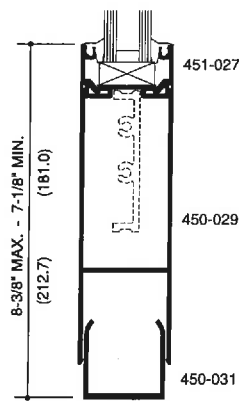
**ONE PIECE  
HEAD  
COMPENSATING RECEPTOR**



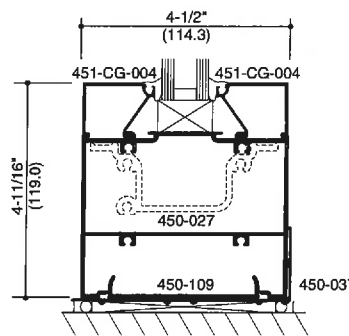
**JAMB  
COMPENSATING RECEPTOR**



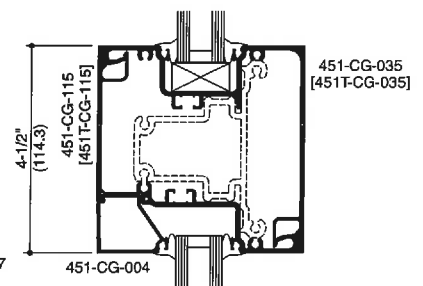
**\*NARROW  
SIDELITE BASE**



**\*NARROW  
SIDELITE BASE**



**SIDELITE BASE**



**4-1/2" x 4-1/2"  
HORIZONTAL**

**SIDELITE BASES ARE NON-THERMAL APPLICATIONS**

**\*NARROW SIDELITE BASES REQUIRE THE USE OF NON-THERMAL 2-PIECE VERTICALS ONLY.**

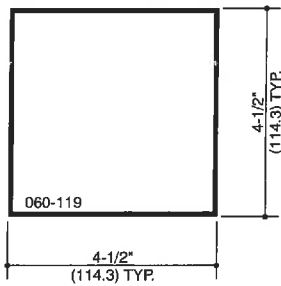
**NOTE: SIDELITE BASES SHOWN ARE FOR USE WITH SCREW SPLINE AND SHEAR BLOCK SYSTEMS ONLY.**

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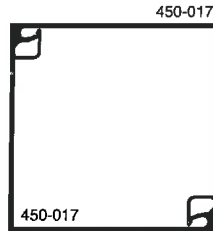
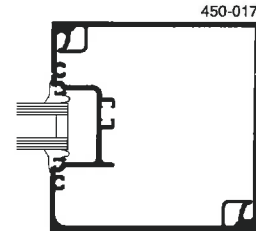
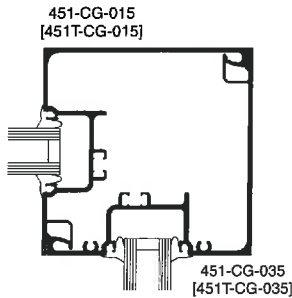
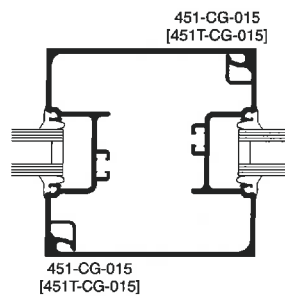
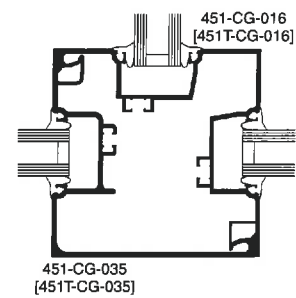
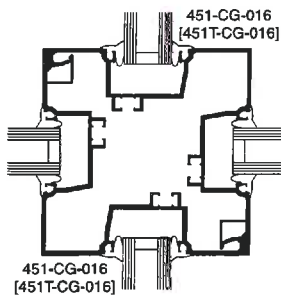
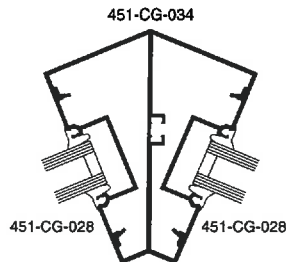
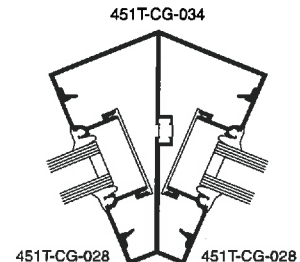
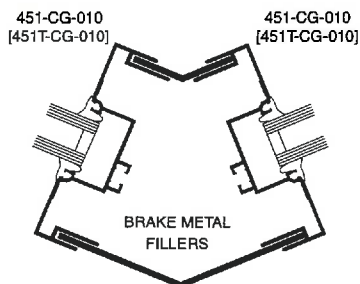
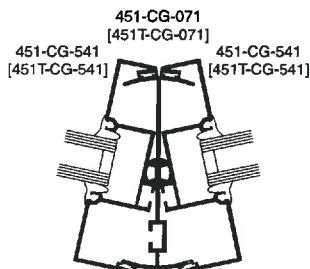
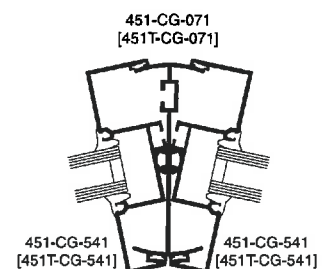
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SCALE 3" = 1'-0"

CAD Details - **SCREW SPLINE**(TF451) = TF\_VG\_451-SS-Center-CAD.zip  
(TF451T) = TF\_VG\_451T-SS-Center-CAD.zip

4-1/2" X 4-1/2" TUBE

CAD Details - **SHEAR BLOCK**(TF451) = TF\_VG\_451-SB-Center-CAD.zip  
(TF451T) = TF\_VG\_451T-SB-Center-CAD.zipTWO PIECE  
NO POCKET CORNERCAD Details - **STICK**(TF451) = TF\_VG\_451-Stick-Center-CAD.zip  
(TF451T) = TF\_VG\_451T-Stick-Center-CAD.zipONE POCKET  
CORNERTWO POCKET  
90° CORNERTWO POCKET  
CORNER POSTTHREE POCKET  
90° CORNERFOUR POCKET  
90° CORNER135° CORNER  
(NON-THERMAL)135° CORNER  
(THERMAL)VARIABLE DEGREE  
BRAKE METAL CORNER155° TO 180° PIVOT MULLION  
(OUTSIDE CORNER)155° TO 180° PIVOT MULLION  
(INSIDE CORNER)

Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.  
© Kawneer Company, Inc., 2012



SCALE 3" = 1'-0"

CAD Details - ENTRANCE

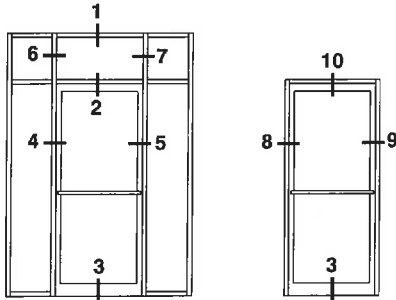
(TF451) = TF\_VG\_451\_Ent-Center-CAD.zip

(TF451T) = TF\_VG\_451T\_Ent-Center-CAD.zip

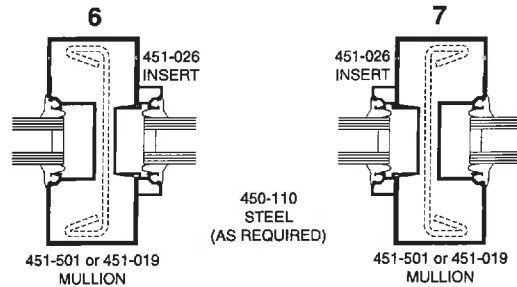
## TRIFAB® VG 451 FRAMING INCORPORATING KAWNEER® "190" DOORS.

## DOOR FRAMING NON-THERMAL ONLY

**NOTE:** OTHER TYPES OF KAWNEER DOORS MAY BE USED WITH THIS FRAMING SYSTEM.  
SEE ENTRANCE DETAILS FOR ADDITIONAL INFORMATION.

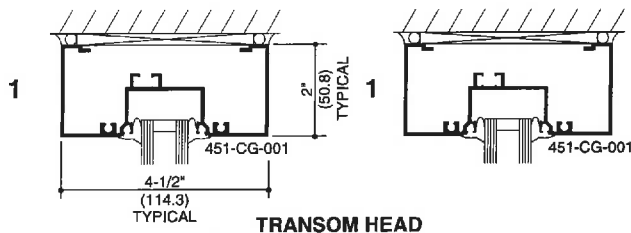


ELEVATIONS ARE NUMBER KEYED TO DETAILS

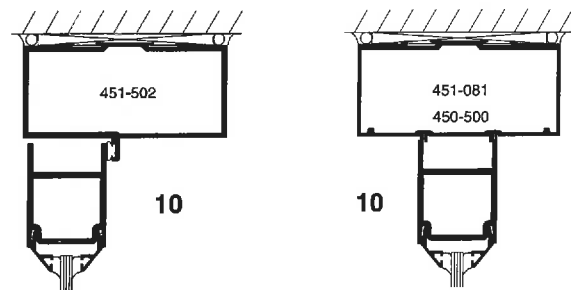
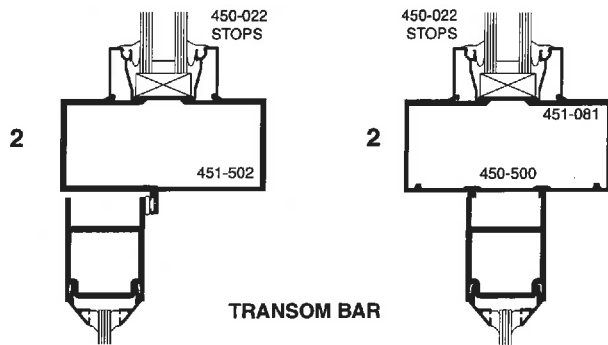


## TRANSOM JAMBS

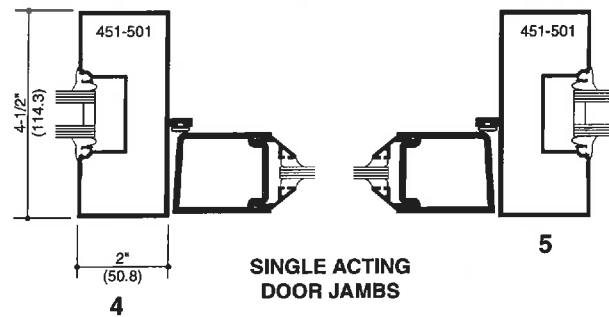
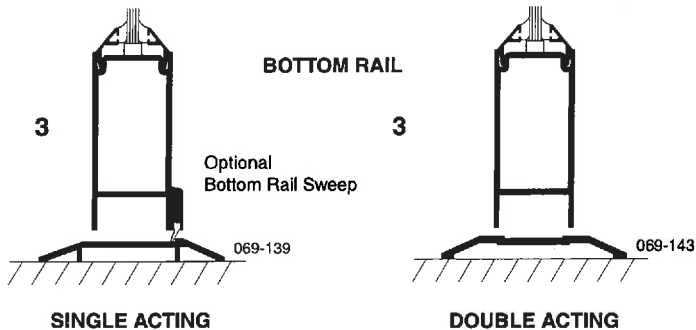
Transom area for both double or single acting doors with glass surround. Jambs above transom bar are routed out to accept glass holding insert with or without steel reinforcing.



TRANSOM HEAD

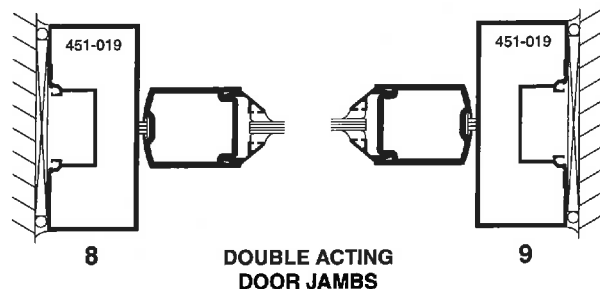
SINGLE ACTING  
HEADERDOUBLE ACTING  
HEADER

TRANSOM BAR

SINGLE ACTING  
DOOR JAMBS

SINGLE ACTING

DOUBLE ACTING

DOUBLE ACTING  
DOOR JAMBS

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# Traco TR-6800 Horizontal Sliding Architectural Thermal Window

Clean Lines Meet Robust  
Thermal Performance



Residences on the Avenue (Square 54) | 2200 Pennsylvania Avenue, Washington, D.C.  
Architect: Hickok Cole Architects, Washington, D.C. & Pelli Clarke Pelli Architects, New York, New York  
Window Installer: Engineered Construction Products, Ltd., Frederick, Maryland  
Photography: © Marilyn Ott-Close / Progress Photo

Choose a window that is at home virtually anywhere. The simple, clean design of Traco TR-6800 Horizontal Sliding Architectural Thermal Windows blend seamlessly with a variety of architectural styles. The clean sightlines are as appealing in apartment buildings as they are in classrooms or municipal buildings. An excellent option for mixed-use construction, these windows let the true personality of any project shine through.

The sturdy, weather-resistant aluminum construction, combined with insulating glass, provides robust thermal performance. With optional internal or exterior muntins, the contemporary good looks of this window can be easily transformed to a more traditional appearance. Easy to operate and easy to maintain, Traco TR-6800 Horizontal Sliding Architectural Thermal Windows continue to perform long after installation, adding comfort and beauty to any project.



## Performance

Traco TR-6800 Horizontal Sliding Architectural Thermal Windows are manufactured with long-lasting finishes and durable hardware to stand up to the effects of daily operation and seasonal weather extremes. Designed to meet current building codes and high quality standards, Traco TR-6800 windows have been tested in accordance with AAMA/WDMA/CSA 101/I.S.2 and A-440-08 designations. Adding to the performance features of this window is a weep system that ensures water drains to the exterior. Sturdy aluminum construction ensures that Traco TR-6800 windows will not rot, warp or buckle when exposed to weather or moisture.

Model	Traco TR-6800
Function	Single Horizontal Sliding
Frame Depth	3-1/4"
AAMA/WDMA/CSA 101/I.S.2/A-440-08 DESIGNATION	AW-PG50-HS
Water Resistance (psf)	10
U-Factor (per NFRC 100)	0.45

## Operation and Maintenance

The simple beauty of Traco TR-6800 Horizontal Sliding Architectural Thermal Windows are carried through to their easy operation. Full-height pull handles allow comfortable, accurate sash operation from the window sill. Precision engineering allows the rolling sash to move freely, yet the window seals tightly when closed. Adjustable wheels ensure proper sash alignment for a window that always moves smoothly. For safety and security, black zinc automatic locks are standard.

After removing the anti-takeout stop, the sashes lift out virtually without effort, providing for easy maintenance and cleaning from the interior. If it is desired or necessary to change hardware, it may be replaced with standard tools.

## Aesthetics and Versatility

With several configurations available, these versatile windows feature a 3-1/4" frame depth for an aesthetically pleasing narrower interior to exterior transition. Options for single-glazed or double-glazed windows, along with exterior or internal muntins, expand design possibilities for this architectural-grade window.

Traco TR-6800 Horizontal Sliding Architectural Thermal Windows offer several standard features, including:

- Sash: X = operating; O = fixed;  
primary = interior; secondary = exterior
- 1" insulating glass
- Adjustable wheels
- Black zinc automatic lock; XO or OX (specify choice)

For enhanced design flexibility, additional options are available for Traco TR-6800 windows, including:

- OXO (specify slide direction); XOX
- Full protection, half insect or full insect exterior screens
- Exterior or internal muntins
- Single glazing, to a maximum of 1/4"
- Dual glazing (split sash), to a maximum of 1/4"



Residences on the Avenue (Square 54)  
2200 Pennsylvania Avenue, Washington, D.C.  
Architect: Hickok Cole Architects, Washington, D.C. & Pelli Clarke Pelli Architects, New York, New York  
Window Installer: Engineered Construction Products, Ltd., Frederick, Maryland  
Photography: © Marilyn Ott-Close / Progress Photo

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**KAWNEER**  
AN ALCOA COMPANY



# Traco NX-5000, Traco NX-6000, Traco NX-7000 Series Thermal Windows

High Energy Efficiency and Versatility  
Combine to Offer Exceptional Value



Flats on Vine, Columbus, Ohio, USA  
Architect: Sullivan Bruck Architects, Columbus, Ohio, USA  
Glazing Contractor: Hilliard Glass, Hilliard, Ohio, USA  
Photo: © Matthew Carbone, Photographer LLC

As building budgets grow increasingly tight, architects, owners and facility managers look for solutions that will lower operating costs while offering aesthetic appeal and energy efficiency. The Traco NX-5000, Traco NX-6000 and Traco NX-7000 Series Thermal Windows are a revolutionary product series for the commercial market segment designed to deliver the thermal performance and versatility required by today's demanding market.

Available in a range of configurations, the 3-1/4" deep series offers increased design flexibility and enhanced daylighting. With exceptional value and outstanding air and water performance, the Traco NX-5000, Traco NX-6000 and Traco NX-7000 Series Thermal Windows are the perfect fit for new or retrofit construction in the commercial, institutional and multi-family segments.



## Performance

The Traco NX-5000, Traco NX-6000 and Traco NX-7000 Series Thermal Windows combine the longevity and structural integrity of aluminum with exceptional U-values. By incorporating the high-performance energy spacer and high-performance thermal barrier system, these windows offer outstanding energy efficiency and increased comfort for occupants.

Thermal efficiency also makes the windows ideal for buildings seeking to earn LEED®\* (Leadership in Energy and Environmental Design) certification with the U.S. Green Building Council. Made from aluminum, these high-performing windows offer unlimited finish options, installation flexibility and sustainable benefits such as recyclability. Furthermore, the window will never rot, warp or buckle due to moisture and weather exposure.

The series includes various hung and sliding configurations and has been tested in accordance with AAMA/WDMA/CSA 101/I.S.2 and A-440-08 designations.

MODEL	FUNCTION	AAMA/WDMA/ CSA 101/I.S.2 A-440-08 DESIGNATION	WATER RESISTANCE	UNIFORM LOAD STRUCTURAL	U-FACTOR (PER NFRC 100)
TRACO NX-5000	DOUBLE HUNG TILT	CW-PG50-H	10 PSF	50 PSF	0.38
TRACO NX-5400	SINGLE HUNG TILT	CW-PG50-HS	10 PSF	45 PSF	0.37
TRACO NX-6000	DOUBLE SLIDE	CW-PG50-HS	10 PSF	50 PSF	0.39
TRACO NX-6400	SINGLE SLIDE	CW-PG50-HS	10 PSF	45 PSF	0.36
TRACO NX-7400	FIXED	CW-PG50-FW	10 PSF	50 PSF	0.32

## Fabrication and Installation

A range of installation options are available for the windows, including snap-in nailing fin, trim and clip, preset panning, wraparound panning, receptor, sub sills and more.

## Aesthetics and Versatility

The 3-1/4" deep commercial window's configuration options offer increased design flexibility for a range of applications. A dual color option provides the flexibility to vary interior and exterior finishes.

All configurations come with muntins and grid options. Extruded aluminum screens (either half or full) are available on the full range of windows.

The window series can fit the aesthetics of almost any project with reliability, affordability and thermal performance.



Overmont House, Philadelphia, Pennsylvania, USA  
Glazing Contractor: Graboyes Commercial Window Company,  
Philadelphia, Pennsylvania, USA

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

[kawneer.com](http://kawneer.com)  
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770 . 449 . 5555
















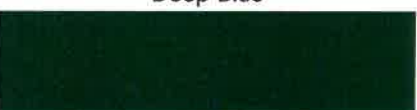

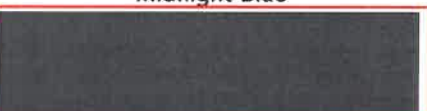
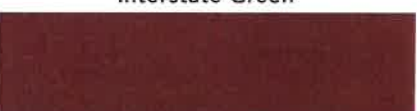

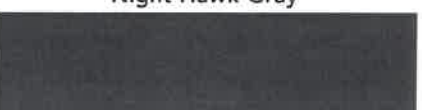
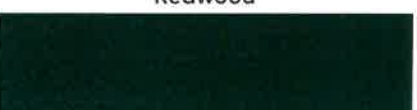

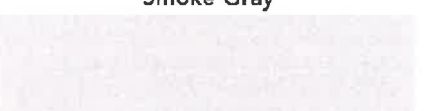
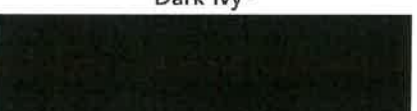


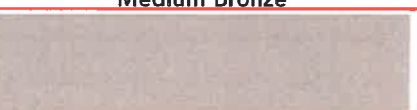
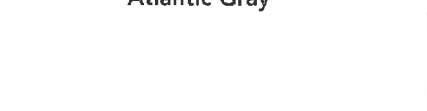


 **KAWNEER**  
AN ALCOA COMPANY





# Permacoat™ Powder Coatings

Solvent-Free Finishes That  
Add High Performance,  
Durability And More  
"Green" To Your World

		
		Black
		
Boysenberry*	Sandstone	Hartford Green
		
Military Blue*	Antique Bronze	Dove Gray
		
Charcoal	Bone White	Classic Bronze
		
Dark Green	Claret Red	Deep Blue
		
Light Green*	Midnight Blue	Interstate Green
		
Brick Red	Night Hawk Gray*	Redwood
		
Medium Blue	Smoke Gray	Dark Ivy*
		
Milk White	Light Gray	Medium Bronze
		
Atlantic Gray*	Sepia Brown*	Sea Wolf
		
Ivory	Java Brown	Summer Yellow*

\* Denotes non-standard color

# Permadize® Hardcoat Finishes

Highlight Your  
Architectural  
Achievements



**Light Sequin**  
(simulates #14/#17 clear anodize)



**Champagne**  
(simulates #18 champagne anodize)



**Gold**  
(simulates #26 light bronze anodize)



**Medium Bronze**  
(simulates #28 medium bronze anodize)



**Dark Bronze**  
(simulates #40 dark bronze anodize)



**Black**  
(simulates #29 black anodize)



**Arctic Blue**



**Metallic Brick**



**Tropical Jade**



**Platinum Ice**



**Terra Cotta Metallic**



**Sterling Gray**



**Mediterranean Mist**



**Champagne Rose**



**Classic Copper**



**Hartford Mist**



**Sapphire Ice**



**Burgundy Metallic**

COLOR OF CHERRY AVENUE  
ENTRANCE STOREFRONT AND  
PORTE COCHERE ENTRANCE  
STOREFRONT



# Today's Technology for Tomorrow's Environment

## Independently Certified to Meet AAMA 2604

As communities throughout the world recognize the need to preserve natural resources, governments have imposed stricter safety controls and increased pressure to reduce emissions such as paint solvents into the atmosphere. Building owners and architects have responded to these environmental concerns while also requiring higher performance, superior durability and more color choices for their projects.

Kawneer now offers a solution – Permacoat™ Powder Coatings – for new or remodel projects requiring a solvent-free finish that:

- Meets the exacting requirements of AAMA 2604
- Demonstrates outstanding gloss and color retention
- Complies with most environmental regulations
- Provides optimal corrosion resistance
- Exhibits durability, excellent mechanical properties and abrasion resistance
- Competes with solvent-based paints in all respects
- Offers standard and custom finish colors
- Offers higher gloss levels – contact your Kawneer Sales Representative for information
- Offers additional custom shades subject to technical approval

Performance Table

Mechanical Performance	AAMA 2604 Reference	Permacoat™ Performance
Dry Film Hardness	Section 7.3	Pass H
Dry Film Adhesion	Section 7.4.1.1	Pass No film disbondment
Impact Resistance	Section 7.5	Pass No film disbondment
Abrasion Resistance	Section 7.6	Pass >20 liters per mil
Chemical Resistance	AAMA 2604 Reference	Permacoat™ Performance
Muriatic Acid Resistance	Section 7.7.1	Pass No visual change or blistering
Mortar Resistance	Section 7.7.2	Pass No visual change or loss of adhesion
Nitric Acid Resistance	Section 7.7.3	Pass Color change $\leq 5\Delta E$ (Hunter)
Detergent Resistance	Section 7.7.4	Pass No film removal or blistering
Corrosion Tests	AAMA 2604 Reference	Permacoat™ Performance
Wet Adhesion	Section 7.4.1.2	Pass No film removal or blistering
Boiling Water Adhesion	Section 7.4.1.3	Pass No film removal or blistering
Humidity Resistance	Section 7.8.1	Pass No blisters > "few No.8" (ASTM D 714)
Salt Spray Resistance	Section 7.8.2	Pass <1.6 mm creep from scribe
Weathering 5 Years Florida	AAMA 2604 Reference	Permacoat™ Performance
Color Retention	Section 7.9.1.2	Pass Color change $\leq 5\Delta E$ (Hunter)
Chalking Resistance	Section 7.9.1.3	Pass No more than No.8 rating (ASTM D 4214)
Gloss Retention	Section 7.9.1.4	Pass $\geq 30\%$ gloss retention
Erosion Resistance	Section 7.9.1.5	Pass < 10% Film loss

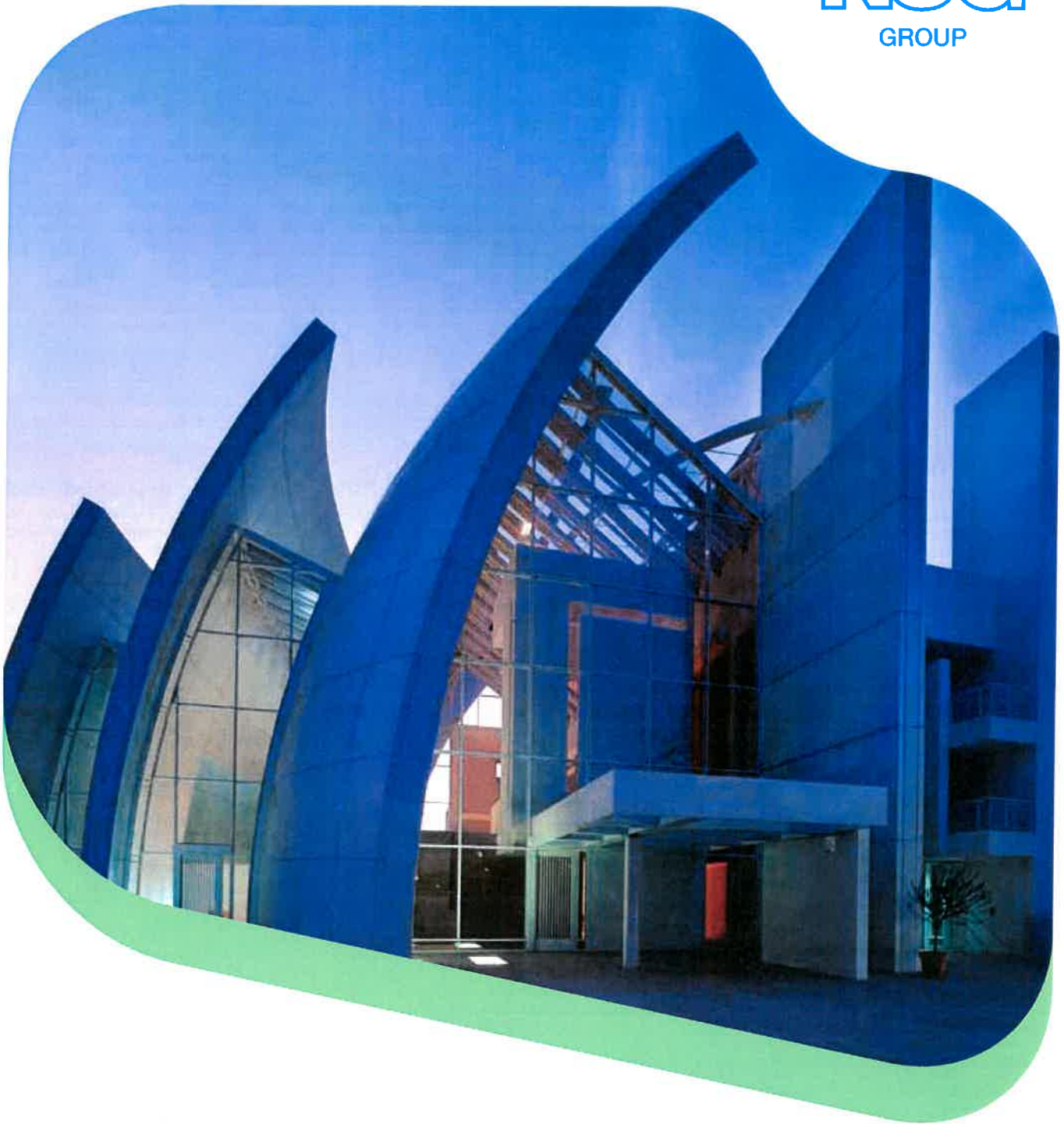
Note: These color samples are as close as possible to actual colors offered within the limitations of printing techniques. Final color specification shall be as per approved color samples



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Low-e 4<sup>th</sup> Surface Commercial Technology  
Pilkington **Energy Advantage™** Low-e





## Low-e 4<sup>th</sup> Surface Commercial Technology with Pilkington **Energy Advantage™** Low-e.

**Lower U-factor • Improved Clarity • Greater Energy Savings.**

### Here's how it works.

Pilkington **Energy Advantage™** Low-e coatings applied to the #2 and #4 surfaces of an insulating unit reduce the center of glass U-factor by about 20%, compared to an IGU with a pyrolytic low-e and an uncoated clear lite. This proven technology improves thermal performance in a new or reglazed commercial building.

Durability is critical for coatings applied to the 4th surface of an insulating unit. Pyrolytic coatings are extremely durable and difficult to damage. Pilkington pyrolytic coating technology has been used on exposed surfaces successfully for over 20 years globally.

With superior clarity, unrivaled by any other pyrolytic glass, Pilkington **Energy Advantage™** has been used for more than 10 years in North America as a 4th Surface Low-e product.

### Features and Benefits

- Durability of a pyrolytic
- Low U-factor and reduced solar heat gain
- Superior thermal control
- Improved clarity
- High light transmittance
- Energy savings
- Easy to clean surface with standard techniques
- Superior aesthetics for any building
- Can help projects achieve LEED® credit
- No additional SKUs

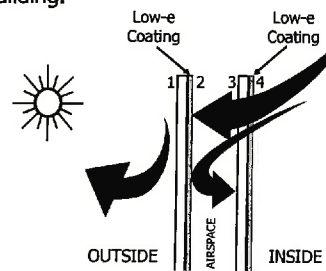
### Enhanced thermal performance without investing in triple-pane windows.

- Fewer low-e products to inventory, with installation on #2 and #4 surfaces
- No additional raw materials required
- No additional capital investments necessary
- Easily integrated into current fabrication process
- Lighter construction
- Less reflection than with triple glazing
- Durability of a pyrolytic
- No edge deletion required for an IGU
- Easily handled, tempered, cut, bent, laminated, insulated and heat-strengthened
- Virtually unlimited shelf-life

### How is glazing performance improved?

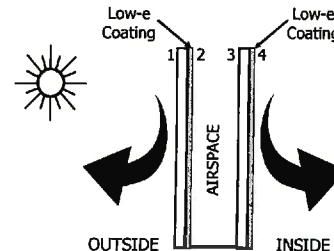
#### Cold Weather Conditions

The coating on the #2 surface reduces room heat (or far IR energy) loss by reflecting it back toward the space. By adding a second low-e coating to the #4 surface the thermal insulation is further improved. More infrared heat (room heat) is reflected back into the building.



#### Warm Weather Conditions

The low-e coating on the #4 surface reflects more solar heat than one lite of low-e glass, reducing cooling loads.



### Pyrolytic Power

Pilkington **Energy Advantage™** Low-e is coated using a pyrolytic process, which allows for the coating to be chemically-bonded to the glass at a molecular level. This process produces a coating which is extremely durable and will not scratch or degrade over time. The coating has been used globally for over 20 year with proven success.



# Sliding Door Besam SL500 EcoDoor™

ASSA ABLOY

ASSA ABLOY Entrance Systems

The global leader in  
door opening solutions

Sustainability made simple





# Automatic Sliding Door Solutions For Sustainable Buildings



Entrance automation is the first step to managing excessive energy usage. ASSA ABLOY Entrance Systems intelligent products provide a range of options to help minimize energy loss, improve indoor air quality, increase daylight, control air circulation, and optimize the overall energy performance of any building

The Besam SL500 EcoDoor is available with a variety of configurations and features to help you meet your

sustainability goals. Whether air infiltration reduction, energy consumption savings, improved customer comfort or compliance with energy codes such as ASHRAE 90.1, there's a Besam SL500 EcoDoor configuration to suit your needs.

Consult the architectural SpecDesk at 1-877-SPEC-123, [specdesk.na.aes@assaabloy.com](mailto:specdesk.na.aes@assaabloy.com) to discuss your project needs and receive your customized energy analysis.



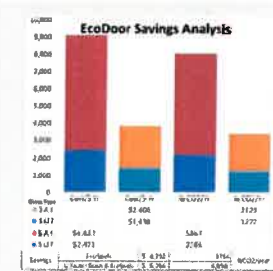
## Meeting Your Sustainability Requirements

Proper feature selection can make a tremendous difference in the sustainability performance of your Besam automatic sliding door. The Besam SL500 EcoDoor automatic sliding door can be equipped with a variety of features to radically reduce air infiltration in your facility and reduce energy costs.



## U-factor Package

The Besam SL500 EcoDoor U-factor package is equipped with EcoDoor seals and U-factor rated glass; independently tested to ASHRAE 90.1 to provide you with the most energy efficient sliding door available. Your ASSA ABLOY Entrance Systems representative will help you specify a package to comply with local ASHRAE 90.1 requirements. Request a customized energy analysis to see the demonstrable savings you can achieve with EcoDoor Seals and U-factor glass.



## Customized Energy Calculations

Consult your local representative for your customized energy savings analysis and see the savings you can achieve with a Besam EcoDoor package. Whether your goal is to lower energy costs, reduce CO2 emissions or improve indoor comfort by reducing drafts and air infiltration, the Besam SL500 EcoDoor can help you achieve your sustainability requirements.



## EcoDoor Seals & EcoMode

Significantly reduce air infiltration and energy costs with Besam EcoDoor seals. The unobtrusive seals are mounted on all door leafs and available on your new equipment or to retrofit onto your existing Besam doors. Request your customized energy analysis to see the demonstrable savings you can achieve with Besam EcoDoor Seals.

Utilize the Besam EcoMode to reduce the sliding door opening, allowing less infiltration of air to control heating and cooling costs. With Besam's auto-width intelligence, your opening width will adjust automatically when traffic increases and reduce to partial opening when traffic subsides.

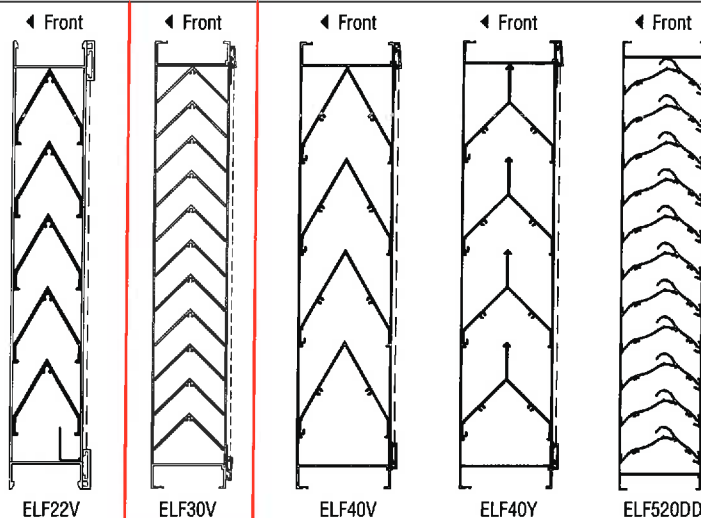
## Extruded Aluminum Louvers

### Sightproof



ELF22V, ELF40V, ELF40Y, ELF30V, ELF40Y, ELF520DD

*These models give visual screening and light duty security while concealing mechanical equipment. Blades can be positioned vertically or horizontally.*



### Specification

Furnish and install, where shown on plans, Ruskin Louver Model (specify), which shall be sightproof type contained within a single frame. Frame and blade material to be 6063-T5 aluminum alloy. Frame shall contain integral caulking slots. Blades shall be supported with hidden mullions for continuous appearing stationary blades (ELF40V only). Intermediate support mullions shall not interrupt blade exterior appearance. Screen shall be contained within a removable frame.

Design shall incorporate structural supports required to withstand a wind load of 20 lbs. per sq. ft. (.96 kPa); specifier may substitute any loading required.

Louvers shall receive (specify from finish pages) finish.

SPECIFICATIONS								PERFORMANCE 48" x 48" UNIT				
Louver Model	Blade Material (Nom.)	Blade Style	Blade Angle	Blade Centers (Nom.)	Frame Material (Nom.)	Frame Depth	Bird Screen	Free Area (Nom.)	Sq. Ft. Free Area	Max. Rec. Air Flow Thru Free Area FPM	Air Flow CFM	Maximum Pressure Drop, Inches w.g.
ELF22V	6063-T5 .060" (1.5) ext. alum.	Chevron	60°	2" (51)	6063-T5 .060" (1.5) ext. alum.	2" (51)	5/8" x .040" (16 x 1) alum.	28%	4.51 (.42m <sup>2</sup> )	500 (152 m/min)	2255 (64 m <sup>3</sup> /min)	Not Avail.
ELF30V	6063-T5 .080" (2.0) ext. alum.	Chevron	45°	1-7/16" (37)	6063-T5 .080" (2.0) ext. alum.	3" (76)	5/8" x .040" (16 x 1) alum.	56%	8.92 (.83m <sup>2</sup> )	660 (201 m/min)	5887 (167 m <sup>3</sup> /min)	.10 (.03 kPa)
ELF40V	6063-T5 .080" (2.0) ext. alum.	Chevron	60°	4" (102)	6063-T5 .080" (2.0) ext. alum.	4" (102)	5/8" x .040" (16 x 1) alum.	35%	5.50 (.51m <sup>2</sup> )	500 (152 m/min)	2410 (68 m <sup>3</sup> /min)	.10 (.03 kPa)
ELF40Y	6063-T5 .080" (2.0) ext. alum.	Inverted "Y"	45°	4" (102)	6063-T5 .080" (2.0) ext. alum.	4" (102)	5/8" x .040" (16 x 1) alum.	33%	5.22 (.48m <sup>2</sup> )	500 (152 m/min)	2610 (74 m <sup>3</sup> /min)	Not Avail.
ELF520DD	6063-T5 .063" (1.6) ext. alum.	Drainable	20°	2"	6063-T5 .080" (2.0) ext. alum.	5" (127)	5/8" x .040" (16 x 1) alum.	49%	7.76 (.72m <sup>2</sup> )	1024 (312 m/min)	7946 (225 m <sup>3</sup> /min)	.25 (.06 kPa)

Dimensions in parentheses ( ) indicate millimeters.

For up-to-date information visit [www.ruskin.com](http://www.ruskin.com)



# RUSKIN®

RUSKIN finishes enhance product appearance to blend with other colors selected. These same finishes provide extended weathering resistance similar to adjacent building surfaces. RUSKIN provides most finishes available to architects and engineers. The standard finishes described herein represent those finishes usually selected, specified, or required for most applications.

## FINISHES AND COLOR GUIDE

### FLUROPON® AND BAKED ENAMEL - STANDARD COLORS

The 15 colors below are available in Fluropon (70% PVDF) or Baked Enamel (50% PVDF) finishes only.

Louver Color to Match  
Window/Storefront Frame

\* BONE WHITE (24)



\* LIGHT STONE (43)



\* SANDSTONE (67)



\* SAHARA TAN (65)



\* BLACK (89)

\* DARK BRONZE (75)



\* SHELBURNE (69)



\* HERRINGBONE (37)



\* STONE GRAY (78)



\* MEDIUM BRONZE (72)

\* PORTLAND STONE (49)



\* FOREST GREEN (36)



\* CORONADO RED (34)



\* ASCOT WHITE (19)



\* TAUPE (52)

### PEARLEDIZE 70 AND PEARLEDIZE 50 STANDARD COLORS

The 9 colors below are available in Pearledize 70, Pearledize 50, Clear or Color Anodize finishes only, and may be more expensive than the Fluropon and Baked Enamel colors shown above. *Italicized color names and codes are available in Anodized Finish.*



\* DARK BRONZE (75)  
\* *DARK BRONZE (75)*



\* MEDIUM BRONZE (72)  
\* *MEDIUM BRONZE (72)*



\* CHAMPAGNE BRZ (71)  
\* *CHAMPAGNE BRZ (71)*



\* BRIGHT SILVER (88)  
\* *Clear 204R1 & 215R1 (00)*



\* WARM SILVER (96)



\* ASTI (86)



\* COPPER (92)



\* CORAL REEF (93)



\* BLUE (05)

The colors shown herein are only a sample of thousands of colors available.

Please contact RUSKIN for information regarding custom color matching.

Disclaimer: This color card is for reference only and is not meant to be used for color matching or final color approval. Shades may vary due to the color and resolution of the computer screen or print-out. Ruskin is not responsible for color matches made with this online color chart.

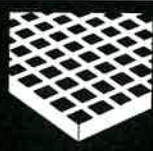
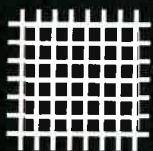
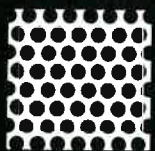
3900 Dr. Greaves Rd.  
Kansas City, Missouri 64030

**RUSKIN®**  
RUSKIN.com

Phone (816) 761-7476  
FAX (816) 765-8955  
e-mail: [ruskin@ruskin.com](mailto:ruskin@ruskin.com)

# McNICHOLS®

DESIGNER METALS



*Inspired to Serve!™*

866.754.5144 | [mcnichols.com](http://mcnichols.com)



# McNICHOLS® Designer Perforated Metal: *Sustainable*



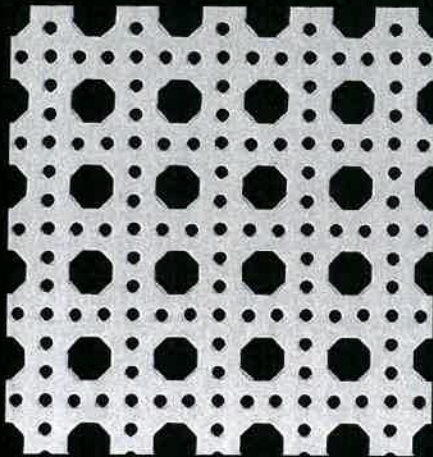
© Photo Art Portraits

McNICHOLS® Designer Perforated Metal infill panels in an **Octagon Cane** pattern give this kitchen a vintage touch.

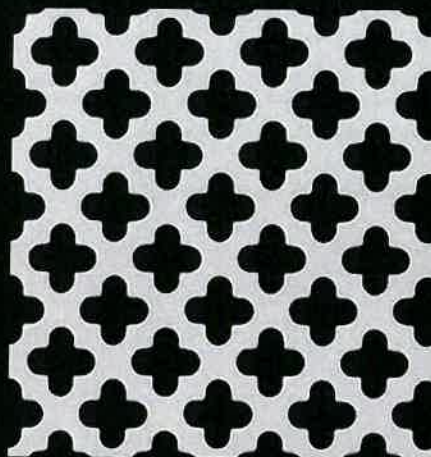


© Photo Art Portraits

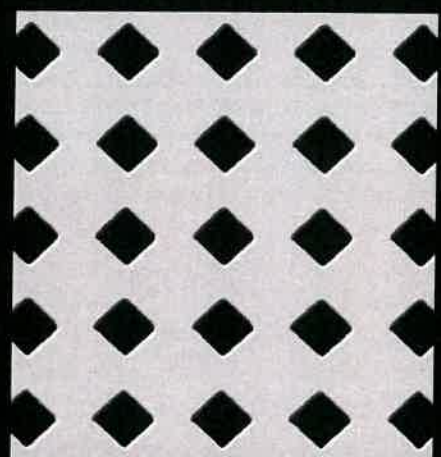
**Grecian** Designer Perforated Metal infill panel adds elegance to this linen closet.



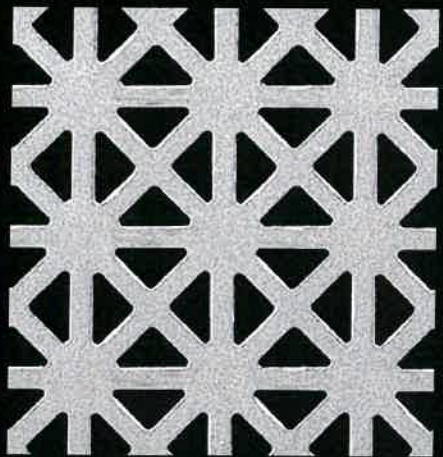
**Octagon Cane**  
36% Open Area



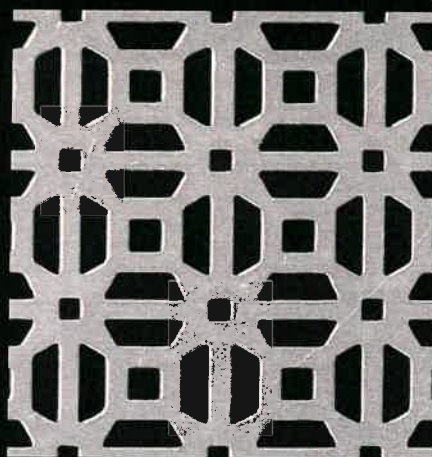
**Full Cloverleaf - 1/2" Staggered Clovers**  
51% Open Area



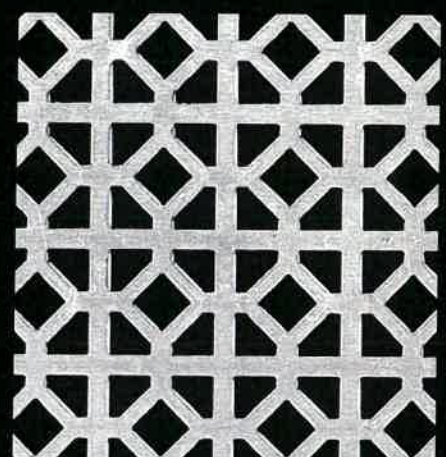
**Linco**  
19% Open Area



**Grecian**  
35% Open Area



**Mosaic 3310**  
40% Open Area



**Windsor**  
45% Open Area



866.754.5144

Fabric Awnings

Standing Seam/  
Metal Clad

Tension  
Structures

Custom Lettering  
and Graphics

Commercial and  
Industrial  
Coverings

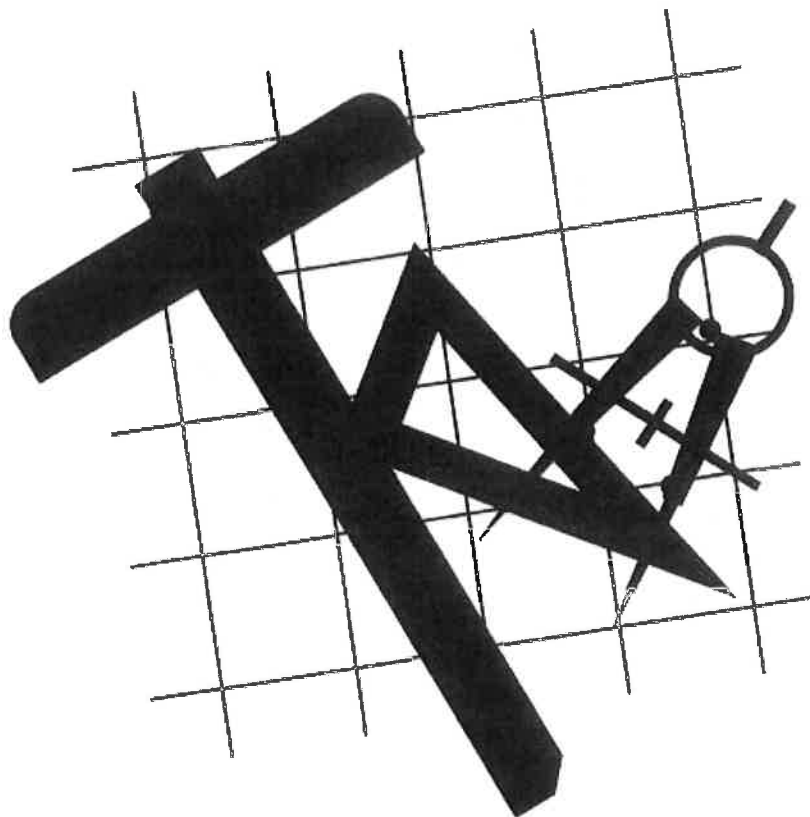
Exhibit  
Components

Tension  
Structures

Banners

Automated  
Cutting &  
Patterning

# Typical Fabric Structure Specifications Guide





## Typical Designs



TRADITIONAL



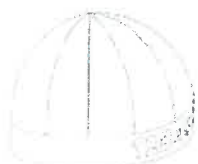
CONCAVE



CONVEX



DOME



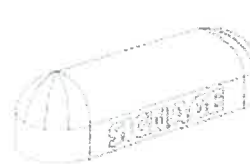
DOME W/ SIGN BAND



CONICAL



ELONGATED DOME

ELONGATED DOME  
W/ SIGN BAND

CONVEX W/ SIGN BAND



CONVEX W/ DORMER



CONVEX - MULTILEVEL



SIGN BOX

TRADITIONAL W/  
HIP ENDSTRADITIONAL W/  
DORMERGABLED  
ENTRANCE CANOPY

PATIO TRADITIONAL

ROUNDED  
ENTRANCE CANOPYROUNDED ENTRANCE  
CANOPY W/ DOME

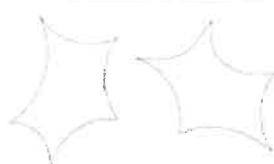
CANOPY W/ HIP ENDS



PYRAMID CANOPY



ALL METAL

TENSIONED  
STRUCTURE

TENSIONED FABRIC



ATRIUM MOBILE

## Graphics

We use a variety of graphic techniques to achieve the desired look. Today's fabric structures can be enhanced with anything from simple lettering to custom printed patterns or digital printed photographs. Following is a list of common techniques available today:

- Stencil Painted
- Applied Vinyl Decals

- Sunbrella Graphic System®

- R/F Welded
- Ink Jet Printed

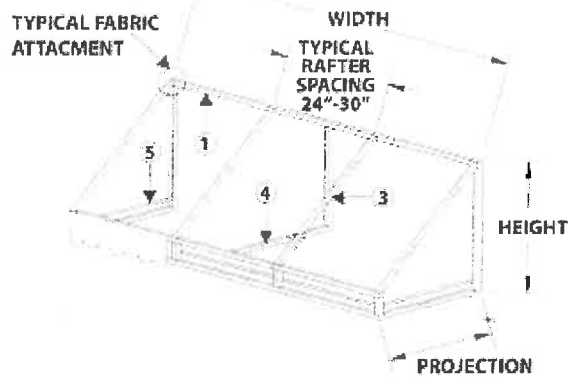
- Eradicated
- Screen Printed

- Dye Sublimation
- Digital Printing

# Frames

## TYPICAL SPECIFICATIONS

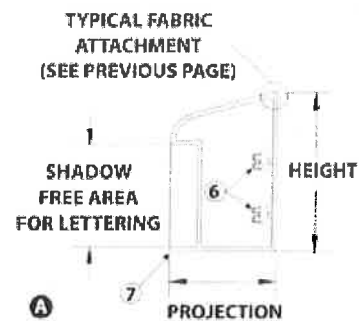
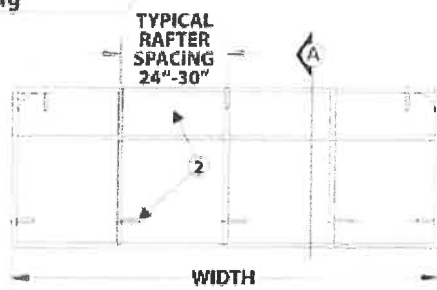
### Traditional Awning



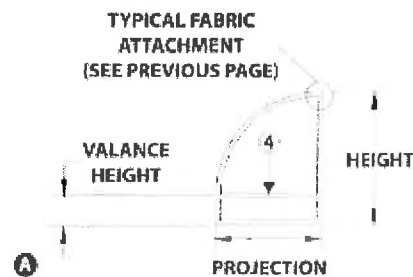
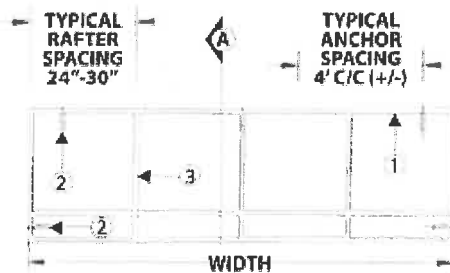
### Legend

1. TOP BAR
2. "Z" BRACKET
3. RAFTER
4. RETURNS, WHERE NEEDED
5. TIE BAR (LACE BAR)
6. HIGH OUTPUT, ZERO DEGREE, DAMP-LOCATION LIGHT FIXTURES
7. OPTIONAL EGG CRATE LIGHT DIFFUSERS

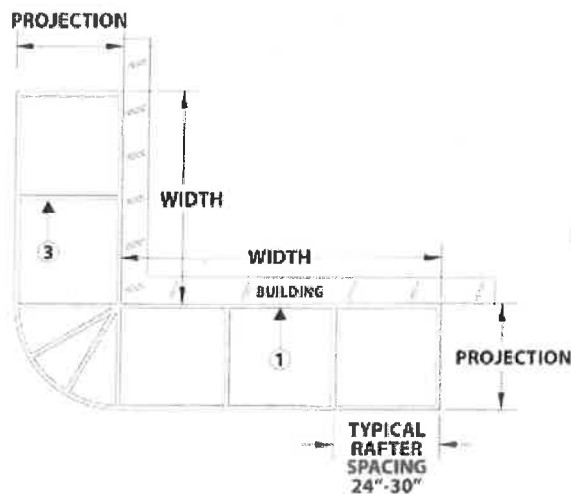
### Back-Lit Awning



### Convex Awning

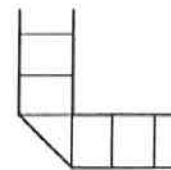


### Radiused Corner

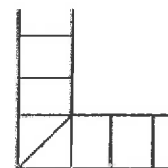


### Plan View

### Mitered Corner



### Angled Corner





## Stock Metal Goods

Most frames are made with 1" & 2" aluminum tubing. Other tubing types are available as size and load limits require.

- |                                |                                |                               |
|--------------------------------|--------------------------------|-------------------------------|
| A. 1" x 1" x .075 wall         | E. 1 3/4" x 1 3/4" x .125 wall | G. 1/2" round x .088 wall     |
| B. 1" x 2" x .100 wall         | F. 2" x 2" x .093 wall         | H. 2 1/2" round SCH. 40 STEEL |
| C. 1 1/4" x 3" x .125 wall     | G. 2 1/2" x 2 1/2" x .188 wall | I. 2" x 3" x .125 wall STEEL  |
| D. 1 1/2" x 1 1/2" x .125 wall |                                |                               |

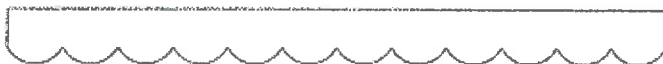
## Valance

## SCALLOP CUTS

**Straight**



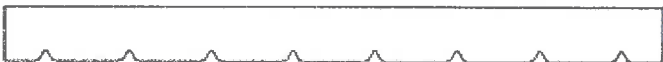
**Standard Circular**



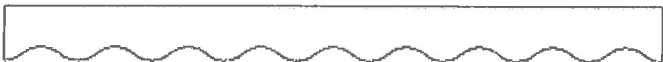
**Keyhole**



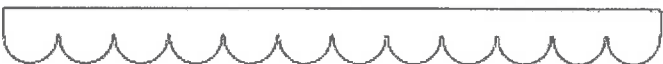
**Shallow Notched**



**Wave**



**Half Circle**



**Deep Notched**



Variations of the above scallop cuts can be produced. Painted trim can also be added to customize the design.

## Quality Assurance

**GUARANTEES** - are for normal sun and wind conditions.

**FRAME** - Five years for workmanship and rust and corrosion resistance.

**FABRIC** - Manufacturer's mill warranties vary from three to eight years.

**SEWING** - Three year warranty on seams and thread.

More important than these stated warranties is the over SIXTY FIVE YEARS of customer service and satisfaction that Lawrence Fabric Structures has provided. We are very proud of our reputation as a leader in our industry, both in product quality and customer satisfaction.



Fabric Structures Inc.

3509 Tree Court Industrial Blvd. • St. Louis, Missouri 63122  
(636) 861-0100 • (800) 527-3840 • Fax (636) 861-0150



WINDOW  
AWNING FABRIC

**46" Sapphire Vintage Bar Stripe**  
4948-0000

**WIDTH:** 46" / 116.84 cm

**REPEAT:** 7.63"

**CONTENT:** 100% Sunbrella® Acrylic

**SELVEDGE POSITION:** Left / Right

**RECOMMENDED USES:**

Fixed Awnings / Retractable Awnings / Shade  
Sails / Umbrellas

**SWATCH SIZE SHOWN ~ 46" x 46"**

**CARE AND CLEANING:**

Brush off loose dirt. Wash with a mild soap  
and lukewarm water solution. Rinse  
thoroughly. Allow to air dry. For more  
information visit

[www.sunbrella.com/cleaning](http://www.sunbrella.com/cleaning)

**WARRANTY:** For warranty information visit

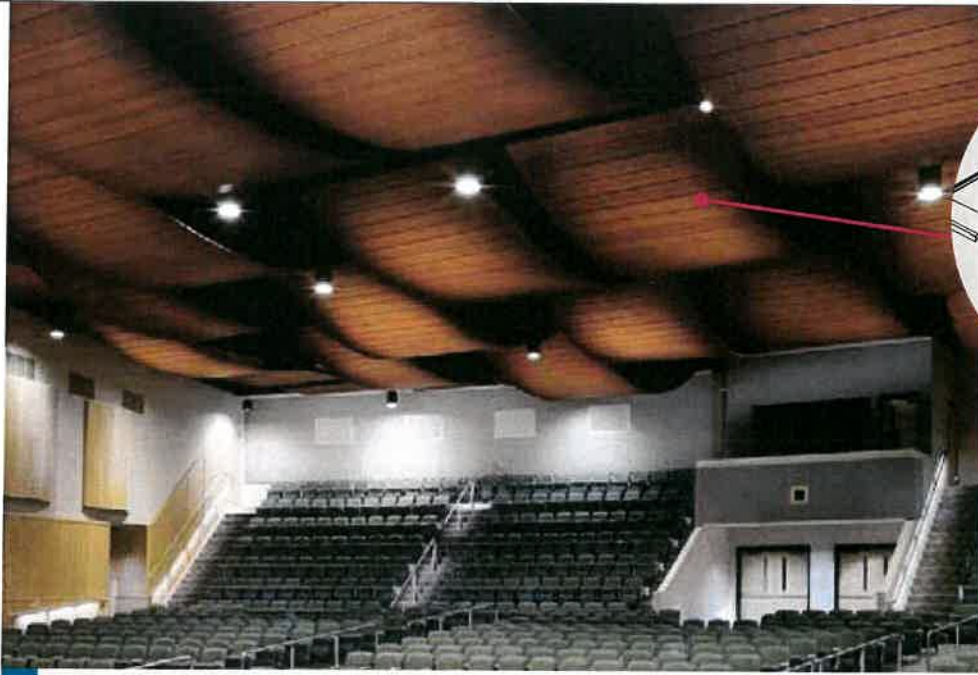
[www.sunbrella.com/warranty](http://www.sunbrella.com/warranty)



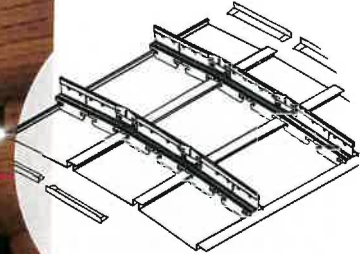
# METALWORKS™ Linear

## METALWORKS Linear Exterior

smooth texture



MetalWorks™ Linear 12\"/>



End Cap Option for  
Floating Installations



### KEY SELECTION ATTRIBUTES

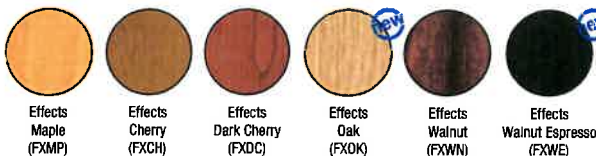
- Nominal 4\", 6\", 8\", and 12\"/>

### COLOR SELECTION

Due to printing limitations, shade may vary from actual product.



White Exterior (WH2)  
Silver Grey Exterior (SG2)  
Gun Metal Grey Exterior (MY2)\*

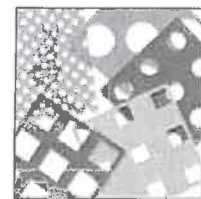
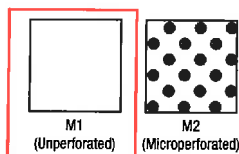


Effects Maple Exterior (FXMP2)\*  
Effects Cherry Exterior (FXCH2)\*  
Effects Dark Cherry Exterior (FXDC2)\*  
Effects Oak Exterior (FXOK2)\*  
Effects Walnut Exterior (FXWN2)\*  
Effects Walnut Espresso Exterior (FXWE2)\*

\* Minimum order quantity and extended lead times may apply

### PERFORATION OPTIONS

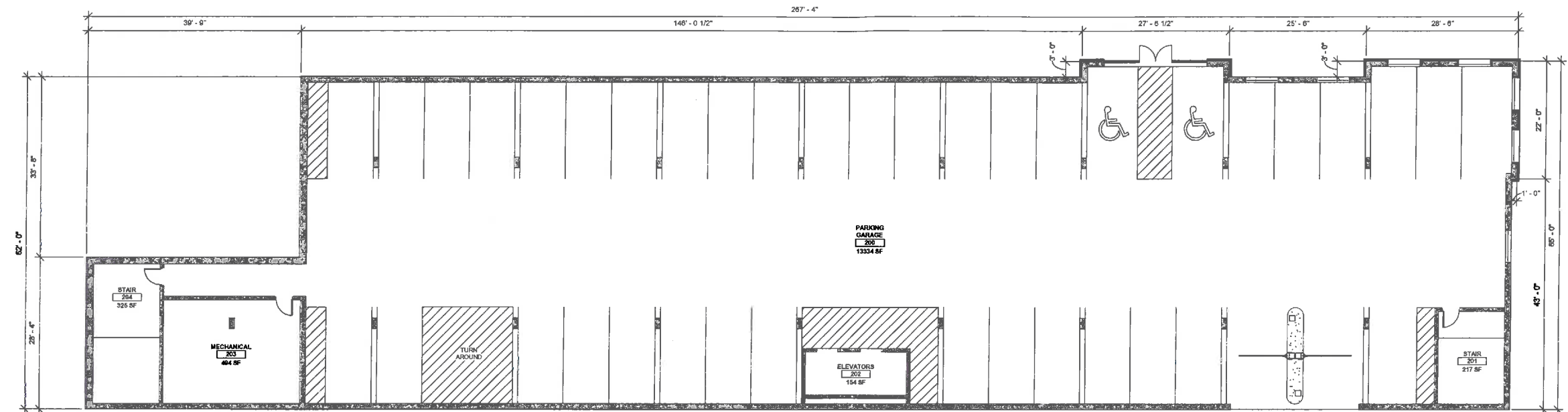
(Actual 1:1 scale shown)



Custom perforations  
available

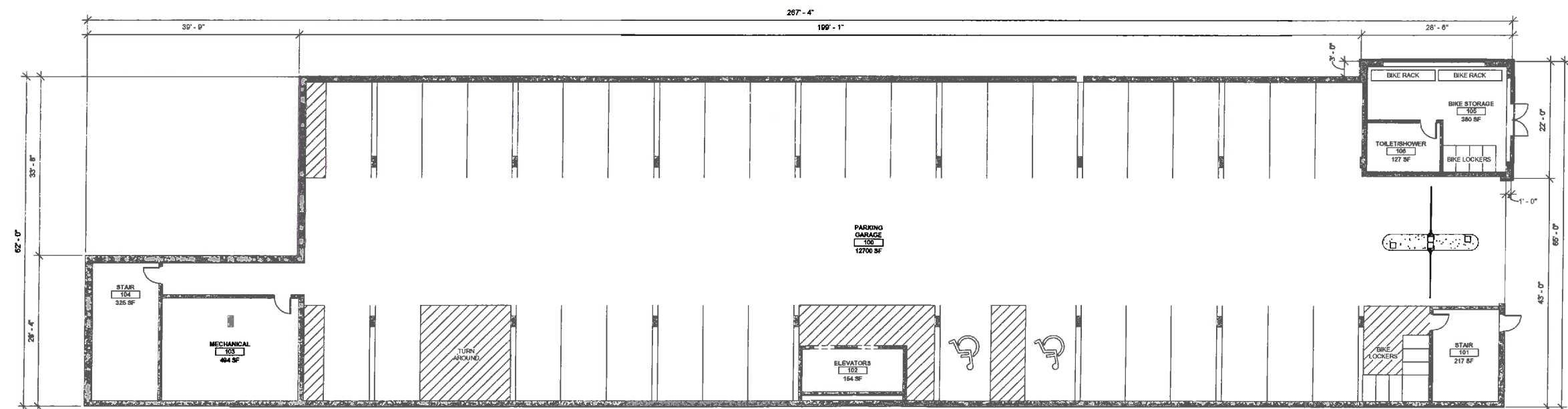


Custom colors available



**GARAGE LEVEL 2**  
 -15,435 SF (GROSS)  
 -39 PARKING SPACES

**GARAGE LEVEL 2 PLAN**  
 SCALE: 3/32" = 1'-0"



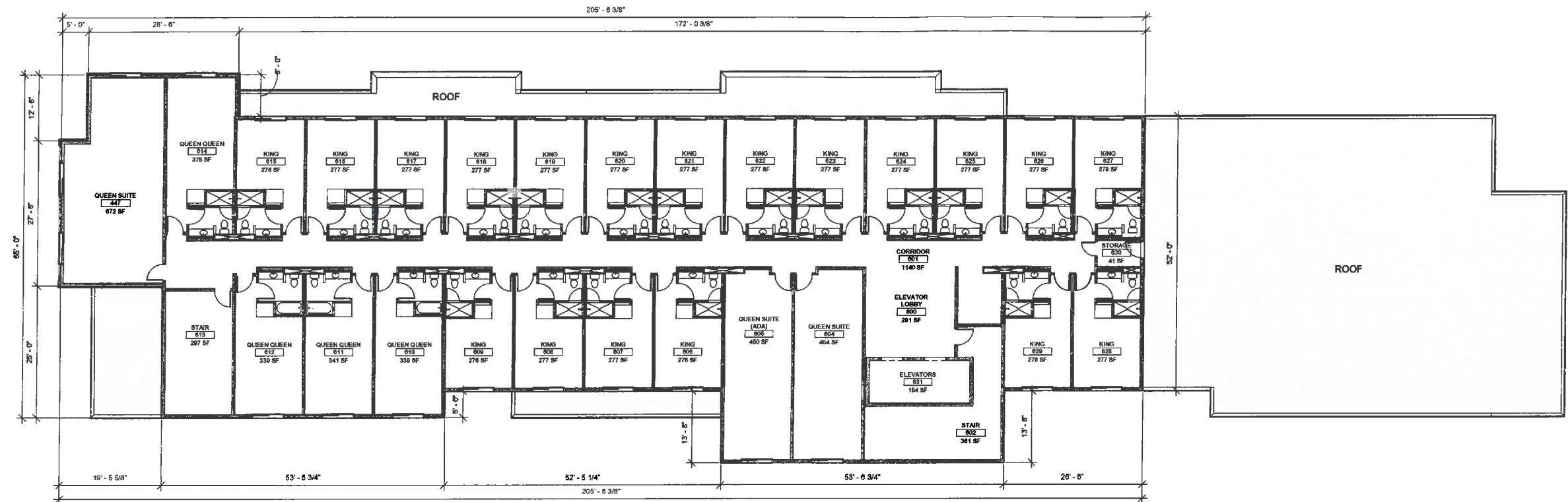
**GARAGE LEVEL 1**  
 -15,342 SF (GROSS)  
 -38 PARKING SPACES  
 -10 BIKE LOCKERS  
 -2 BIKE RACKS

**GARAGE LEVEL 1 PLAN**  
 SCALE: 3/32" = 1'-0"



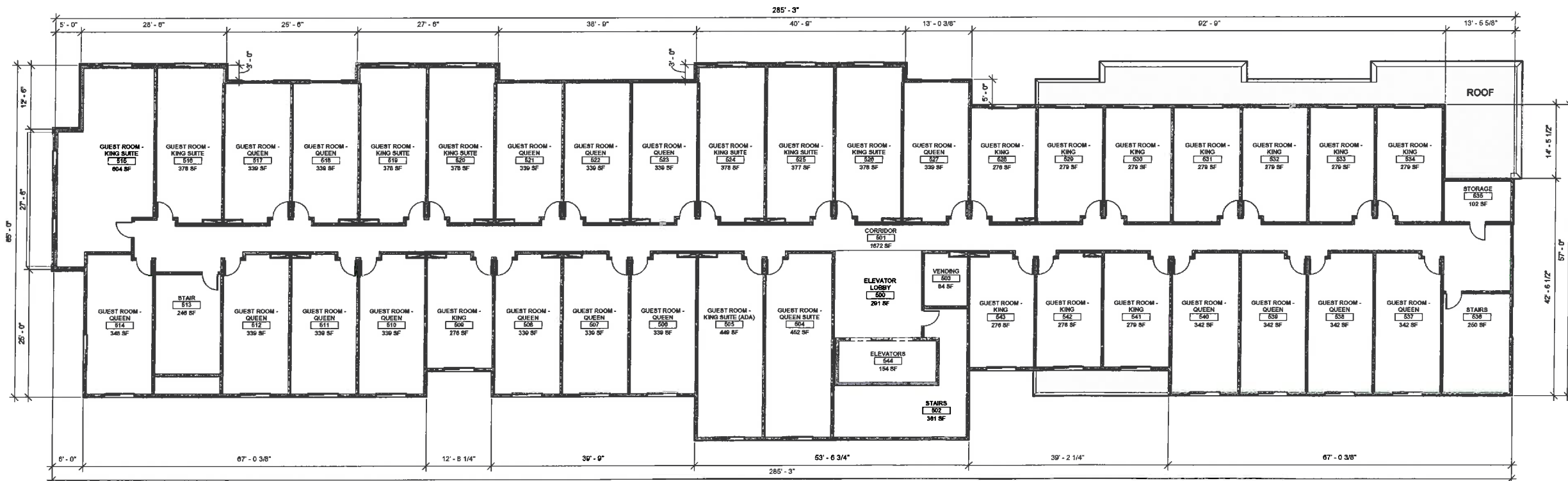






**HOTEL LEVEL 4**  
-11,581 SF (GROSS)  
-26 GUEST ROOMS

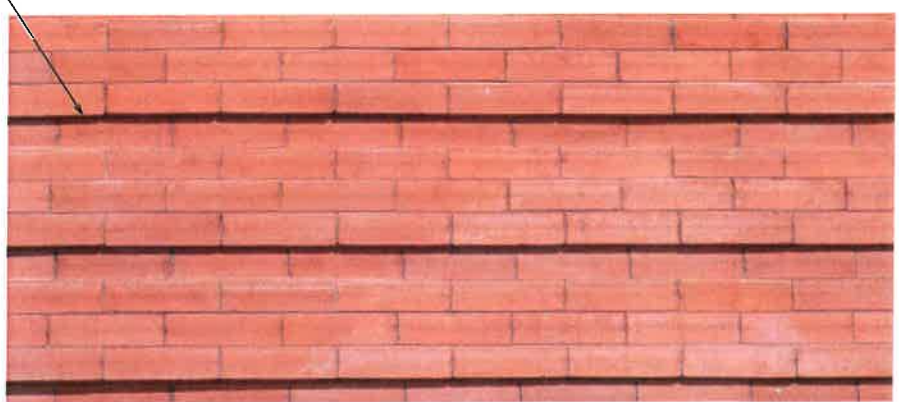
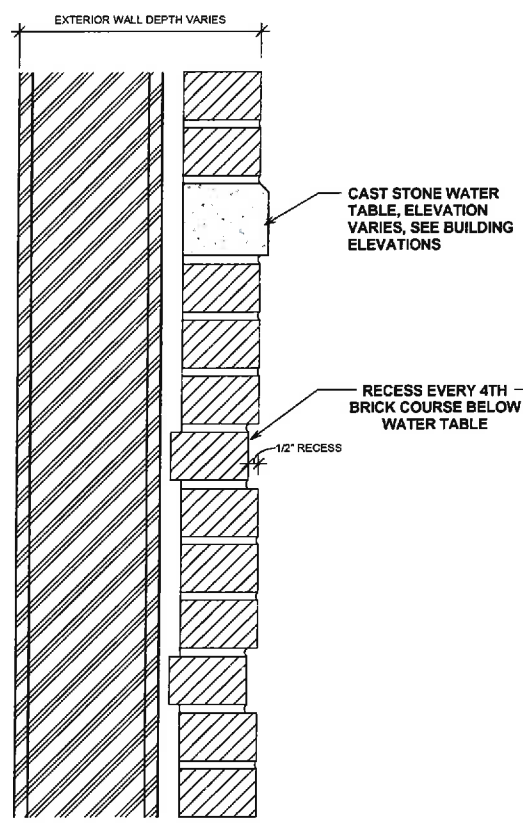
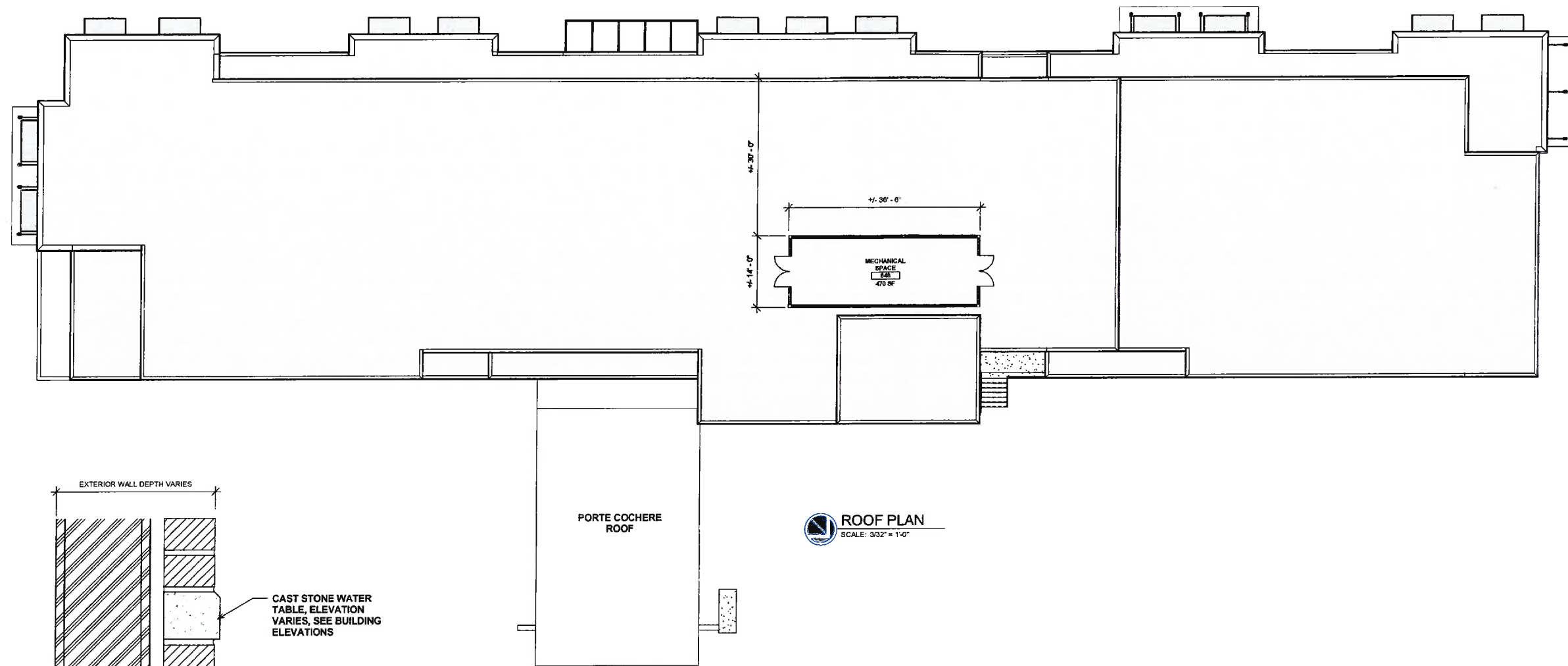
**HOTEL LEVEL 4 PLAN**  
SCALE: 3/32" = 1'-0"



**HOTEL LEVEL 3**  
-17,368 SF (GROSS)  
-37 GUEST ROOMS

**HOTEL LEVEL 3 PLAN**  
SCALE: 3/32" = 1'-0"





1 BRICK DETAIL  
SCALE: 3" = 1'-0"

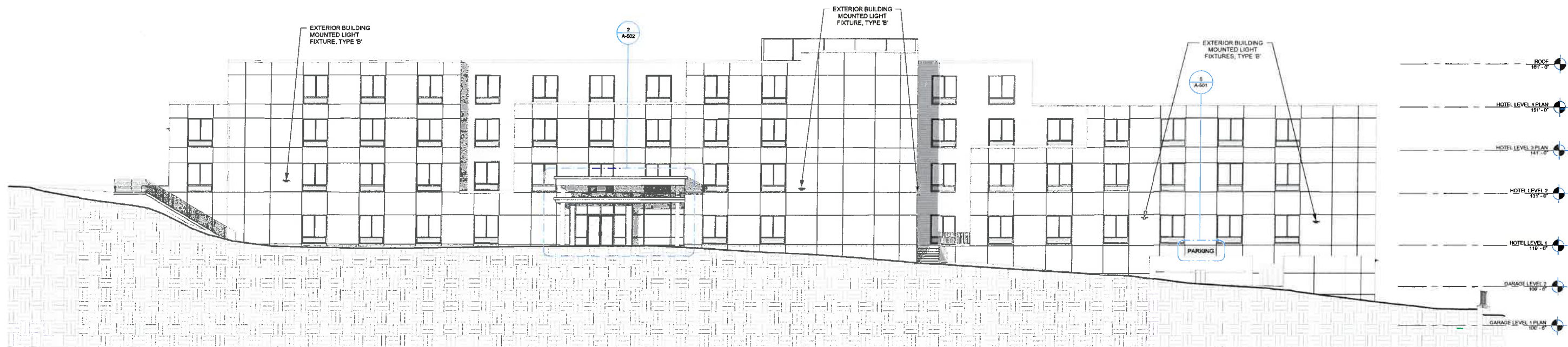


1 **SOUTHWEST ELEVATION**  
SCALE: 3/32" = 1'-0"



2 **SOUTHEAST ELEVATION**  
SCALE: 3/32" = 1'-0"

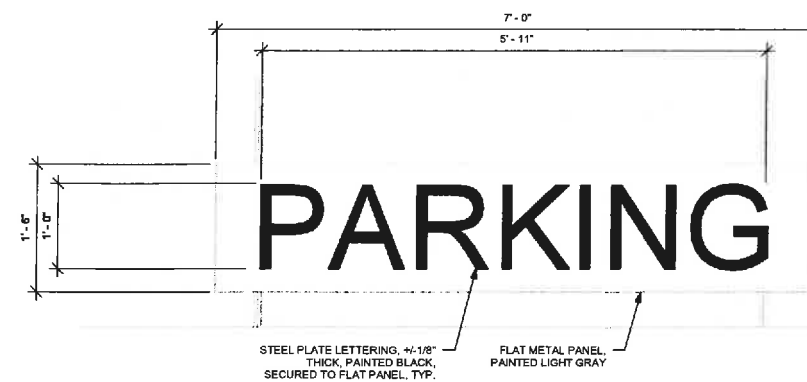




**3** **NORTHEAST ELEVATION**  
SCALE: 3/32" = 1'-0"



**4** **NORTHWEST ELEVATION**  
SCALE: 3/32" = 1'-0"



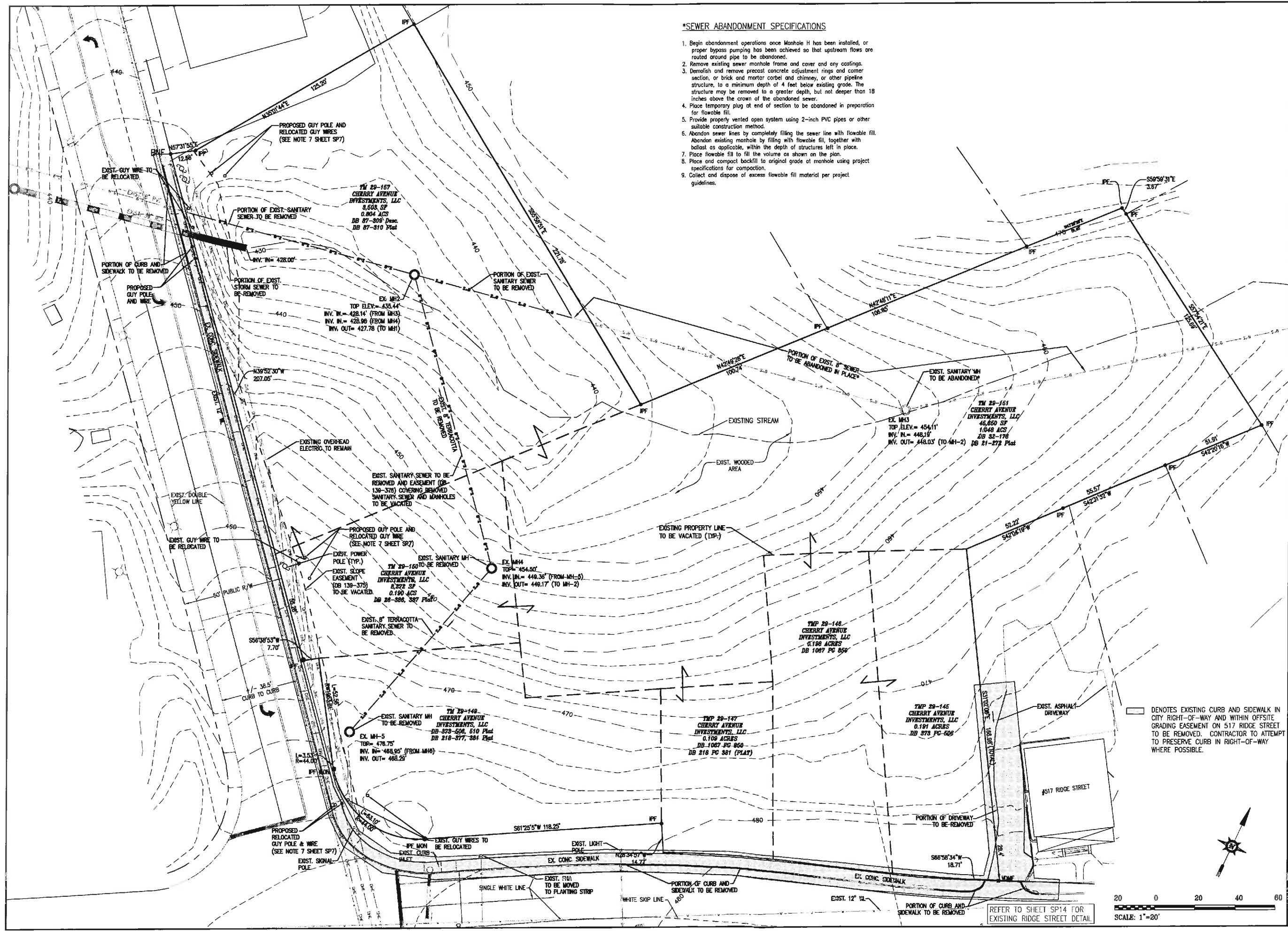
**5** **PARKING GARAGE SIGNAGE**  
SCALE: 1" = 1'-0"



SECOND FLOOR WINDOW SILL  
12'-4" ABOVE GRADE







- \*SEWER ABANDONMENT SPECIFICATIONS**
1. Begin abandonment operations once Manhole H has been installed, or proper bypass pumping has been achieved so that upstream flows are routed around pipe to be abandoned.
  2. Remove existing sewer manhole frame and cover and any castings.
  3. Dismantle and remove precast concrete adjustment rings and corner section, or brick and mortar corbel and chimney, or other pipeline structure, to a minimum depth of 4 feet below existing grade. The structure may be removed to a greater depth, but not deeper than 18 inches above the crown of the abandoned sewer.
  4. Place temporary plug at end of section to be abandoned in preparation for flowable fill.
  5. Provide properly vented open system using 2-inch PVC pipes or other suitable construction method.
  6. Abandon sewer lines by completely filling the sewer line with flowable fill. Abandon existing manhole by filling with flowable fill, together with ballast as applicable, within the depth of structures left in place.
  7. Place flowable fill to fill the volume as shown on the plan.
  8. Place and compact backfill to original grade of manhole using project specifications for compaction.
  9. Collect and dispose of excess flowable fill material per project guidelines.

— DENOTES EXISTING CURB AND SIDEWALK IN CITY RIGHT-OF-WAY AND WITHIN OFFSITE GRADING EASEMENT ON 517 RIDGE STREET TO BE REMOVED. CONTRACTOR TO ATTEMPT TO PRESERVE CURB IN RIGHT-OF-WAY WHERE POSSIBLE.



**DOMINION Engineering**  
172 South Fallow Drive  
Charlottesville, VA 22911  
434.273.1631  
dominione.com

**REVISIONS**

NO.	DATE	DESCRIPTION
1	10/12/15	CITY COMMENTS
2	12/31/15	CITY COMMENTS

**FINAL SITE DEVELOPMENT PLAN FOR**  
**WILLIAM TAYLOR PLAZA PUD (PH1)**  
**CITY OF CHARLOTTESVILLE, VIRGINIA**

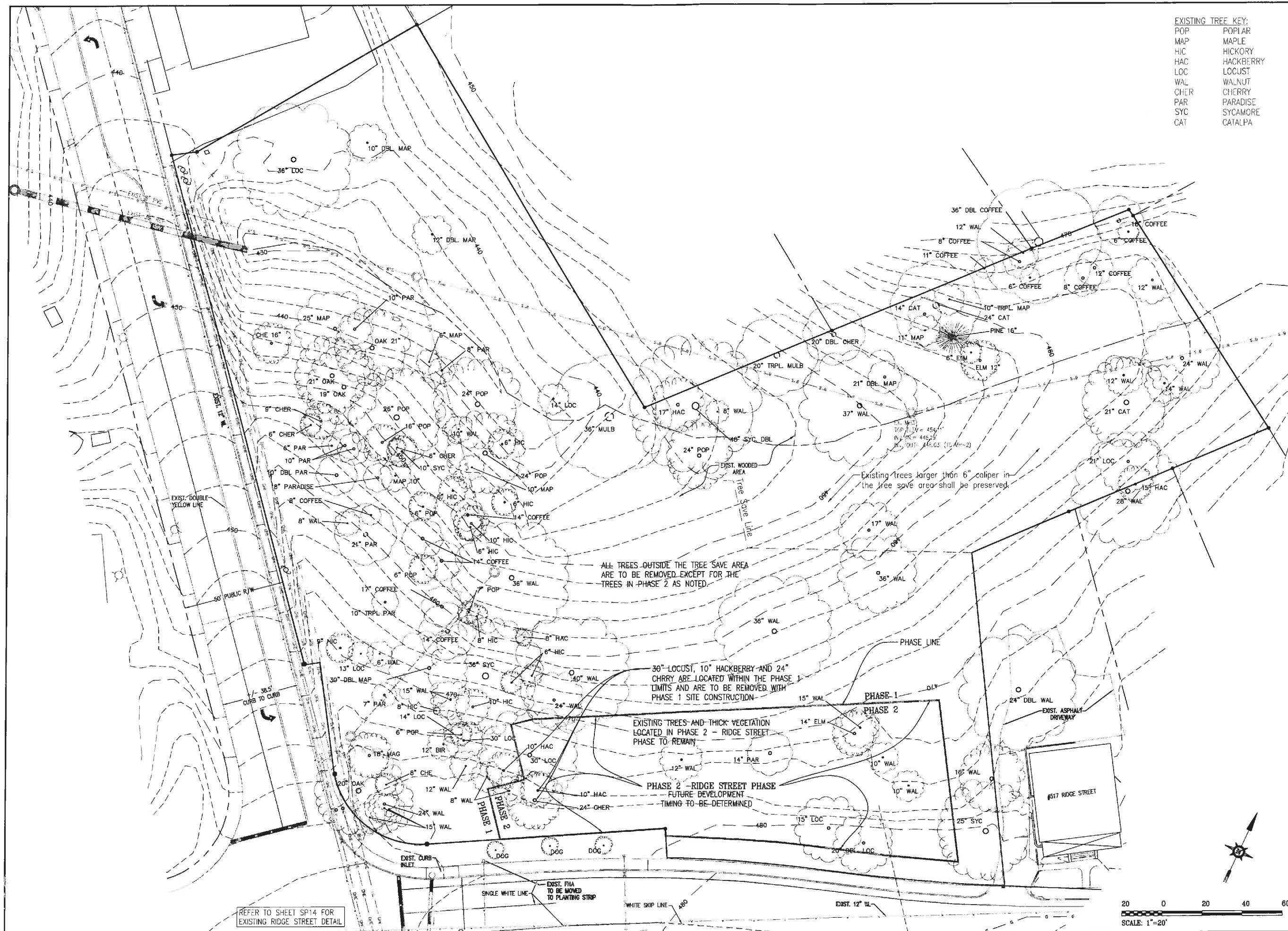
**SHEET TITLE:** EXISTING CONDITIONS / DEMO PLAN

**DOM. PROJECT NO:** 15.0062

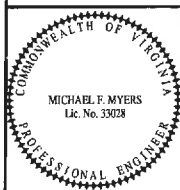
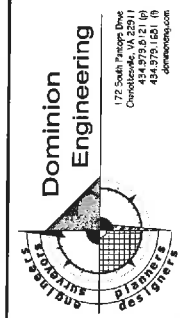
**INDEX TITLE:** SP5

**SHEET NO:** 5 OF 20

**DATE:** 07/29/15



- EXISTING TREE KEY:
- |      |           |
|------|-----------|
| POP  | POPLAR    |
| MAP  | MAPLE     |
| HIC  | HICKORY   |
| HAC  | HACKBERRY |
| LOC  | LOCUST    |
| WAL  | WALNUT    |
| CHER | CHERRY    |
| PAR  | PARADISE  |
| SYC  | SYCAMORE  |
| CAT  | CATALPA   |



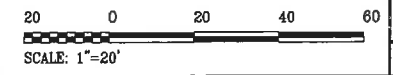
REVISIONS		REVISIONS	
NO.	DESCRIPTION	DATE	BY
1	CITY COMMENTS	10/12/15	
2	CITY COMMENTS	12/31/15	

FILE NAME	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
15.0082-SP 002	1" = 20'		ARC	MTM

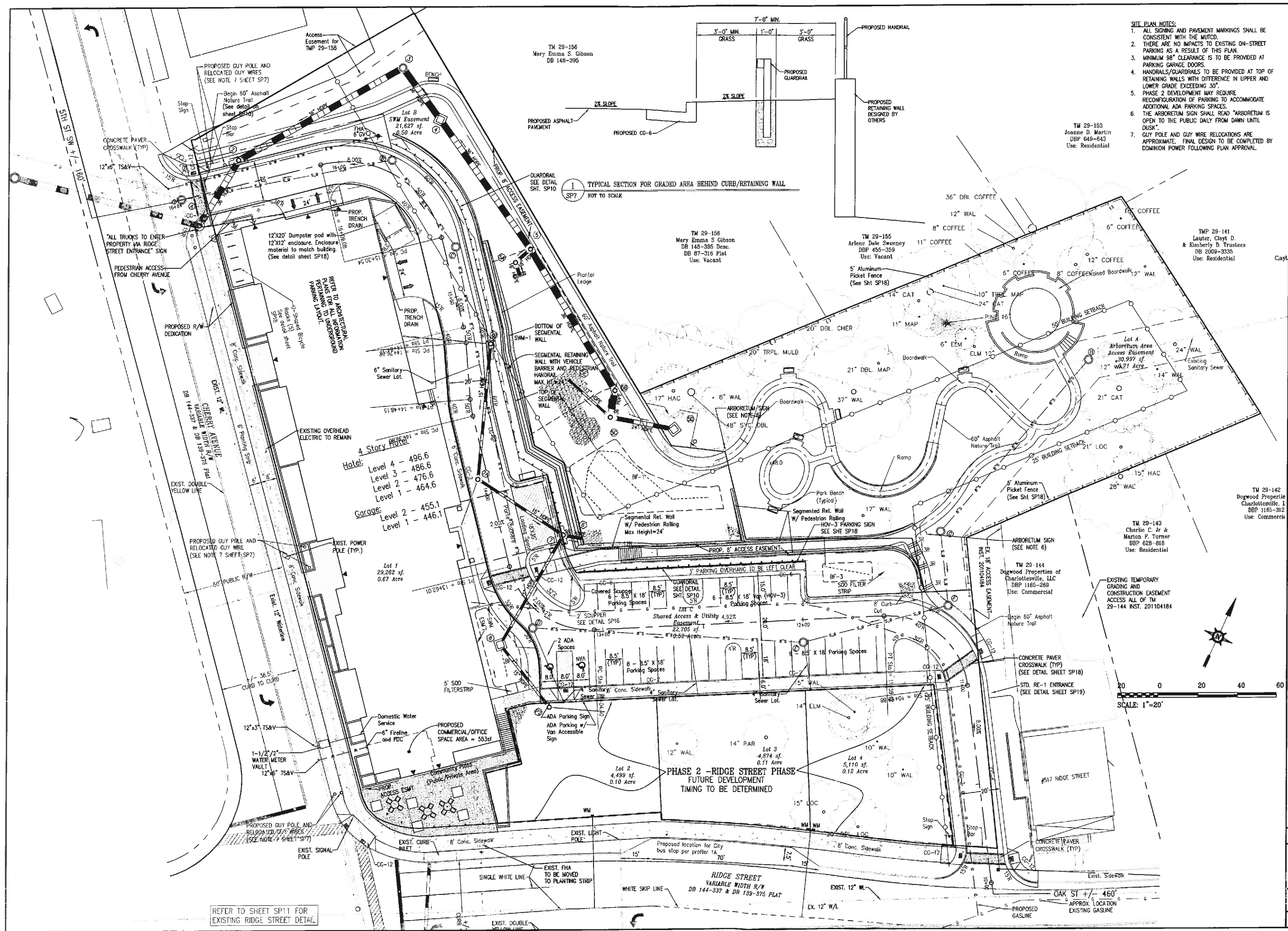
FINAL SITE DEVELOPMENT PLAN FOR  
WILLIAM TAYLOR PLAZA PUD (PH1)  
CITY OF CHARLOTTESVILLE, VIRGINIA

SHEET TITLE: TREE SURVEY

DOM. PROJECT NO: 15.0082  
INDEX TITLE:  
**SP6**  
SHEET NO: 6 OF 20  
DATE: 07/29/15







- SITE PLAN NOTES:**
1. ALL SIGNING AND PAVEMENT MARKINGS SHALL BE CONSISTENT WITH THE MUTCD.
  2. THERE ARE NO IMPACTS TO EXISTING ON-STREET PARKING AS A RESULT OF THIS PLAN.
  3. MINIMUM 9' CLEARANCE IS TO BE PROVIDED AT PARKING GARAGE DOORS.
  4. HANDRAILS/GUARDRAILS TO BE PROVIDED AT TOP OF RETAINING WALLS WITH DIFFERENCE IN UPPER AND LOWER GRADE EXCEEDING 30".
  5. PHASE 2 DEVELOPMENT MAY REQUIRE RECONFIGURATION OF PARKING TO ACCOMMODATE ADDITIONAL ADA PARKING SPACES.
  6. THE ARBORETUM SIGN SHALL READ "ARBORETUM IS OPEN TO THE PUBLIC DAILY FROM DAWN UNTIL DUSK".
  7. GUY POLE AND GUY WIRE RELOCATIONS ARE APPROXIMATE. FINAL DESIGN TO BE COMPLETED BY DOMINION POWER FOLLOWING PLAN APPROVAL.

**Dominion Engineering**

172 North Frying Pan Drive  
Charlottesville, VA 22911  
434.275.1601  
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**COMMONWEALTH OF VIRGINIA**

**PROFESSIONAL ENGINEER**

MICHAEL F. MYERS  
Lic. No. 33028

REVISIONS		DATE	DESCRIPTION	CHECKED BY:
1		10/22/15		ARC
2		12/21/15		ARC

REVISIONS		DATE	DESCRIPTION	CHECKED BY:
1		10/22/15		ARC
2		12/21/15		ARC

SCALE: 1" = 20'

FILE NAME: 15080-SP7

**FINAL SITE DEVELOPMENT PLAN FOR**  
**WILLIAM TAYLOR PLAZA PUD (PH1)**  
**CITY OF CHARLOTTESVILLE, VIRGINIA**

SHEET TITLE: **LAYOUT PLAN**

DOM. PROJECT NO: 15.0082

INDEX TITLE:  
**SP7**

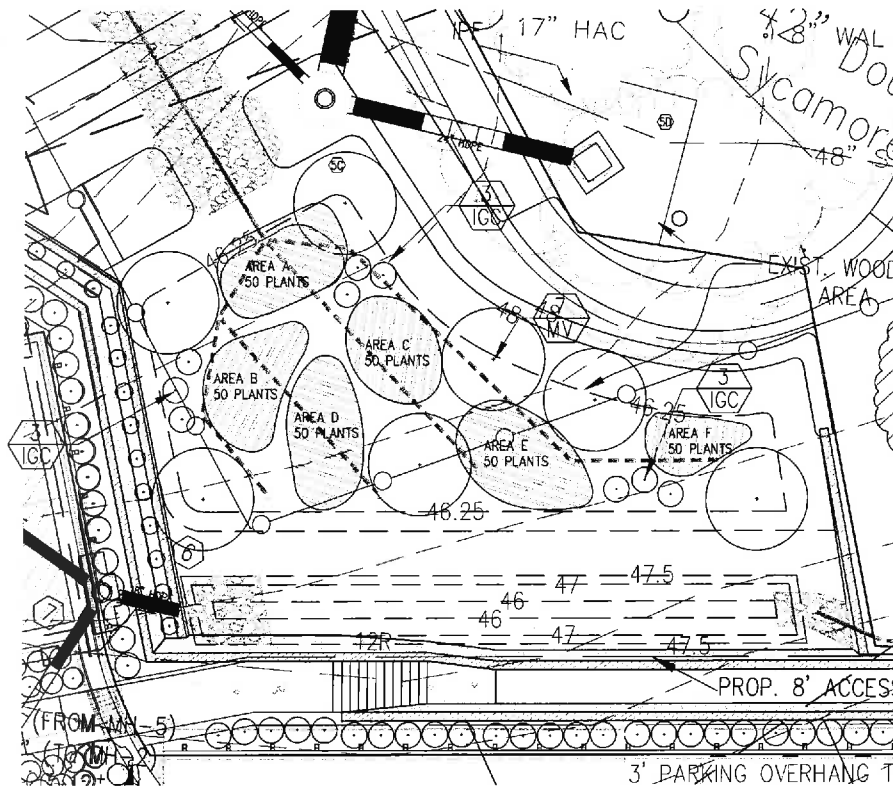
SHEET NO: 7 OF 20

DATE: 07/28/15







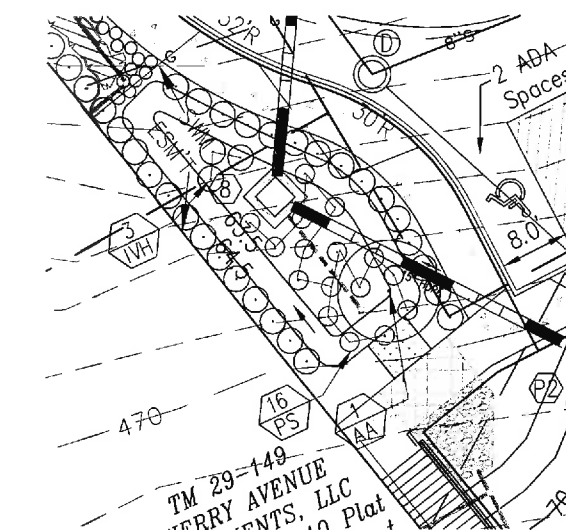


BIORETENTION FILTER 1

PLANTING LIST:

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING
<b>TREES</b>						
MY	7	MAGNOLIA VIRGINIANA	SWEET BAY MAGNOLIA	5-6' HT.	B&B	AS SHOWN
<b>SHRUBS</b>						
IGC	12	ILEX GLABRA "CHAMZIN"	CHAMZIN INKBERY HOLLY	24"-30" HGT.	#3 CONT.	3' O.C.
<b>HERBACEOUS PERENNIALS (Plugs)</b>						
AREAS A,D,E	20	PANICUM 'SHENANDOAH'				
	10	LOBELIA CARDINALIS				
	10	IRIS VERSICOLOR				
	10	CAREX STRICTA				
TOTAL	50x3	= 150 PLUGS				
AREAS B,C,F	20	PANICUM CORDATA				
	10	LOBELIA CARDINALIS				
	10	IRIS VERSICOLOR				
	10	CAREX STRICTA				
TOTAL	50x3	= 150 PLUGS				
TOTAL PLUGS AREAS A,B,C,D,E,F	60	PANICUM 'SHENANDOAH'				
	60	LOBELIA CARDINALIS				
	60	IRIS VERSICOLOR				
	60	CAREX STRICTA				
TOTAL	300	PLUGS				

NOTE:  
PLANTING SPECIES SELECTED TO  
BE WATER TOLERANT IN UP TO  
1.0' OF PONDED WATER.



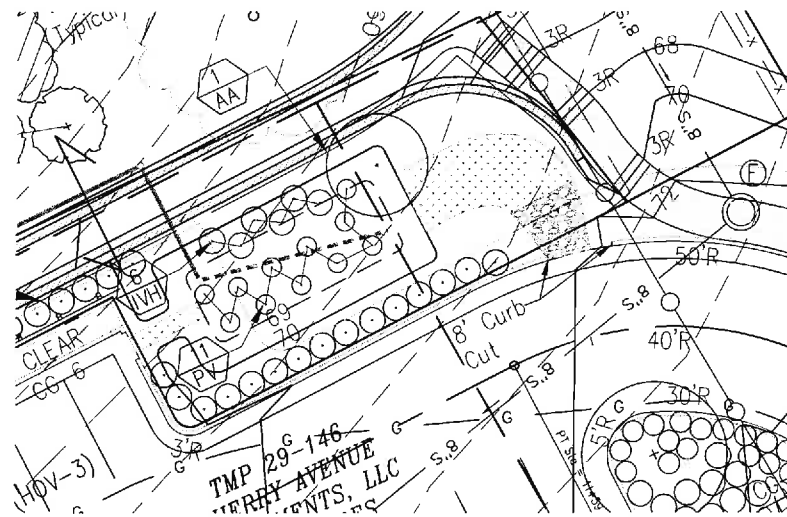
BF-2 PLAN DETAIL

PLANTING LIST:

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING
<b>TREES</b>						
AA	1	MAGNOLIA VIRGINIANA	SWEET BAY MAGNOLIA	5-6' HT.	B&B	AS SHOWN
<b>SHRUBS</b>						
IVH	3	ITEA VIRGINICA "HENRY'S GARNET"	"HENRY'S GARNET" SWEETS	8-10' HT.	#3 CONT.	AS SHOWN
<b>GRASSES</b>						
PS	16	PANICUM 'SHENANDOAH'			#1 CONT.	36" O.C.

NOTE:  
PLANTING SPECIES SELECTED TO  
BE WATER TOLERANT IN UP TO  
0.5' OF PONDED WATER.

10 0 10 20 30  
SCALE: 1"=10'



BF-3 PLAN DETAIL

PLANTING LIST:

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING
<b>TREES</b>						
AA	1	MAGNOLIA VIRGINIANA	SWEET BAY MAGNOLIA	5-6' HT.	B&B	AS SHOWN
<b>SHRUBS</b>						
IVH	6	ITEA VIRGINICA "HENRY'S GARNET"	"HENRY'S GARNET" SWEETS	8-10' HT.	#3 CONT.	AS SHOWN
<b>GRASSES</b>						
PV	11	PANICUM VIRGATUM			#1 CONT.	36" O.C.

NOTE:  
PLANTING SPECIES SELECTED TO  
BE WATER TOLERANT IN UP TO  
0.5' OF PONDED WATER.

PLANTING LIST:

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING
<b>DECIDUOUS TREES</b>						
AR	7	ACER RUBRUM "RED SUNSET"	RED SUNSET MAPLE	3-3 1/2" CAL	B&B	AS SHOWN
FA	1	FAGUS GRANDIFOLIA	AMERICAN BEECH	3-3 1/2" CAL	B&B	AS SHOWN
LS	1	LIQUIDAMBAR STYRACIFLUA	SWEETGUM	3-3 1/2" CAL	B&B	AS SHOWN
QC	5	QUERUS COCCINEA	SCARLET OAK	3-3 1/2" CAL	B&B	AS SHOWN
SJ	12	SOPHORA JAPONICA	REGENT JAPANESE PAGODA	3-3 1/2" CAL	B&B	AS SHOWN
ZS	6	ZELKOVA SERRATA "GREEN VASE"	GREEN VASE ZELKOVA	3-3 1/2" CAL	B&B	AS SHOWN
<b>FLOWERING TREES</b>						
CC	3	CERCIS CANADENSIS	EASTERN REDBUD	2-2 1/2" CAL	B&B	AS SHOWN
CV	11	CHIONANTHUS VIRGINICUS	FRINGE TREE	8-10' HGT.	B&B	AS SHOWN
OP	3	ORATEGUS PHAENOPYRUM FASTIGIATA	FASTIGIATE WASHINGTON HAWTHORN	2-2 1/2" CAL	B&B	AS SHOWN
DV	1	DIOSPYRUS VIRGINIANA	COMMON PERSIMMONS	2-2 1/2" CAL	B&B	AS SHOWN
GG	1	CORNUS MAS "GOLDEN GLORY"	GOLDEN GLORY CORNELIAN CHERRY	2-2 1/2" CAL	B&B	AS SHOWN
HC	3	HALESIA CAROLINA "TETRAPTERA"	SILVERBELL	2-2 1/2" CAL	B&B	AS SHOWN
LI	7	LAGERSTROEMIA INDICA "CATANGA"	CRAPPE MYRTLE	8'-10' HGT.	B&B	AS SHOWN
SP	1	STEWARTIA PSEUDOCAMELLIA	JAPANESE STEWARTIA	8'-10' HGT.	B&B	AS SHOWN
<b>EVERGREEN TREES</b>						
TO	3	THUJA OCCIDENTALIS "TECHNY"	TECHNY ARBORVITAE	6'-7' HGT.	B&B	6' O.C.
<b>SHRUBS</b>						
AE	12	ABELIA "EDWARD GOUCHER"	EDWARD GOUCHER ABELIA	30"-36" HGT.	#3 CONT.	3' O.C.
AG	17	ABELIA GRANDIFLORA	GLOSSY ABELIA	36"-42" HGT.	#5 CONT.	5' O.C.
CA	76	CALICAPAR AMERICANA	AMERICAN BEAUTYBERRY	24"-30" HGT.	#3 CONT.	3' O.C.
CD	83	COTONEASTER DAMMERI "STREIBS FOUNDLING"	STREIBS FOUNDLING COTONEASTER	24"-30" HGT.	#3 CONT.	30" O.C.
CS	73	COTONEASTER SALICIFOLIA REPENS	WILLOWLEAF COTONEASTER	24"-30" HGT.	#3 CONT.	30" O.C.
DG	6	DEUTZIA X "MONZIA"	PINK-A-BOO DEUTZIA	36"-42" HGT.	#3 CONT.	3' O.C.
FG	31	FOTHERGILLIA GARDENII	FOTHERGILLIA	24"-30" HGT.	#3 CONT.	3' O.C.
HH	24	HYPERICUM "HIDCOTE"	ST. JOHN'S WORT	24"-30" HGT.	#3 CONT.	3' O.C.
IC	8	ILEX CRENATA "STEEDS"	STEEDS JAPANESE HOLLY	36"-42" HGT.	#5 CONT.	5' O.C.
IGC	37	ILEX GLABRA "CHAMZIN"	CHAMZIN INKBERY HOLLY	24"-30" HGT.	#3 CONT.	3' O.C.
DL	58	LEUCOTHOE FONTANESIANA	DROOPING LEUCOTHOE	4'-4.5' HGT.	#5 CONT.	42" O.C.
PF	6	POTENTILLA FRUTICOSA	RED ACE POTENTILLA	24"-30" HGT.	#3 CONT.	3' O.C.
RM	8	ROSA X "MEIRUTRAL"	RED SUNBLAZE	24"-30HGT.	#3 CONT.	3' O.C.
<b>GROUNDCOVERS AND PERENNIALS</b>						
AV	19	ASTILBE "VARIETY"	ASTILBE	12"-15" HGT.	#1 CONT.	12" O.C.
CM	32	COREOPSIS "MOONBEAM"	MOONBEAM COREOPSIS	12"-15" HGT.	#1 CONT.	12" O.C.
DE	20	DICENTRA "EXIMA"	FRINGED BLEEDING HEART	12"-15" HGT.	#1 CONT.	12" O.C.
EC	65	ERICA CINERA "MAHOGENY"	MAHOGENY HEATH	12"-15" HGT.	#1 CONT.	12" O.C.
GH	10	GERANIUM HIMALAYENSE	HIMALAYAN CRANSEILL	12"-18" HGT.	20T. POT	18" O.C.
HY	75	HYPERICUM CALYCONIUM	ROSE OF SHARON HYPERICUM	8"-12" HGT.	10T. POT	12" O.C.
LM	84	LIRIOPE MUSCARI "VAREGATA"	VAREGATED LIRIOPE	12"-18" HGT.	#1CONT.	18" O.C.
<b>VINES AND CLIMBING PLANTS</b>						
HA	38	HYDRANGIA ANOMALA PETIOLARIS	CLIMBING HYDRANGEA	18"-24" HGT.	#2 CONT.	4' O.C.

PLANTING NOTES:

- THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO COMMENCING PLANTING WORK AND NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY IF CONDITIONS DETRIMENTAL TO NEW AND EXISTING PLANT MATERIAL ARE ENCOUNTERED.
- PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UNDERGROUND UTILITIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO UTILIZE A LOCATING SERVICE TO VERIFY UNDERGROUND UTILITY LOCATIONS.
- THE CONTRACTOR SHALL STAKE LOCATIONS OF ALL PLANT MATERIALS PRIOR TO INSTALLATION. NOTIFY THE OWNER'S REPRESENTATIVE WHEN STAKING IS COMPLETE. AT WHICH TIME A MEETING WILL TAKE PLACE TO DETERMINE FINAL LOCATIONS.
- ALL PLANT BEDS AND TREE PITS SHALL RECEIVE 4" OF SHREDDED BARK MULCH.
- THE CONTRACTOR SHALL TOPSOIL AND SEED LAWN AREAS AND ALL AREAS DISTURBED AS A RESULT OF NEW CONSTRUCTION.

PLANTING LEGEND:

SYMBOL	DESCRIPTION
	EXISTING TREES
	DECIDUOUS TREES
	FLOWERING TREES
	SHRUBS
	GROUNDCOVERS AND PERENNIALS
	PLANT QTY.
	PLANT SYMBOL

FINAL SITE DEVELOPMENT PLAN FOR  
WILLIAM TAYLOR PLAZA PUD (PH1)  
CITY OF CHARLOTTESVILLE, VIRGINIA

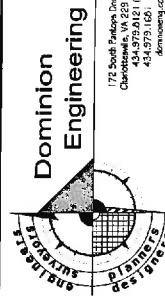
SHEET TITLE:  
LANDSCAPE PLAN

DOM. PROJECT NO:15.0062

INDEX TITLE:  
SP13A

SHEET NO: 14 OF 20

DATE: 07/29/15



REVISIONS		DATE		CHECKED BY:	
NO.	DESCRIPTION	DATE	NO.	DATE	NO.
1		10/12/15			
2		12/21/15			



STATISTICS						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Community Plaza	□	6 fc	51 fc	1 fc	31.0:1	6.0:1
Front/Side Entrance Canopies	△	22 fc	29 fc	14 fc	1.9:1	1.6:1
Property Line	△	0.1 fc	0.6 fc	0.0 fc	N/A	N/A
William Taylor Plaza	□	1.9 fc	12.2 fc	0.1 fc	122.0:1	19.0:1

LUMINAIRE LOCATIONS							
No.	Label	X	Location Y	Z	MM	Orientation	TR
1	P2	342.1	300.3	15.0	15.0	55.7	0.0
2	P1	169.0	420.4	20.0	20.0	150.2	0.0
3	P1	135.1	381.5	20.0	20.0	152.4	0.0
4	P1	70.0	441.2	20.0	20.0	234.5	0.0
5	P1	31.7	607.9	20.0	20.0	227.5	0.0
6	P1	-40.4	556.9	20.0	20.0	173.1	0.0
7	P2	-36.7	530.3	15.0	15.0	140.1	0.0
8	P1	224.3	388.1	20.0	20.0	-27.9	0.0
9	D	14.8	382.7	12.0	12.0	0.0	0.0
10	D	27.7	346.8	12.0	12.0	0.0	0.0
11	D	72.1	405.5	17.0	17.0	0.0	0.0
12	D	85.6	399.6	17.0	17.0	0.0	0.0
13	D	87.2	420.7	17.0	17.0	0.0	0.0
14	D	101.7	431.5	17.0	17.0	0.0	0.0
15	D	115.7	412.5	17.0	17.0	0.0	0.0
16	D	101.1	400.1	17.0	17.0	0.0	0.0
17	D	103.7	272.0	12.0	12.0	196.8	0.0
18	W	113.1	330.1	15.0	15.0	48.4	0.0
19	W	89.5	368.2	15.0	15.0	59.0	0.0
20	W	22.2	453.6	15.0	15.0	53.4	0.0
21	W	-10.5	483.5	15.0	15.0	53.5	0.0
22	W	-35.4	523.0	15.0	15.0	49.3	0.0
23	W	-59.8	518.2	15.0	15.0	-58.4	0.0
24	D	-76.1	500.1	12.0	12.0	-37.5	0.0
25	P2	317.4	431.0	15.0	15.0	38.8	0.0
26	P1	262.2	451.0	20.0	20.0	154.3	0.0
27	D	21.9	354.7	12.0	12.0	0.0	0.0
28	D	-87.1	482.6	12.0	12.0	-37.5	0.0
29	D	-58.7	439.7	12.0	12.0	0.0	0.0
30	D	-43.8	423.8	12.0	12.0	0.0	0.0
31	D	-50.2	431.7	12.0	12.0	0.0	0.0
32	D	111.7	278.2	12.0	12.0	196.8	0.0
33	D	119.7	284.7	12.0	12.0	196.8	0.0
34	B	69.8	252.3	3.3	3.3	15.3	0.0
35	B	108.0	251.5	3.3	3.3	-6.0	0.0
36	B	123.7	256.2	3.3	3.3	-26.6	0.0
37	G	130.6	330.0	3.3	3.3	-85.7	0.0
38	B	127.5	283.6	3.3	3.3	-34.0	0.0
39	W	118.9	297.4	15.0	15.0	148.2	0.0
40	S	78.0	275.4	12.0	12.0	250.3	0.0
41	S	81.0	270.2	12.0	12.0	141.7	0.0

LUMINAIRE SCHEDULE							
Symbol	Label	Qty	Catalog Number	Description	Lamp	Fits	Lumens LLF Watts
□	B	5	Beigi 99058 LED	99058	LED 18,0W	99058 ies	Absolute 1.00 23
○	D	17	Coltman EVO 3030 3000LM 80 CRI 3000K R BAR MWD LS	EVO ROUND DOWNLIGHT SPECULAR	LED	EVO 20 30 30 Absolute 1.00	42.3
△	P1	7	Lithonia DSX1 LED 300 350 30K TSM	DSX1 LED WITH (10) 30 LED LIGHT ENGINES, TYPE TSM OPTIC, 3000K, @ 5300A WITH HOUSE SIDE SHIELD	LED	DSX1 LED 40 Absolute 1.00	68
□	P2	3	Lithonia DSX1 LED 300 350 30K TSM	DSX1 LED WITH (10) 30 LED LIGHT ENGINES, RIGHT ROTATED TYPE T15 OPTIC, 3000K, @ 5300A WITH HOUSE SIDE SHIELD	LED	DSX1 LED 40 Absolute 1.00	52.41
□	W	7	Lithonia DSXW2 LED 200 350 30K T15M MVOLT	DSXW2 LED WITH 20 LED LIGHT ENGINES, 20 LED, 3500A DRIVER, 3000K LED, TYPE FORWARD THROW MEDIUM OPTIC	LED	DSXW2 LED Absolute 1.00	25
●	S	2	TLS Lighting CO-2W-G-16LED-300K-200V-WM-Fix-LNS-3000K	CALVIN WALL MOUNT LUMINAIRE 16" DIAMETER ALUMINUM FLUX REFLECTOR 16" DEG BEAM	16W LED	2W-16LED ies 298 1.00	21.49

DOMINION ENGINEERING

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COMMONWEALTH OF VIRGINIA

MICHAEL F. MYERS  
Lic. No. 33028

REVISIONS

DATE: 07/28/15

DESCRIPTION: CITY COMMENTS

DATE: 07/28/15

DESCRIPTION: CITY COMMENTS

FILE NAME: SP16-01.dwg

SCALE: N.T.S.

DESIGNED BY: ARC

DRAWN BY: ARC

CHECKED BY: MFM

FINAL SITE DEVELOPMENT PLAN FOR  
WILLIAM TAYLOR PLAZA PUD (PHI)  
CITY OF CHARLOTTEVILLE, VIRGINIA

SHEET TITLE:  
LIGHTING PLAN

DOM. PROJECT NO: 15.0062

INDEX TITLE:  
SP16

SHEET NO: 17 OF 20

DATE: 07/28/15

**FINAL SITE DEVELOPMENT PLAN FOR**  
**WILLIAM TAYLOR PLAZA PUD (PH1)**  
**CITY OF CHARLOTTESVILLE, VIRGINIA**

**SHEET TITLE:**  
**LIGHTING PLAN CUTSHEETS**

DOM. PROJECT NO: 15.0062


INDEX TITLE:  

SP17

SHEET NO: 18 OF 20

DATE: 02/09/15

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**DOMINION Engineering**

REVISIONS			REVISIONS		
NO.	DESCRIPTION	DATE	NO.	DESCRIPTION	DATE
1	CITY COMMENTS	10/13/12			
2	CITY COMMENTS	12/26/12			

FILE NAME: \_\_\_\_\_

DATE: 02/09/15

SCALE: \_\_\_\_\_

N.T.S.

DESIGNED BY: \_\_\_\_\_

ARC

CHECKED BY: \_\_\_\_\_

ARC