

# Bridge to Bay Guide and Identification Sign System

## Phase I Overview



Prepared for:



**St. Clair County Parks and Recreation Commission**

Prepared by:



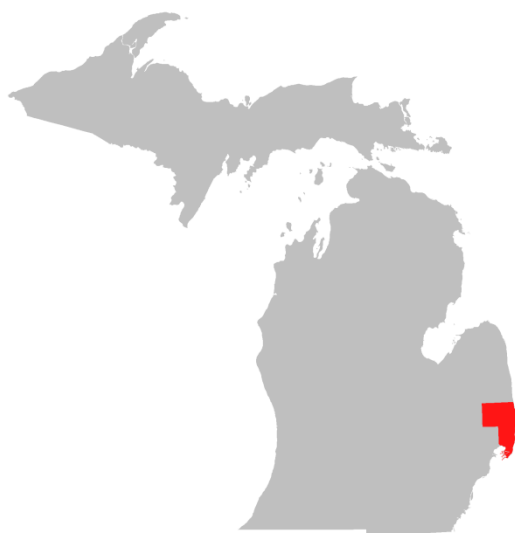
February 11, 2011



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**ST.CLAIR COUNTY, MICHIGAN**

# 1. Introduction

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The Bridge to Bay Trail has been implemented by multiple local agencies over a number of years. It takes many forms, including rail-trail, paved shoulder, shared roadway and a sidepath. There are some places where the Bridge to Bay Trail is actually two trails offering different options for getting from point A to point B. And while the Bridge to Bay Trail is nearly complete, there are still some gaps in the system. The result is that navigating the trail can be difficult for all but the most knowledgeable users and that this impressive multi-jurisdictional trail that spans from one end of the county to the other does not yet have the recognition it merits.

The sign alternatives proposed in this report are an effort to provide a level of uniformity to the identification, wayfinding and safety signage for the trail. The result should dramatically improve the trail users experience and raise the community awareness of the trail. The report has been divided into five sections:

**Trail Identification** – The proposed Bridge to Bay Bike Route Guide Sign.

**Baseline Improvements** – Regulatory and warning signs and pavement markings that are the bare minimum that should be included at each trail/road intersection and each trail/driveway intersection.

**Trail / Road Intersections** – Illustration of how the identification, regulatory and warning signs are applied at the intersection of the trail and roads.

**Trail Directional Signage** – Alternative approaches to signing changes in direction, feeder trails, intersections with other bike routes and temporary routes for the existing gaps in the trail.

**Trail System Overview** – These maps show the proposed classifications of the Bridge to Bay Trail.

It should be noted that signs along roads and bike facilities are required to conform to the Michigan Manual of Uniform Traffic Control Devices (MMUTCD). The Michigan manual itself conforms with minor variations to a National Manual of Uniform Traffic Control Devices (MUTCD). The alphanumeric codes that appear next to the signs in this report reference the MUTCD codes.

In order to use a sign that does not conform to MUTCD, an agency must receive permission from the Federal Highway Administration (FHWA) to experiment with the sign. If a sign conforms to MUTCD but not MMUTCD permission from MDOT must be granted. In this document there are some sign that are in the 2009 MUTCD but not yet part of the MMUTCD at the time of this application. This is seen as a minor concern as the MMUTCD will be brought into substantial conformance with the 2009 MUTCD sometime in 2011. Of greater concern are signs that are not in the MUTCD. An application has been submitted to FHWA to experiment with these signs. This document reflects changes suggested by a review of a previous application to FHWA.

## 2. Trail Identification Sign

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A trail identification plaque serves the purpose to provide a uniform identifier for the route through both its off-road and on-road forms. This signs will be used at trail entrances, periodically along the route and with directional signage.



### M1-8a Variant

This is a proposed variation of the MUTCD M1-8a sign that is included in the 2009 MUTCD.

The M1-8a sign provides for a custom logo at the top of the sign. Rather than using a number or letter for the route, a trail name proposed as the route identifier.

The bike symbol in the center of the sign has supplemented with a pedestrian symbol to help distinguish this route as a shared use trail.

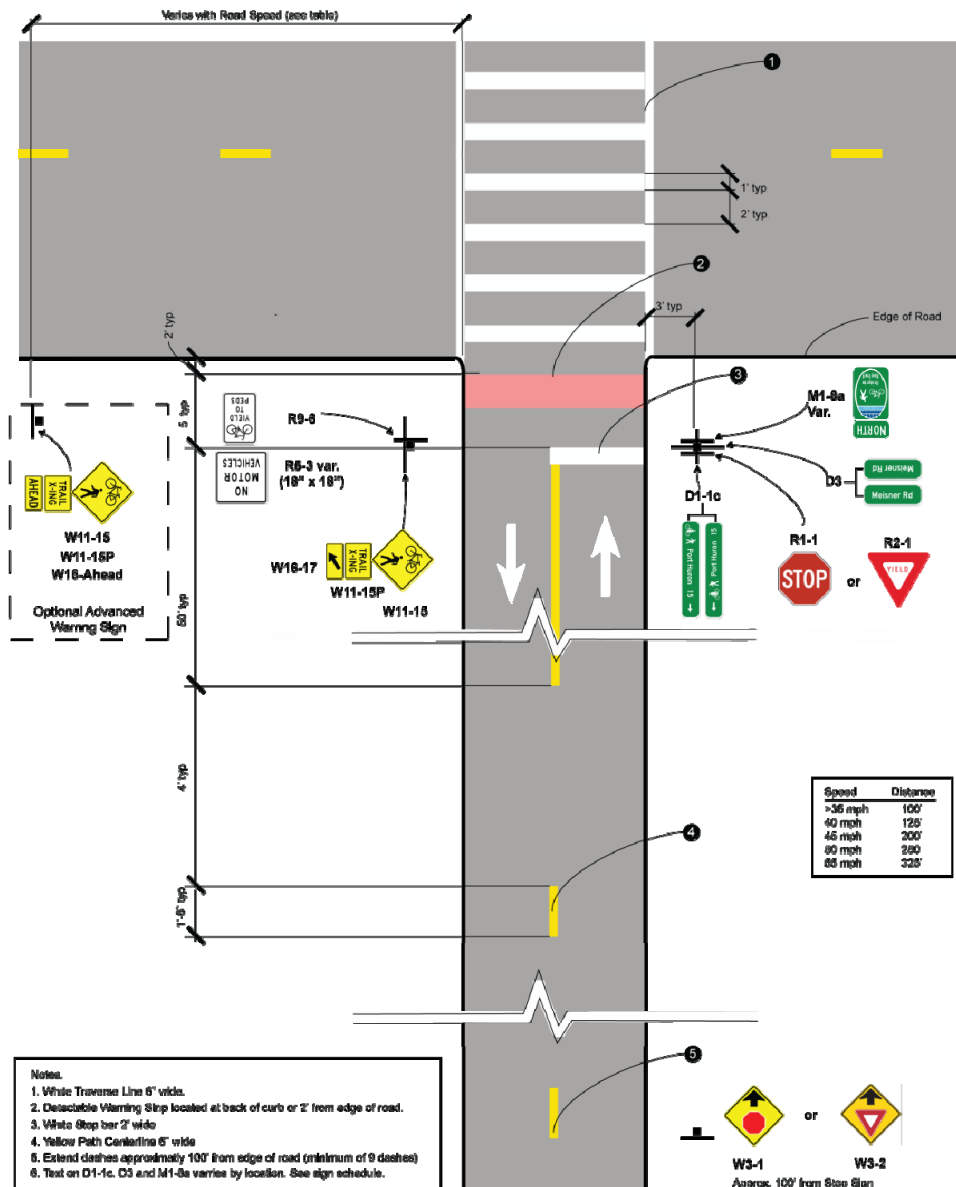
The M3-1 auxiliary plaque is added above the M1-8A sign stating "NORTH" or "SOUTH" depending on the direction of travel.

The sign assembly is 12" x 24" when used along the trail and 18" x 27" when used along roads.

# 3. Baseline Improvements

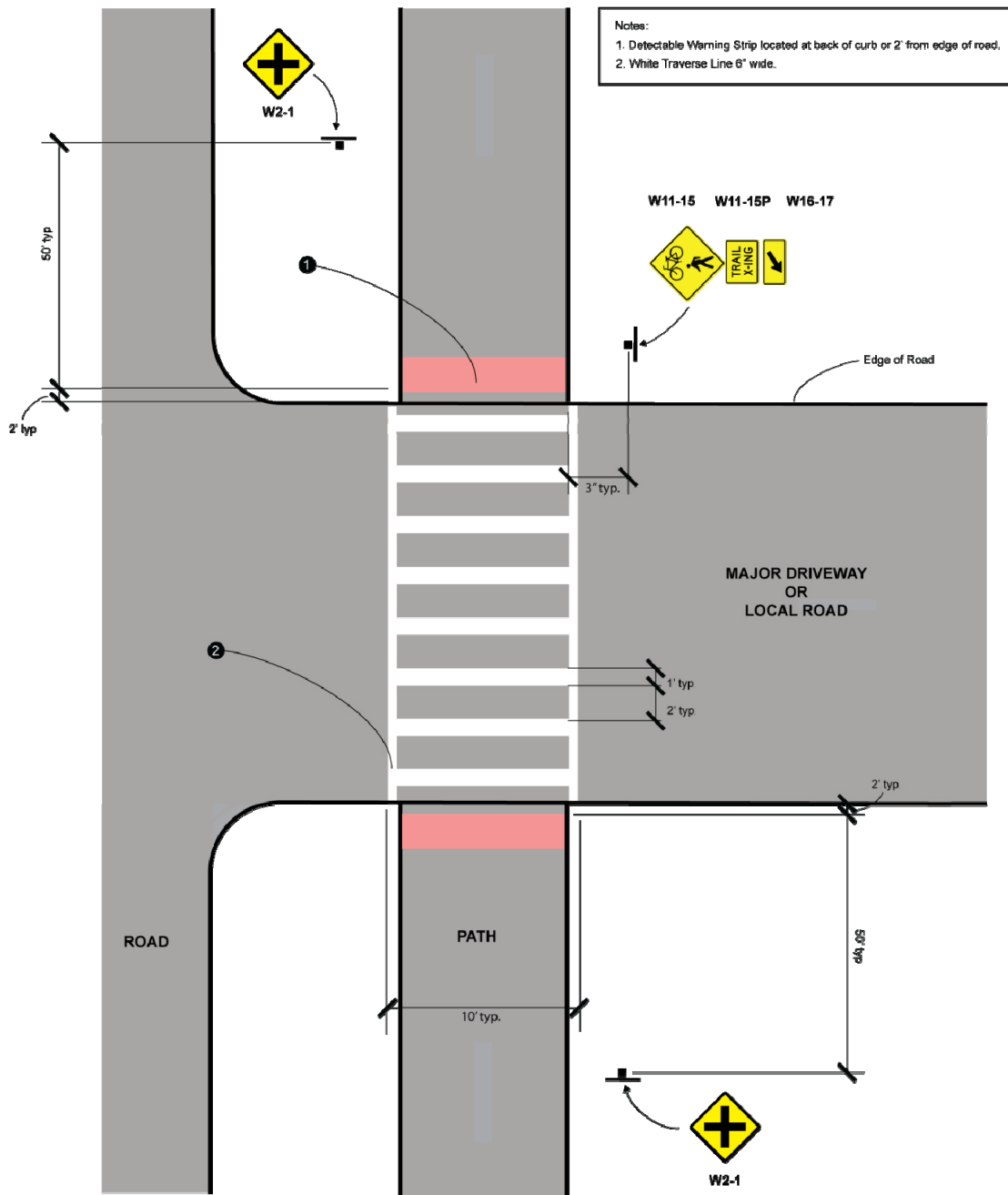
## Base Line Regulatory and Warning Signs at Trail/Road Intersections

The following illustrates the base line improvements that should be installed at each trail intersection with a roadway. The trail centerline markings are proposed to be used only near the intersection. The choice of the Stop or Yield sign is based on the relative traffic of the trail and the roadway. A detectable warning strip will be required at all intersections with the improvements.



## Side path /Driveway Intersection Signage and Pavement Markings

The following illustrates the base line improvements that should be installed at each trail intersection with a commercial driveway or low volume local road.



# 4. Trail/Road Intersection

The Trail/Road Intersection Sign Treatment contains a combination of standard and custom signs. These signs are placed on 2"x2" black steel posts. A variation of the MUTCD M1-8a sign is proposed. This sign contains a space for the county trail system logo along with the unique route identifier. Rather than a numeric identifier, the trail name "Bridge to Bay Trail" is spelled out.

An optional custom plaque is placed across the trail from the stop sign stating the local agency responsible for the portion of the trail along with contact information regarding maintenance and emergencies. A general service sign may be placed under the Stop sign to inform bikers as to where important facilities, such as hospitals, are located. Above the street sign, a directional sign shows the distance to the nearest town or city. The No Motor Vehicle sign is reduced in size with a Yield to Peds sign below it. Above the No Motor Vehicle is a Trail X-ing Sign warn vehicles that bicycles and pedestrians may cross the road.

## Road View

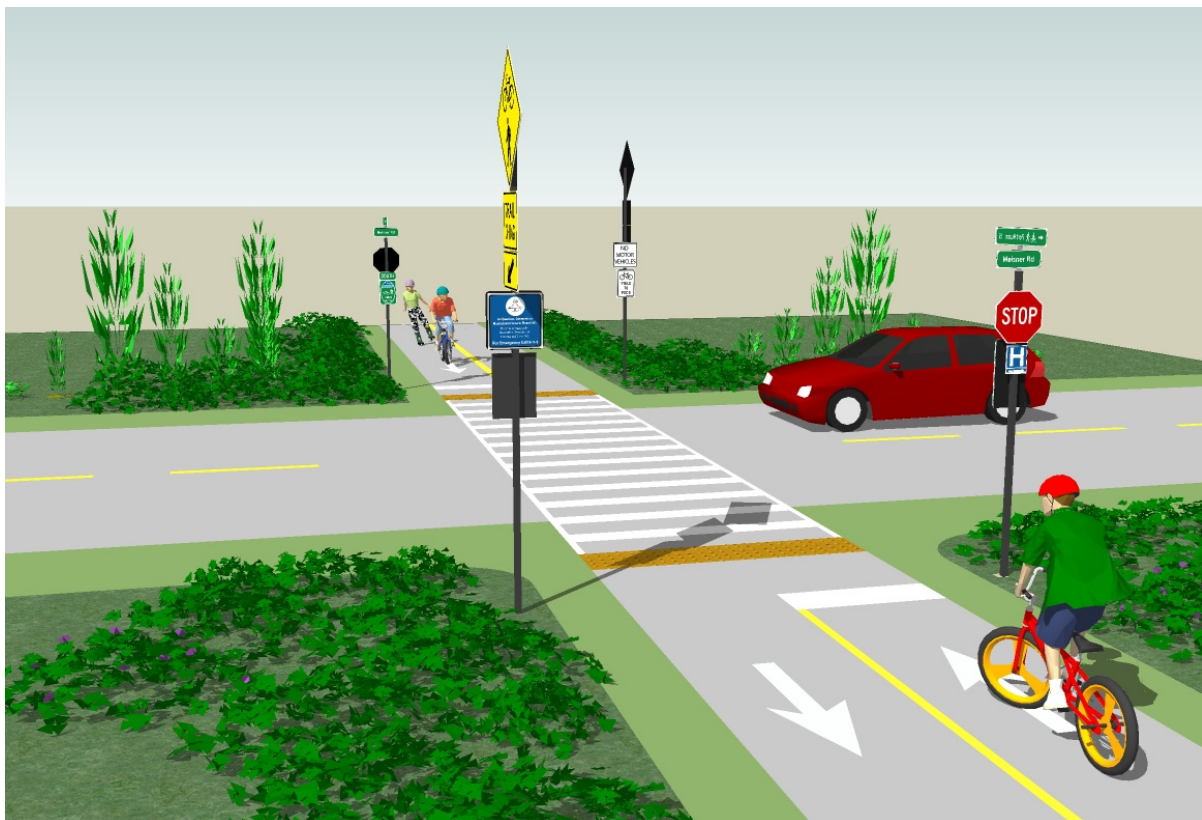




### Vehicular View

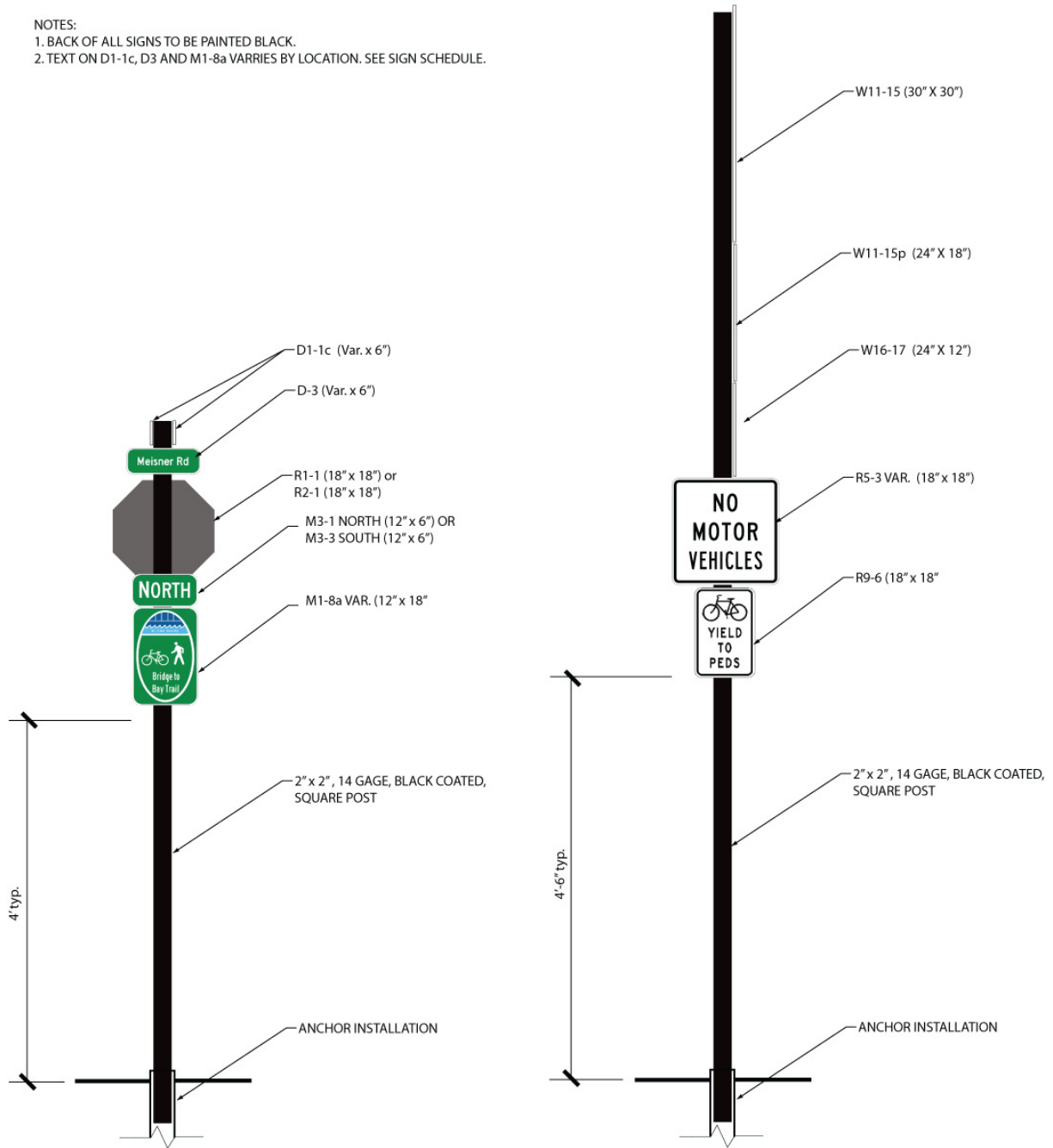


### Trail View

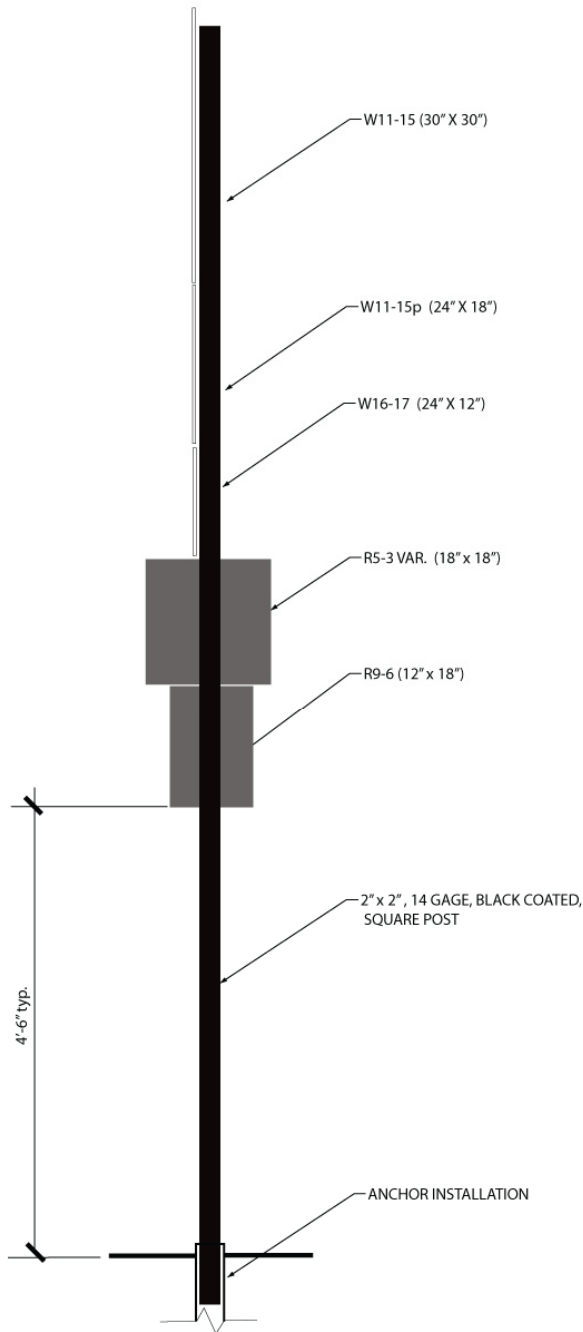


# Trail/ Road Intersection Sign Details – Road View

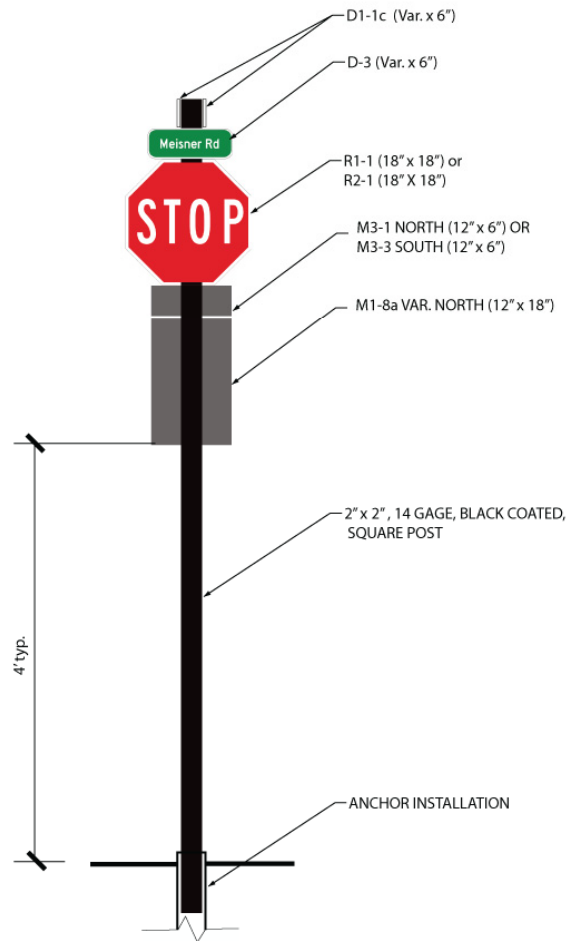
NOTES:  
 1. BACK OF ALL SIGNS TO BE PAINTED BLACK.  
 2. TEXT ON D1-1c, D3 AND M1-8a VARIES BY LOCATION. SEE SIGN SCHEDULE.



# Trail/ Road Intersection Sign Details – Trail View



NOTES:  
 1. BACK OF ALL SIGNS TO BE PAINTED BLACK.  
 2. TEXT ON D1-1c, D3 AND M1-8a VARIES BY LOCATION. SEE SIGN SCHEDULE.



# 5. Guide Signs Along the Route

## Route Identification Signage

These signs would be used periodically along both the on-road and off-road portions of the trail to indicate the route is part of the Bridge to Bay Trail. When the sign is placed along a roadway bicycle route and there is not a sidewalk present, only the bike icon will be used.

### Placement Along Roadway Bike Route



Bicycle Route

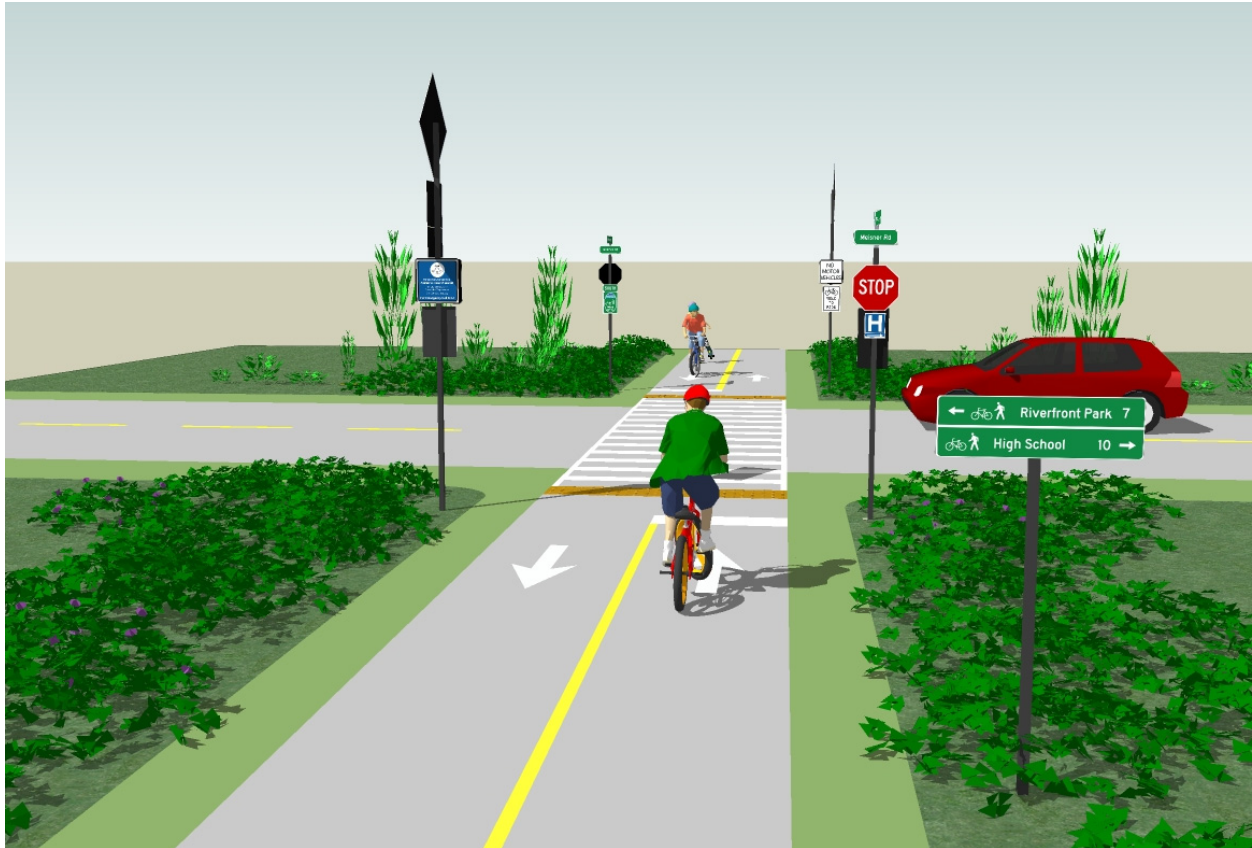
### Placement Along Pathway



Bicycle and Pedestrian Route

## Destination Signage

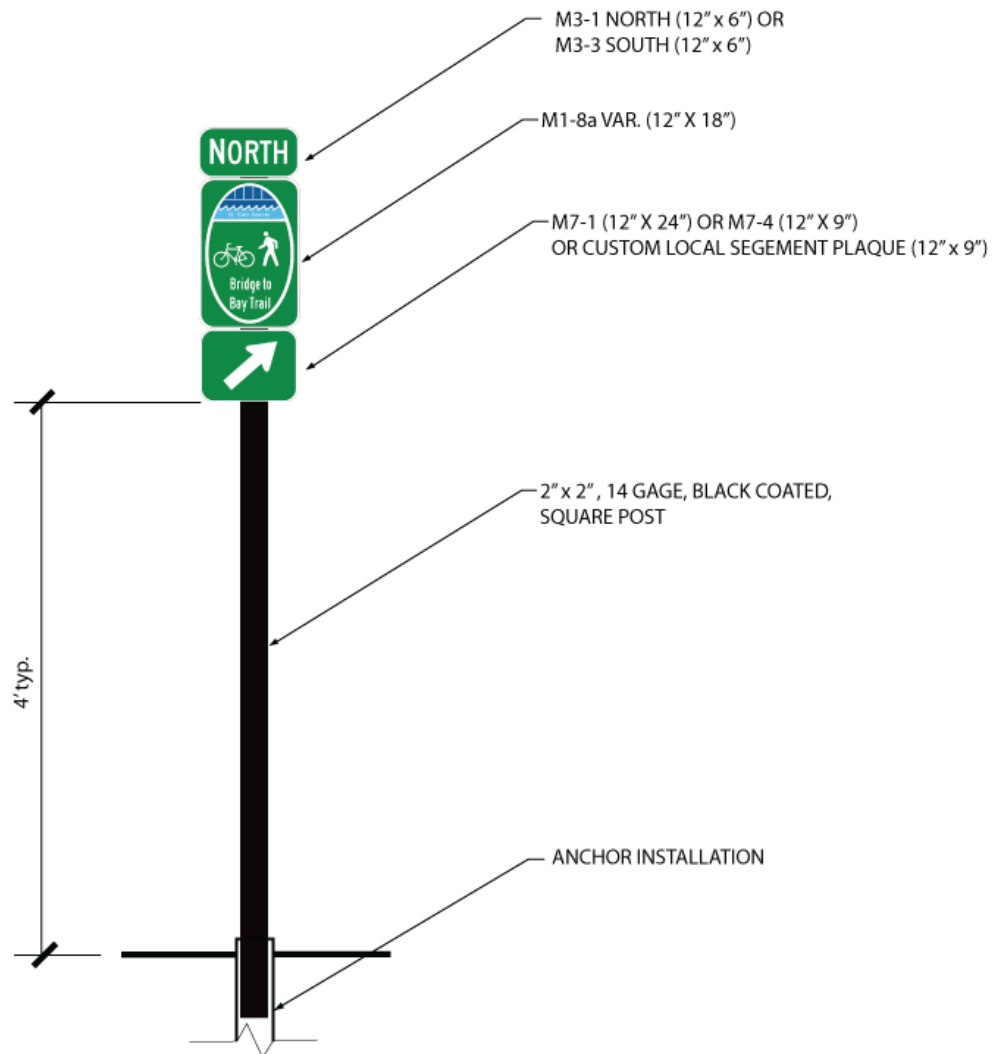
In advance of an intersection a destination sign may be installed to provide direction, destination and distance information as needed. Similar to the icon used on the M1-8a Var. sign, the proposed D1-2c destination sign would have a combined bicycle and pedestrian icon also.



**MUTCD D1-2c Variant**

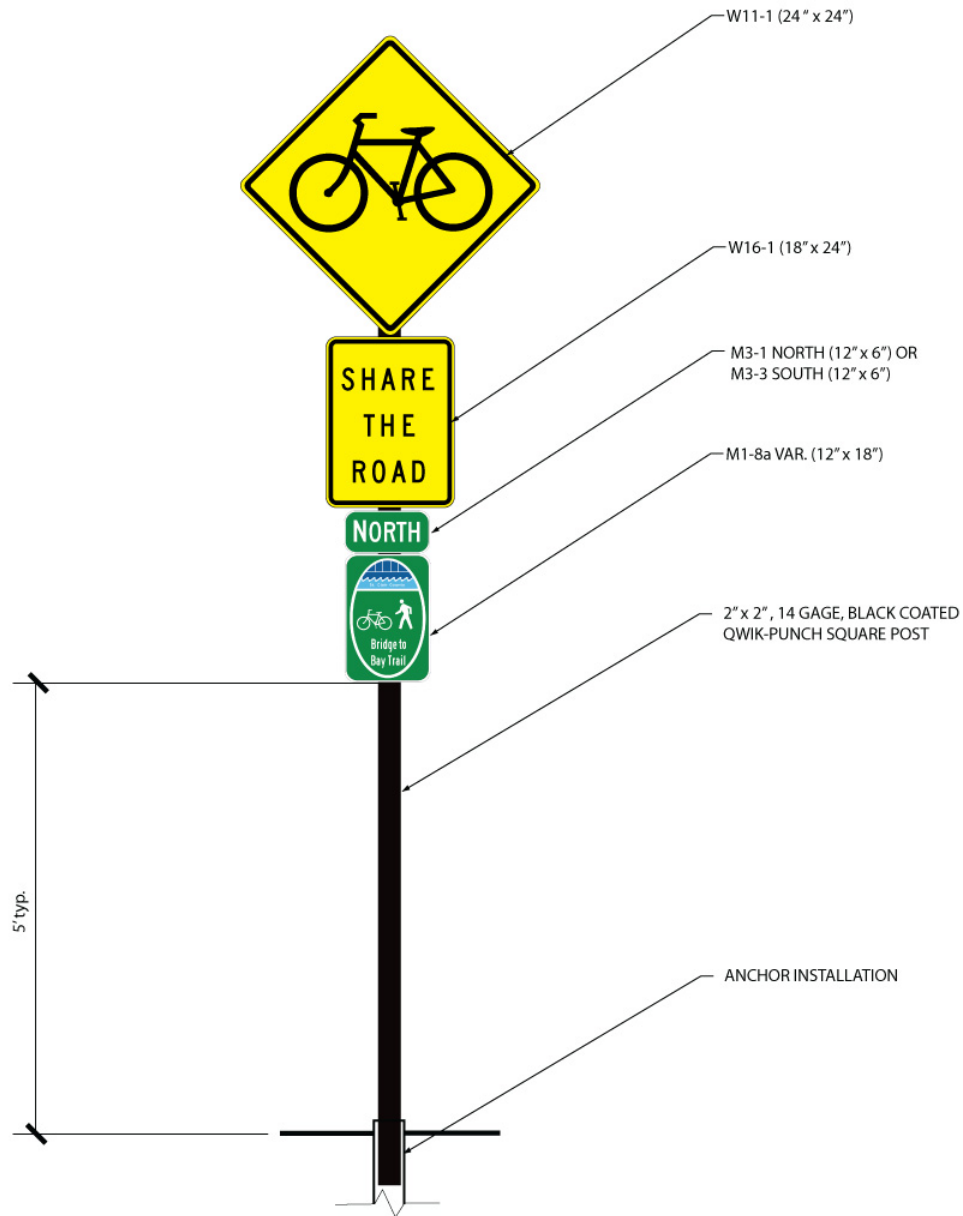
## Change in Direction Signage

These would be placed in advance of an intersection that requires a change in direction to keep on the trail.



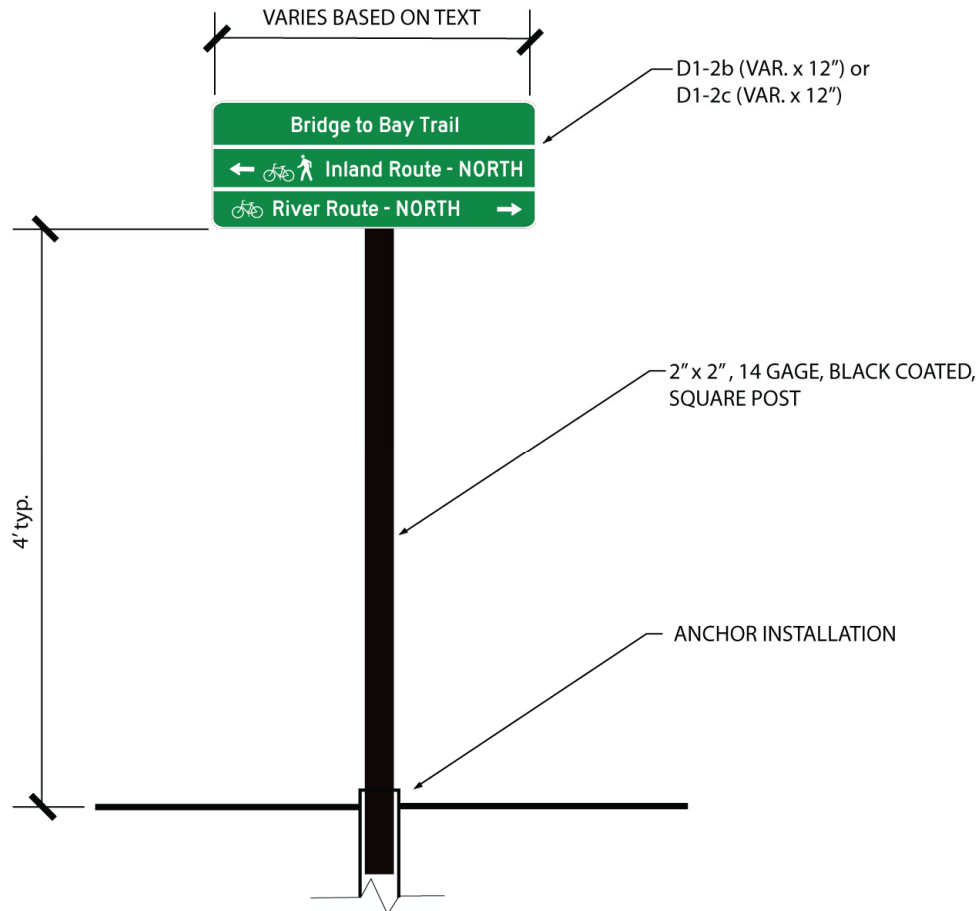
## Temporary Bridge to Bay Route Signage

Where there is a gap in the trail, a temporary route should be identified that leads to the next completed section. As the temporary routes do not have any specific bicycle facilities, a shared roadway becomes the best alternative. A “Share the Road” plaque may be used in conjuncture with the W11-1 Sign to warn motorist to watch for bicyclists traveling along the highway. The M1-8a Variant sign would be placed below to notify bicyclist that they are still on the Bridge to Bay Trail Route. If a sidewalk is not present, only the bike icon will be used on the sign.



## Alternative Bridge to Bay Routes Signage

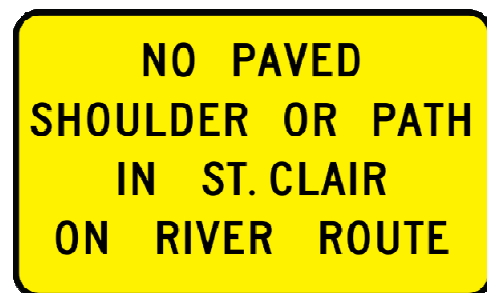
Bike Route Guide Signs would be placed in advance of an intersection where alternative bike paths are available for the same route. Generally, the route splits into an inland route and a river route.



An Information Kiosk may be placed before the juncture to provide detailed trail information and maps to help trail users determine which route is appropriate for them. The D9-10 sign with the M6-2 sign below would be placed prior to the kiosk.



A warning plaque will be placed prior to the juncture to provide information about gaps in the trail.

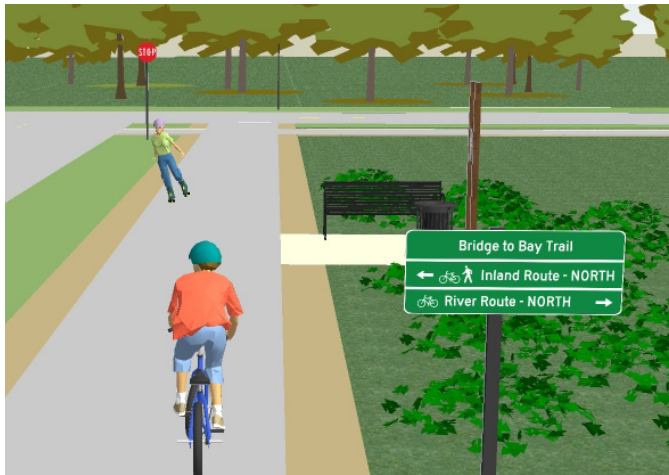




## Information Kiosk

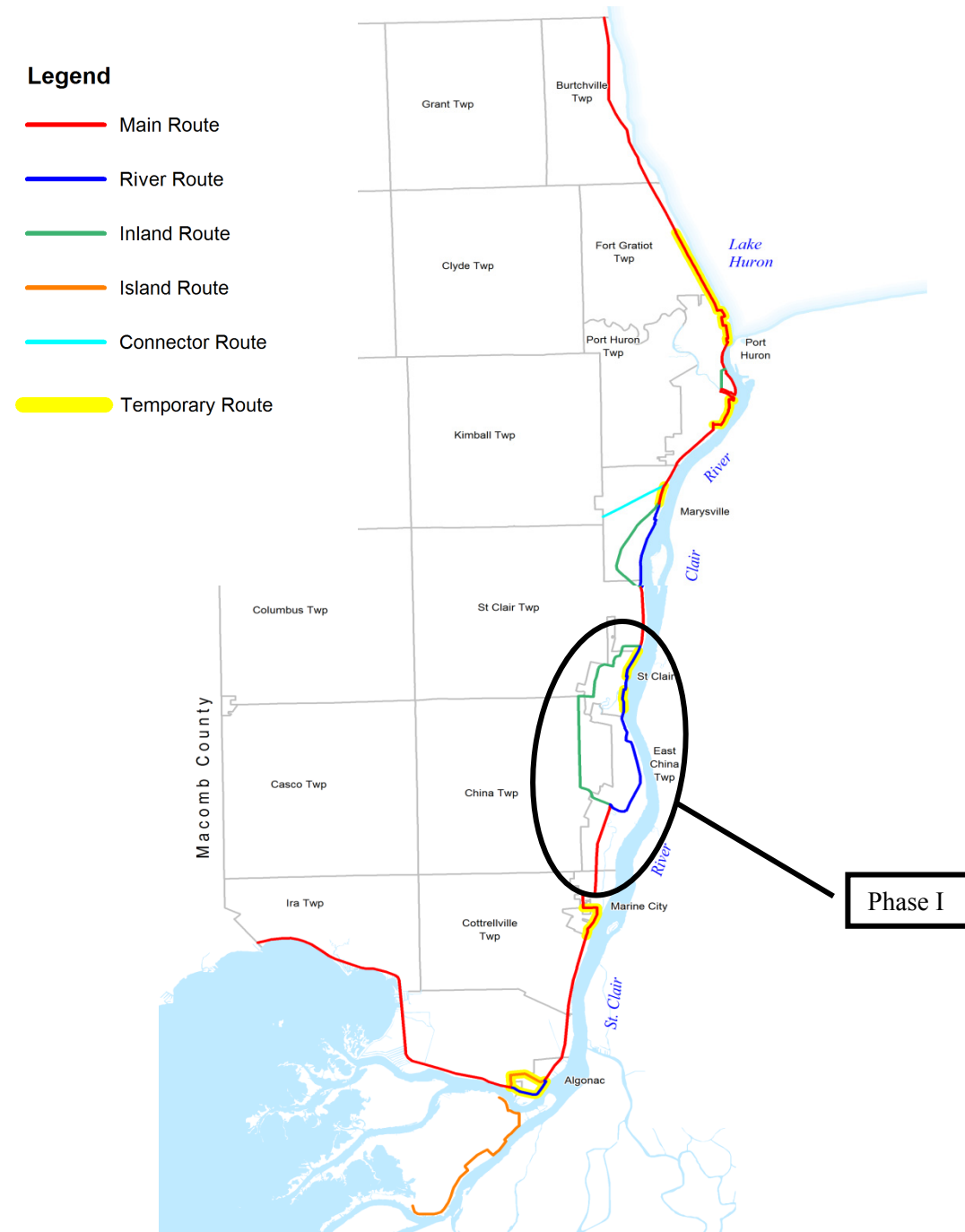
A 10'x10' concrete pull-off area with an Information board displaying a map of the bike route.

Amenities such as a seating area and trash receptacles should be included.



# 6. Trail Classification Overview

There are a number of points where a trail user has a choice of what route they should take or where the trail is not yet complete.



## Phase I – Marine City to St. Clair

