

October 2023



# CVTA Wayfinding for Fall Line Trail



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# Graphic Standards

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## GRAPHIC STANDARDS

### Typefaces

#### Typefaces

Gotham Condensed Medium  
Gotham Condensed Bold

#### Notes

Substitute typefaces are not acceptable.

Univers Bold Condensed 67 is the primary weight. For some signs, Univers Condensed 57 is used to emphasize lines of type.

No other weights or versions of the fonts are acceptable, nor is it to be electronically distorted vertically or horizontally. Some kerning and tracking may need to be adjusted in certain instances to achieve optical evenness; tracking should generally be set at 50 (twenty) for vehicular signs unless noted otherwise. It may be adjusted to 0 when necessary to fit lines of type. Any further adjustment should be brought to the attention of the designer to determine if abbreviations or multiple lines are appropriate.

THIS DRAWING REPRESENTS DESIGN INTENT ONLY.

Date	Revisions	Scale
7.8.23		NTS

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## FONTS:

ABCDEFGHIJKLMNOPQRSTUVWXYZ

1234567890 abcdefghijklmnopqrstuvwxyz

Univers Condensed 57

**ABCDEFGHIJKLMNOPQRSTUVWXYZ**

**1234567890 abcdefghijklmnopqrstuvwxyz**

Univers Bold Condensed 67

LOGOS, ICONS & ARROWS

LOGOS



ACTIVITY & DESTINATION ICONS



Sports



Trails



Golf



Football



Soccer



Baseball/Softball



Tennis



Volleyball



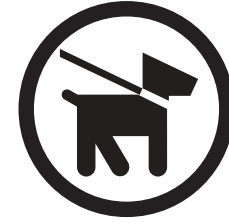
Basketball



Playground



Biking



Pets



Horseback Riding



Swimming



Fishing



Boat Launch



Motorboats



Rowing



Pickle-ball



Shuffleboard



Disk Golf



Parking



Restrooms



Information



Accessible

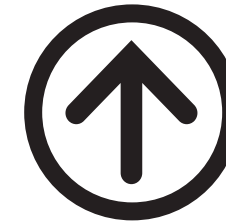


Picnic

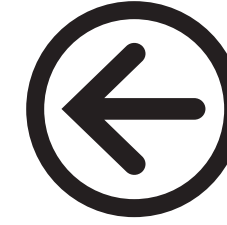


Picnic Shelter

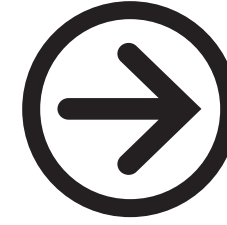
ARROWS



Straight Ahead



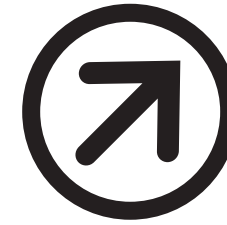
To the Left



To the Right



Ahead & to the Left



Ahead & to the Right



GRAPHIC STANDARDS

Logos, Icons & Arrows

Logos, icons and arrows will be provided as digital files by AB Design.

Production artwork files to be available as vectorized files which are scalable vector formats. They can be opened in most industry standard design and publishing software.

Reconstructed art or digitized versions from printed copies shall not be used. Only original electronic files generated by AB Design may be used for application onto signage. Substitute arrows or symbols are not acceptable.

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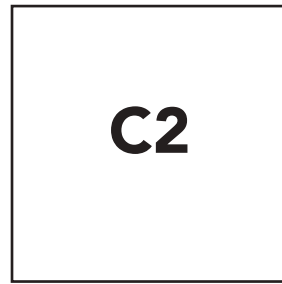
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# COLOR PALETTE:



**C1**  
Dark Blue  
Pantone  
P109-7C



**C2**  
White



**C3**  
Black

# COLOR: SECTIONS



Ashland  
Pantone  
P124-7C



Hanover  
C-100  
M-99  
Y27  
K31



Henrico  
Pantone  
P104-16C



Chesterfield  
Pantone  
P157-8C



Richmond  
Pantone  
P53-16C



Colonial Heights  
Pantone  
P140-16C



Petersburg  
Pantone  
P14-8C

## GRAPHIC STANDARDS Color Palette

It is the Fabricator's responsibility to match all colors, finishes and materials specified in this document.

The visual accuracy of the colors and finishes represented in this document may not be consistent with manufacturer's swatches and samples due to limitations of color printing technology.

The Fabricator is required to match against actual color swatches and provide material samples for approval prior to production.

If a substitute or deviation is recommended by the Fabricator, the recommendation shall be proposed in writing with a demonstration of equal or better value for consideration.

THIS DRAWING REPRESENTS DESIGN INTENT ONLY.

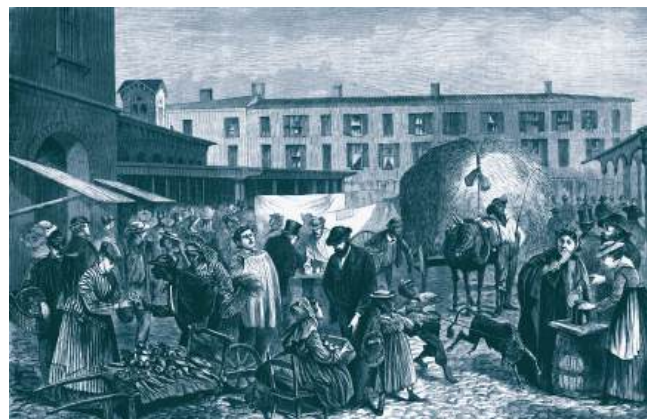
Date	Revisions	Scale
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PEOPLE



NATURE



HISTORY



GRAPHIC STANDARDS  
Images

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# GRAPHIC STANDARDS Sign Family

These drawings represent design intent only, not for construction. The fabricator is responsible for all final engineering and should submit shop drawings for approval, before proceeding with fabrication.

Any variations to design, materials, or fabrication methods must be approved by the Client and the Designer.

The final product quality of fit and finish must meet or exceed the requirements of these design intent documents

Colors shown are for reference only and color samples should be presented for approval prior to fabrication.

The fabricator should verify actual site conditions and perform detailed site surveys before the fabrication and installation.

These drawings show messages for general reference only. Refer to message schedules for all required messages.

THIS DRAWING REPRESENTS DESIGN INTENT ONLY.

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8.31.23		3/4" = 1'

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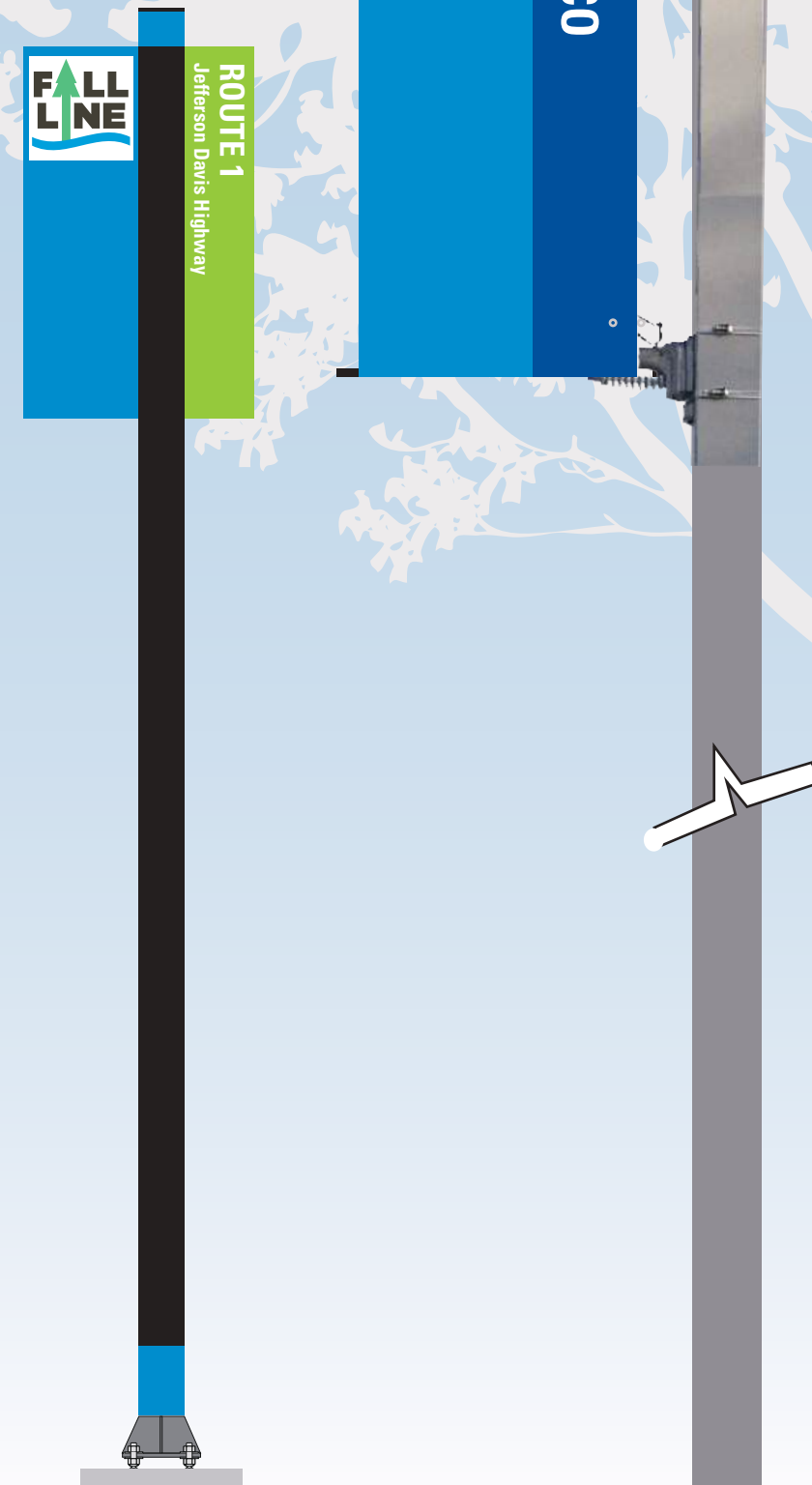
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Sign Type T1  
Vehicular  
Trailhead Sign



Sign Type V1  
Vehicular Directional



Sign Type U/P  
Urban marker/  
Parking Marker

Sign Type B  
Banner







# GRAPHIC STANDARDS

## Sign Family

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Colors shown are for reference only and color samples should be presented for approval prior to fabrication.

The fabricator should verify actual site conditions and perform detailed site surveys before the fabrication and installation.

These drawings show messages for general reference only. Refer to message schedules for all required messages.

THIS DRAWING REPRESENTS DESIGN INTENT ONLY.



Sign Type T2  
Pedestrian Trailhead/  
Regulatory Sign

Sign Type P1  
Pedestrian Directional  
On Street  
(with or without map)

Sign Type P2  
Pedestrian Directional  
On Street OPTION  
(with or without map)

Sign Type P3  
Pedestrian Directional  
Off Street

Sign Type MA  
Pedestrian Map

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## GRAPHIC STANDARDS Sign Family

These drawings represent design intent only, not for construction. The fabricator is responsible for all final engineering and should submit shop drawings for approval, before proceeding with fabrication.

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The fabricator should verify actual site conditions and perform detailed site surveys before the fabrication and installation.

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Sign Type M1  
Mile Marker

Sign Type M2  
Mile Marker  
OPTION

Sign Types W  
Warning Signs

Sign Types VI  
Vinyl Decal or Wrap

Sign Type PL1  
Square Plate

Sign Type PL2  
Rectangular Plate  
Post Cap

Sign Type G  
Ground Decal



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# Sign Drawings

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**SIGN DETAILS - SIGN T1**  
 Vehicular Trailhead/  
 Parking Sign

Signs to have vehicular and night visibility. Trees that obscure sign face to be trimmed.

Sign to be single or double sided.

1. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. NON OBTRUSIVE HARDWARE

2. Colors and graphics to be digitally printed onto 3M™ High Intensity Prismatic Reflective Sheeting 3930DS (White). Apply 3M™ Electrocut™ Film Series 1170 (Clear) to seal reflective sheeting.

3. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. NON OBTRUSIVE HARDWARE

4. 5"x 5" painted steel post with breakaway attachment.

5. Post capped with welded steel plate.

6. 3000 PSI concrete footer. The size and depth of the concrete footer shall be determined by the fabricator. The footers must be certified by engineers registered in the state Virginia.

Fabricator: Check flood levels in the area and elevate the sign as needed with a longer post.

Paint Colors:

C1. Pantone P109-7C Blue

C2. White

C3. Polyurethane Clear Coat Satin

Paint-Black

Fonts:

Univers Condensed 57

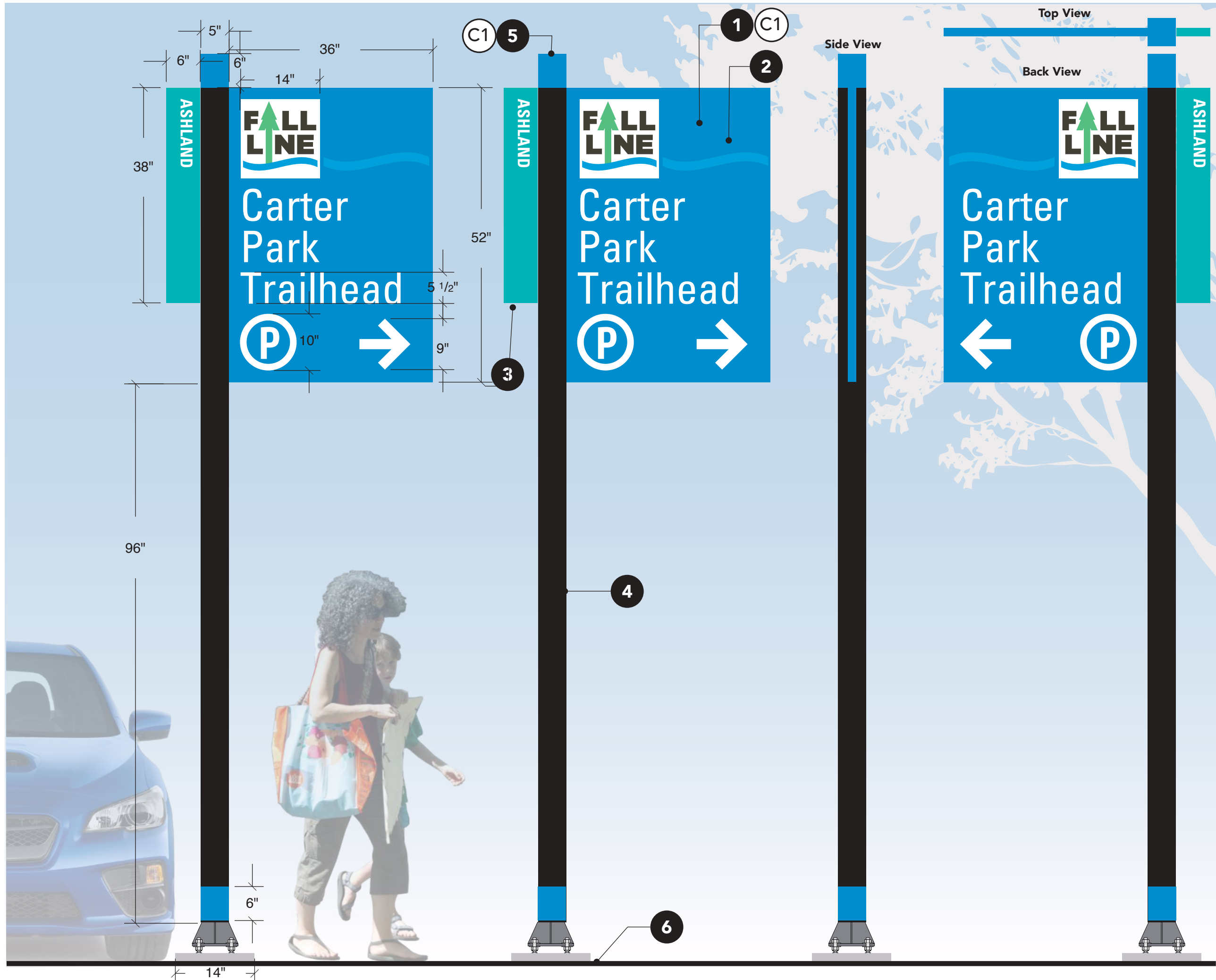
Univers Bold Condensed 67

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Date	Revisions	Scale
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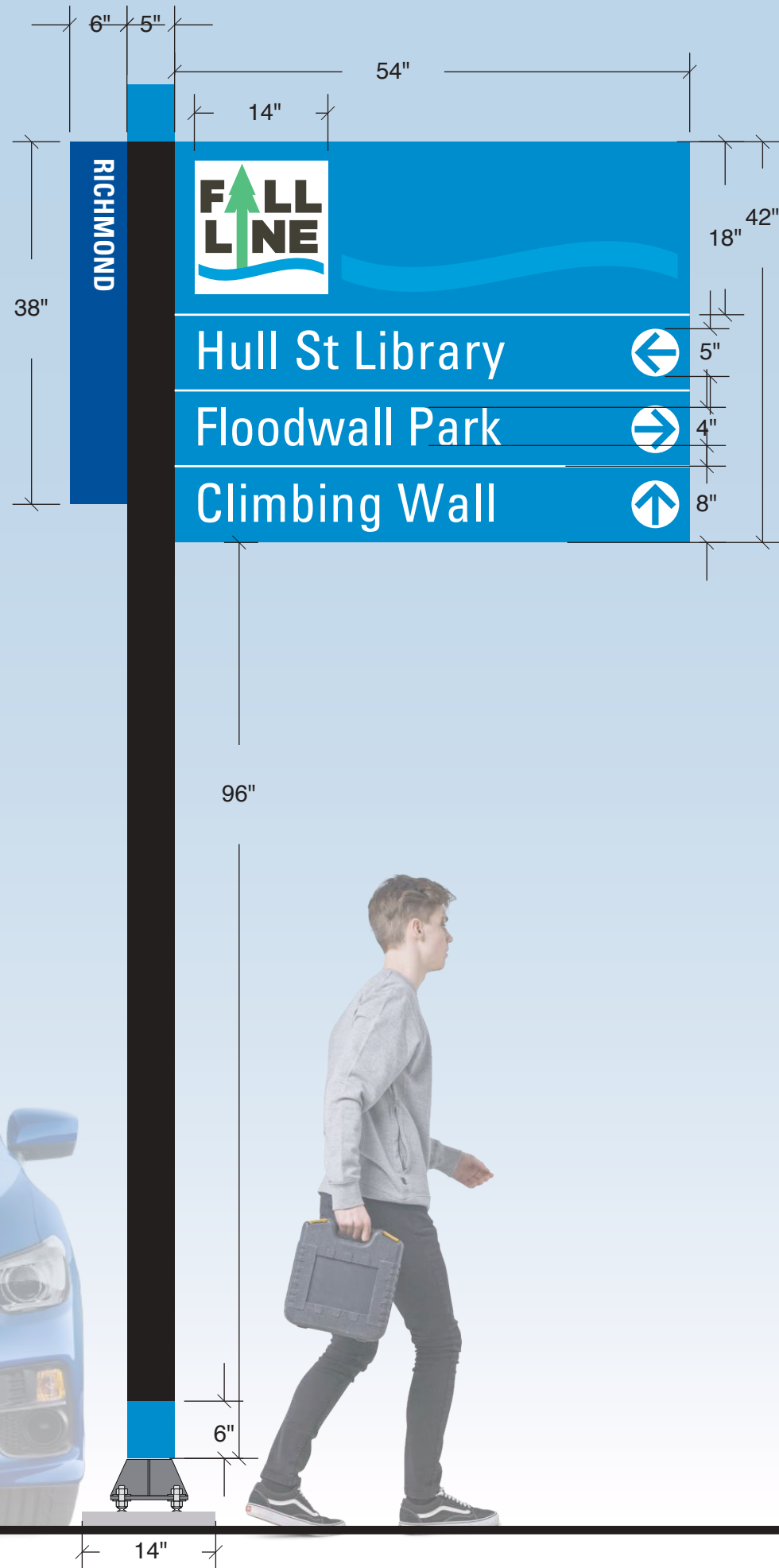
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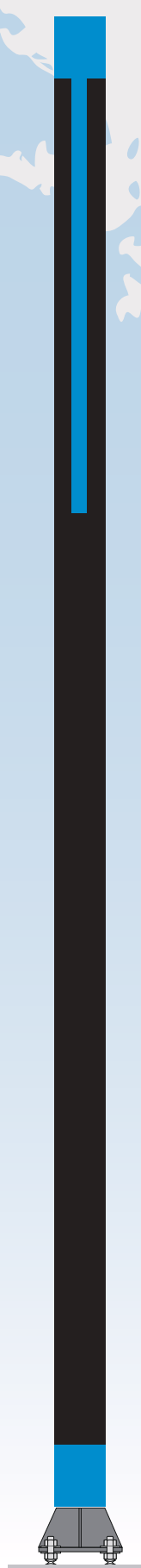




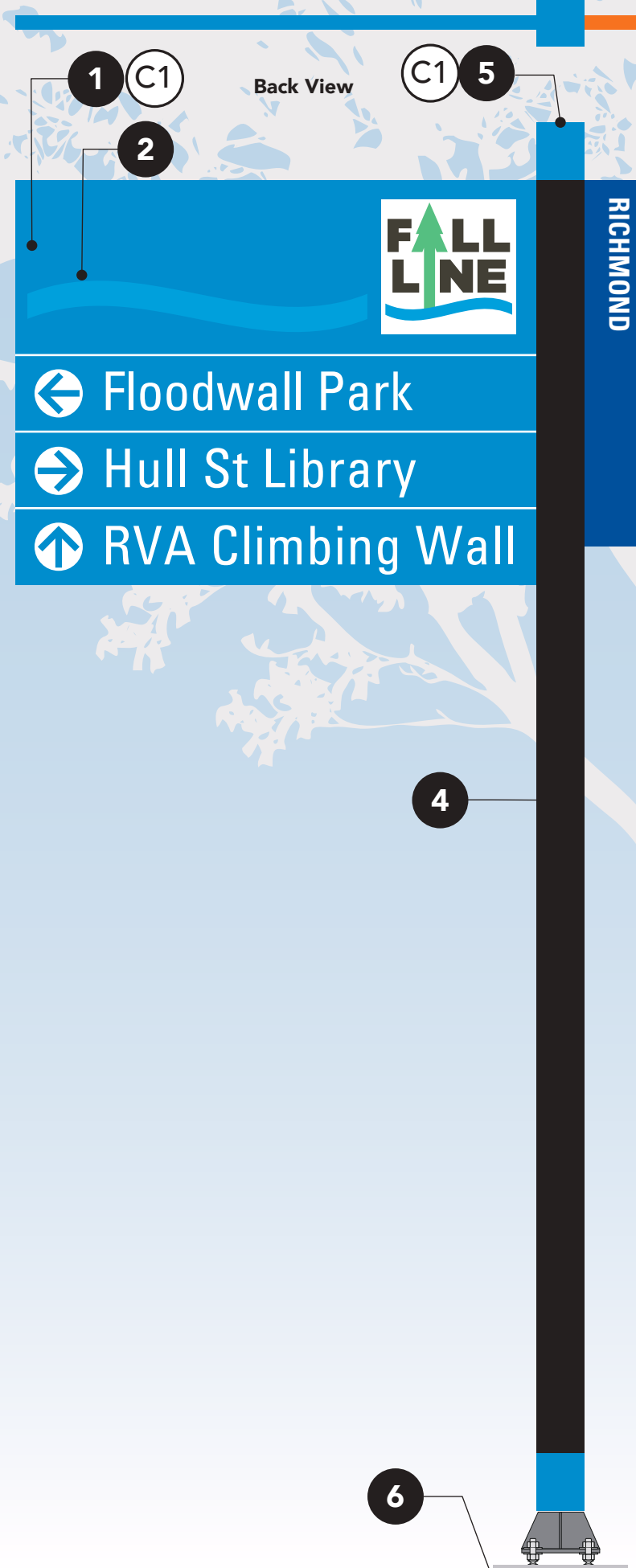
Example of sign on Commerce Rd. and Hull St.



Side View



Top View



Back View



## SIGN DETAILS - SIGN V1

### Vehicular Directional

Signs to have vehicular and night visibility. Trees that obscure sign face to be trimmed.

Sign to be single or double sided.

1. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. NON OBTRUSIVE HARDWARE

2. Colors and graphics to be digitally printed onto 3M™ High Intensity Prismatic Reflective Sheeting 3930DS (White). Apply 3M™ Electrocut™ Film Series 1170 (Clear) to seal reflective sheeting.

3. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. NON OBTRUSIVE HARDWARE

4. 5"x 5" painted steel post with breakaway attachment.

5. Post capped with welded steel plate.

6. 3000 PSI concrete footer. The size and depth of the concrete footer shall be determined by the fabricator. The footers must be certified by engineers registered in the state Virginia.

Fabricator: Check flood levels in the area and elevate the sign as needed with a longer post.

Paint Colors:

C1. Pantone P109-7C Blue

C2. White

C3. Polyurethane Clear Coat Satin

Paint-Black

Fonts:

Univers Condensed 57

Univers Bold Condensed 67

THIS DRAWING REPRESENTS DESIGN INTENT ONLY.

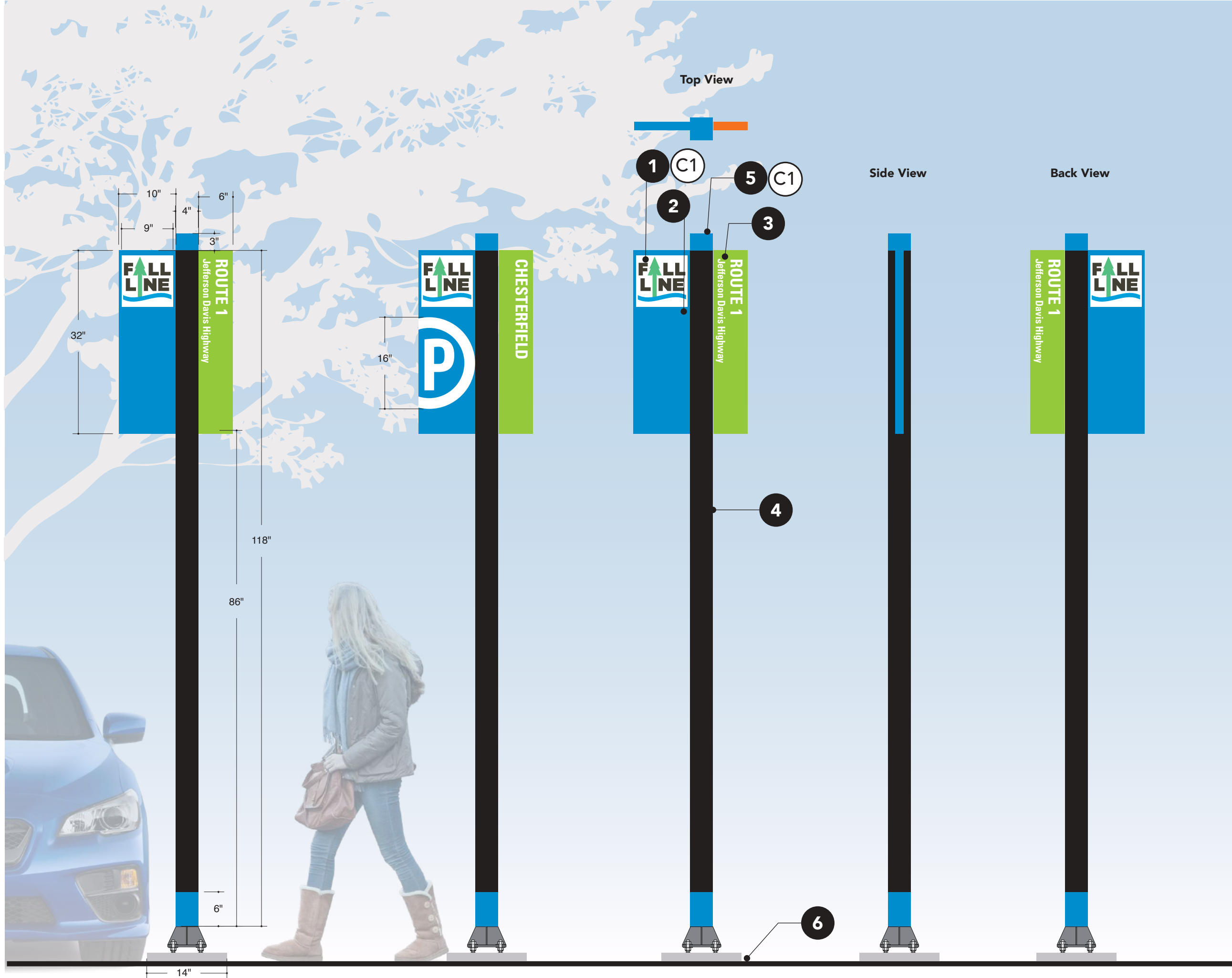
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## SIGN DETAILS - SIGN U/P

### Urban Marker/ Parking Marker



Signs to have vehicular and night visibility. Trees that obscure sign face to be trimmed.

Sign to be single or double sided.

1. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. NON OBTRUSIVE HARDWARE

2. Colors and graphics to be digitally printed onto 3M™ High Intensity Prismatic Reflective Sheeting 3930DS (White). Apply 3M™ Electrocut™ Film Series 1170 (Clear) to seal reflective sheeting.

3. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. NON OBTRUSIVE HARDWARE

4. 4"x 4" painted steel post with breakaway attachment.

5. Post capped with welded steel plate.

6. 3000 PSI concrete footer. The size and depth of the concrete footer shall be determined by the fabricator. The footers must be certified by engineers registered in the state Virginia.

Fabricator: Check flood levels in the area and elevate the sign as needed with a longer post.

Paint Colors:

C1. Pantone P109-7C Blue

C2. White

C3. Polyurethane Clear Coat Satin

Paint-Black

Fonts:

Univers Condensed 57

Univers Bold Condensed 67

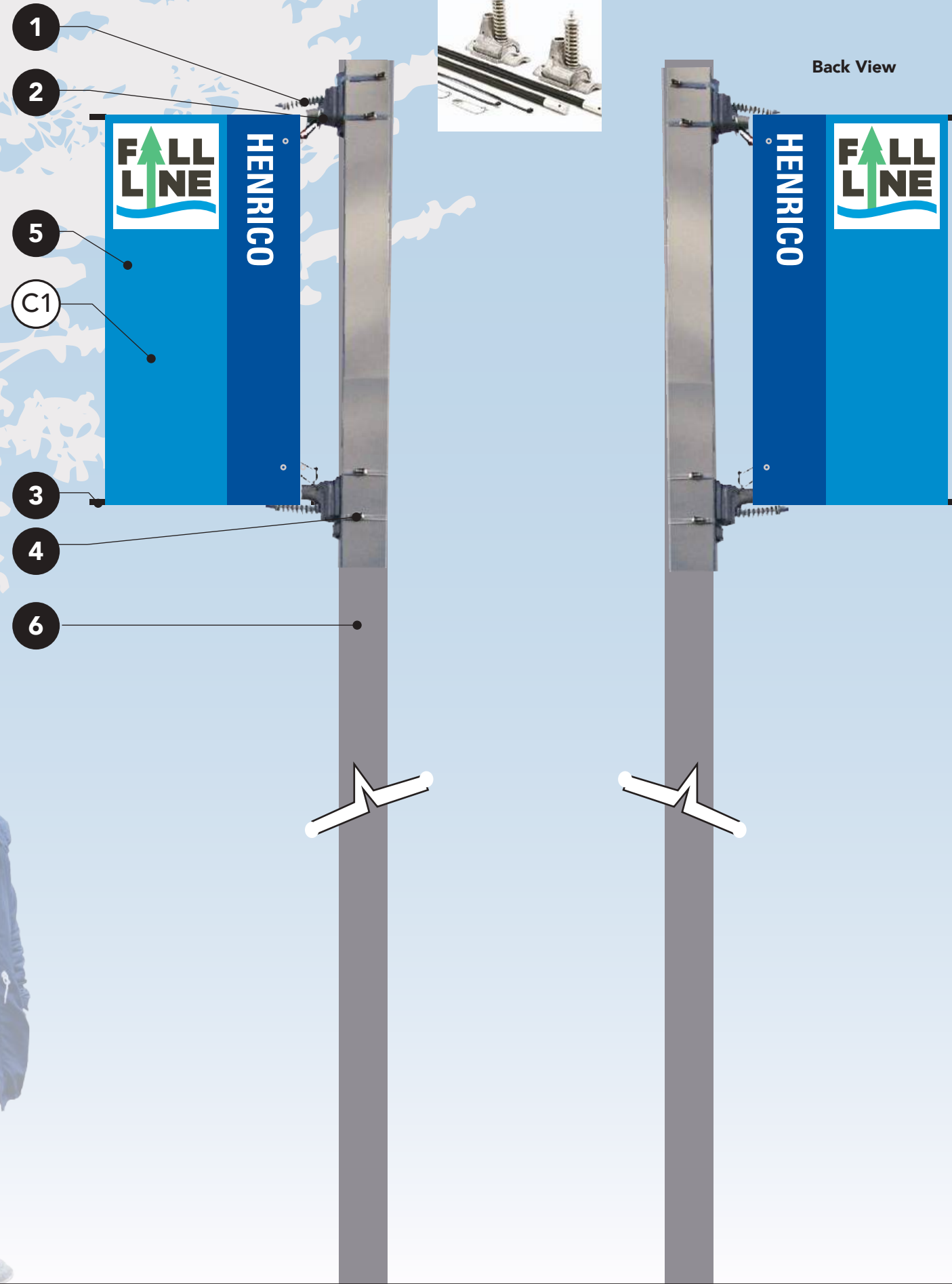
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Wayfinding for Fall Line Trail

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## SIGN DETAILS - SIGN B Banner



Back View

- Signs to have pedestrian & night visibility. Trees that obscure sign face to be trimmed.
- Sign to be double sided.
1. Banner cast aluminum heavy duty spring brackets.
  2. Fiberglass banner arms with tempered aluminum sleeve that adds 20% strength to rods. Arms to be resistant to cracks and corrosion
  3. 3/4 in. diameter poles with metal sleeves in the ends.
  4. Stainless steel bands with buckle.  
NOTE: this type of hardware is available at <https://britteninc.com/>  
<https://bannersaver.com/>
  5. Commercial-grade, heavy weight 18 oz, vinyl banner with pole pockets at the top and bottom. Vinyl to be mildew and water resistant, fade resistant with double needle-lock stitching and with 15 year warranty. Vinyl, printed front and back. Printing to be high resolution.
  6. Existing electrical post.

Paint Colors:  
 C1. Pantone P109-7C Blue  
 C2. White  
 C3. Polyurethane Clear Coat Satin  
 Paint-Black

Fonts:  
 Univers Condensed 57  
 Univers Bold Condensed 67

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 CVTA, Virginia  
 Wayfinding for Fall Line Trail



## SIGN DETAILS - SIGN T2

### Pedestrian Trailhead / Regulatory Sign

Signs to have pedestrian and night visibility. Trees that obscure sign face to be trimmed.

Sign to be single or double sided.

1. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. **NON OBTRUSIVE HARDWARE**

2. Colors and graphics to be digitally printed onto 3M™ High Intensity Prismatic Reflective Sheeting 3930DS (White). Apply 3M™ Electrocut™ Film Series 1170 (Clear) to seal reflective sheeting.

3. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. **NON OBTRUSIVE HARDWARE**

4. 3" x 3" painted steel post.

5. Post capped with welded steel plate.

6. 3000 PSI concrete footer. The size and depth of the concrete footer shall be determined by the fabricator. The footers must be certified by engineers registered in the state Virginia.

\*Fabricator: Check flood levels in the area and elevate the sign as needed with a longer post.

Paint Colors:

C1. Pantone P109-7C Blue

C2. White

C3. Polyurethane Clear Coat Satin

Paint-Black

Fonts:

Univers Condensed 57

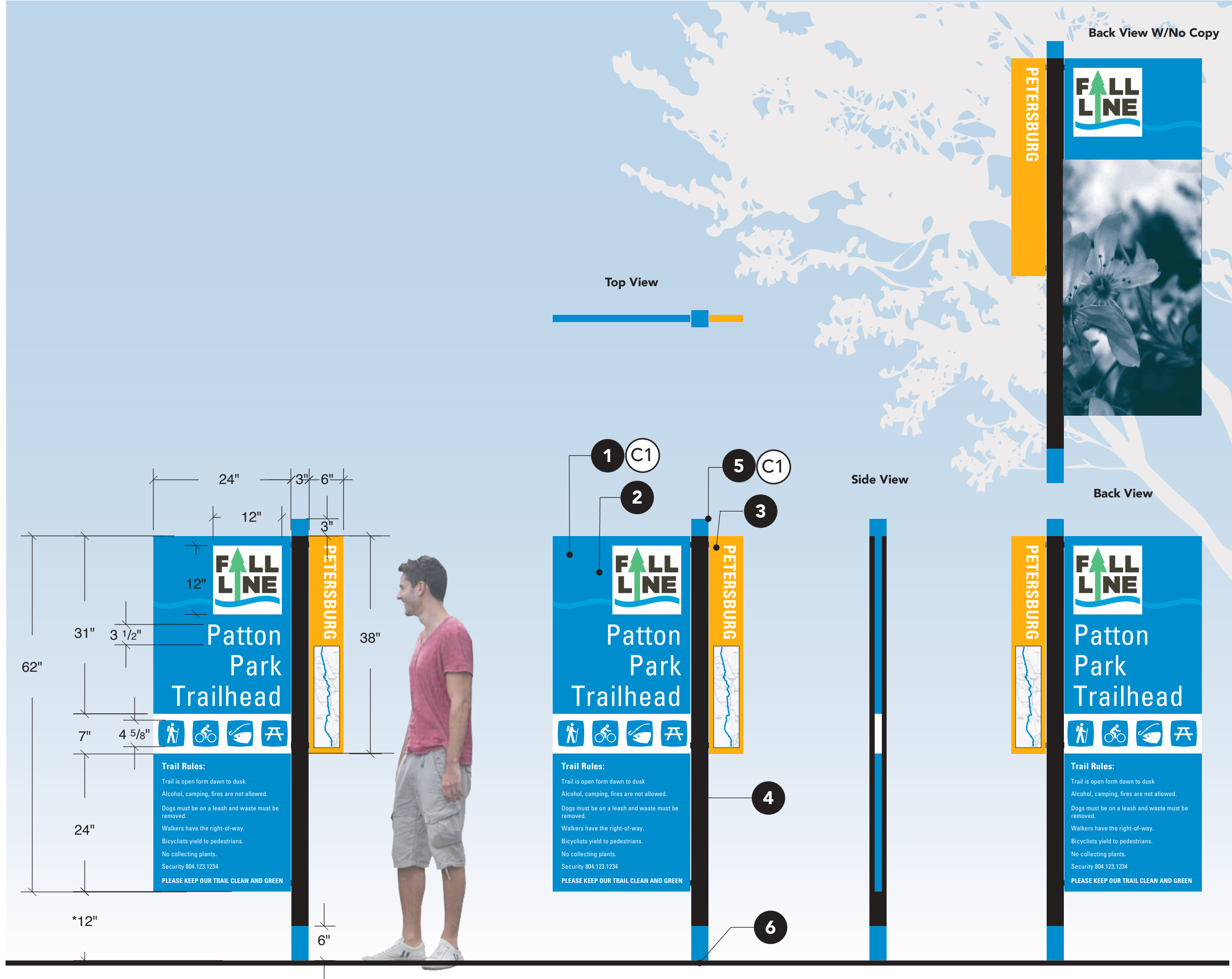
Univers Bold Condensed 67

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## SIGN DETAILS - SIGN P1

### Pedestrian Directional On Street

Signs to have pedestrian and night visibility. Trees that obscure sign face to be trimmed.

Sign to be single or double sided.

1. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. NON OBTRUSIVE HARDWARE

2. Colors and graphics to be digitally printed onto 3M™ High Intensity Prismatic Reflective Sheeting 3930DS (White). Apply 3M™ Electrocut™ Film Series 1170 (Clear) to seal reflective sheeting.

3. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. NON OBTRUSIVE HARDWARE

4. 3"x 3" painted steel post.

5. Post capped with welded steel plate.

6. 3000 PSI concrete footer. The size and depth of the concrete footer shall be determined by the fabricator. The footers must be certified by engineers registered in the state Virginia.

Fabricator: Check flood levels in the area and elevate the sign as needed with a longer post.

Paint Colors:

C1. Pantone P109-7C Blue

C2. White

C3. Polyurethane Clear Coat Satin

Paint-Black

Fonts:

Univers Condensed 57

Univers Bold Condensed 67

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Back View W/No Copy

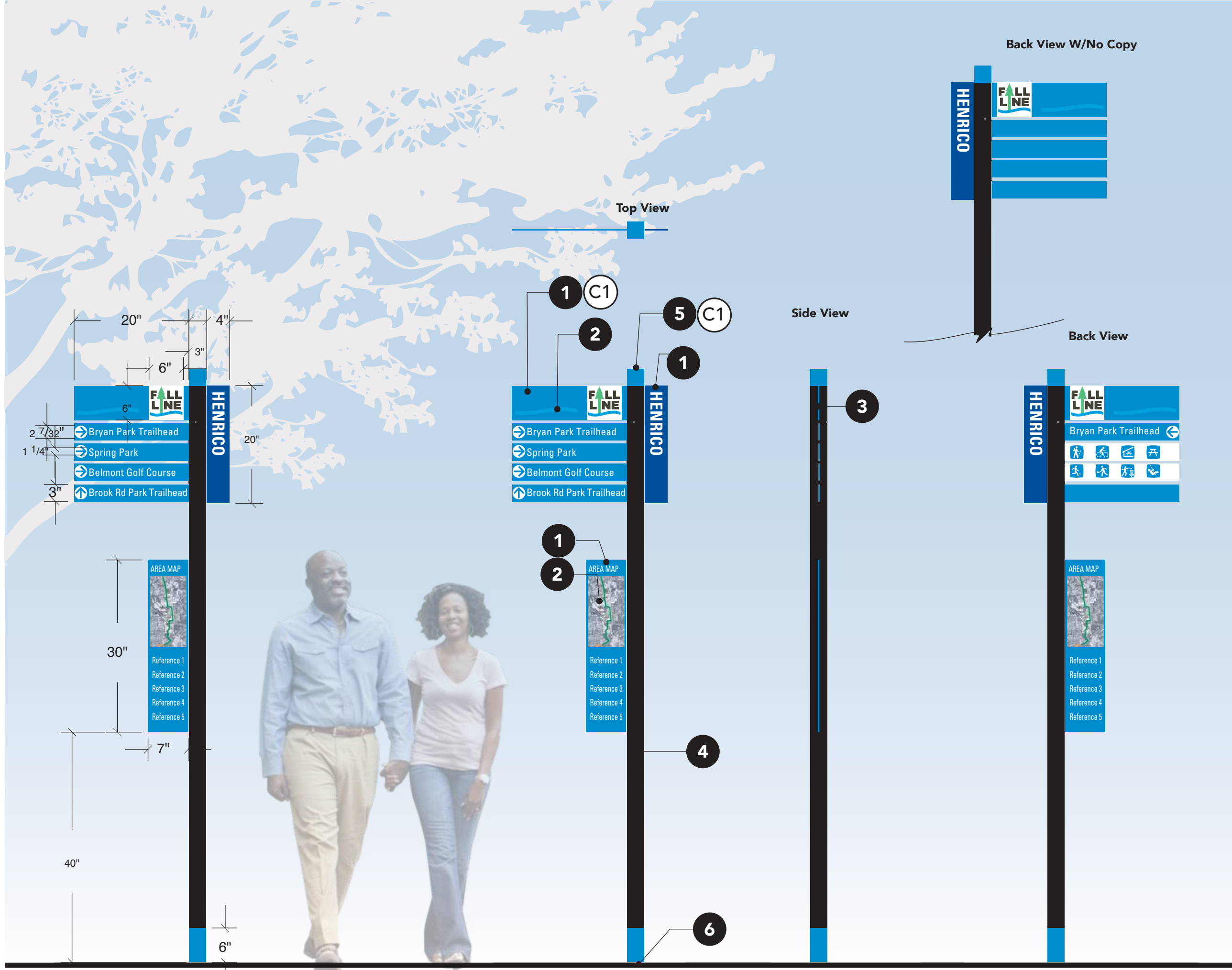
Top View

Side View

Back View

## SIGN DETAILS - SIGN P2

### Pedestrian Directional On Street - OPTION



Signs to have pedestrian and night visibility. Trees that obscure sign face to be trimmed.

Sign to be single or double sided.

1. 1/4" Thick aluminum sign panel. All edges and corners to be ground smooth, straight, and square with no gaps or voids. **NON OBTRUSIVE HARDWARE.**

2. Colors and graphics to be digitally printed onto 3M™ High Intensity Prismatic Reflective Sheeting 3930DS (White). Apply 3M™ Electrocut™ Film Series 1170 (Clear) to seal reflective sheeting.

3. Custom machined washer holds panels and hubs in place.

4. 3"x 3" painted steel post.

5. Post capped with welded steel plate.

6. 3000 PSI concrete footer. The size and depth of the concrete footer shall be determined by the fabricator. The footers must be certified by engineers registered in the state Virginia.

Fabricator: Check flood levels in the area and elevate the sign as needed with a longer post.

Paint Colors:  
 C1. Pantone P109-7C Blue  
 C2. White  
 C3. Polyurethane Clear Coat Satin  
 Paint-Black

Fonts:  
 Univers Condensed 57  
 Univers Bold Condensed 67

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 CVTA, Virginia  
 Wayfinding for Fall Line Trail



## SIGN DETAILS - SIGN P3

### Pedestrian Directional Off Street

Signs to have pedestrian and night visibility. Trees that obscure sign face to be trimmed.

Sign to be single or double sided.

1. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. NON OBTRUSIVE HARDWARE

2. Colors and graphics to be digitally printed onto 3M™ High Intensity Prismatic Reflective Sheeting 3930DS (White). Apply 3M™ Electrocut™ Film Series 1170 (Clear) to seal reflective sheeting.

3. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. NON OBTRUSIVE HARDWARE

4. 3"x 3" painted steel post.

5. Post capped with welded steel plate.

6. 3000 PSI concrete footer. The size and depth of the concrete footer shall be determined by the fabricator. The footers must be certified by engineers registered in the state Virginia.

Fabricator: Check flood levels in the area and elevate the sign as needed with a longer post.

Paint Colors:

C1. Pantone P109-7C Blue

C2. White

C3. Polyurethane Clear Coat Satin

Paint-Black

Fonts:

Univers Condensed 57

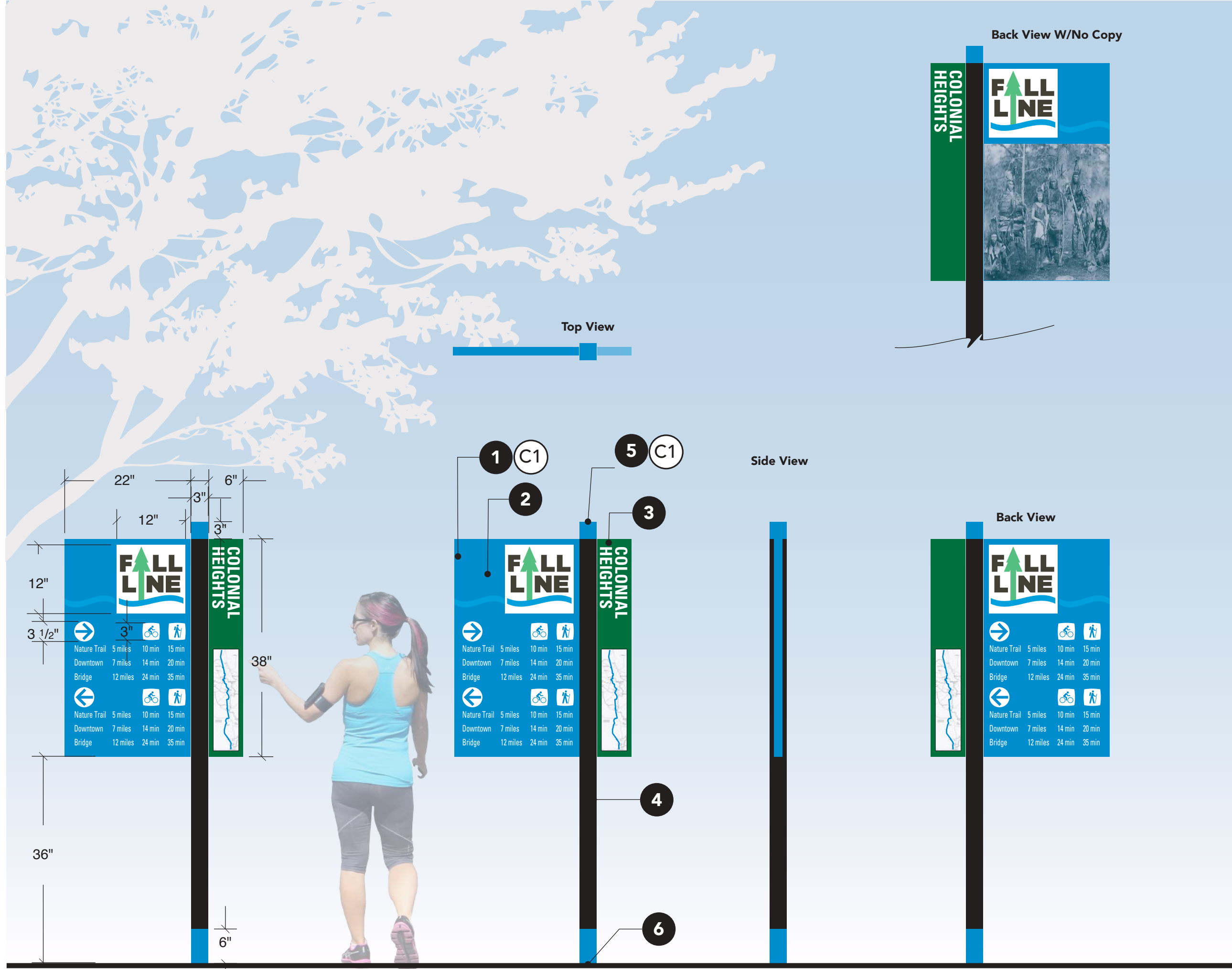
Univers Bold Condensed 67

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## SIGN DETAILS - SIGN MA Pedestrian Map

Signs to have pedestrian and night visibility. Trees that obscure sign face to be trimmed.

Sign to be double sided.

1. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. NON OBTRUSIVE HARDWARE

2. Colors and graphics to be digitally printed onto 3M™ High Intensity Prismatic Reflective Sheeting 3930DS (White). Apply 3M™ Electrocut™ Film Series 1170 (Clear) to seal reflective sheeting.

3. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. NON OBTRUSIVE HARDWARE

4. 3"x 3" painted steel post.

5. Post capped with welded steel plate.

6. 3000 PSI concrete footer. The size and depth of the concrete footer shall be determined by the fabricator. The footers must be certified by engineers registered in the state Virginia.

Fabricator: Check flood levels in the area and elevate the sign as needed with a longer post.

Paint Colors:

C1. Pantone P109-7C Blue  
C2. White  
C3. Polyurethane Clear Coat Satin  
Paint-Black

Fonts:

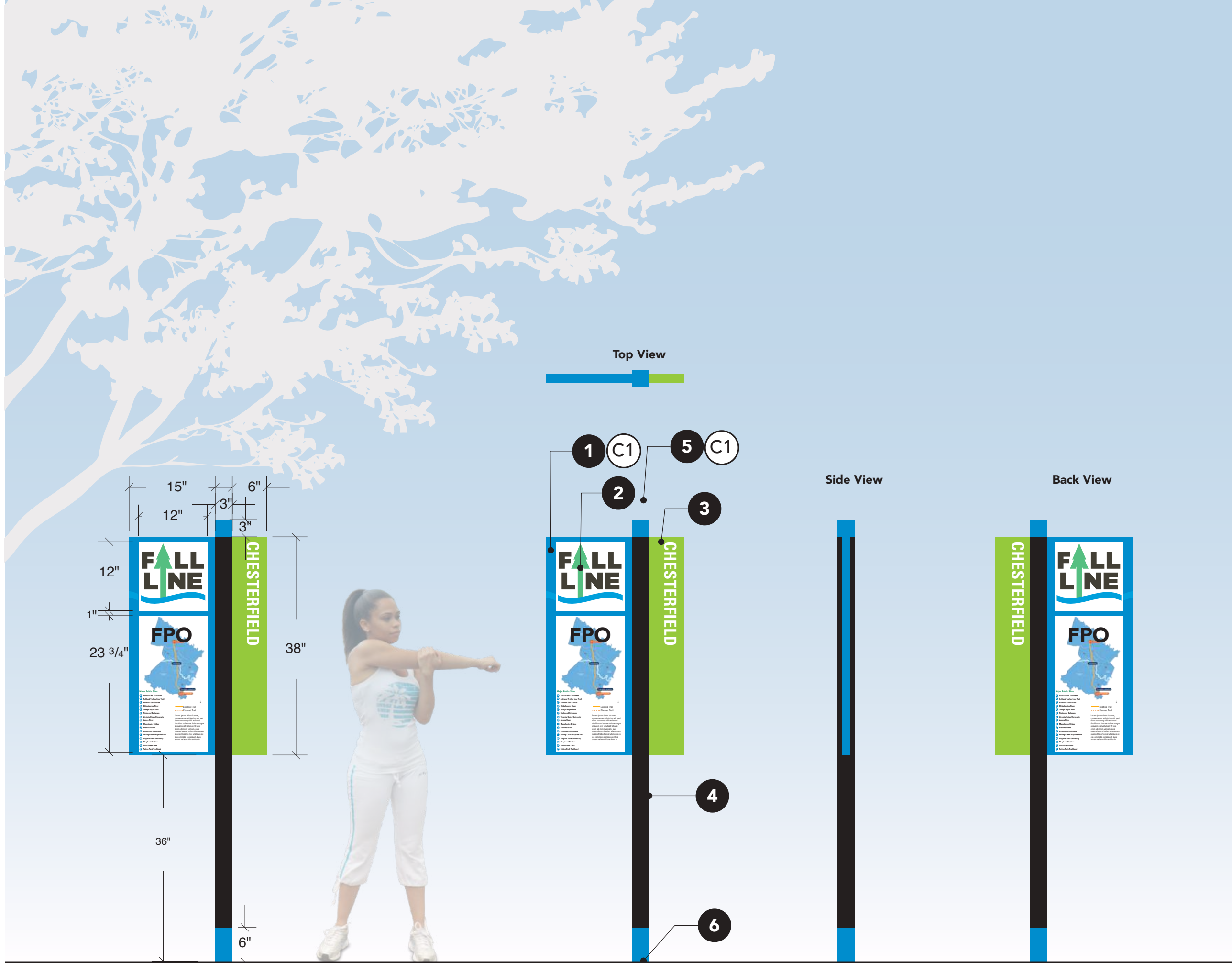
Univers Condensed 57  
Univers Bold Condensed 67

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## SIGN DETAILS - SIGN M1 & M2

### Mile Marker

Signs to have pedestrian, vehicular and night visibility. Trees that obscure sign face to be trimmed.

Sign to be double sided.

1. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. NON OBTRUSIVE HARDWARE.

2. Colors and graphics to be digitally printed onto 3M™ High Intensity Prismatic Reflective Sheeting 3930DS (White). Apply 3M™ Electrocut™ Film Series 1170 (Clear) to seal reflective sheeting.

3. 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. NON OBTRUSIVE HARDWARE.

4. 3"x 3" painted steel post.

5. Post capped with welded steel plate.

6. 3000 PSI concrete footer. The size and depth of the concrete footer shall be determined by the fabricator. The footers must be certified by engineers registered in the state Virginia.

Fabricator: Check flood levels in the area and elevate the sign as needed with a higher base.

Paint Colors:

C1. Pantone P109-7C Blue

C2. White

C3. Polyurethane Clear Coat Satin

Paint-Black

Fonts:

Univers Condensed 57

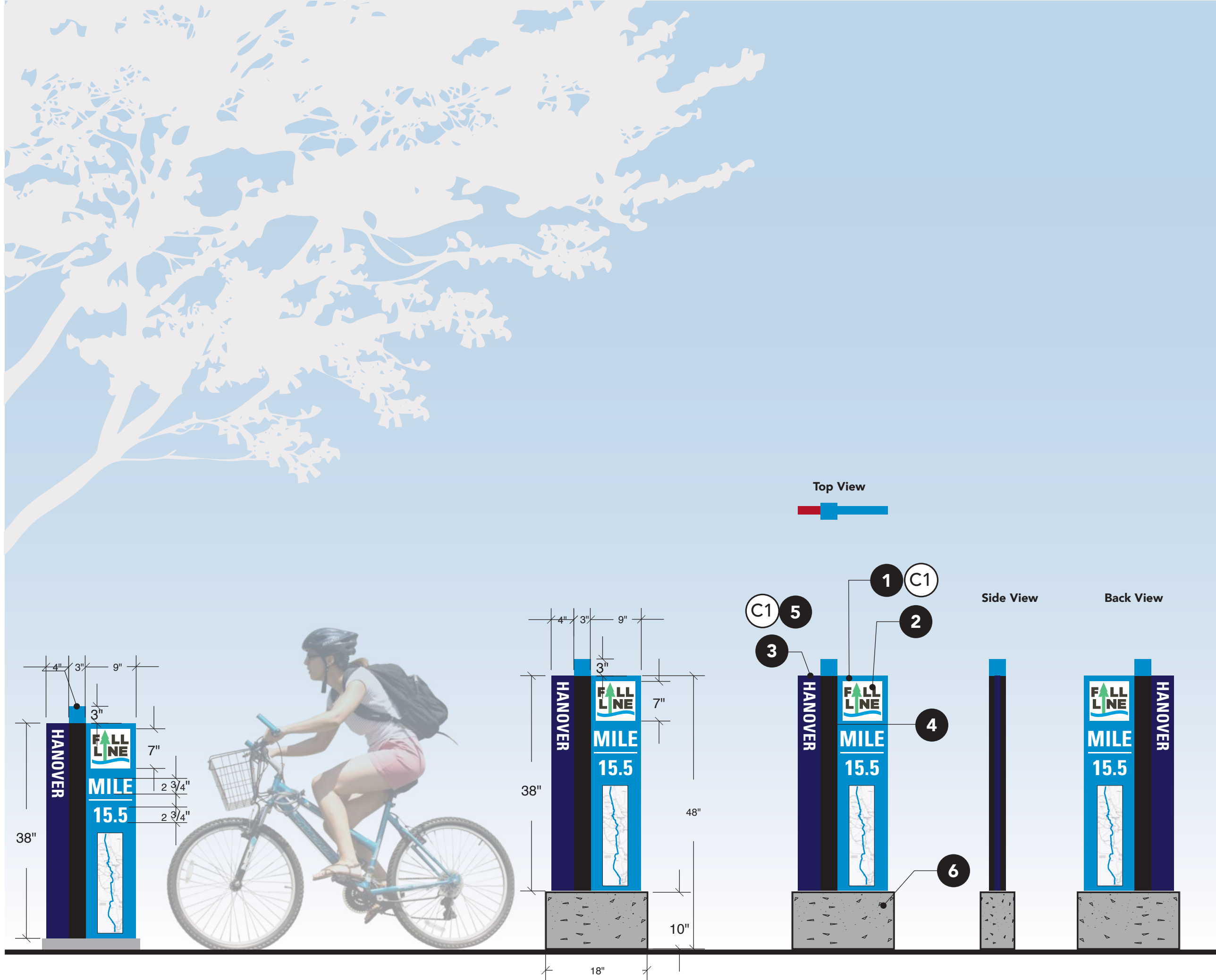
Univers Bold Condensed 67

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Date	Revisions	Scale
8.31.23		3/4" = 1'

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## SIGN DETAILS - SIGN W

### Warning Signs

Signs to have pedestrian and night visibility. Trees that obscure sign face to be trimmed.

Sign to be single or double sided.

1. 1/4" Thick aluminum sign panel. All edges and corners to be ground smooth, straight, and square with no gaps or voids. **NON OBTRUSIVE HARDWARE.**

2. Colors and graphics to be digitally printed onto 3M™ High Intensity Prismatic Reflective Sheeting 3930DS (White). Apply 3M™ Electrocut™ Film Series 1170 (Clear) to seal reflective sheeting.

3. Post capped with welded steel plate.

4. 3"x 3" painted steel post.

5. 3000 PSI concrete footer. The size and depth of the concrete footer shall be determined by the fabricator. The footers must be certified by engineers registered in the state Virginia.

Fabricator: Check flood levels in the area and elevate the sign as needed with a longer post.

Paint Colors:

C1. Pantone P109-7C Blue

C2. White

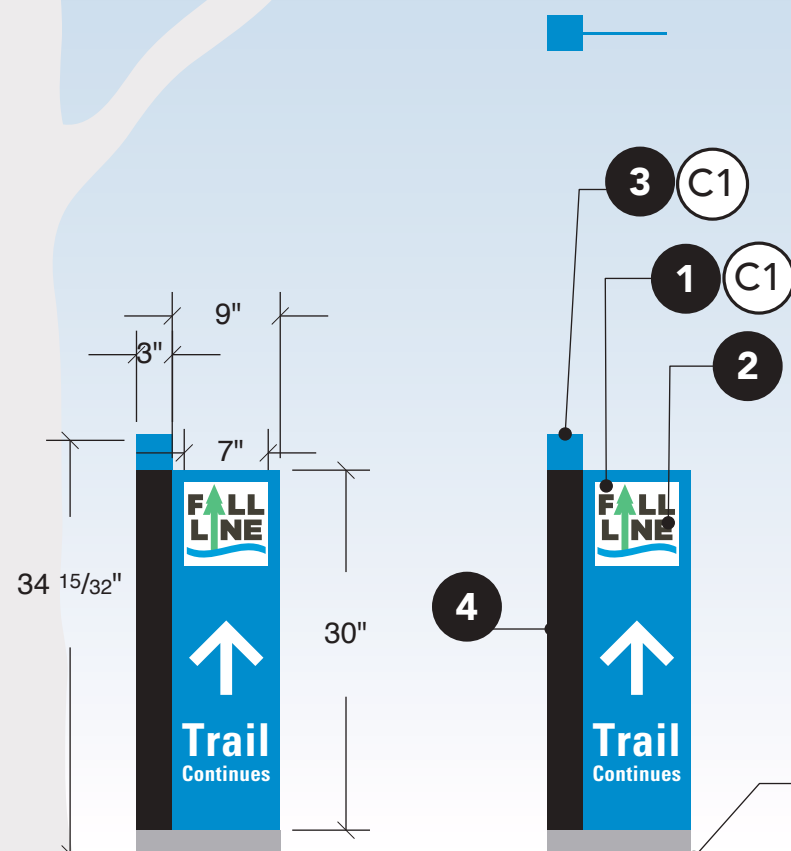
C3. Polyurethane Clear Coat Satin Paint-Black

Fonts:

Univers Condensed 57

Univers Bold Condensed 67

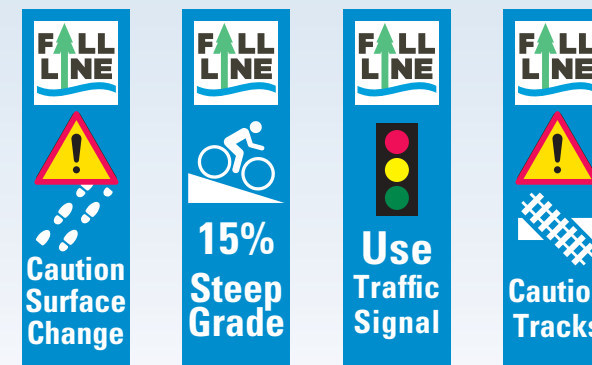
Top View



Side View



Additional Messages



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### SIGN DETAILS - SIGN VI

Vinyl Decal

### SIGN PL1&2 Metallic Plates

To be applied to existing light poles or any other existing vertical element that will allow for it. Sizes for the PL1 and VI square can be 6"x6", 7"x7", 9"x9" and 12"x12". Sizes for the PL2 and VI rectangular can be 3"x4 1/2", 4"x6" and 6"x9".

Material for VI to be exterior grade digitally printed vinyl.

Material for PL1 & PL2 to be .080 Aluminum pre-sheeted in white vinyl; routed corners/shapes, with rounded edges.

PL2 to have vinyl applied to both sides, or Direct Print with UV Clear Coat.

Sign post cap (Round, Square or U-Channel)  
Available locally through Traffic Safety Supply Co. 503.235.8531 - 800.547.8518  
<https://www.tssco.com/contact/>



Round Pipe Cap  
2-3/8" Cap  
3.25" receiver



Square Post Cap  
2" Cap  
3.25" receiver  
Flat #16504402



U-Channel Post Cap  
180 Degree Cap  
3.25" receiver  
Flat #16504615



4" Wood Post Cap  
4"X4" Cap  
3.25" receiver  
Flat #16503800

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PL1  
Square plate  
.080 aluminum w/ applied vinyl;  
or digital print on vinyl



VI  
Vertical vinyl decal  
Digital print on vinyl



VI  
Post wrap vinyl  
Square or rectangular;  
digital print on vinyl;  
measure and cut to size  
before applying



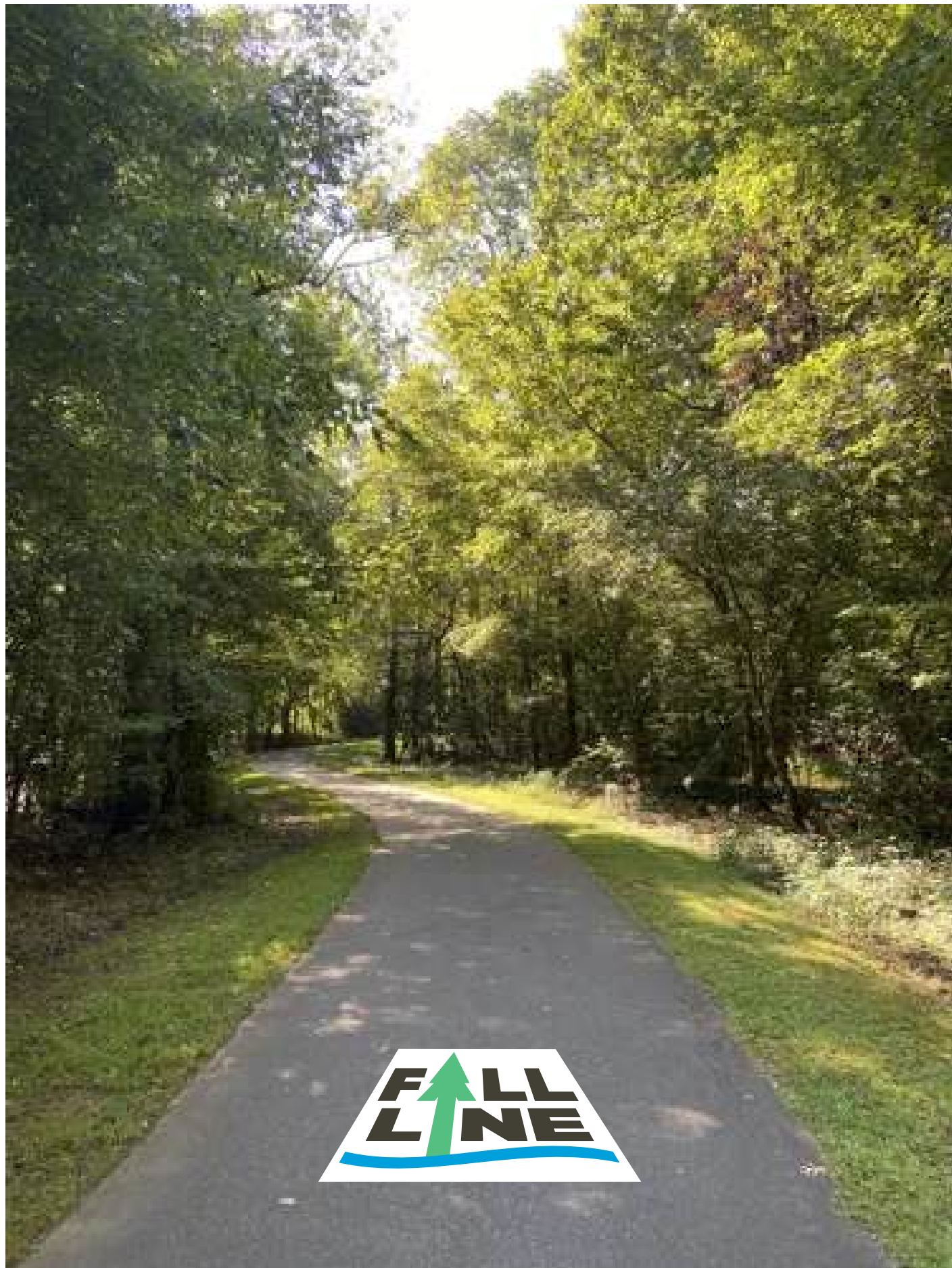
PL2  
Rectangular Plate  
Sign Post Cap -  
.080 aluminum;  
on post



Color Options







**SIGN DETAILS - SIGN G**

Identification:  
Ground Decals

Sign G: to be applied to the ground as vinyl or a solid material embedded on the surface of the trail. Sizes and materials to vary by location. 16"x16" and 24"x24".

Material to be ORACAL® 751, 2-mil apt Minimum Life Expectancy of 8 years with a non skid over laminate to be ORAGUARD® 255AS 6.5 mil, Matte transparent with a raised, skid-resistant, textured surface or similar.

Sign S: to be stenciled or painted directly into a surface. Sizes and materials to vary by location.

Other alternatives to include: metal medallions, thermoplastic, stamped concrete, and tile mosaics.

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SIGN DETAILS - **SIGN PL2**  
Large Metallic Plates

Metallic plates with historical, nature, or local people images applied to available surfaces. Sizes and materials to vary by location.

Material for PL2 to be 0.80 Aluminum, with rounded edges and to have 4 perforations for mechanical attachment.



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## SIGN DETAILS - Typical Detail for Cantilevered Signs

Sign to be double sided.

1. Fabricated 1/8" Thick aluminum face and side skins chemically welded to frame conceptual design with seamless edges. All edges and corners to be ground smooth, straight, and square with no gaps or voids. NON OBTRUSIVE HARDWARE

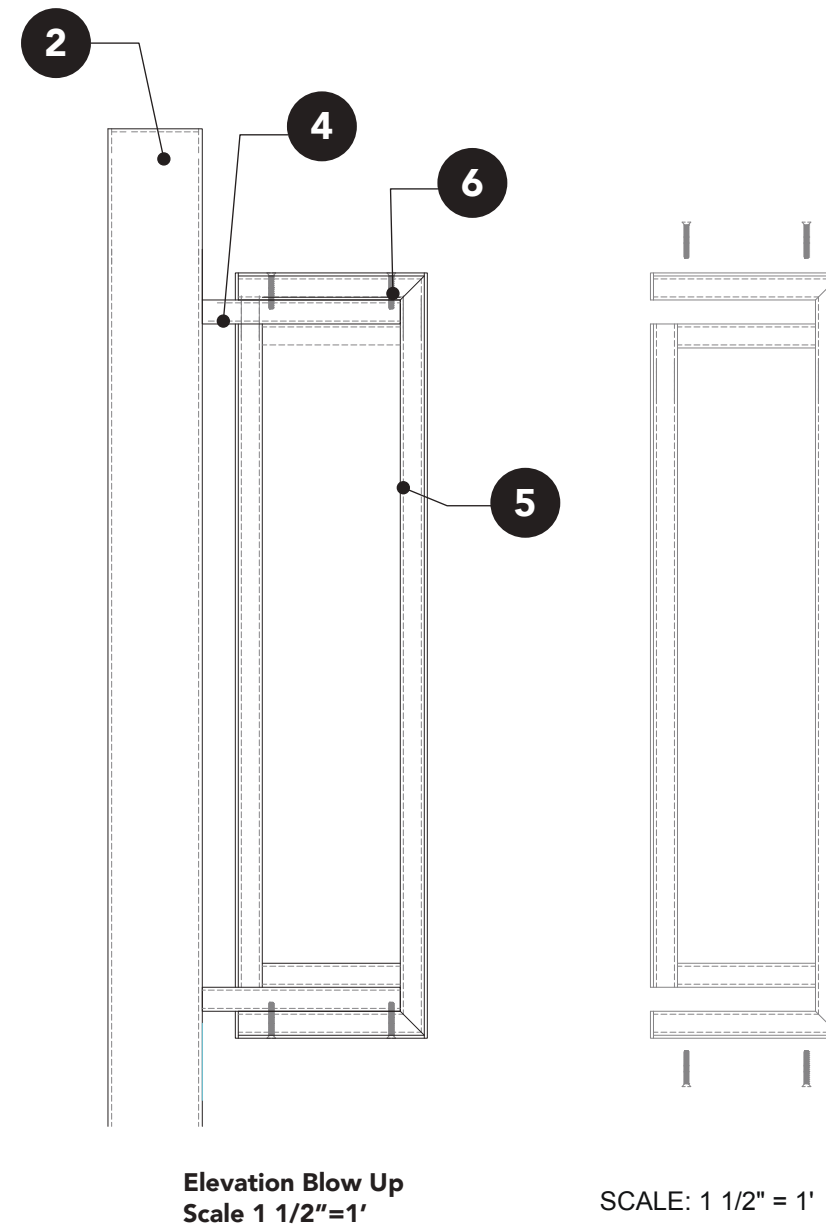
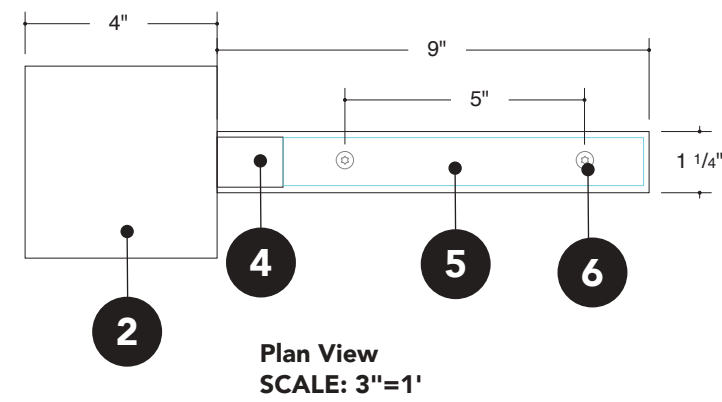
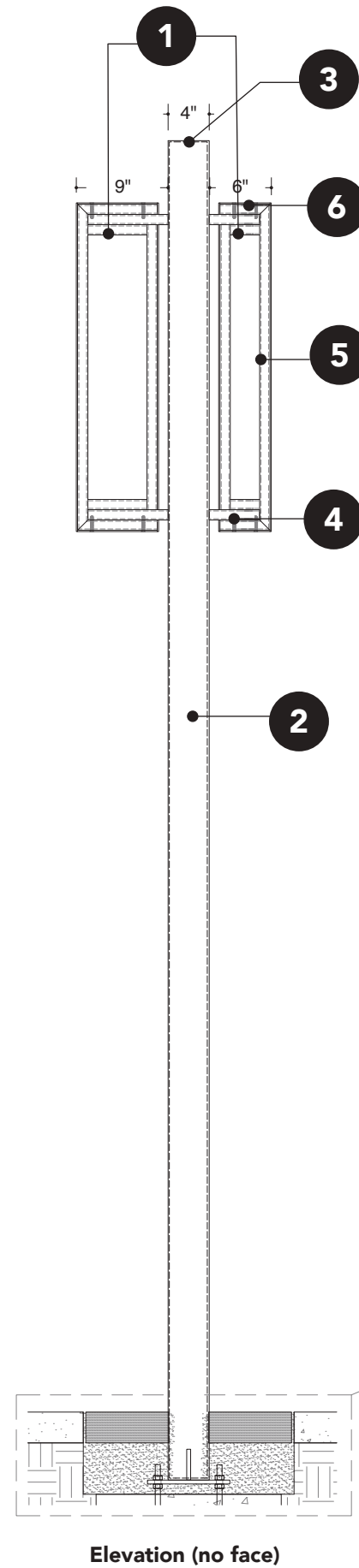
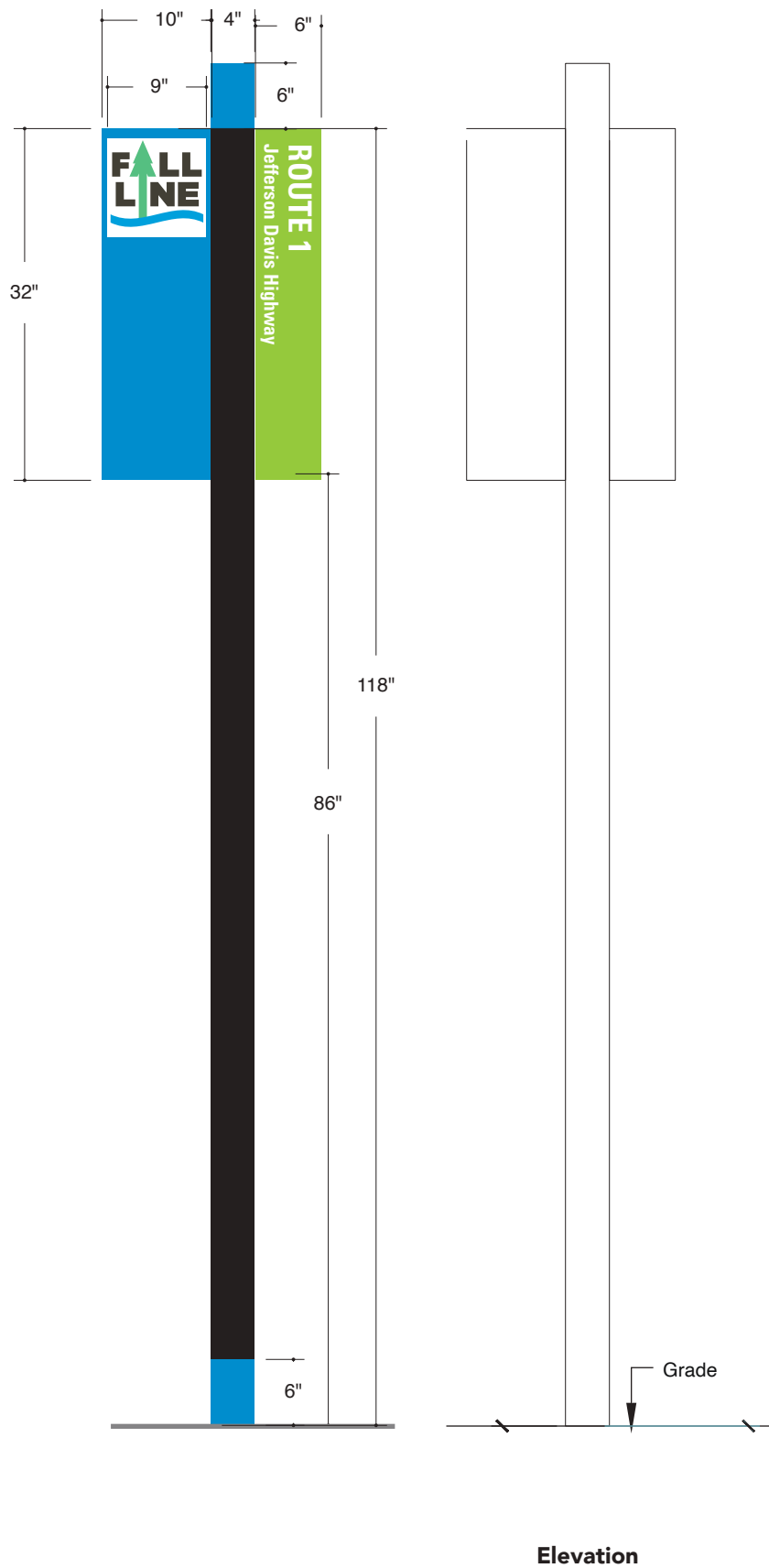
2. 4" x 4" painted steel post.

3. Post capped with welded steel plate.

4. 1" x 1" x 11 Gauge steel tube welded to post.

5. 1" x 1" x 1/8" thick wall aluminum tube frame, welded construction.

6. Sign box attached to steel arms with 10-24 S.S. countersunk screws.



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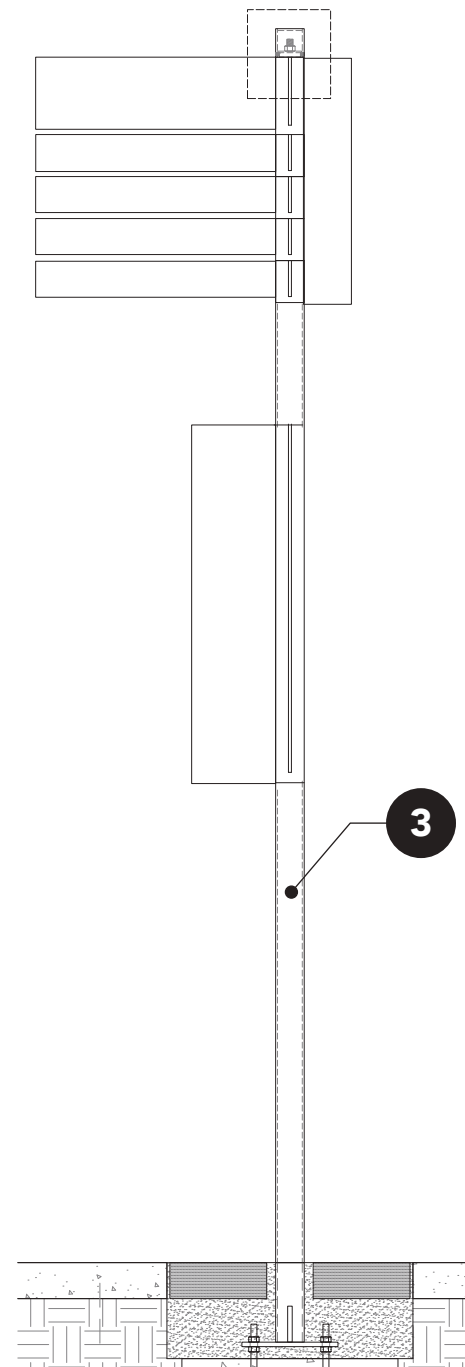
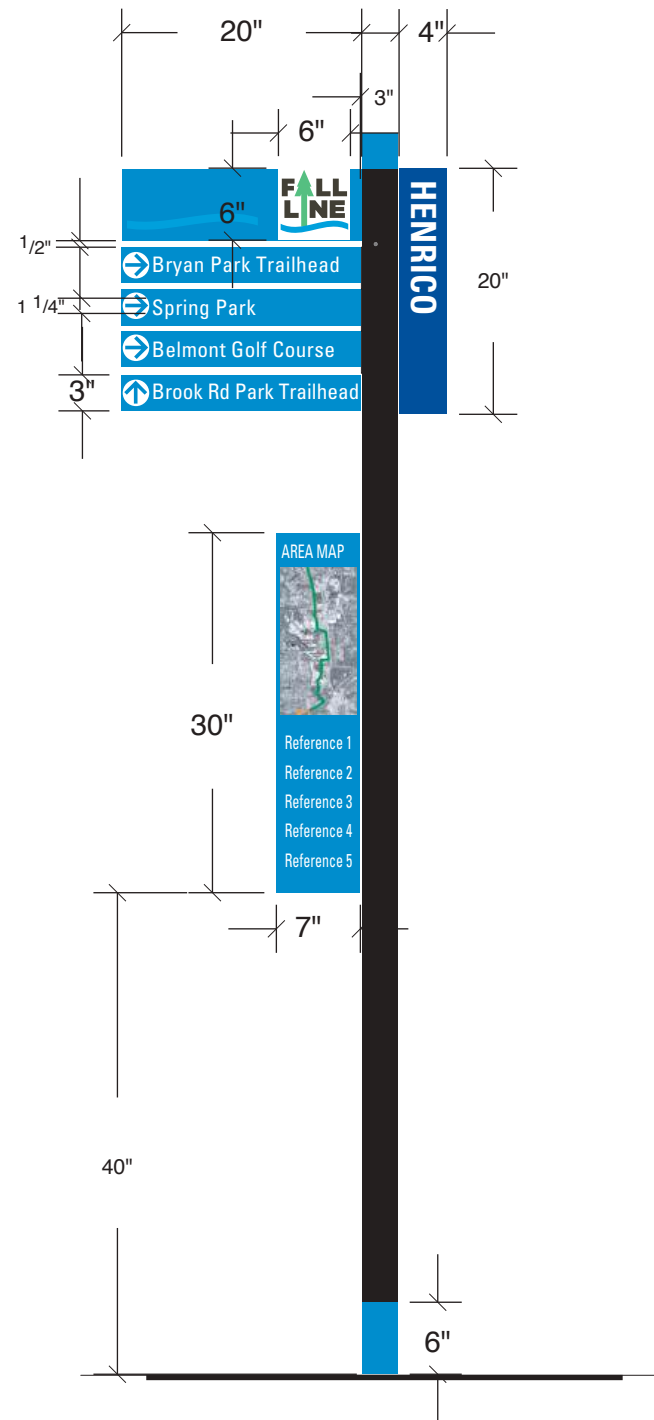
Date	Revisions	Scale
9.15.23		3/4"=1'

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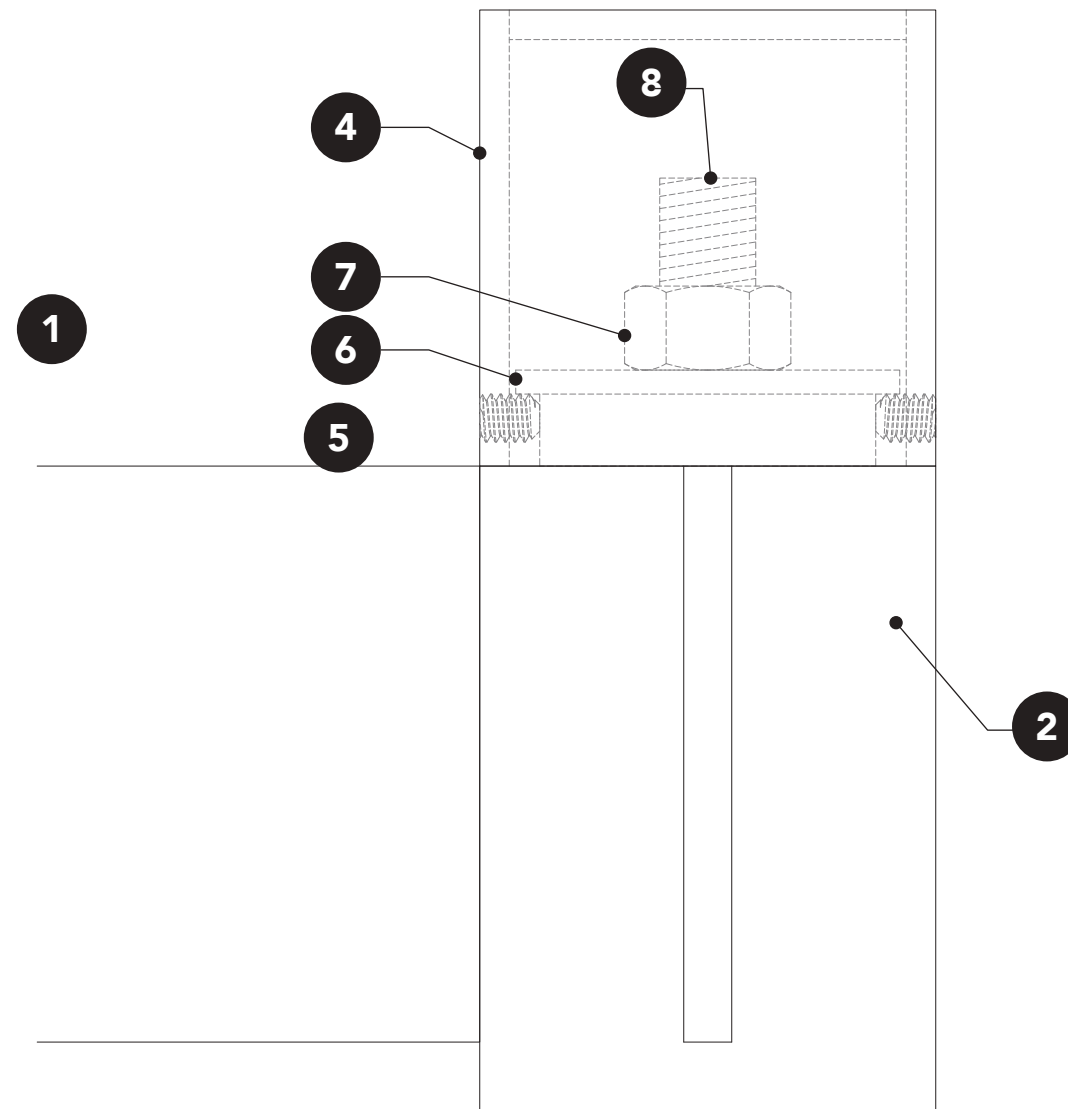
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## SIGN DETAILS - Typical

### Detail for Cantilevered Signs With Inserts



Elevation



Elevation Blow Up  
Scale: Full Size

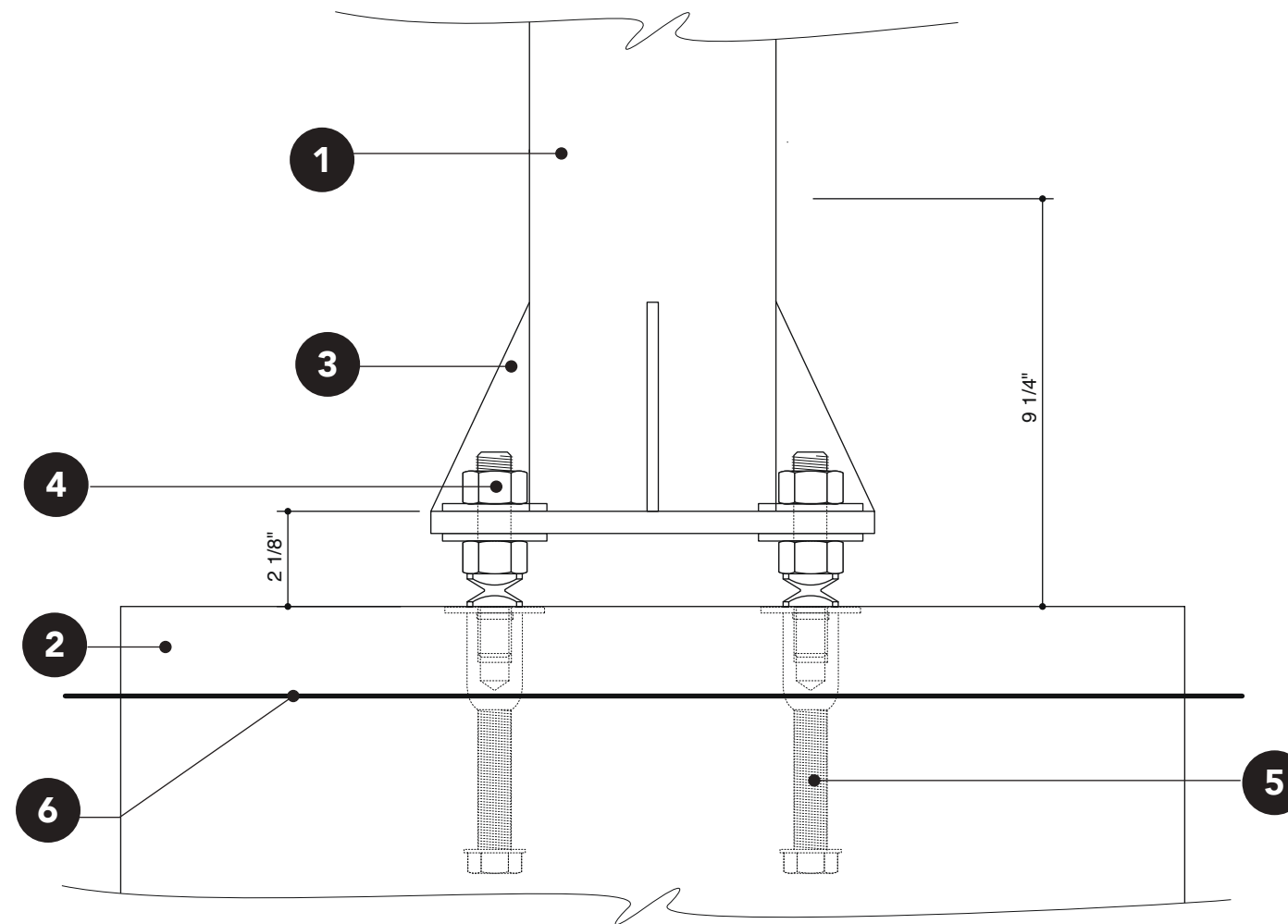
1. 1/4" thick aluminum sign panel.
2. Custom machined aluminum hub.
3. 3"x3" steel post.
4. Post capped with welded steel plate.
5. Cap secured with 1/4"-20x5/16" set screws. Set Screws to be on opposite side of walking person graphics.
6. Custom machined washer holds panels and hubs in place.
7. Washer secured with 1/2" nut and locking washer.
8. 1/2" S.S. threaded rod extends up from post, hubs slide over this.

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## SIGN DETAILS - Typical Detail for Breakaway



1. Square painted post.
2. 3000 psi concrete foundation cylinder.
3. Welded flange and mounting plate.
4. FHWA-approved Transpo PoleSafe® breakaway supports (or equivalent) to be attached to J-bolts below and base flange above. Coupling to be engineered and installed according to manufacturer's specifications.
5. Galvanized "J" anchor bolts.
6. Grade

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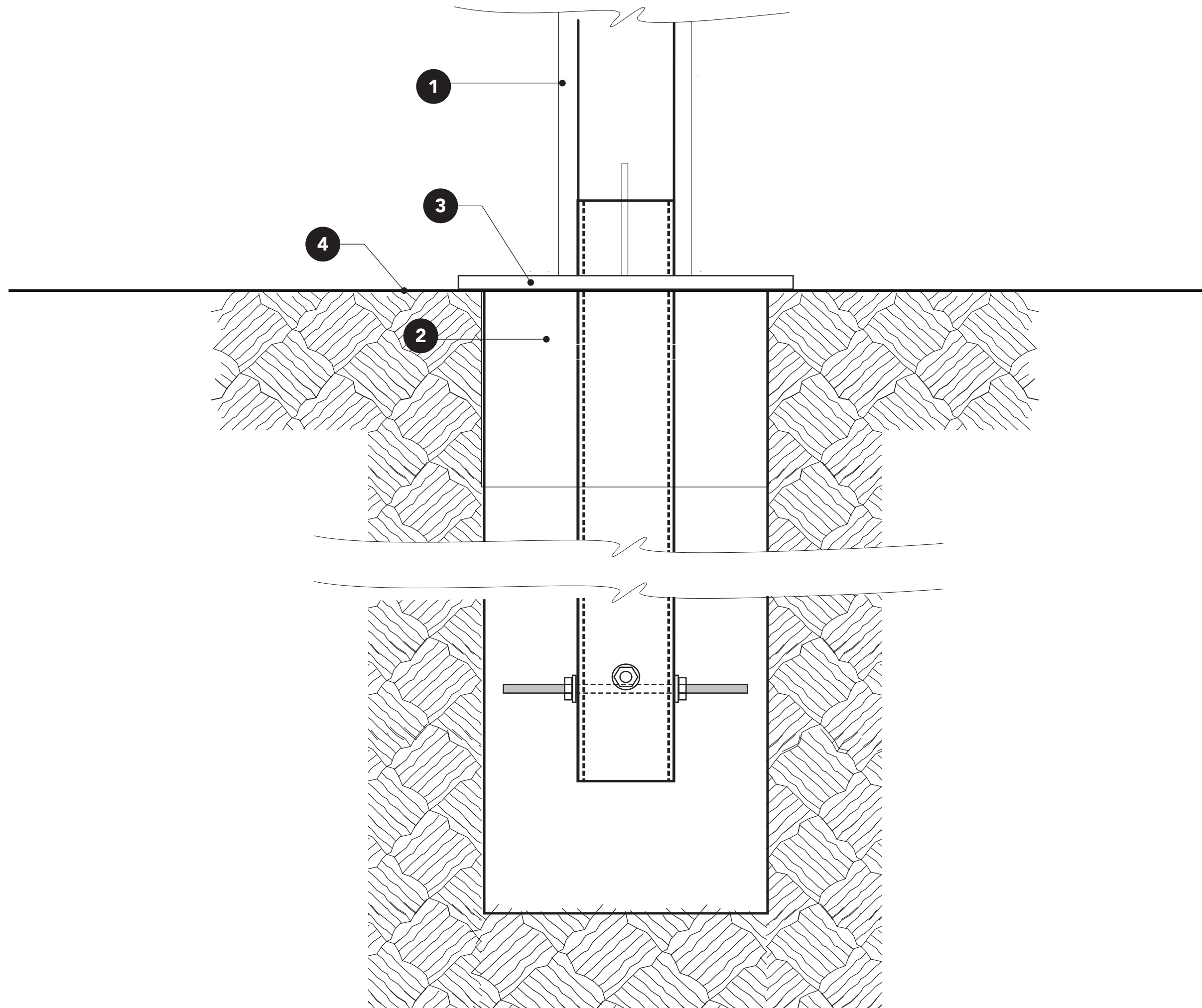
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**SIGN DETAILS - Typical**  
 Detail for Pedestrian  
 Signs Base



1. Square painted post.
2. 3000 psi concrete foundation cylinder 12" Ø .
3. 14" cover to cover 12" Ø footer so that no concrete patching is required on signs installed on concrete pavers.
4. Grade

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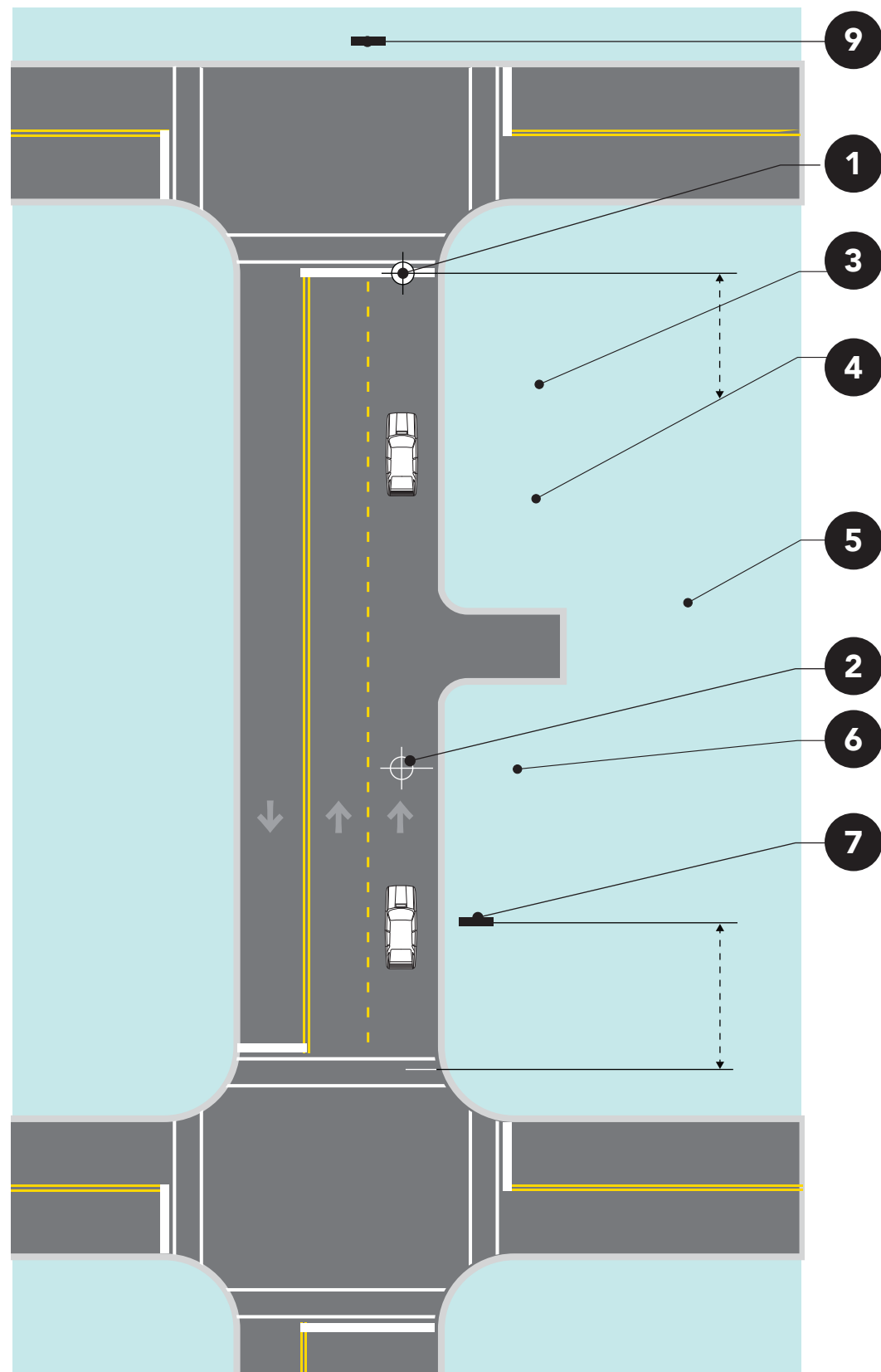


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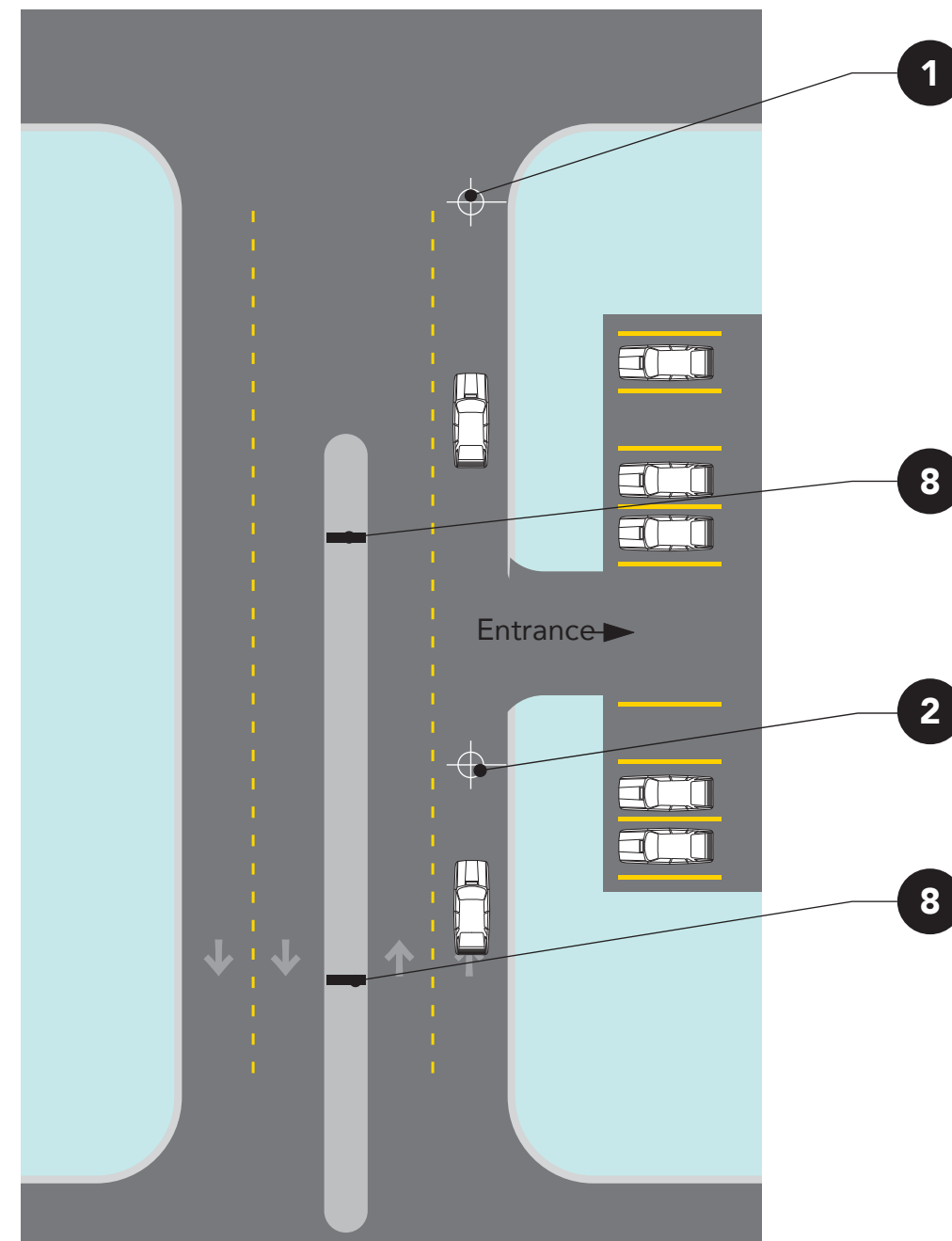
# Placement Guidelines

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### Vehicular Guide Placement - Right Side of Street



### Vehicular Guide Sign Placement - Left Side of Street



All signs shall be installed to the right of the direction of traffic and where sufficient space is available.

(a) Signs should be located to take advantage of natural terrain, to minimize impacts on scenic environment and to avoid visual conflicts with other signs, trees and lamp-posts within the City right-of-way.

(b) Signs shall be located so as not to interfere with, obstruct or divert driver's attention from any other Official Traffic Control Device. Other Official Traffic Control Devices placed at intersection approaches, subsequent to the placement of a Wayfinding Sign, shall have precedence as to location and may require the relocation of the Wayfinding Sign. In the locations where Official Traffic Control Devices are integrated into the Wayfinding Signage System, the Official Traffic Control Devices shall take precedence with regard to order, space and location, over other information.

(c) Wayfinding Signs should be positioned in such a manner that does not restrict driver's attention or view when making turns or driving through an intersection.

(d) There should be a goal of one sign per block, although two are permissible, where necessary.

(e) Final sign placement should be verified upon field study of existing conditions. Consult with the local transportation authority for compliance requirements.

### PLACEMENT GUIDELINES

1. In route decision point
2. Destination arrival decision point
3. Vehicular guide signs placed on the driver's right side of the street between 100 and 200 feet before an in-route decision point. If a speed limit is more than 50 mph, vehicular guide signs should be placed between 150 to 300 feet before an in-route decision point.
4. If a second vehicular guide sign is required before an in-route decision point, it may be placed no closer than 50 feet to the following sign. 100 feet is optimal.
5. Destination
6. Vehicular guide signs placed on the driver's right side of the street between 50 and 100 feet before a destination arrival decision point. If speed limit is more than 50 mph, vehicular guide signs should be placed between 100 to 150 feet before a destination arrival decision point.
7. A vehicular guide sign may be placed no closer than 50 feet from a preceding decision point or intersection. 100 feet is optimal.
8. Where the driver's right side of the street is not conducive for sign placement and a street is divided by a median wider than the width of a proposed sign and is not populated with visual barriers or is within the opposing traffic's line of site, guide signs may be placed on the driver's left side in the median. Distance from decision points as indicated
9. Where neither the driver's right or left side of the street is conducive for sign placement and the associated decision point occurs at a "T" intersection, guide signs may be placed on the far side of intersecting street as long as they do not conflict with existing signage, signal lights, store frontage or other critical visual devices.

NOTE: Placement distance between a vehicular guide sign and a decision point may vary depending on speed, number of lanes, congestion and competing visual elements and obstructions.

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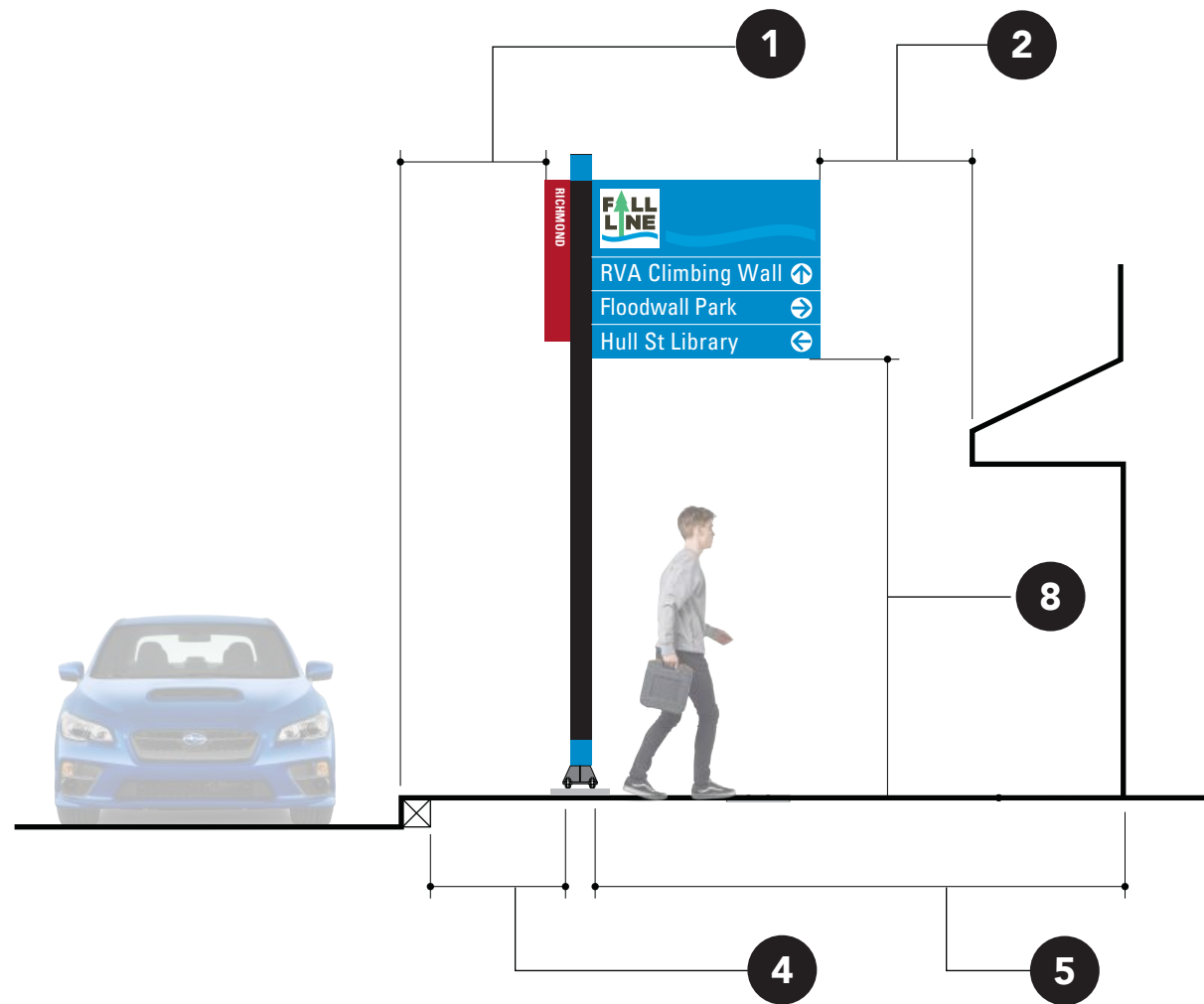
Date	Revisions	Scale
9.25.23		NTS

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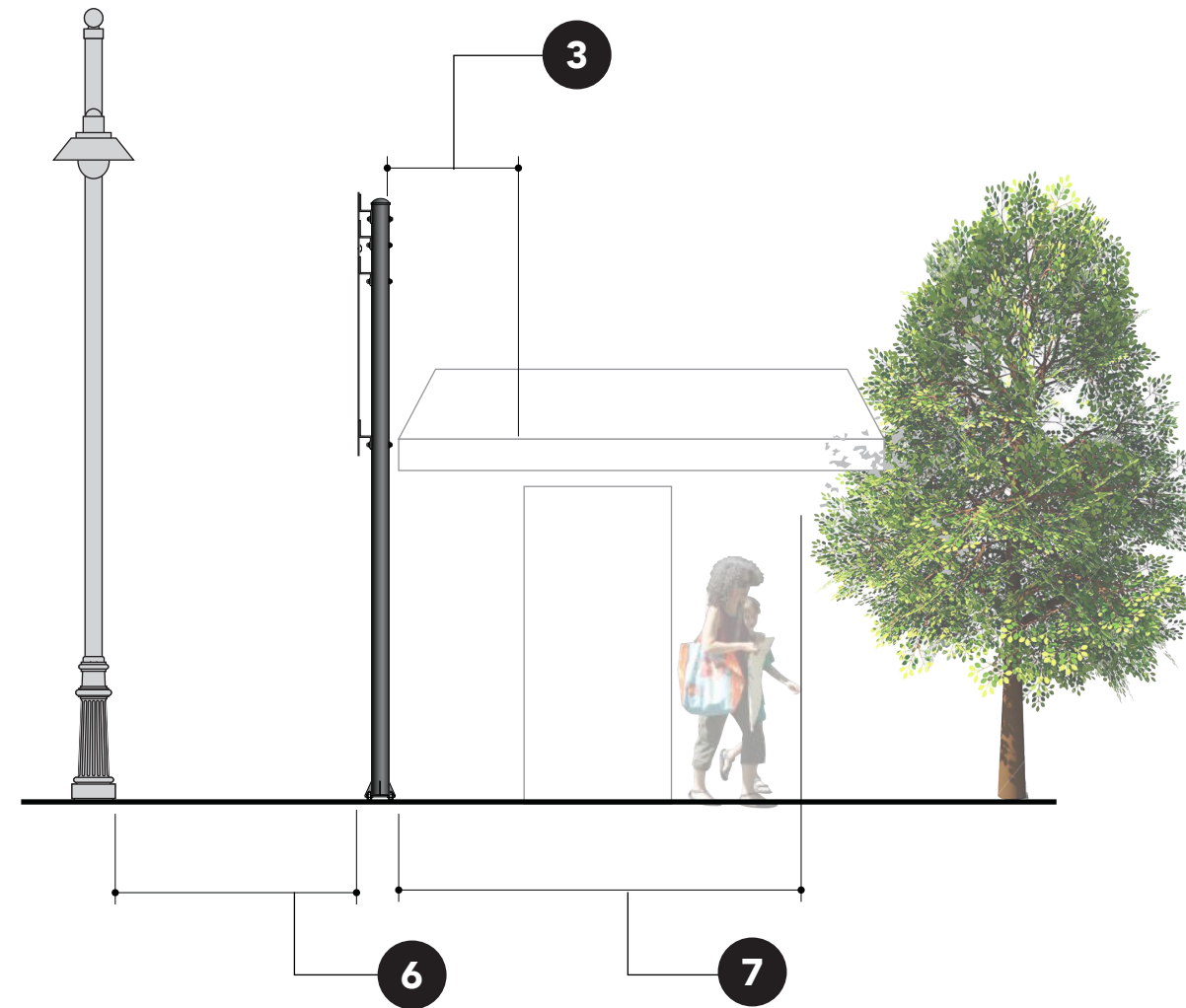
## PLACEMENT GUIDELINES

1. The distance from the curb to the outside edge of the sign panel must be no less than 1'-0".
2. The distance from the edge of the sign panel nearest to a building or projected element must be no less than 2'-0".
3. The front view of a vehicular guide must not obstruct its entrance.
4. If pedestrian traffic is only accessible between the outside edge of the vehicular guide post and the curb, the unobstructed path must be no less than 4'-0".
5. If pedestrian traffic is only accessible between the inside edge of the vehicular guide post and adjacent structures including open doors, the unobstructed path must be no less than 4'-0".
6. The distance from the back of the vehicular guide to the nearest utility pole must not be less than 10'-0" or the distance mandated by local code.
7. The distance from the front of the vehicular guide to the nearest tree or utility pole must not be less than 15'-0".
8. Maintain 7'-0" from grade to bottom of vehicular guide signs. Verify compliance requirements with the governing transportation authority.

Perpendicular to Curb



Parallel to Curb



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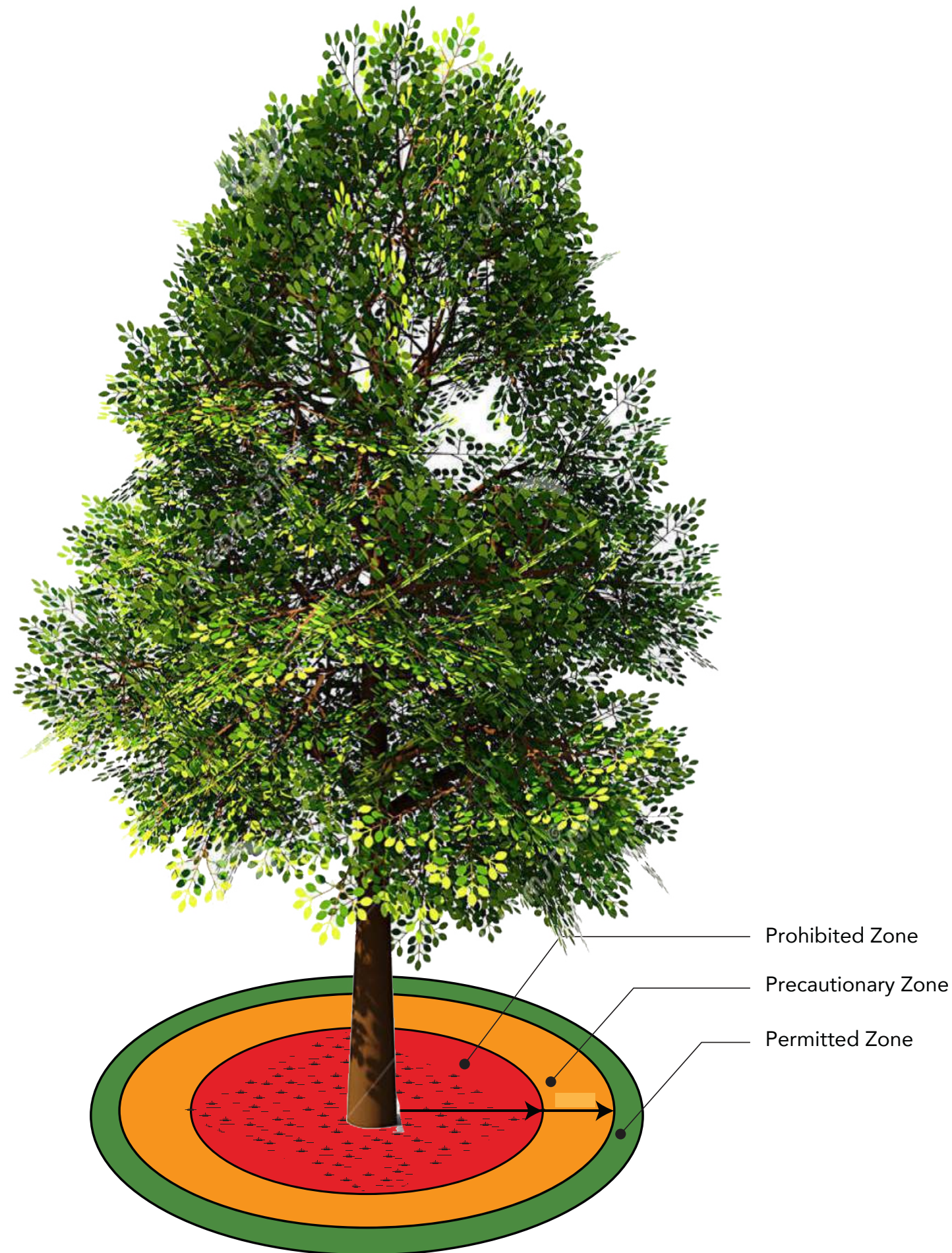
## PLACEMENT GUIDELINES

### Vegetation and Tree Guidance Requirements

Caution shall be given to sign placement in proximity to existing trees. Tree roots are commonly found 10" beneath ground level. The placement of the signage elements should be located at least 6' from any tree trunk.

Every effort shall be made to move any roots to the side of excavation. Works should be no closer than 40" from the tree base. Where excavations must be undertaken within four (4) times the tree circumference the use of mechanical excavations shall be prohibited within the precautionary zone.

NOTE: These drawings are meant for DESIGN INTENT ONLY and are not for construction. Contractor shall verify and be responsible for all dimensions and conditions of the job. Contractor shall be familiar with the site and conditions it presents. Shop drawings and details must be submitted prior to proceeding with fabrication. All copy shall be proofread by client and legal requirements checked by legal department.



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# Usage Guidelines

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## Goals of the Signage Master Plan

We are pleased to present the Fall Line Trail Signage Master Plan.

### **Signage Master Plan Standards Guidelines**

In developing these Signage Master Plan standards, we have pursued the following goals and objectives:

- To develop an effective wayfinding system for pedestrians, vehicles, and short-term parking users that functions as an integral part of the trail environment.
- To use wayfinding to express the Fall Line Trail's unique culture, philosophy, and image as it guides visitors to key destinations.

### **The wayfinding system will:**

- Provide effective wayfinding for pedestrians and vehicles between major destinations throughout the trail.
- Cultivate an overall "Sense of Place" for the community.
- Enhance and reinforce the unique experience for residents and visitors as they navigate the trail.
- Enhance and reinforce the boundaries of the trail with gateway and identity treatments.
- Provide all necessary information in a clear, concise, and minimal manner, while not adding to visual clutter.
- Be cost-effective.
- Be programmed and designed for phased implementation.
- Allow for ease of updating and maintenance.

One of the fundamental objectives of the Signage Master Plan is to clearly convey the identity and whereabouts of the attractions within the Fall Line Trail.

The Plan proposes to use signage in a consistent manner throughout the Trail in order to guide visitors in a systematic fashion. This has the dual advantage of promoting the Trail and the diverse attractions within it.

An effective signage/wayfinding system functions not as a separate entity but as an integral part of its environment. Carefully planned signs communicate essential information while also enhancing the urban environment.

As the visual introduction to the community, signs play a prominent role in defining the trail's identity and boundaries.

The Signage Master Plan comprehensively details the correct use of the typography, colors, and the family of signs that comprise the wayfinding system.

Sign materials and finishes have been selected for their longevity. A color family has been selected to provide a comprehensive graphic visual language for the Fall Line Trail.

The wayfinding system has been designed to help first time and infrequent visitors with wayfinding and to define the trail's boundaries. Arrival Signage is important to establish a "Sense of Place."

Through the thoughtful use of this Signage Master Plan, signage and wayfinding will reinforce the link between the trail, the community, and the region.

This Signage Master Plan documents the effort to provide a consistent wayfinding approach for the counties, and cities, and their attractions within the Fall Line Trail. The standards aim to promote a uniform approach to environmental communications – both in the visual image projected by signage and its content.

The wayfinding system outlined in this Signage Master Plan will provide many advantages to those who may wish or need to specify and procure signage products.

Users will find that this Signage Master Plan provides:

- Instructions on how to specify signage products to address a multitude of communication needs.
- Usage Guidelines for identification, orientation, directional, information, and regulatory signage.
- Assistance in the selection of colors, typefaces, and graphic motifs.
- Information on signage companies in the region that can produce these products.

The Usage Guidelines provide a structure for selecting the specific signage formats most applicable to the various types of information that need to be conveyed. Using these communication standards, visitors to the trail will experience consistency and predictability in the ways that wayfinding information is presented to them. This will not only provide a safer environment but one in which the visitors' needs have been anticipated and reflected in the placement and content of signs in the visual environment.

This Signage Master Plan should be used as an essential guide by trail staff and fabricators engaged in the sign system's planning, fabrication, installation, and maintenance. This document provides the necessary drawings and details required to implement the Signage Master Plan. Adherence to the standards in this Signage Master Plan will ensure consistency and a common visual language throughout the trail.

This Signage Master Plan is organized into sections:

- Graphic Standards
- Sign Drawings of each sign type
- Placement Guidelines
- Usage Guidelines
- Fabricators Guidelines
- Programming



# Usage Guidelines of the Signage Master Plan

## Fall Line Trail Wayfinding Standards & Signage Maintenance Manual Overview

As part of an ongoing effort to promote, preserve, and enhance the Fall Line Trail, a comprehensive Signage Master Plan has been developed. This effort includes an articulation of how visitors will be introduced to the Fall Line Trail and the manner in which orientation and direction-giving will be provided. User access and circulation throughout the Fall Line Trail will be facilitated by a standardization of signage as well as a consolidation of the nomenclature and circulation strategies. Moreover, these guidelines will articulate issues of overlapping identity among the various counties, and cities through which the Fall Line Trail passes, as well as the tourism venues accessible from it.

The purpose of the Fall Line Trail Usage Guidelines of the Signage Master Plan is to provide consistency in both the appearance of communication devices and the content of wayfinding information. These guidelines aim to:

1. Preserve the appearance of signage
2. Standardize the specific materials and application technologies utilized in signage production
3. Streamline the procurement of signage components

In addition to this documentation, standards, and practices will be articulated that aim to ensure the consistency of the messages being communicated to Fall Line Trail visitors and prospective visitors.

These include:

1. Usage standards for each signage category
2. Nomenclature standards
3. Circulation strategies
4. Articulation of policies adopted for referencing destinations on orientation and directional signage
5. Electronic artwork for logos and symbols
6. Recommendations for utilization of wayfinding references among print and electronic marketing tools

In addition to trail applications, the signage standards developed in this initial phase of work can be utilized by counties, and cities, NGOs, environmental organizations, and civic groups that wish to create environmental graphic applications throughout the region. This allows for replication of materials, construction details and, graphic layouts of those standards developed in the course of this project.

The signage construction entails fabricated aluminum panels and steel posts, and vandal-resistant sign faces engineered to be removable and intended to be updated. The vehicular/pedestrian directional and warning/regulatory signs will utilize retro-reflective graphics.

## Strategy for Signage Implementation

The objectives for the signage system documented in this Signage Master Plan are to provide wayfinding information and reinforce the identity of the Fall Line Trail. This will be achieved through the implementation of visual, content, and location standards.

## Visual Design Standards

Despite the many counties, cities, parks, and attractions through which the trail passes, it is of paramount importance to maintain the formatting standards for all signage related to the Fall Line Trail. By maintaining this singular visual identity, the signage can underscore the autonomy of the Fall Line Trail.

There are several strategies for maintaining the visual standards:

1. Utilization of consistent signage categories. This involves the usage of specific formats for the various kinds of messages that need to be communicated.
2. Utilization of a consistent color scheme. The Trail logotype on the white background and the combination of blue background with white letters for the message section of the signs are arguably the most visible aspects of trail signage identity.
3. Usage of consistent logos and typographic layouts. The Fall Line Trail logo is used at the top of most wayfinding signage categories. Its particular sizing and location are rendered for each signage format and are articulated in the Signage Drawings Section. Similarly, the fonts, layouts, and sizing of text on the various signs are also shown in the detailed drawings.
4. Usage of consistent map graphics. The graphic standards for legends, colors, graphic symbols, type sizing, and location coding should be established in a future phase to ensure that all maps have consistent standards.



## Content Standards

To ensure consistency in wayfinding, content standards have been established for the graphics, and messages used for the various signage categories. Utilizing these standards will not only provide information where it is needed but also afford some predictability as to where this information is likely to be found on signs along the trail. The primary aspects of these content standards are:

1. Placement of specific kinds of information on accommodating signage formats. In essence, the signage formats have been designed around the information they need to convey. Detailed orientation information, for instance, is placed on pedestrian signs where people can pull off the trail and spend as much time as they wish to study maps and legends. Vehicular directional signs, on the other hand, use arrow symbols and copy sizes that permit the whereabouts of nearby destinations to be seen without stopping.
2. Nomenclature standards. These standards aim to reinforce consistency, not merely among signage categories, but also print and electronic communications that reference the trail and the destinations that may be accessed from it. These standards articulate the precise wording used to identify parks, access points, and points of interest.
3. Rationale for signage content. This involves recommendations for what specific kinds of information may be placed on wayfinding signage. Given the size of the trail and its many destinations, it is not functional to convey all of this information on any one sign. There are guidelines for what information may be utilized so that the signs can provide the necessary information and guidance without becoming excessively detailed or lengthy.

## Location Standards

The consistent placement of signage along the Fall Line Trail and in parks and neighborhood adjacent to it can contribute to both the identity of the trail and the function of its signage to provide guidance.

The “predictability” of signs at decision points and trailheads not only reinforces the fact that trail users are on the trail but also conditions them to look for and use the information provided. The standards for signage placement are:

1. Consistent with the MUTCD requirements for shared-use trails, no portion of any sign shall be closer to the edge of the trail than 24 inches. The standard adopted for the Fall Line Trail is the placement of directional and regulatory signs at 30” from the trail and orientation signs at 48”.
2. Orientation signage is generally located between the trail and the predominant user approach path (from parking lots, playgrounds, etc.).
3. Where directional signage directs trail users from both directions, it is generally located as close as possible to the decision points. In the event a directional sign is directing visitors from only one approach, it is generally placed 20’ to 30’ in advance of the decision point.
4. Regulatory signage is placed consistent with directional signage. For single-post signage, no portion of the sign shall be closer to the trail than 24”.
5. All signs should comply with state (VDOT), county, local, and MUTCD sign regulations that may apply.
6. The addition of off-trail trailblazer signs from main highways (e.g. 95, 64, 195 and 295) or main access roads (e.g. Parham Rd. and Chippenham Prkwy.) should be considered when the program is implemented.

## Fall Line Trail Autonomy

Although the Fall Line Trail will pass through numerous counties, and cities, parks and historical areas, this Master Plan intends to maintain the Fall Line Trail signage standards at the various access and decision points along its entire pathway. As the trail approaches parks or historical areas, directional signage will call out these destinations at a reasonable distance in advance. When the trail crosses into such areas, trail signage will acknowledge these boundaries. In reciprocation, we are hopeful that the signage within the parks, and historical areas will acknowledge the whereabouts of the Fall Line Trail in their own design vocabulary.

The most fundamental caveat of this system is that those signs that appear directly adjacent to the Fall Line Trail should reflect a singular identity to underscore the autonomy of this trail system and provide visual continuity to its users.

The use of the Fall Line Trail logo is an exclusive standard that defines the trail signage components, and may be used only for trail signage.

## Recommendations for Message Content

In order to establish communication consistency among the signage elements deployed along the Fall Line Trail, this section includes guidelines for the kinds of information that may be presented among key signage elements. These recommendations impact the two fundamental wayfinding tools used in trail signage – directional and orientation signage. In terms of directional elements, the following guidelines are intended to create consistency in where such signs are placed along the trail, the types of destinations that are referenced, and the relative distances from which various destinations may be referenced. For orientation signage, the recommendations entail criteria for placement, content for the informational maps, and information on the legends used.

### Directional Signage

#### Proposed Criteria for Directional Signage Content and Placement

1. The purpose of directional signage will be to reinforce circulation along the Fall Line Trail.
2. It will be utilized at junctions/intersections with major roadways, pedestrian intersections or trailhead/access points.
3. Directional Signage categories will include:
  - a. Trailhead Sign (Type T1)
  - b. Vehicular Directional (Types V1 up to 3 destinations, ground mount)
  - c. Vehicular Directional (Type V2 up to 5 destinations, ground mount)
  - d. Banner Directional (Type B – pole mounted)
  - e. Pedestrian Directional (Type P1 & P2, ground mount)
  - f. Pedestrian Map (Type MA)

4. Vehicular directional signage will be placed in areas adjacent to the trail where the viewer may read the messages on approach without having to stop.
5. The content on directional signs will show directional arrows in the sequence of left, right, and straight ahead.
6. Should the content of directional signage at any decision point exceed five items, it will be separated among two signage elements no closer to one another than 40 feet.
7. Directional Signage content will include references to neighboring Virginia Capital Trail and Appomattox River Trail segments, counties, and cities, parks, and points of interest.
8. The information rendered on directional signage will be limited to the counties, and cities, parks, trails, and points of interest that are within the segment of the Fall Line Trail in which the sign is placed as well as those in adjacent segments within one-half mile of the section boundary. Destinations in neighboring sections beyond this point will not be referenced.

#### Destination Listing Recommendations

Following below are the recommendations for listing various destinations on directional signage.

Type of destination	Recommended distance to destination along trail or roadway/trail leading to destination	Recommended distance from trail (*Fall Line Trail passes through or is adjacent to)
Neighboring Trail Sections (Ex. Henrico and North Richmond)	3 Miles	*
Municipalities (Ex. Ashland)	3 Miles	*
Trails (Ex. Virginia Capital Trail)	1 Mile	*
Parks/Preserves (Ex. Appomattox Park)	1 Mile	One Mile
Neighborhoods (Ex. Scott's Addition)	One half Mile	*
Points of Interest (Ex. LG Botanical Garden)	One half Mile	One Mile

\* Note: Distances may vary somewhat based on attractions' density (or scarcity) in a particular area.

### Orientation Signage

#### Proposed Criteria for Orientation Signage Content and Placement

1. The purpose of orientation signage will be to provide an overview of the course of the Fall Line Trail and the attractions that are accessible from it.
2. Orientation signage will include:
  - a. Informational Maps (Type MA)
  - b. Pedestrian informational (Types P1 & P2 which may contain both orientation maps and directional information)
3. The content for informational signs may include:
  - a. Directional information (Content criteria same as the previous section)
  - b. Key plan map of the entire Fall Line Trail
  - c. Section map graphic and legend (this will reference parks, trails, counties, and cities and points of interest in proximity to the Fall Line Trail within the local trail section)
  - d. Welcoming information and general information about the Fall Line Trail
  - e. Description of the conditions that exist along the local section of the Fall Line Trail, including segments on roadways, missing segments, portions under construction, hazards, and ADA-related information about trail accessibility
4. The content of the pedestrian informational sign may include information about distances or walking minutes for both walking and biking paths, as well as directional arrows.
5. Specific destination information rendered on orientation signage will be limited to the counties, and cities, parks, trails, and points of interest that are within the segment of the Fall Line Trail in which the signage is placed.
6. Orientation signage may be placed at trail access points, junctions/intersections with major roadways or intersecting trails, and areas where people frequently pass by or gather (e.g. restrooms, picnic areas, etc.).

- Orientation signage will be visible from the trail but be placed so that the viewer can safely stand off the trail and away from other pedestrian traffic areas to spend as much time as they wish to read the signage content.

### Map Graphic/ Legend Content

- The key plan map graphic will represent the entire Fall Line Trail with the viewer's section highlighted. The map will also include major counties, and cities and highways.
- The section map graphic will include a detailed representation of this trail segment and include major roadways, counties, and cities, parks, trail-head/access areas with parking facilities and key numbers that relate to points of interest referenced in the accompanying legend.
- The section map legend will include a listing of points of interest within various distances from the Fall Line Trail.

**NOTE: Maps should always be oriented in the same direction as the viewer, not with the NORTH up, unless the viewer is facing north.**

## Nomenclature Standards and Circulation Theory

### Nomenclature Standards

To ensure consistency among the wayfinding elements used throughout the Fall Line Trail, the following formal nomenclature will be utilized on signage. These terms will be applied to orientation and directional elements as well as any print or electronic graphics developed as reinforcement. The terms will be revised and updated on a regular basis to accommodate additions, deletions and changes to the attractions referenced. This nomenclature was selected based on current usage for referring to locations. For example, Greenwood Park will be listed as Glover Park.

Trailheads are marked in **Bold** and Trails in *Italics*

#### Ashland

Randolph Macon College  
Train Station  
Downtown Ashland  
Hotels

#### Carter Park

Patrick Henry YMCA  
*US Bike Route 1*  
*US Bike Route 76*  
*East Coast Greenway*

#### Hanover County

Gwathmey Church Rd.  
Trolley Line Park  
Elmont  
Old Town Creek  
Cedar Lane Rd.  
Chickahominy Falls  
Colonial Estates  
Chickahominy River  
*US Bike Route 1*  
*US Bike Route 76*  
*East Coast Greenway*

#### Henrico County

##### Glover Park

Meadow Farm Park  
Virginia Center Commons  
Glen Allen Athletics Arena  
Glen Allen Cultural Arts Center  
Glen Allen Greenhouse  
Virginia Randolph Museum  
Virginia Randolph Community High School

##### Longdale Recreation Center

Longdale Elementary  
Green City  
J Sargeant Reynolds Community College  
Northpark Shopping Center  
St Josephs Villa

##### Brook Rd Park

Belmont Golf Course  
Lewis Ginter Botanical Garden

#### Spring Park

*US Bike Route 1*  
*East Coast Greenway*

#### North Richmond

##### Bryan Park

Westminster Canterbury  
Virginia Rep Ctr. for Arts and Education  
John Marshall High School  
Linwood Holton Elementary  
Richmond Technical Center  
Diamond District  
Scott's Addition  
Children's Hospital  
Battery Park  
Virginia Union University  
USPS Brook Rd. Ctr.  
Richmond First Tee Golf Center  
Gilpin Court  
Shockoe Hill Cemetery  
*US Bike Route 1*  
*East Coast Greenway*

#### Jackson Ward

Black History Museum  
Abner Clay Park  
Adult Career Development Center  
VCU Main Campus  
Maggie Walker National Historic Site  
*East Coast Greenway*  
*US Bike Route 1*

#### Downtown Richmond

Greater Richmond Convention Center  
VCU Medical Campus  
Richmond City Hall  
Library of Virginia  
Virginia State Capitol  
Main St Train Station  
Shockoe Bottom

Canal Walk  
*Virginia Capital Trail*  
 Brown's Island/Belle Isle  
 Virginia War Memorial  
**Kanawha Plaza**  
 Tyler Potterfield Bridge  
 Mayo Island  
*East Coast Greenway*  
*US Bike Route 1*

**Manchester/South Richmond**

Richmond Slave Trail  
 Floodwall Park  
 James River Park  
 Climbing Wall  
 Hull Street Library  
 Blackwell Elementary  
 Bellemeade Park  
 Oak Grove  
 Bellemeade Community Ctr.  
**Goode Creek Park/Broad Rock Creek Park**  
 VA Hospital  
*East Coast Greenway*

**Chesterfield County**

**Falling Creek Ironworks**  
 Bridge at Falling Creek  
 Bensley Elementary School  
 Bensley Park  
 VA National Guard HQ  
 DLA/USDSC  
**Fire Station 17/Bellwood Elementary**  
 Bellwood Manor  
 Thomas Dale High  
 Chester Village  
 Solar Farm  
 Petersburg/Ettrick Train Station  
 Ettrick  
**Chester Linear Park**  
 Goyne Park  
*East Coast Greenway*

**Colonial Heights**

Swift Creek Lake  
**Lakeview Park**  
 Lakeview Elementary  
 Wakefield Park  
 Downtown Colonial Heights  
 Shepherd Stadium  
 Appomattox Park  
 Virginia State University  
 Colonial Heights Park  
**Appomattox River Trail/Roslyn Landing Trail**  
*East Coast Greenway*

**Petersburg**

**Patton Park**  
 Downtown Petersburg  
 Pocahontas Island  
*Appomattox River Trail*  
*East Coast Greenway*

**Circulation Theory**

The Circulation Theory for the Fall Line Trail is an extension of the zoning philosophy that organizes destinations within the ten zones.

As the zones are used as an intermediate division of the entire trail, mapping and directional references for any particular orientation sign are generally focused on the zone in which that sign is situated. An orientation element in the Henrico/Spring Park segment, for instance, will include a detailed map of Henrico/Spring Park as well as a listing of destinations within this zone.

This theory manifests in the placement of destinations on directional signage as well. The Destination Listing Recommendations include standards for the reference of destinations in the context of their proximity in miles to any given directional sign.

As new destinations are added to the areas and neighborhoods that may be accessed by the Fall Line Trail, it is important to determine where these elements should be listed and which directional signage elements should be updated in order to maintain standards.

**Listing of Signage Categories**

Below is a listing of Fall Line Trail signage categories documented as of October 2023. These are referenced in the Signage Drawings Section.

Category & Description:

- T1 Vehicular Trailhead Sign
- V1 Vehicular Directional
- U/P Urban Marker/Parking Marker
- B Banner
- T2 Pedestrian Trailhead Sign
- P1 Pedestrian Directional
- P2 Pedestrian Directional
- P3 Pedestrian Directional
- MA Pedestrian Map
- M1 Mile Marker
- M2 Mile Marker
- W Warning Sign
- VI Vinyl Decal
- PL1 Metallic Plate
- PL2 Metallic Plate
- G Ground Decal



Once signs are ordered and installed, it is crucial to compile a signage inventory for maintenance purposes and to easily track ownership.

The labeling system should represent a device's function, (e.g. P1) and an individualized item number. (e.g. P1.7). Each sign is assigned a unique number derived from this system and is used in the message schedule and sign location plan.

## Signage Usage Criteria

Outlined below are the criteria for utilizing each signage category listed in the previous section. Detail drawings for each category appear in the Signage Drawings Section.

### TR1 Vehicular Trailhead Sign



**Usage Criteria**  
This format shall be used on trailheads or main points of access to the trail, in parks where it is necessary to orient visitors to accesses to the trail and parking areas. This sign will include the name of the trailhead or access point, the locality in which the sign is located, parking information and parking symbol.

Sizing of copy and graphics shall follow the general guidelines illustrated in the sign drawings. This category may be located at primary trailheads, parking areas adjacent to trailheads, or primary public access points to the trail. The format includes graphics reflectivity. Signs can be one or two-sided.

### V1 & V2 Vehicular Directional

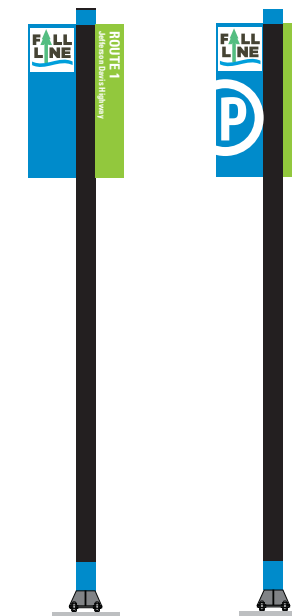


**Usage Criteria**  
Types V-1 and V-2 shall be used to convey directional information to the trailheads and along the trail. They should be located in advance of decision points and convey the access points and whereabouts of neighboring trail segments, parks, and tourist destinations within a reasonable distance from the trail.

The top section of the panel is reserved for trail identification and the lower section is available for directional content. The opposite side will display the locality in which the sign is located.

The format selection shall be based on the amount of content required. These formats include specifications for font size and interline spacing. The format includes graphics' reflectivity. Signs can be one or two-sided. If the second side has no directional information, it will display an image of local people, flora, fauna, or a historic image in a blue duotone.

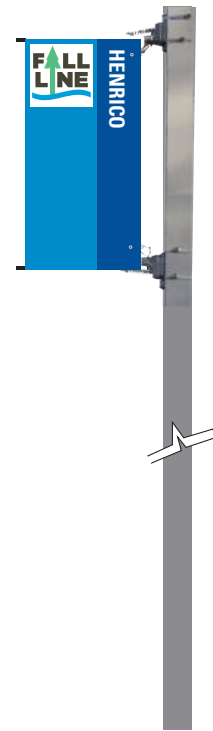
### U/P Urban Marker /Parking Marker



**Usage Criteria**  
This format shall be used when the trail has long stretches that overlap with a street, road, or avenue to convey that those paths are still part of the trail. This format shall be used as well along the trail to convey parking information at the trailheads and main access points for which public parking is available. They should be located in advance of the entrances to the parking.

The top section is reserved for trail identification and the lower section is available for content. The opposite side will display the locality in which the sign is located. The format includes graphics' reflectivity. Signs can be one or two-sided.

**B Banner**



**Usage Criteria**

The Type B Banner Sign is intended to reinforce the route of the trail. The placement of these signs can be both along major vehicular circulation pathways as well as in paths on the trail itself. These may reinforce circulation (with an arrow) in certain situations, or simply identify the path of the trail. They will display the locality in which the sign is located.

This format is intended to be placed on existing utility or light poles as allowed by the municipality. These banners represent a more economical alternative than vehicular or pedestrian free-standing signs as long as the specifications for the means of attachment are followed to avoid the banners being short-lived.

**T2 Pedestrian Trailhead / Regulatory Sign**



**Usage Criteria**

This format shall be used on trailheads and main points of pedestrian access to the trail, in parks where it is necessary to orient visitors to access to the trail and its amenities. Symbols should be used to display amenities available at the particular segment of the trail. The map section of the sign will include the full trail and display the locality in which the sign is located.

Sizing of copy and graphics shall follow the general guidelines illustrated in the sign drawings. This sign will include the name of the trailhead or access point, amenities information conveyed by symbols and regulatory information in the bottom part of the sign, TBD by each locality. The format includes graphics' reflectivity. Signs can be one or two-sided. If the second side has no information, it will display an image of local people, flora, fauna, or a historic image in a blue duotone.

**P1 Pedestrian Directional On Street**



**Usage Criteria**

Type P1 shall be used to convey directional information along the trail. They may be located at or slightly in advance of decision points and convey the whereabouts of neighboring trail segments, parks, counties, and cities and tourist destinations within a reasonable distance from the trail. The map section of the sign will include the full trail and display the locality in which the sign is located. The sign may include a trail segment map with graphics & legend of destination information pertaining to that trail segment.

The top section is reserved for trail identification and the lower section is available for directional content.

This format includes specifications for font size and interline spacing. The format includes graphics' reflectivity. Signs can be one or two-sided. If the second side has no directional information, it will display an image of local people, flora, fauna, or a historic image in a blue duotone.

**P2 Pedestrian Directional On Street (Option)**



**Usage Criteria**

Type P2 shall be used to convey directional information along the trail. They may be located at or slightly in advance of decision points and convey the whereabouts

of neighboring trail segments, parks, counties, and cities and tourist destinations within a reasonable distance from the trail. The map section of the sign will include the full trail and display the locality in which the sign is located. The sign may include a trail segment map with graphics & legend of destination information pertaining to that trail segment.

The top section is reserved for trail identification and the lower section is available for directional content. For this option, the directional information shall be included in independent changeable panels. This sign type is recommended in situations where a destination may change names in the future time and the panel with that destination will need to be updated.

The format selection shall be based on the type of content required.

This format includes specifications for font size and interline spacing. The format includes graphics' reflectivity. Signs can be one or two-sided.

### P3 Pedestrian Directional Off-Street (Option)



**Usage Criteria**  
Type P3 shall be used to convey directional, time, and distance information along the trail. They may be located at or slightly in advance of decision points and convey the whereabouts of neighboring trail segments, parks, counties, and cities and tourist destinations

within a reasonable distance from the trail. The map section of the sign will include the full trail and display the locality in which the sign is located.

The top section is reserved for trail identification and the lower section is available for directional content. P3 format to include symbols for walkers and bikers and time in minutes and distance in miles to the highlighted destinations.

The format selection shall be based on the type of content required.

P3 format includes specifications for font size and interline spacing. The format includes graphics' reflectivity. Signs can be one or two-sided. If the second side has no directional information, it will display an image of local people, flora, fauna, or a historic image in a blue duotone.

### MA Pedestrian Map

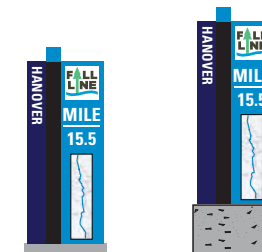


**Usage Criteria**  
This format can be used on trails, in parks, or other attractions where it is necessary to orient visitors and provide trail identification and "You are Here" information. The map section of the sign may include the full trail or a trail segment map with graphics & legend of destination information pertaining to that trail segment.

Sizing of copy and graphics shall follow the artwork

provided by the Client. This category may be located at primary trailheads, parking areas adjacent to trailheads, primary trail access or public gathering access points, or any other trail location in which a map will be required to clarify paths and accesses. The format includes graphics' reflectivity. Signs can be one or two-sided.

### M1 & M2 Mile Marker



#### Usage Criteria

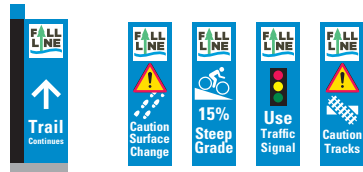
This format consists of a series of numbered markers placed along the trail at intervals of one mile or, occasionally, parts of a mile. They are typically located at the side of the trail. Mileage will be measured as the distance from a fixed commencement point along the trail. The commencement point shall be the beginning of the 43-mile trail in Ashland.

This type will provide reference points along the trail. This can be used to reassure travelers that the proper path is being followed and to indicate either the distance traveled or the remaining distance to a destination. Such references can also be used by maintenance and emergency services to direct them to specific points where their presence is required.

The top section is reserved for trail identification, and the lower section is available for the mile number and a map of the full trail. The opposite side will display the locality in which the sign is located. The format includes graphics' reflectivity. Signs can be one or two-sided.

M2 will be used when flood levels in the area are high and the sign will need to be elevated with a higher base.

## W Warning



### Usage Criteria

This format consists of a series of small signs placed along the trail to convey useful and warning messages. They are typically located at the side of the trail.

This type will provide reference points along the trail. This can be used to reassure travelers that the proper path is being followed and to indicate warning messages when the trail crosses intersections with traffic that either have zebra lines or stop lights, when the trail crosses trolley or train tracks, when the surface changes, or there is a steep grade. Other messages may include: river crossings, restrooms, or other amenities (using symbols and arrows) yield to pedestrians, path narrows, maximum speeds for bikers, and sharp curves.

These signs should be low-cost versatile elements. The top section is reserved for trail identification, and the lower section is available for content. The format includes graphics' reflectivity. Signs can be one or two-sided.

## VI Vinyl Decal or Wrap



### Usage Criteria

This format consists of vinyl decals. They are typically located at existing posts or available flat surfaces along the trail. This type will provide reference points along the trail. This can be used to reassure travelers that the proper path is being followed.

These signs should be low-cost versatile elements. They shall display the trail identification. The format includes graphics' reflectivity.

## PL1 & PL2 Metallic Plates



### Usage Criteria

This format consists of metallic plates. They are typically located at existing posts as top posts or on available flat surfaces along the trail. This type will provide reference points along the trail. This can be used to reassure travelers that the proper path is being followed.

These signs should be low-cost versatile elements. They shall display the trail identification.

## G Ground Decal



### Usage Criteria

This format consists of a large vinyl decal. This type will provide reference points along the trail. This can be used to reassure travelers that the proper path is being followed. They are typically located centered on the trail.

These signs should be low-cost versatile elements. They shall display the trail identification. The format can include graphics' reflectivity.

Other alternatives to include: metal medallions, thermo-plastic, stamped concrete, and tile mosaics.

## Recommendations for Wayfinding Reinforcement Among Related Communications

While this document primarily focuses on preserving the Fall Line Trail's visual and content standards related to signage, there are opportunities to extend this communication continuity beyond the bounds of the trail itself. These opportunities may include electronic communications, promotional print graphics, and special displays or exhibits. The recommendations included below are intended to capitalize on the equity created with these standards and their potential to promote awareness and usage of the trail.

### Identity Graphics

The overall identity of the Fall Line Trail can be substantially reinforced among other forms of communication with effective use of the identity graphics.

### Content

Similarly, communication can be streamlined if specific references to the trail, destinations, and attractions are made consistently with the information that appears on signage.

This will entail:

1. Utilization of the nomenclature standards for destinations and attractions as shown in this document
2. Sharing the nomenclature and reference standards with counties, and cities, and stakeholders who are likely to make references to the Fall Line Trail.



## Listing of Recommended Vendors

Included below is a list of signage companies, that have previously worked with some of the localities and produced successful work that demonstrates their understanding and compliance with the products and application technologies included in the project documentation.

Color-Ad, Inc.  
 Signs and Exhibits  
 7200 Gary Road, Manassas, VA 20109  
 703-631-9100  
 703-631-7849 Fax  
 Contact: SK Rao Senior Vice President  
 skrao@color-ad.com  
 703-631-9100 Ext. #3119  
 Mobile: 516-250-9661  
 www.color-ad.com  
 Fabricated signage for the city of Richmond and assisted in developing this master plan specifications

Superior Signs  
 2510 Willis Rd  
 North Chesterfield, VA 23237  
 Phone: (804) 271-5685  
 www.superiorsignsrva.com  
 Fabricated signage for the Appomattox River Trail

## Maintenance Practices

To maintain consistency of the system as new signs are manufactured and installed, where specific signs and sign components are called for that are included in this Master Plan, these standards will be followed in all cases. Should any specific signage requirements exceed the size, content, or material requirements in this Master Plan, the Client will oversee the extrapolation of current design standards and coordinate the revision of the Master Plan to reflect the changes.

It will also review policy issues that impact signage and wayfinding on the Fall Line Trail. These may include:

1. Requests for new signage formats or departures from the existing standards
2. Coordination issues relating to what destinations are formally called and what pathways are used to guide visitors to access them
3. Apparent or potential wayfinding conflicts with other media
4. The coordination of temporary or short-term signage elements

With particular respect to signage hardware, the following maintenance schedule is recommended.

Bimonthly (March – November)

1. Order all new or replacement signage components.
2. Remove unauthorized signage.
3. Inspect all existing signage for wear and vandalism.
4. Repair or replace damaged signage.

Semi-Annually (April and October)

1. Update orientation and directional signage with respect to changes to nomenclature or circulation theory.
2. Review wayfinding standards to evaluate any needs identified for adjusting signage standards.
3. Review existing or planned projects to expand or upgrade the Trail and confirm that allowances are made to add or modify signage as required



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# Fabricators Guidelines

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## FABRICATOR PERFORMANCE & MATERIAL REQUIREMENTS

This document has been assembled by AB Design, Inc., for CVTA, VA (Owner) with the expectation that the fabricator shall meet the following quality and performance requirements. The acceptance of these drawings by the Fabricator constitutes agreement to comply with the following conditions. The Owner will hold the Fabricator to these requirements as part of their contract obligations.

### 1.0 GENERAL

#### 1.1 Related Documents

Sign Message Schedule, Sign Location Plan, and Drawings are all included in this document.

#### 1.2 Summary

The work includes the manufacture and installation of exterior signs. The Fabricator shall provide all labor, materials, equipment and services necessary for the fabrication, delivery and installation of signage as described in the design intent drawings, including all fasteners, connectors, hardware and support structures, and as needed for a complete and proper installation.

The Fabricator is responsible for visiting the Project site prior to starting the work and field verifying all existing conditions and dimensions, and shall notify the Designer and Owner immediately of any discrepancies.

Signs listed on Message Schedule should match those indicated on sign location plans. The Fabricator shall notify the Designer and Owner immediately of any discrepancies in sign quantities or locations.

#### 1.3 Design Intent Drawings

The “design intent” drawings contained in this document are for the sole purpose of expressing visual design intent and are not intended for construction purposes. All aspects of fabrication, installation, and any resulting working drawings, shop drawings, submittals and contract documents are the responsibility of the

Fabricator. Within the design intent drawings:

- All written dimensions take precedence over dimensions otherwise implied by drawing scale, figures, etc.
- Large scale details take precedence over the smaller scale drawings.
- Specific recommendations for materials, colors, and content take precedence over representations shown in drawings.

Prior to execution of the contract, Fabricator shall carefully review all the Contract Documents, Design Intent Drawings, Specifications, and/or instructions for any conflicts or ambiguities. Fabricator will identify any conflicts or ambiguities in writing to Owner and Designer prior to execution of the agreement.

### 2.0 PRE-FABRICATION REQUIREMENTS

#### 2.1 Proposal

Copies of all pricing and bid information shall be sent to the Owner. The Fabricator shall base their proposal on the performance of all items of service including labor, operations, materials, accessories, incidentals, services and equipment indicated, specified, mentioned, scheduled or implied to complete fabrication and installation of the specified work. Full compliance with these Fabricator Performance and Material Requirements will be required. Any further examinations, investigations, explorations, tests, studies, and/or specifications necessary for the performance of the work and/or services required is the Fabricator’s responsibility and should be accounted for in the bid and schedule.

Fabricator proposes and agrees to perform all work and/or services as specified in the bid and design intent documents for the prices and within the times indicated in the bid and in accordance with the other terms and conditions of the Contract. Fabricator is satisfied as to the general, local and site conditions that may affect cost, progress, and performance of the work and/or services.

The Fabricator is encouraged to make recommendations for specific changes if they will improve the quality or

cost-effectiveness of fabrication while preserving Designer’s visual design intent. However, any such recommendations must be approved in writing by the Owner and Designer at the time of bid. Should the Fabricator be contracted based on a proposal that assumes substitutions that have not been properly approved, the Fabricator shall be responsible for providing all elements as originally indicated at their own expense.

It is the responsibility of each Fabricator to verify the availability of material(s), delivery schedules, fabrication and manufacturing schedules and other pertinent data prior to submission of their proposal; and the responsibility of the successful respondent to provide same after award of the project. It is the responsibility of the respondent to notify the Owner immediately if material(s) specified are discontinued, replaced, or not available for an extended period of time. The Owner reserves the right to charge back additional costs, including but not limited to, freight, special handling, and purchase price difference due to delays, etc., to the successful respondent when items are not supplied as proposed.

Fabricator-requested substitutions for any materials, products, colors, and components will only be considered for acceptance if the following conditions are met:

**Documented Delivery Problem:** The Fabricator must provide substantial written documentation to support a claim of a delivery problem which is in conflict with the fabrication/installation schedule, including but not limited to copies of correspondence to and from the product manufacturer which demonstrates that a delivery problem exists relative to the timely completion of the work. Delivery problems caused by the Fabricator or any subcontractor failure to place orders for materials or items in a timely manner shall not be considered.

Requests for Substitution will NOT be considered during the Bid period. Fabricator's bid shall be based on the Drawings and Specifications.

The Fabricator-requested product substitution will NOT be considered if the Fabricator or any subcontractor has delayed executing subcontract labor agreements or scheduling subcontract work from the time of contract award.

Substitutions will NOT be considered when indicated on shop drawings or product data submittals without prior approval by the Designer.

Substitutions will NOT be considered when requested directly by subcontractor or supplier.

Additional studies, investigations, submittals, redesign and/or analysis by the Architect/Engineer or Designer caused by the requested substitutions shall be paid by the Fabricator at no expense to Owner.

Substitute products shall NOT be ordered or installed without written acceptance by Designer or Owner.

Requests For Substitution:

All Requests For Substitution submitted by the Fabricator shall include, for all products, finishes, or materials proposed to be substituted: Complete manufacturer's product specification information; Material Safety Data Sheet (MSDS); catalog information; full range of colors and options available as applicable; and documentation demonstrating that the substitute product is equal to the specified product.

Request For Substitution constitutes a representation that the Fabricator has investigated the proposed product and has determined that it is equal to or superior in all respects to the specified product.

Request For Substitution constitutes a representation that the Fabricator will provide the same type of warranty for substitution as for the specified product.

The Fabricator's warranty shall be in writing guaranteeing all substituted products have same or superior performance as the product specified.

Request For Substitution constitutes a representation that the Fabricator will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.

The Fabricator shall state in writing the reason for the Request For Substitution; e.g., time, price, better quality, etc.

The Fabricator has given the Owner and Designer written notice of all conflicts, errors, ambiguities or discrepancies that the respondent has discovered in the bid documents, and the written resolution thereof by the Owner and Designer is acceptable to respondent. The bid documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the work and/or services for which this bid is submitted.

## 2.2 Subcontracting

The Fabricator may utilize the services of specialty subcontractors on those parts of the work that under normal contracting practices are performed by specialty fabricators. The Fabricator must be able to perform a majority of the work at their own facility. Subcontractors shall have a supportive role to the project and should not individually or collectively have a higher percentage of work to perform than the Fabricator. The Fabricator shall be as fully responsible to the Owner for the acts and omissions of their subcontractors, and of persons either directly or indirectly employed by them, as the Fabricator is for the acts or omissions of persons directly employed by the Fabricator.

## 2.3 Shop Drawings

The fabricator shall not begin fabrication without approved shop drawings, product data, and samples. Shop Drawings shall be submitted in electronic format (PDF).

The Fabricator shall provide complete fabrication and installation drawings for each type and version of sign, and each installation condition, clearly mark drawings

with sign type and location, and indicate all dimensions, materials, components, parts, connections, and devices. Field-verified dimensions and conditions shall be included in shop drawings where applicable.

The Fabricator shall provide accurately scaled pattern layouts (in electronic format) for all signs of each type. All letter styles, fonts, and graphic elements shall be faithfully reproduced. Do not re-submit Message Schedule.

The Fabricator shall provide a copy of their stamped and signed Structural Design Drawings and Calculations, for record purposes only.

The Fabricator shall submit for review and approval shop drawings of all fabricated items, product data and samples to the Owner and Designer. This submission shall consist of detailed drawings that indicate all materials, finishes, construction details, lighting requirements, installation details, and artwork, including locations of all material seams. Drawings shall include elevations, plans, sections, and notes as required to clearly convey fabrication intent.

The Designer shall advise and review all shop drawing submittals for fidelity and conformance with the design intent drawings. Upon review, the Fabricator shall make all requested revisions and resubmit as required. A complete set of approved shop drawings must be received from both the Owner and Designer before production may begin. Required submittals must be issued in adequate time to coordinate a review and approval process without delaying the project schedule.

## 2.4 Artwork & Fonts

Designer will provide the Fabricator with layout guidelines and electronic artwork as required, however all final copy layouts are the responsibility of the Fabricator. The Fabricator shall legally acquire, at their own expense, all project fonts from the specified distributors, as necessary. Designer will not provide copies of licensed fonts.



The artwork in the design intents is not final. The final placement of the type must match the final artwork provided by Designer. All letter forms shall match the final artwork and be aligned to maintain a base line parallel to the sign format. Margins must be maintained as shown in the drawings.

### **2.5 Samples and Prototypes**

The fabricator will provide samples of all paints, vinyls, and digital prints used in the project for review and approval by Owner and Designer. The fabricator will also supply to the Owner and Designer agreed upon prototypes for review of fabrication methods, finishes and materials.

Prototypes must be reviewed and approved prior to production. If approved, the prototype will be considered as part of the total sign count. If the prototype requires modifications, those changes must be made before it will be accepted. If the prototype is deemed to be defective and/or unfixable, based on the necessary modifications, the prototype will not be accepted as part of the final sign count. The Fabricator will be responsible for any costs needed to repair or replace defective prototypes.

### **2.6 Performance**

The Fabricator shall and will, in good quality manner, do and perform all work and furnish all supplies and materials, machinery, equipment, facilities, and means, except as herein otherwise expressly specified, necessary or proper to perform and complete all the work required, within the time specified. The Fabricator shall furnish, erect, maintain, and remove such construction plant and such temporary works as may be required. The Fabricator shall observe, comply with, and be subject to all terms, conditions, requirements, and limitations of the contract and specifications, and shall do, carry on, and complete the entire work to the satisfaction of the Owner.

Fabricators are expected to examine all Drawings, Specifications, instructions and/or requirements of this design intent document and corresponding documents.

Failure to do so will be at the respondent's risk. All referenced documents must be considered in preparation of Fabricator's proposal. The Owner and Designer assume no responsibility for errors or misinterpretations resulting from the use of the bid or design intent documents

## **3.0 FABRICATION & INSTALLATION REQUIREMENTS**

### **3.1 Permitting & Regulation Compliance**

The Fabricator is responsible for securing and paying for all permits, insurances, inspections, and tests required by governmental agencies. The Fabricator is also responsible for verifying and ensuring compliance with all ADA, OSHA, environmental regulations, and all other applicable governing code requirements. Fabrication of signage shall be designed to meet local building codes including ASCE 7, Basic Wind speed of 130mph. All required resolutions or revisions to construction details must be approved by the Owner and Designer prior to production.

### **3.2 Structural Requirements**

The Fabricator shall follow Designer's drawings for exterior visual appearance, but designs of internal structure, engineered connections, mounting assemblies, and foundations are by the Fabricator. Structural design shall utilize self-supportive framing and prevent irregularities in exposed surfaces. The Fabricator shall provide the Owner and Designer with calculations for all structural members and foundations and they must be sealed by certified engineers registered in the state of installation, prior to fabrication. The Fabricator shall provide the Owner and Designer with a list of support and/or blocking requirements, and approximate weights for each element as required after final shop drawing approval. The Fabricator's installation responsibilities include the provision of any required footings, anchor bolts, or fastenings. All point-of-connection coordination is the responsibility of the Fabricator.

### **3.3 Labeling**

Visible labels, manufacturer's or otherwise, code permitting, shall not appear on any completed element.

The placement of any required labels must be approved by the Owner prior to application and installation.

### **3.4 Delivery Storage and Handling**

Transport, deliver, handle, and store materials and equipment at the job site in such manner as to prevent damage, including damage to finish and damage which might result from the intrusions of foreign matter or moisture from any source.

Packaging:

Maintain packaged materials in manufacturer's original container with seals unbroken and labels intact until they are incorporated into the work. Protect finishes on exposed surfaces from damage by application of strippable temporary protective covering prior to shipment. Protect assemblies from injury at the shop, in transit to the job and until erected in place, completed, inspected and accepted. Packaged material shall bear the name of the manufacturer, the product, including brand name, color, stock number, and all other complete identifying information.

Store all materials and equipment in accordance with manufacturer's instructions, above grade, and properly protected from weather and construction activities. Include installation hardware, adhesives and installation instructions; include a reasonable array of alternate adhesives, fasteners or materials to be able to respond effectively to varying field conditions.

Within (14) business days of being awarded the contract, the Fabricator shall prepare and present to the Owner's Representative a schedule for submittals, reviews, fabrication and installation of the work.

### **3.5 On-Site Coordination and Installation**

All installation will be coordinated with the Owner. No installation shall be permitted without sign-off of construction and final location approval through the Owner.

The Fabricator shall field verify all measurements indicated on drawings to establish correctness.

The Fabricator shall examine the site prior to executing this agreement so as to reasonably ascertain the nature of the work and the various conditions affecting the work. All locations shown in the enclosed location plans are approximate. The Fabricator is responsible for field verification and coordination of all final locations. The Fabricator shall notify the Owner and Designer of any discrepancies between Designer's drawings, location plans, or message schedule, and field conditions prior to sign fabrication. All required resolutions or revisions to construction details or installation processes must be approved by the Owner and Designer prior to production.

The Fabricator shall keep the site reasonably free from debris, trash and construction wastes resulting from the performance of the work. The Fabricator shall be responsible for cleaning up all work areas upon the completion of work on a daily basis. Upon completion of the work, Fabricator shall remove all debris, trash, construction wastes, materials, equipment, machinery and tools arising from the work. All finish surfaces at the base of the sign (lawn, mulch, brick, etc.) shall be repaired to match existing finish grade.

All installed items shall be left in a clean and as-new condition. The Fabricator shall be fully responsible for the security and quality of all equipment, materials, and installed components until they have been reviewed and accepted by the Owner. All installations are to be level and plumb or will not be accepted. Immediately after erection, clean bolted connections and abraded areas of shop paint. Paint exposed areas with same paint of finish used for shop painting. If marred areas cannot be adequately touched up on site, the sign will be returned to the shop for controlled refinishing.

### 3.6 Inspection

At all reasonable times, Fabricator shall provide sufficient facilities for inspection of the work by Owner

or Designer at the site and at all locations where portions of the work are in progress or various stages of completion. When appropriate portions of the work are ready for inspection, Fabricator shall notify Owner and Designer.

### 3.7 Safety

The Fabricator recognizes the importance of performing the work in a safe manner so as to prevent damage, injury or loss to (i) all individuals at the site, whether working or visiting, (ii) the work, including materials and equipment incorporated into the work or stored on-site or off-site, (iii) the work of others on the project, and (iv) all other property at the site or adjacent thereto. The Fabricator assumes responsibility for implementing and monitoring all safety precautions and programs related to the performance of the work. The Fabricator shall be responsible for providing barricade or protective coverings as necessary to safeguard the public and property during the performance and duration of their work. The Fabricator shall be fully responsible for any injuries to the public or damage to the buildings, site, and adjacent objects during installation.

### 4.0 MATERIAL STANDARDS

The work shall comply with the highest relevant industry and trade standards, and standards as indicated in product sections of this specification.

All materials, hardware, and finishes used to fabricate any and all components shall be new (i.e. not previously used or operated in any other application) from the most recent manufacturer's production supply and free from any defects impairing strength, durability or appearance.

Use only personnel thoroughly skilled and experienced with the products and method for fabrication and installation of signage specified.

Materials and hardware not specified, but necessary to the complete functioning of the sign, shall conform to the quality level established.

### 4.1 Metals

Metals shall be the best commercial quality for the purposes specified and free from defects impairing strength, durability, or appearance. All joints must be welded, filled, ground and sanded smooth prior to painting to insure an uniform surface. All sheet metal shall have brake formed edges with radii not greater than sheet thickness. All metals must be treated to prevent corrosion and staining of other finishes. All aluminum & steel materials must be thoroughly sanded to remove oxidation and primed prior to painting to insure maximum paint adhesion.

### 4.2 Fasteners

All exposed fasteners shall be tamper-proof, resistant to oxidation and other corrosion, and painted to match adjacent surfaces. Concealed fasteners must be resistant to oxidation and other corrosion to prevent staining of other finishes. Nuts and bolts used on the footers and breakaway bases are to be anti-corrosive and galvanized.

### 4.3 Paints & Finishes

All paints and finishes shall match exactly the color, finish, and texture noted. The fabricator is to apply primer, top coat, and clear coat to all painted surfaces as follows. Use Tape IT Accelerator SM166A as needed to speed up the drying process. Paint shall be:

- Metal Pretreatment 74 734SP
- Matthews Paint Conventional Topcoat
- Matthews Paint Satin Clear 42 228SP

Unless otherwise noted, all pretreats, primers, coatings, and finishes shall be applied in strict accordance with the paint manufacturer's specifications to provide the highest level of ultraviolet light resistance, weatherability, and overall longevity for both the materials indicated, and the environmental conditions of the final install locations. A polyurethane clear coating shall be applied to seal the paint and preserve the surface from wear and oxidation.

Paints and finishes shall be warranted against color fading, UV damage, cracking, peeling, blistering, and other defects in materials or workmanship for a minimum of five years from date of Owner's acceptance. All paints shall be evenly applied without pinholes, scratches, orange peeling, application marks, and other imperfections. Workmanship with finishes and formation of letters shall conform to the highest standards of the trade.

#### 4.4 Vinyl Film

All vinyl sheeting shall match exactly the color, finish, and durability of the manufacturer's product as noted. Unless otherwise noted, all vinyl sheeting shall be installed in strict accordance with the manufacturer's specifications to provide the highest level of ultraviolet light resistance, weatherability, and overall longevity for both the materials indicated, and the environmental conditions of the final install locations. Vinyl sheeting shall be warranted against color fading, UV damage, de-lamination, or peeling for a minimum of five years from date of Owner's acceptance. All vinyl cutting shall be executed in such a manner that all edges and corners of finished letter forms are true and clean.

3M™ High Intensity Prismatic Reflective Sheeting 3090DS (White) shall be used for all reflective sheeting printing. All signs shall be printed using only 3M™ Piezo Inkjet Series 8900UV Ink with an EFI H1625-RS printer. All sheeting surfaces shall be sealed with 3M™ Electrocut™ Film Series 1170 (Clear). All digitally printed vinyls shall be warranted from excessive fading, discoloring, cracking, crazing, peeling, and blistering, for 8 years from the fabrication date.

#### 4.5 Vinyl Banners

All product pieces shall be commercial-grade, heavy weight 18 oz, vinyl for the purposes specified and free from defects impairing strength, durability, or appearance. Unless otherwise noted, all materials shall be installed in strict accordance with the manufacturer's specifications to provide the highest level of overall longevity. Vinyl to be mildew and water resistant, fade

resistant with double needle-lock stitching. Vinyl to be printed front and back. Printing to be high resolution. Products shall be warranted for a minimum of 15 years from date of the Owner's acceptance

#### 4.5 Bannersaver® Systems

All product pieces shall be the best commercial quality for the purposes specified and free from defects impairing strength, durability, or appearance. All exposed fasteners shall be tamper-proof and painted to match the specified paint. Products shall be warranted for a minimum of 13 months from date of the Owner's acceptance. Products shall be acquired at:  
<https://britteninc.com/>  
<https://bannersaver.com/>

### 5.0 PROJECT COMPLETION

#### 5.1 Review & Punch List

The Fabricator shall notify both the Owner and Designer in writing when all work is completed. Upon notice, Designer will review all work according to their contract with the Owner and prepare a punch list outlining incomplete or unsatisfactory items. The repair or replacement of work outlined on the punch list shall be coordinated between the Fabricator and the Owner. Fabricator shall correct any of the work that is found not to be in conformance at their own expense.

#### 5.2 Correction of Work

All work, all materials whether incorporated in the work or not, all processes of manufacture, and all methods of construction shall be at all times and places subject to the inspection of the Owner and Designer who shall be the final judge of the quality and suitability of the work, materials, processes of manufacture, and methods of construction for the purposes of which they are used. Should they fail to meet the Owner and Designer's approval, they shall be forthwith reconstructed, made good, replaced and/or corrected, as the case may be, by the Fabricator at the Fabricator's expense. Rejected material shall immediately be removed from the site. If, in the opinion of the Owner and Designer, it is undesirable to replace any defective or damaged

materials, or to reconstruct or correct any portion of the work injured or not performed in accordance with the contract documents, the compensation to be paid to the Fabricator shall be reduced by such amounts as in the judgment of the Owner shall be equitable.

#### 5.3 Final Deliverables

Upon the Owner's acceptance of the work, the Fabricator shall provide the Owner with a complete service and maintenance manual for all products and finishes installed under their contract. This manual shall include, but is not limited to, product specifications such as manufacturer information, contact names and addresses, warranty information, technical data, and routine maintenance recommendations.

#### 5.4 Warranties

All warranty periods shall begin on the date of the Owner's acceptance of the work. All warranties shall include the materials and labor required to replace defective components. All installed elements shall be warranted against manufacturer defects for a minimum of one year, and all installed elements shall be warranted against defects in installation or workmanship for a minimum of three years.

#### 6.0 Proprietary Information Non-Disclosure Agreement

All ideas, designs, arrangements and plans indicated or presented by these drawings are the property of the Owner, and were created for use in connection with the specified project.

The Fabricator must request and receive written approvals from both the Owner and Designer to use images of any completed element. The Fabricator is responsible for ensuring that credit indicating Designer as the Designer will accompany all images and articles related to the project. The Owner may have additional requirements or restrictions for which the Fabricator is also responsible.