



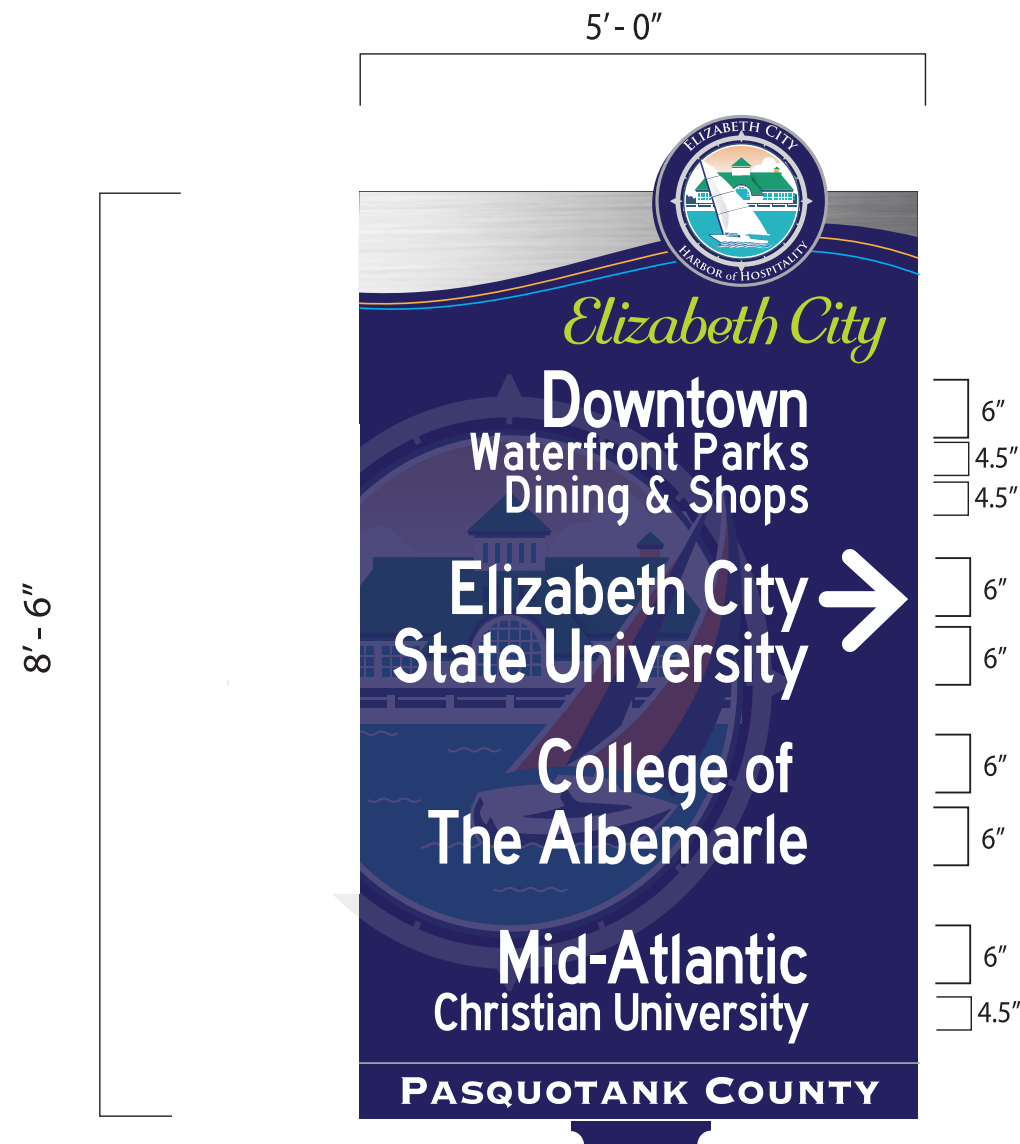
Wayfinding Program / NCDOT Approval Package  
Town of Elizabeth City, NC  
Phase One #327-2020



September 29, 2020 / Bizzell Design, Inc.

# Downtown Wayfinding / Lettering and Message guidelines / Breakaway Mounting Guidelines

**NOTE: ALL DESTINATIONS LISTED ARE CITY OR COUNTY OWNED OR MANAGED PUBLIC, ART, EDUCATIONAL AND CULTURAL FACILITIES.**



3M™ Diamond Grade™ DG<sup>3</sup> Reflective Sheeting Series 4000 is digitally printed per manufacturers specifications.

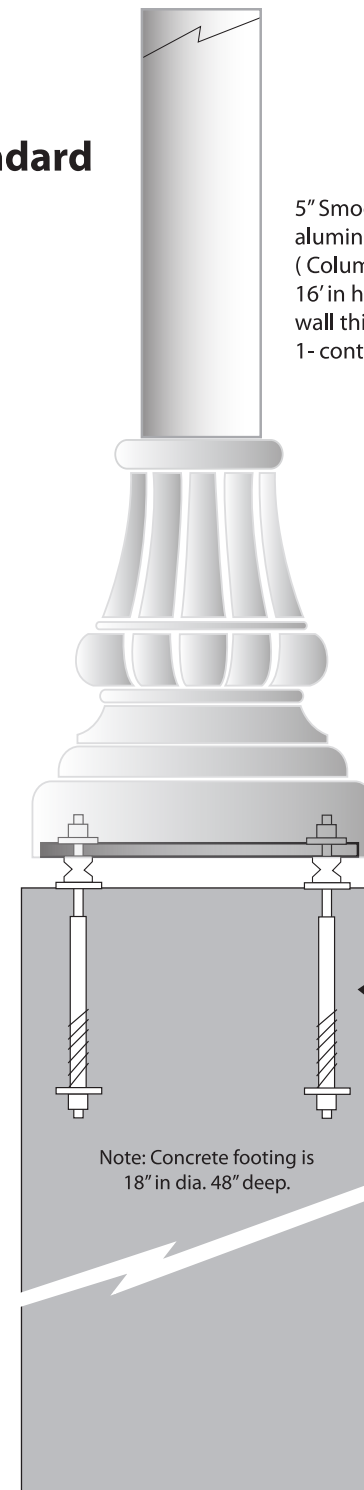
MUTCD Lettering is Highway Gothic  
**ABCDEFGHIJKLMNOPQRSTUVWXYZ**  
**abcdefghijklmnopqrstuvwxyz 1234567890**

MUTCD Letter height guidelines:

The principal legend on guide signs shall be in letters and numerals at least 6 inches in height for all uppercase letters and 4.5 inches in height for lower-case letters.

For signs on lower volume streets with speed limit at 25mph or below 4 inches in height.

## Standard

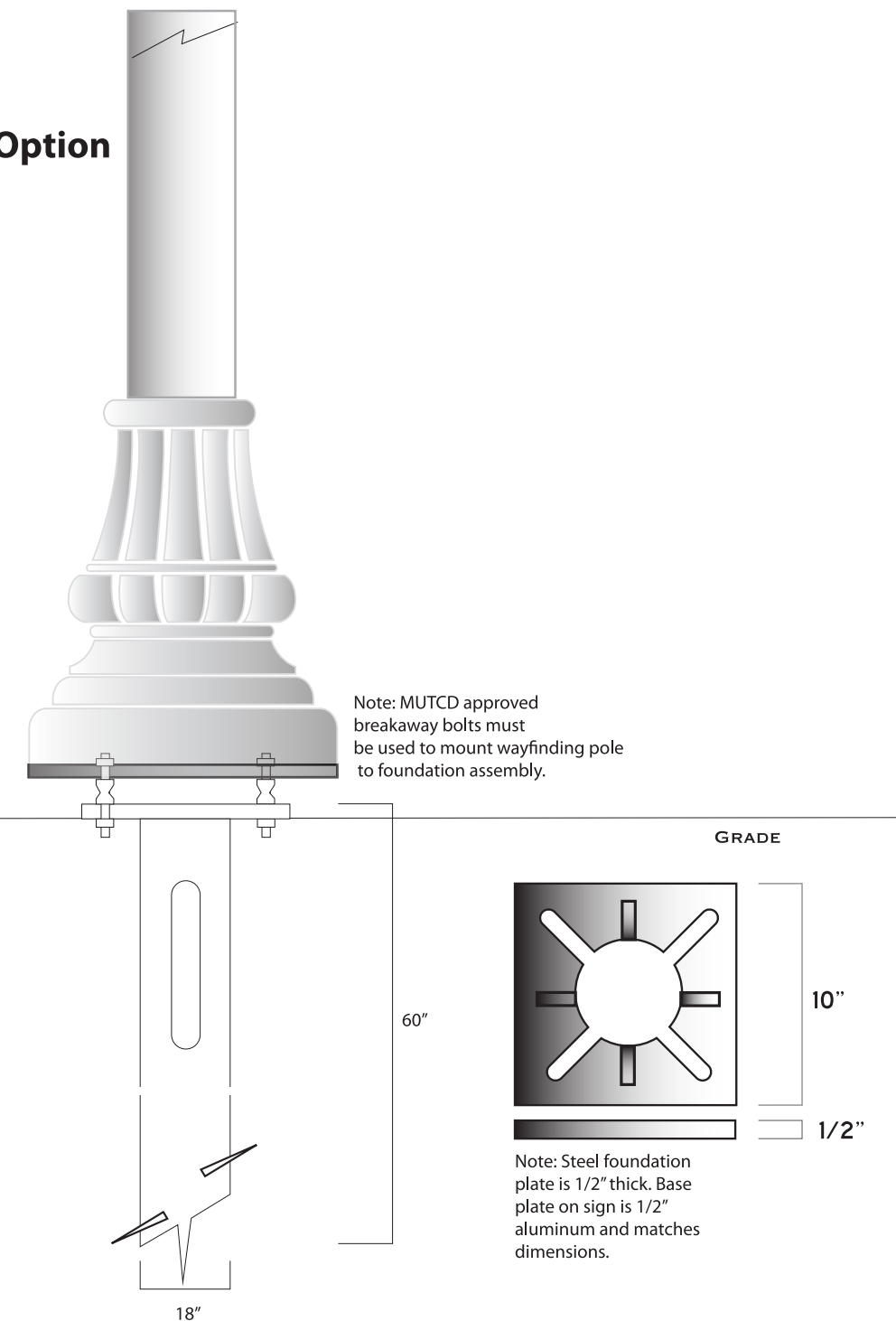


5" Smooth round aluminum pole. (Columbia Series) 16' in height. Has 1/4" wall thickness and is 1-continuous casting.

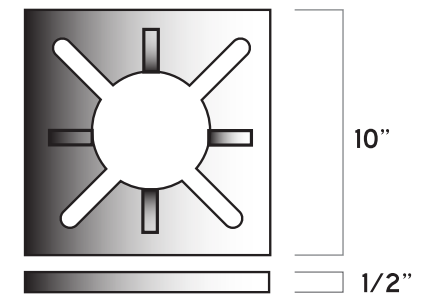
5/8" Dent Breakaway bolt (DB-6878) is tested and approved as fully compliant with NCHRP Report 350.

Note: Concrete footing is 18" in dia. 48" deep.

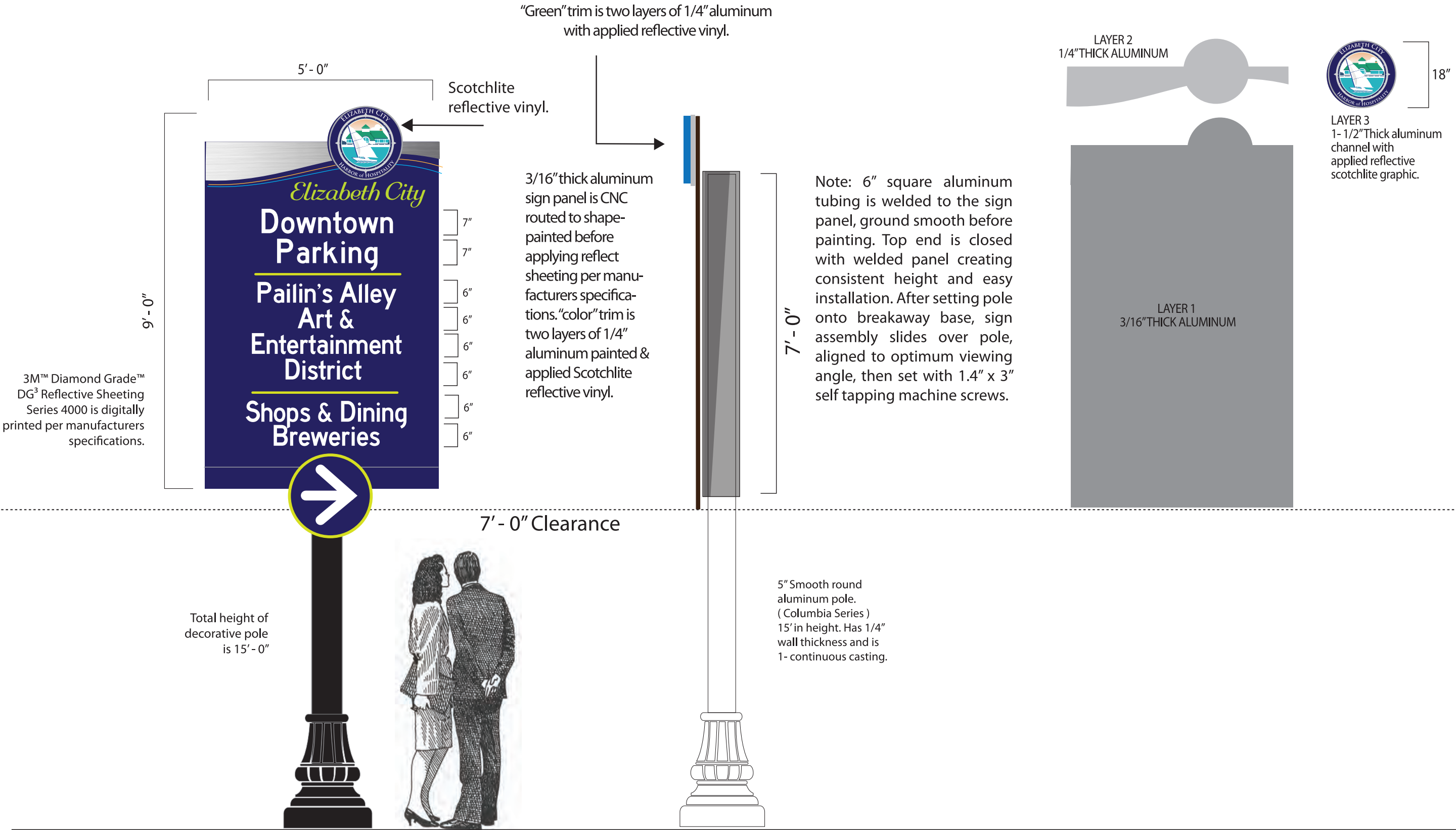
## Option



Note: MUTCD approved breakaway bolts must be used to mount wayfinding pole to foundation assembly.



Note: Steel foundation plate is 1/2" thick. Base plate on sign is 1/2" aluminum and matches dimensions.



**3 Signs Required.**

Note: Final messaging may change slightly. BDI will provide full scale (ai) patterns for cutting and printing.

**Boulevard  
Downtown  
Wayfinding**



**3 Signs Required.**

**Downtown  
Wayfinding**

3' - 6" x 5' - 8"



**6 Signs Required.**

**Light Pole  
Mounted Pedestrian  
Wayfinding**

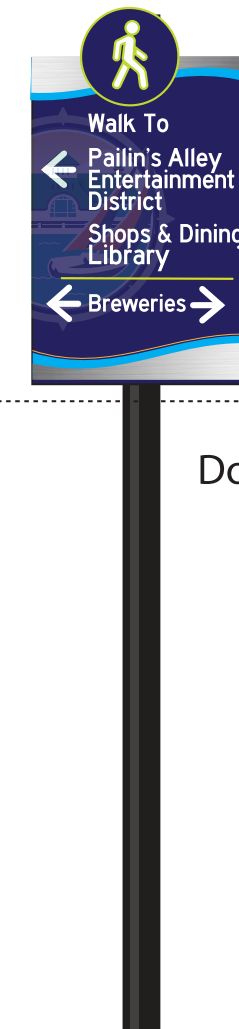
2' - 6" x 4' - 0"



**8 Signs Required.**

**Pedestrian  
Wayfinding**

2' - 6" x 4' - 0"



**1 Sign Required.**

Double Sided



Preliminary Downtown Sign Locations.



- B - Traveling North on N. Water Street  
Sign is located 5' South of E. Colonial Ave.
- C - Traveling South on N. Water St.  
Sign is located 45' North of E. Main St.
- D - Traveling North on Water St.  
Sign is located 7' South of E. Main St.
- E - Traveling East on E. Main St.  
Sign is located 2' West of N. Water St.  
Mounted on light pole
- F - Traveling West on Main St.  
Sign is located 4' East of stopbar  
at N. McMorrine St.  
Mounted on light pole
- G - Traveling East on Main St.  
Sign is located 5' West of stopbar  
at N. McMorrine St.  
Mounted on light pole
- H - Traveling East on Church St.  
Sign is located 20' West of East Grice St.
- J - Traveling East on Ehringhaus  
Sign is located 100' West of S. Road St.
- K - Traveling East on Ehringhaus St.  
Sign is located 40' West of stopbar  
at S. Water St.
- L - Traveling South on Southern Ave.  
Sign is located 20' North of Hoffer St.
- M - Traveling South on Herrington Road  
Sign is located 125' North of stopbar at  
Halstead Blvd.
- N - Traveling North on McMorrine St.  
6 Feet from the intersection at 158
- O - Traveling South on Herrington Road  
Sign is located 50' North of stopbar at  
US HWY 158.
- P - Traveling East on HWY 158  
Sign is located 6' West of stopbar  
at N. Road St.
- Q - Traveling South on Road St.  
Sign is located 10' ahead of stopbar  
at E. Main St
- R - Traveling East on Main St  
Sign is 48' West of the stopbar at S. Road St.  
Mounted on light pole
- S - Traveling North on Water Street  
Sign is located 50' from Fearing Street
- T - Traveling South on Water Street  
Sign is located 10' from Fearing Street

2' - 6" x 4' - 0"



**B** Double Sided

Downtown Vehicular  
25 MPH  
3.5" Lettering  
3' - 6" x 5' - 8"



**C**

Downtown Vehicular  
25 MPH  
3.5" Lettering  
3' - 6" x 5' - 8"



**D**



**E** Mounts on Street Light



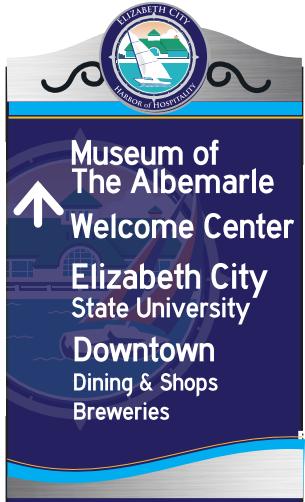
**F** Mounts on Street Light



**G** Mounts on Street Light



**H**



**J**



**K**



**L**



**M**

Pedestrian Oriented  
2' - 6" x 4' - 0"



**N** Mounts on Street Light



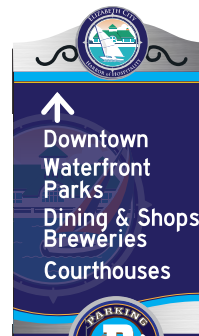
**O**



**P** Mounts on Street Light



**Q**



**R** Mounts on Street Light



**S**



**T** Mounts on Street Light

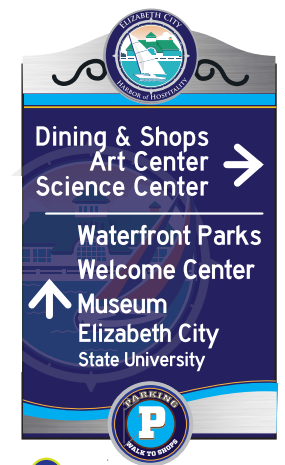
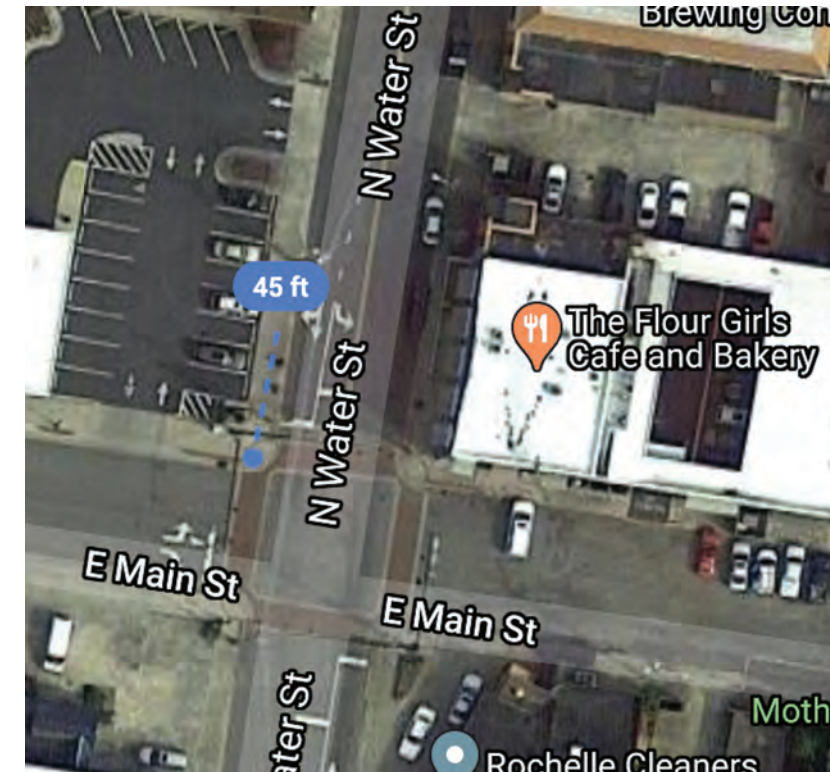
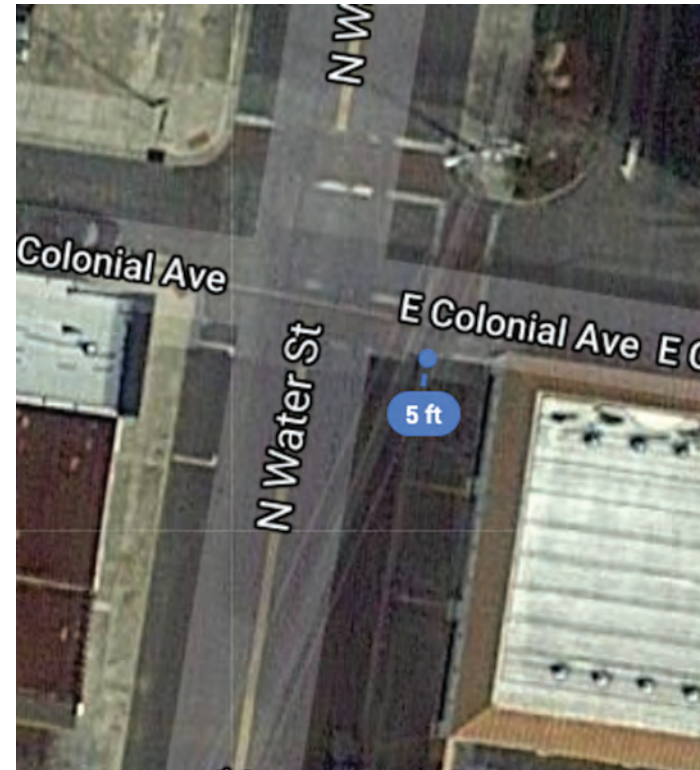


2'-6" x 4'-0"



**B** Double Sided

B - Traveling North on N. Water Street  
Sign is located 5' South of E. Colonial Ave.



**C**

C - Traveling South on N. Water St.  
Sign is located 45' North of E. Main St.





D

D - Traveling North on Water St.  
Sign is located 7' South of E. Main St.



E Mounts on Street Light

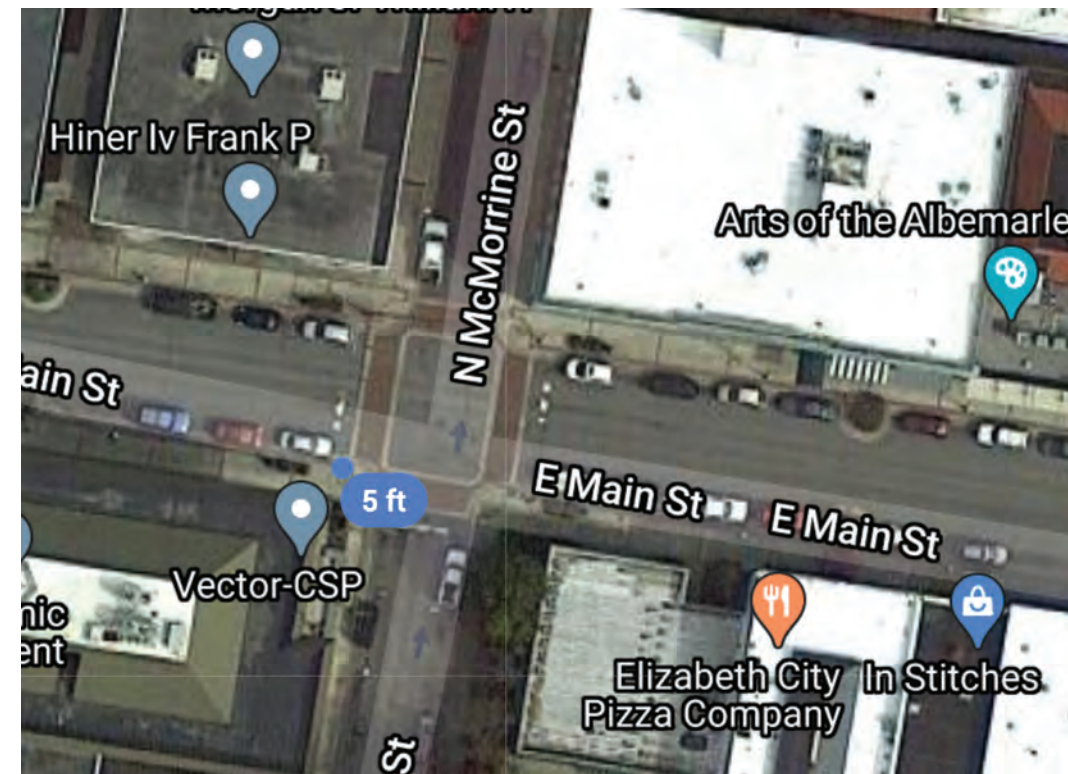
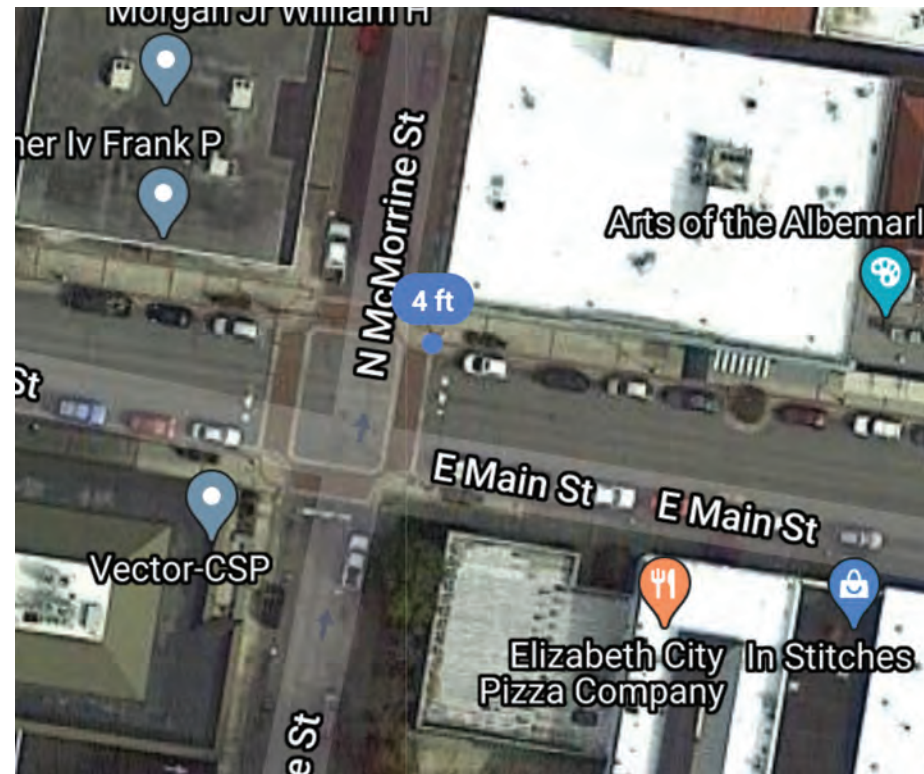
E. - Traveling East on E. Main St.  
Sign is located 2' West of N. Water St.  
Light Pole Mounted





**F** Mounts on Street Light

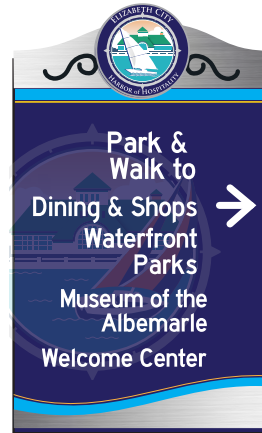
F - Traveling West on Main St.  
Sign is located 4' East of stopbar  
at N. McMorrine St.  
Mounted on Lightpole



**G** Mounts on Street Light

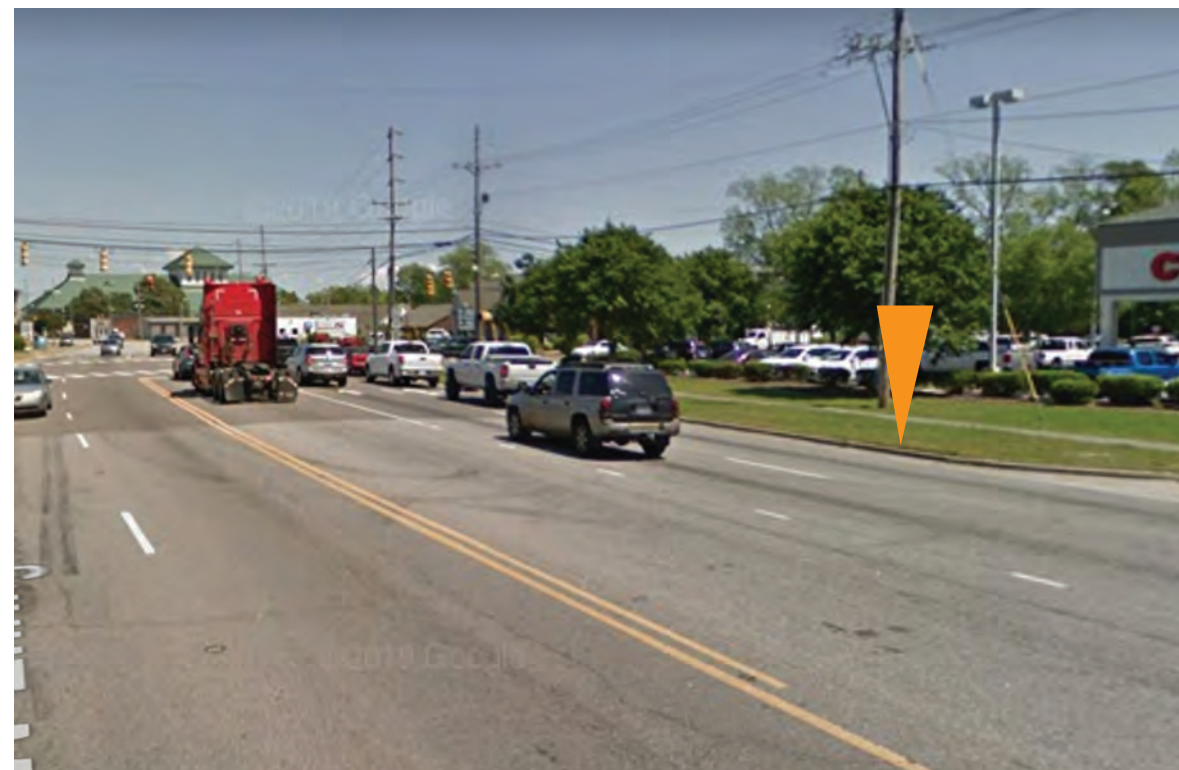
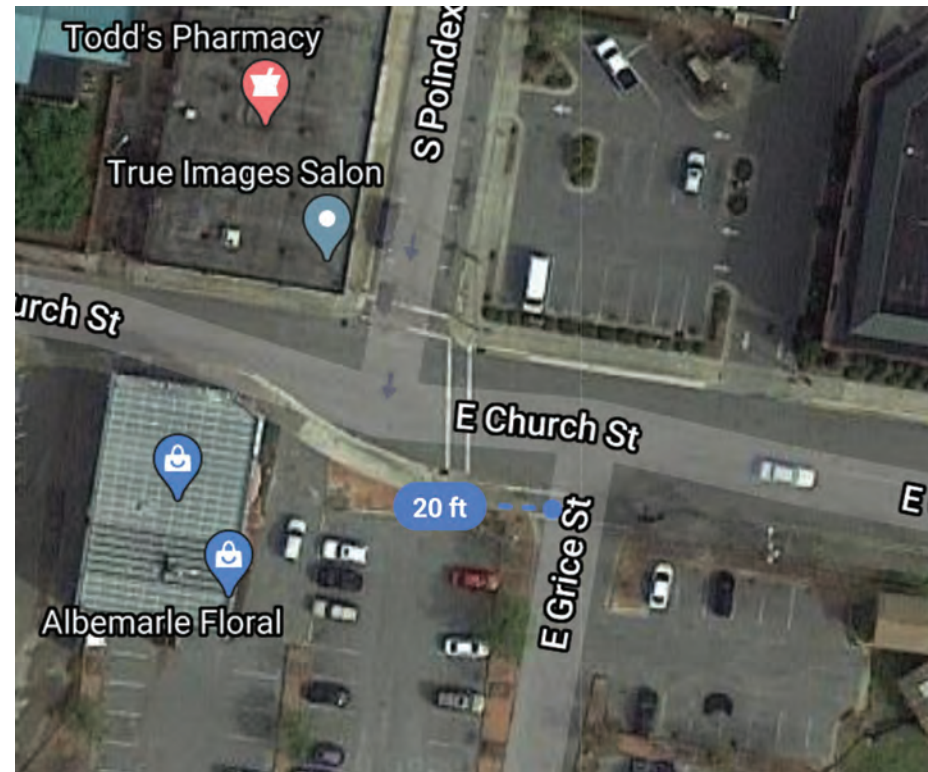
G - Traveling Easton Main St.  
Sign is located 5' West of stopbar  
at N. McMorrine St.  
Mounted on Lightpole





H

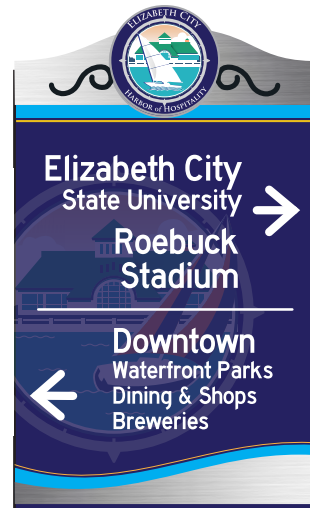
H - Traveling East on Church St. Sign is located 20' West of East Grice St.



J

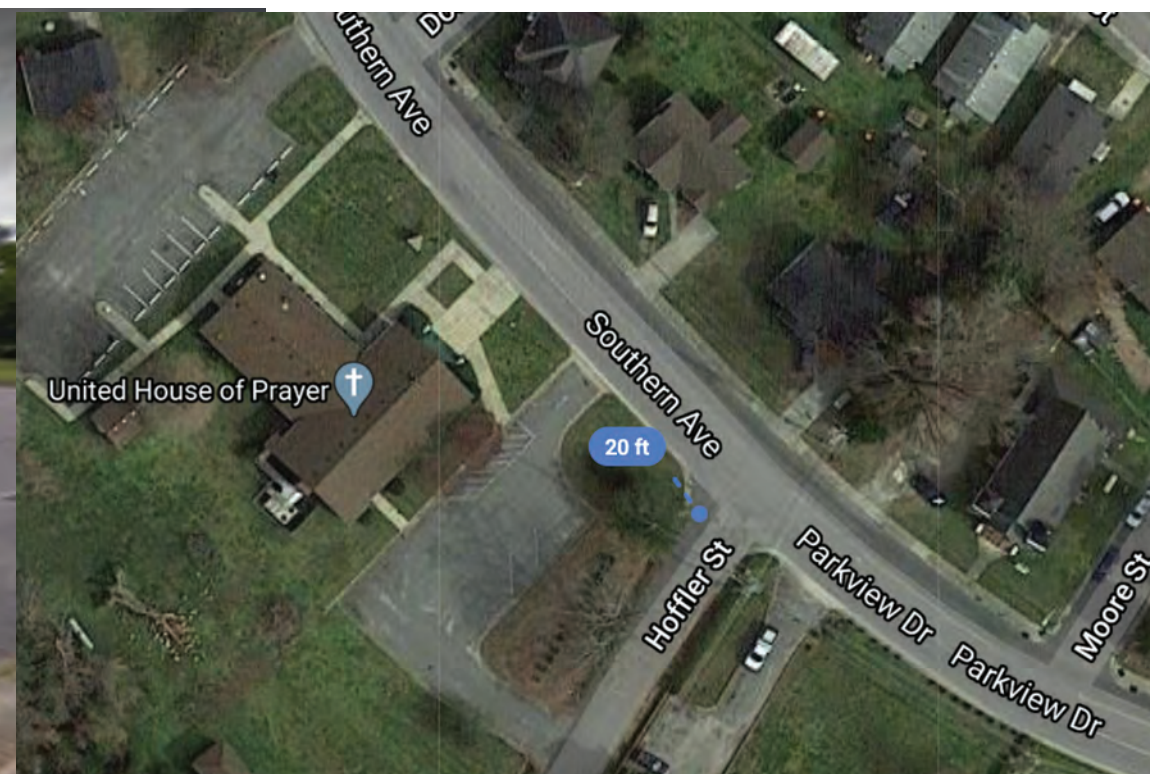
J - Traveling East on Ehringhaus Sign is located 100' West of S. Road St.





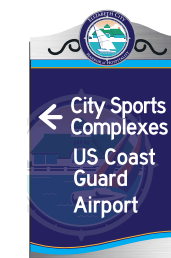
K

K - Traveling East on Ehringhaus St.  
Sign is located 40' West of stopbar  
at S. Water St.



L

L - Traveling South on Southern Ave.  
Sign is located 20' North of Hoffer St.



L-B

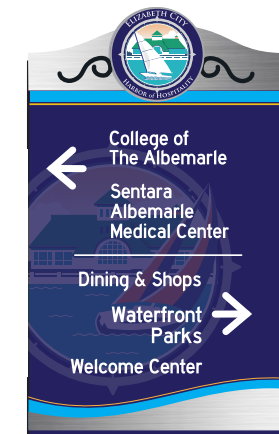
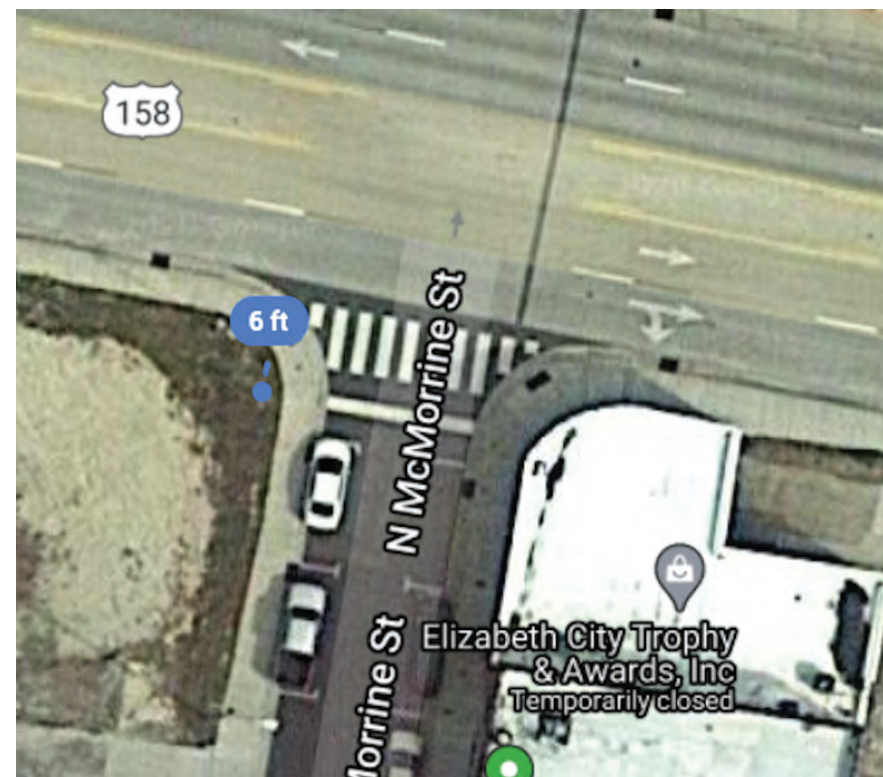
L - B Traveling West on  
Hoffer Ave. Sign is  
located 20' North of  
Herrington Rd.





M

M - Traveling South on Herrington Road Sign is located 125' North of stopbar at Halstead Blvd.



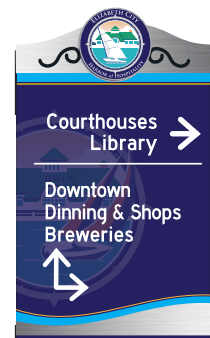
N

N - Traveling North on McMorrine St. 6 Feet from the intersection at 158



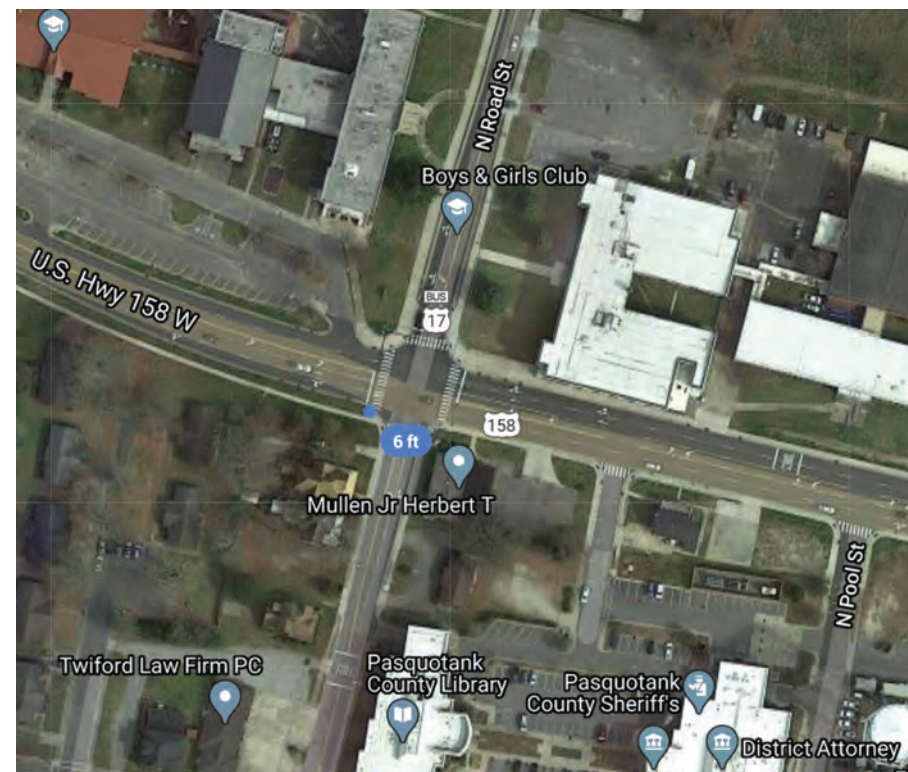


O - Traveling South on Herrington Road Sign is located 50' North of stopbar at US HWY 158.

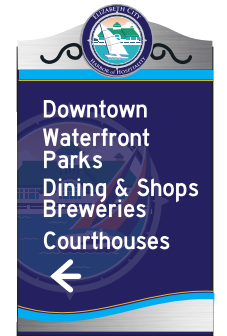
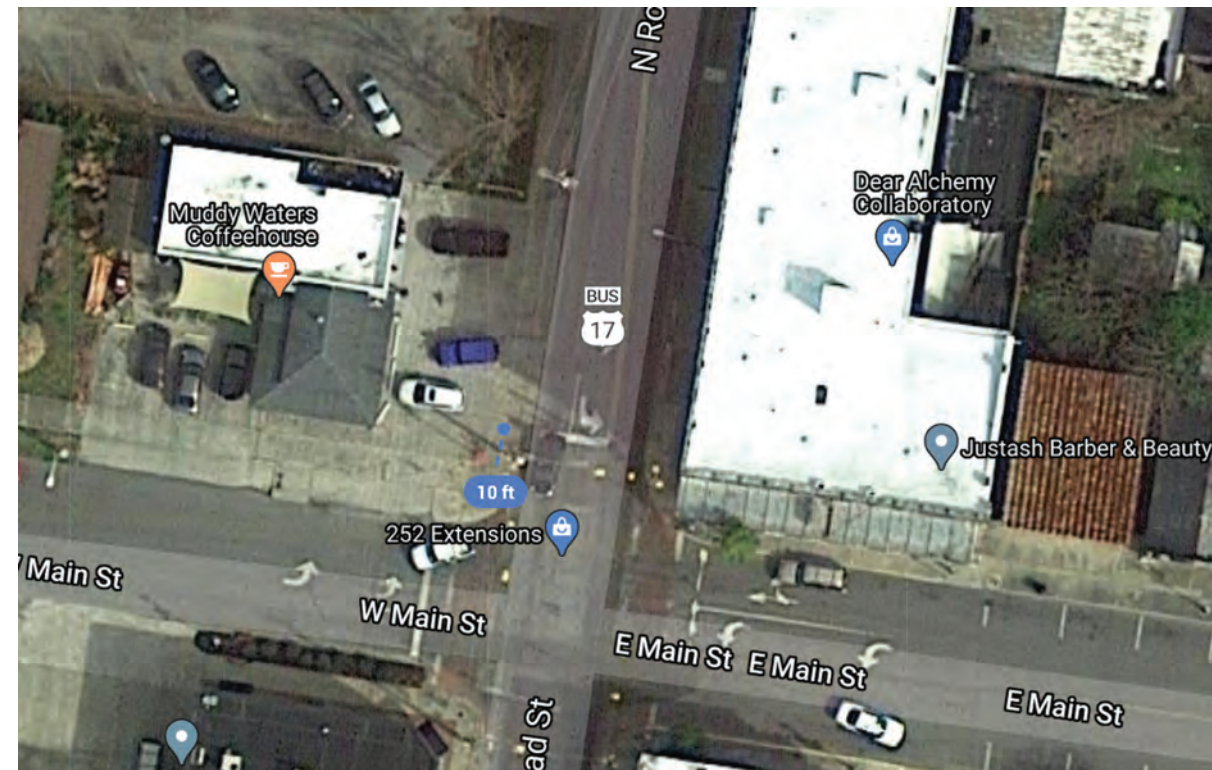


P Mounts on Street Light

P - Traveling East on HWY 158 Sign is located 6' West of stopbar at N. Road St.



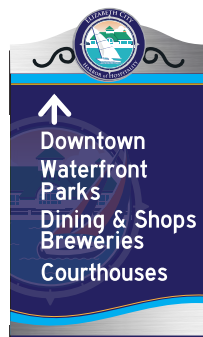




Q

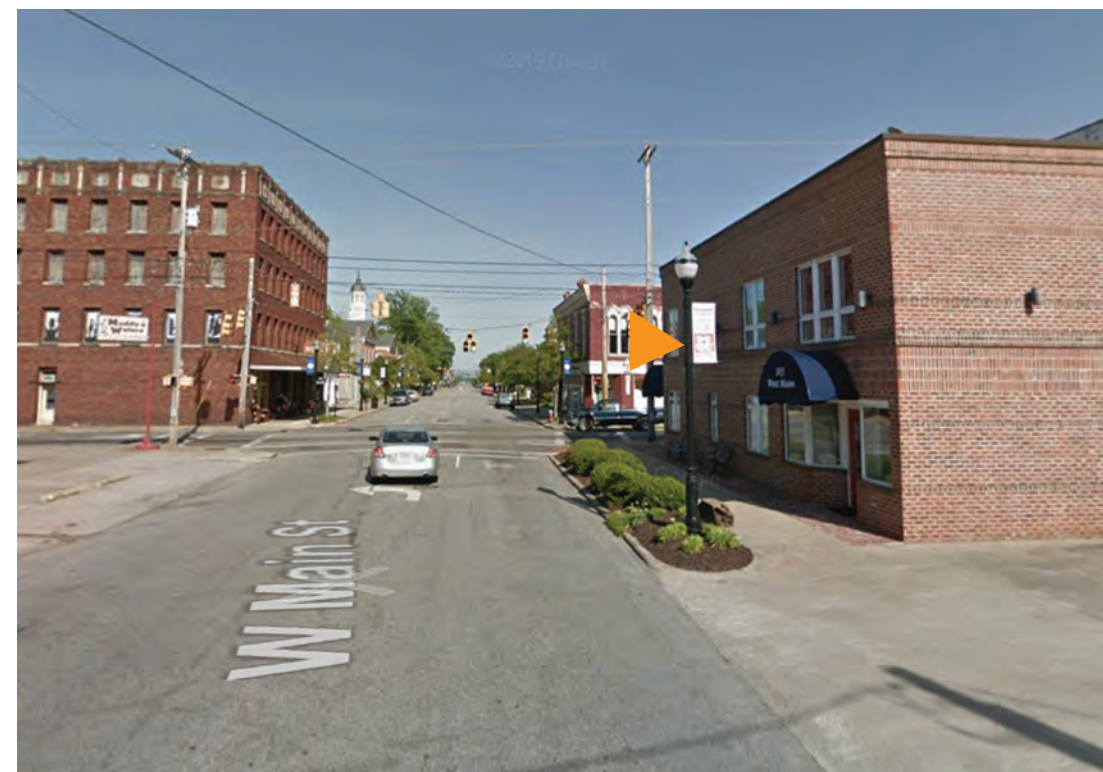
Q - Traveling South on Road St.  
Sign is located 10' ahead of stopbar  
at E. Main St

## Installation Guide / Locations



R Mounts on Street Light

R - Traveling East on Main St  
Sign is 48' West of the stopbar at S.  
Road St.  
Light Pole Mounted







S

S - Traveling North on Water Street  
Sign is located 50' from Fearing Street



T

T - Traveling South on Water Street  
Sign is located 15' from Fearing Street



## WAYFINDING SIGNAGE FABRICATION GUIDELINES

### H. Permits and Variances

Fabricator shall be knowledgeable of relevant local code requirements and honor same in fabrication and installation. Fabricator is responsible for securing any and all necessary permits for signage installation. It is the responsibility of the Owner to secure encroachment permissions from property owners including Department of Transportation. It is the responsibility of the Owner to secure variances, should any be required. It is the Owner's responsibility to call the appropriate agency to have all underground utilities properly located and marked. Any damage to below-grade utilities or structures for which the Owner has provided adequate location information is the responsibility of the fabricator.

### I. Site Visit

Prior to installation of the signs, the fabricator is to visit the proposed site to observe existing conditions and verify all signage required and its location with Owner. At this time the locations shall be staked using a non permanent visible device such as spray chalk or non-permanent paint. Certain signs may be located on sloped grades and may require uneven footings for each post. Site-verify all locations to determine special requirements for footing templates, if required. shall be consulted together and shall be approved by the Owner to determine the precise location for each sign. Any necessary adjustments will be made with the approval of the Owner. Site conditions unacceptable for installation will require improvement by the owner, or alternate location if possible.

### J. Masonry/Footings

Any concrete bases for signage are to be poured in place and footings are to extend beneath the frost line, or deeper to meet local code. All footings or bases should be poured within a form and level with grade unless otherwise specified in the design intent drawings. Foundation/footings should be level with grade unless otherwise noted or as specified by state or local code. Foundation/footings should not extend above grade more than 2" and exposed edges

should be finished with a bevel to prevent chipping. It is recommended that the concrete be floated by machine or hand before finishing in order to embed larger aggregates especially when part of the footing or base extends above ground. Concrete surface should have a smooth or brushed finish grade appearance. All concrete bases and footings should be edged to break any bond with the form and create a neat appearance. All forms should be removed once the concrete has properly cured. Concrete and reinforcement specifications shall be shown on shop drawing submittals. The fabricator is responsible for the necessary templates, mounting plates and hardware for concrete and masonry bases. A minimum 1' rock bed with landscape edging or concrete pad must be added around each concrete base as protection from landscaping maintenance. All masonry (concrete block, poured concrete, brick, slab, veneer, mortar, etc.) is to be properly treated and protected to maintain the structural integrity of the masonry work with exposure to all environmental conditions found at the site. For exposed or visible masonry, this shall include the application of protective sealers or similar finishes to diminish the effects of close-proximity sprinkling or irrigation systems. Signs are to be mounted on J-bolt footings, centered on the concrete base or footing, and engineered per code, unless otherwise specified in the design intent drawings.

### L. Wind Load

Signs, banners and mounting devices shall be engineered to withstand a minimum 30-psf wind load normal to the sign, or greater as per local code, in addition to the weight of the sign. The Fabricator shall determine appropriate method of anchoring signs to the locations specified to meet these requirements as well as all local code requirements.

### M. Mounting

All signs to be mounted level and true. All exposed hardware is to be touch-up painted on site as required. It is preferred that all bolts, nuts, washers, or other fasteners

shall be stainless steel. However galvanized steel is acceptable, so long as all exposed surfaces are sealed. mounting and/or mounting hardware details, the fabricator will be able to substitute equal or better hardware and techniques, based upon their experience with similar mounting situations and as long as the visual appearance of the sign is not compromised from that shown in the drawings.

All signage products must be installed such that there are no misalignments between visible components. Sign elements intended to be removable or changeable after installation must function as intended without binding, sticking or blocking. It will be the responsibility of the fabricator to correct any installation misalignments at no charge. Fabricator and their installers are expected to have knowledge of ADA mounting guidelines and city zoning codes, general sign locating practices, and any particular unique installations defined by designer. It is the desire of the Owner that the fabricator follow these guidelines as well as architectural cues in installing for the best visual placement, keeping a reasonable distance from protruding objects. Any signage that is improperly located is to be moved to the proper location by the fabricator/ installer, and repairs to wall surfaces and signage are to be at the fabricator/ installer, expense. If the installers are unable to make a decision about any sign locations, they can contact the Designer, providing a graphic representation of the questionable area, or contact the Owner for on-site options.

### N. Electrical

The Owner will be responsible for providing a power source to within 10 feet of the base of each sign requiring power (either at grade or below grade). Power is to be 120 or 277. It is the responsibility of the Fabricator to manipulate the existing conduit to its proper location, install an external disconnect, extend the conduit through the concrete base (or posts) to align with the point of hookup,

and run the power supply through it. Conduit running from the disconnect to the sign shall travel within the concrete base, not on its surface. The Owner will be responsible for the final electrical connection.

### O. Punchlist

It is required that the Fabricator complete a walk through with the Owner immediately following installation to identify any errors, such as construction or installation issues. Such errors are to be corrected in a timely manner, and to the satisfaction of the Owner.

### P. Signage Warranty

Fabricator is solely responsible for applying products (paints, finishes, components, etc.) according to manufacturers' specifications and validating the warranty. The Fabricator is to provide a written five (5) year full replacement warranty to the Owner that all signs will be free of defects due to workmanship and materials including, but not limited to: sign faces, brackets, posts or other support assemblies. Vinyl sheeting, lettering, paint and or powder coat finishes will be warranted to manufacturer's stated guarantees. All selected materials will require a minimum of seven year performance. Fabricator shall also extend in writing to the Owner all manufacturers' warranties.

### Q. Repair or Replacement

The fabricator will be required to repair or replace, including installation, any defective signs or hardware that develop during the warranty period and repair any damage to other work due to such imperfections. The fabricator will be required to fully replace all signs that are in error relative to the working documents (sign message schedule and sign type drawings) that were submitted to the fabricator as final version after awarded contract.



## A. Quality Standards

The materials, products, equipment and performance specifications described in this document, establish a standard of required function, dimension, appearance, performance and quality to be met by the fabricator.

## B. Structural Design

Designs and details indicate the approach for sign structure but do not necessarily include all fabrication details required for the complete structural integrity of the signs, including consideration for static, dynamic and erection loads during handling, erecting, and service at the installed locations, nor do they consider the preferred shop practices of the individual fabricator. Therefore, it shall be the responsibility of the fabricator to perform the complete structural design and engineering of the signs and to incorporate all the safety features necessary to adequately support the sign for its intended use and purpose and to protect the Owner. Fabricator shall also be responsible for ensuring that all signs meet local, state and federal codes.

## C. Vandalism Design

Fabrication and installation design is to withstand severe abuse and souvenir theft vandalism, but not less than the equivalent of resisting simple hand implements and tools (screwdrivers, knives, coins, keys, and similar items), and adult physical force. All hardware and fasteners within reach shall be vandal resistant.

## D. Substitution

No substitution will be considered unless the Owner has received written request for approval. Fabricator may recommend equal or better equipment or method, but will be required to provide full documentation establishing such a substitution's equality or superiority as measured in the following: The burden of proof of the merit of the proposed substitute is upon the Fabricator. The Owners decision of approval or disapproval of a proposed substitution shall be final.

## E. Material Handling

The Fabricator is to pack, wrap, crate, bundle, box, bag, or otherwise package, handle, transport, and store all fabricated work as necessary to provide protection from damage by every cause. Fabricator shall provide clear and legible identifying information on all product packaging to ensure proper on-site identification and installation.

## F. Sign Specifications

**Construction Methodology**  
The drawings call for a variety of fabrication techniques. Fabricators are given leeway to construct the signs to meet the intent of the designs depicted by the drawings. Because different systems of extrusions may result in slightly different dimensional requirements, the total height and width dimensions described in the sign construction on the drawings may be considered slightly variable for the purposes of cost quote.

- Sign faces are to be fabricated using aluminum plate of varying thicknesses, as specified with a minimum thickness of .3/16" inches unless otherwise noted.
- All finishes are to be free from fading, peeling or cracking. Paint and/or powder coat required preparation of all exterior metal surfaces of the sign to include removal of all scratches and imperfections, sanding and chemical etching. Substrate cleaning, preparation, paint and/or powder coat application and paint thickness to be in strict compliance with manufacturers published recommendations. Acceleration of the drying process is not allowed.
- Any sign faces smaller than 5' by 9' are to be fabricated from 1 piece of seamless material.
- Dimensional and structural welding defects will not be accepted, including but not limited to: poor weld contours, including excessive bead convexity and reinforcement, and considerable concavity or under-stainless steel as appropriate.
- Non-welded joints between various portions of signs must have a tight, hairline-type appearance, without gaps. Provide sufficient fastenings to preclude looseness, racking, or similar movement.

- Provide drain holes as needed to prevent accumulation of water within signs. Holes must be inconspicuous such that drainage does not occur onto signs, or other surfaces subject to staining. Provide internal system of baffles to prevent "light leaks" through drain holes of illuminated signs. Provide color-coordinated insect screening over drain holes.

- Non-illuminated sign faces are to have lettering and graphics created as surface-applied vinyl typography using Avery or 3M exterior grade, minimum 7-year warranty, unless otherwise noted in the drawings.

- Unlit channel letter faces must be .25" aluminum. Channel letter returns must be .080" aluminum.

## G. Fonts/Typefaces

The fonts used in these sign designs were selected specifically for this project by the Designer and Owner, and are listed in the graphic standards. No substitutions are allowed. It is the fabricators responsibility to acquire the required fonts and layout the specific sign panels as designed. Proofs should be submitted to the owner/designer for approval before final application of graphics.

Under no circumstances are typefaces to be electronically distorted ("squeezed" or "extended") for purposes of fitting to the specified sign or general alteration of the sign face composition unless noted in the drawings. This includes (but is not limited to) stretching, squeezing, tilting, outlining or shadowing.

1. All letterforms, symbols or graphics shall be reproduced either by photographic or computer-generated means. Hand-cut characters are not acceptable. Cutting shall be done in such manner that edges and corners of with nicked, cut, ragged, rounded corners, and similar disfigurements will not be acceptable.

- All letterforms shall be made from material and gauge as indicated on the drawings. Typefaces shall be replicated as indicated on the drawing.

- Silk-screened and vinyl copy is to match the sheen of the cabinet and base paint. Surface of letters shall be uniform in color finish, and free from pinholes and other imperfections.

- Vinyl graphics and letterforms shall be computer-cut.

- Custom logos and symbols will be specified as vector art or digital art and supplied by the owner or designer. These symbols can not be altered in any way.