



# Bourne – Rotary Improvements

*Route 28/Sandwich Road/Trowbridge Road*

*Public Information Meeting*

December 1, 2022 | 7pm

Project File No. 610542

Project Manager Adetoyin A. Olaoye,  
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# Zoom Webinar Controls for Meeting



- Ask a question and share comments



- Drop down menu to check microphone and speakers



- Raise your hand - \*9 for users dialing in and Alt + Y to raise your hand



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Live Transcript

- Closed captioning automatically generated by Zoom



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# Public Meeting Notes and Procedures

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- By continuing attendance at this virtual public meeting, you consent to participate in a recorded event.
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## **Other Important Notes**

- Your microphone and webcam are automatically disabled upon entering this meeting.
- The meeting will be open to questions and answers at the end of the formal presentation.
- Please take time to respond to our survey! Your feedback is important.

## Notice of MassDOT's policy on diversity and civil rights:

- All MassDOT activities, including public meetings, are free of discrimination.
- MassDOT complies with all federal and state civil rights requirements preventing discrimination based on sex, race, color, ancestry, national origin (limited English proficiency), religion, creed, gender, sexual orientation, gender identity or expression, or veteran's status.
- We welcome the diversity from across our entire service area. If you have any questions or concerns, please visit <https://www.mass.gov/nondiscrimination-in-transportation-program> to reach the Office of Diversity and Civil Rights.

**Thank you for joining our meeting. We appreciate your participation!**



# Panelists

- **MassDOT Project Team**

- Adetoyin A. Olaoye, Project Manager
- Andrew Wilkins, EIT, Highway Design
- Olivia Murphy, Highway Design
- Fangyun Xi, EIT, Traffic Design

- **MassDOT Meeting Facilitators**

- Leah Grodstein, Meeting Producer
- Roy Kirwa, Meeting Producer

- **Cape Cod Commission**

- Steven Tupper, PE, Deputy Director

- **Howard Stein Hudson**

- Bob Stathopoulos, PE, PTOE, Traffic Engineering Technical Leader



## Language Translation Speakers

- **American Sign Language**
  - Michael Herschberg
  - Meaghan Cooney

# Public Outreach

## 1. Newspaper

- The Bourne Enterprise
- Cape Cod Times

**The Enterprise**  
Serving Cape Cod Communities Since 1895

CAPE COD TIMES



## 2. MassDOT Social Media

- Facebook
- Twitter

## 3. Thanks to the following for sending notice of this meeting:

- Cape Cod Commission
- Registry of Motor Vehicles
- Council on Aging





# Agenda

- 01** Introduction
- 02** Background
- 03** Proposed Design
- 04** Impacts
- 05** Q&A





## Poll #1

How often do you use the intersection? [Select all that apply]

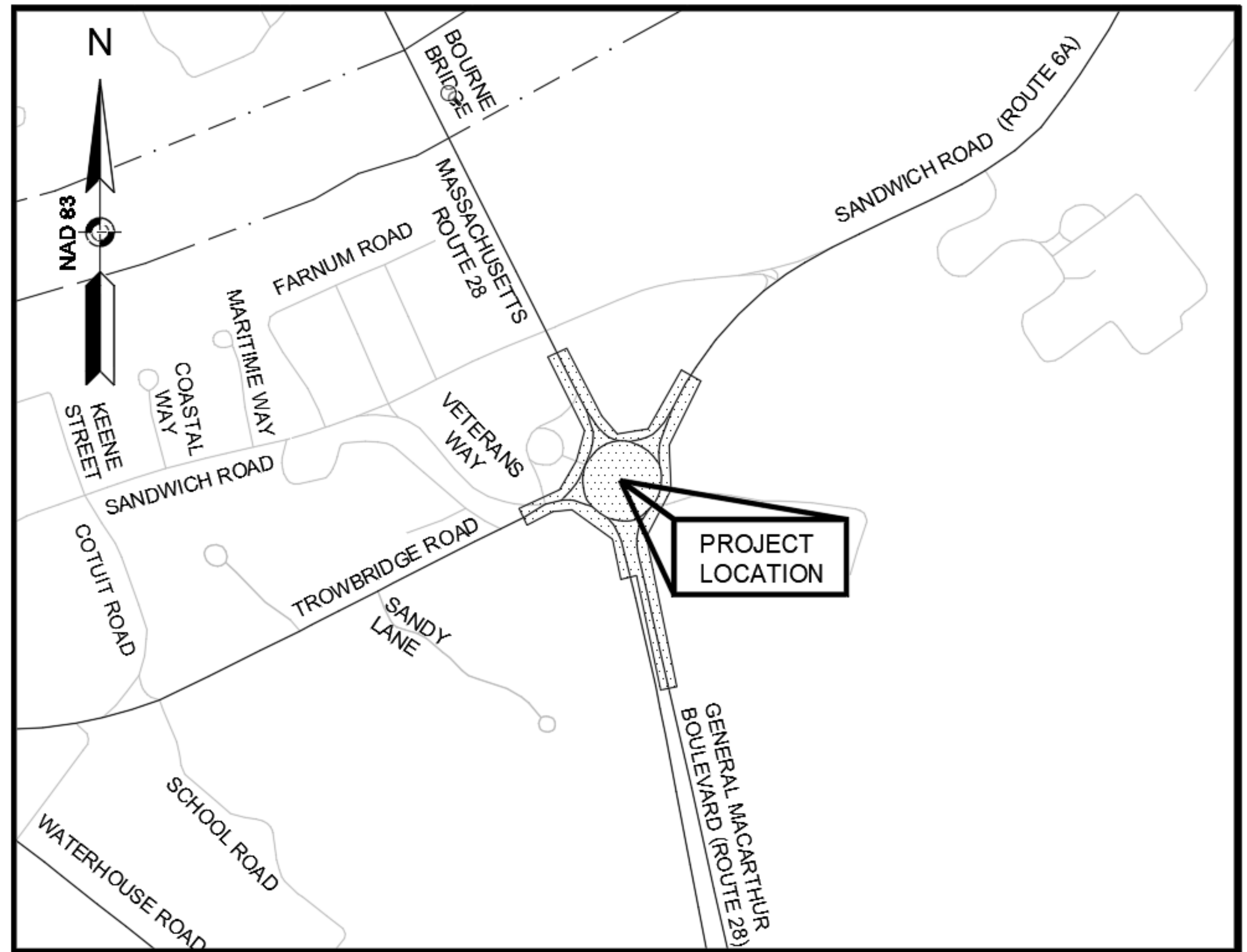
- ✓ Daily
- ✓ Weekly
- ✓ Weekends
- ✓ Occasionally
- ✓ Seasonally
- ✓ I don't travel through this intersection





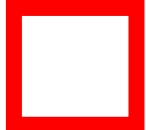
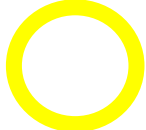
## Introduction

- The Bourne Rotary Improvements project seeks to improve the **traffic operations and safety** through the rotary through **short-term improvements** with **minimal impacts**.
- **No Right of Way Impacts**  
(No land takings are proposed as part of this project temporary or permanent).



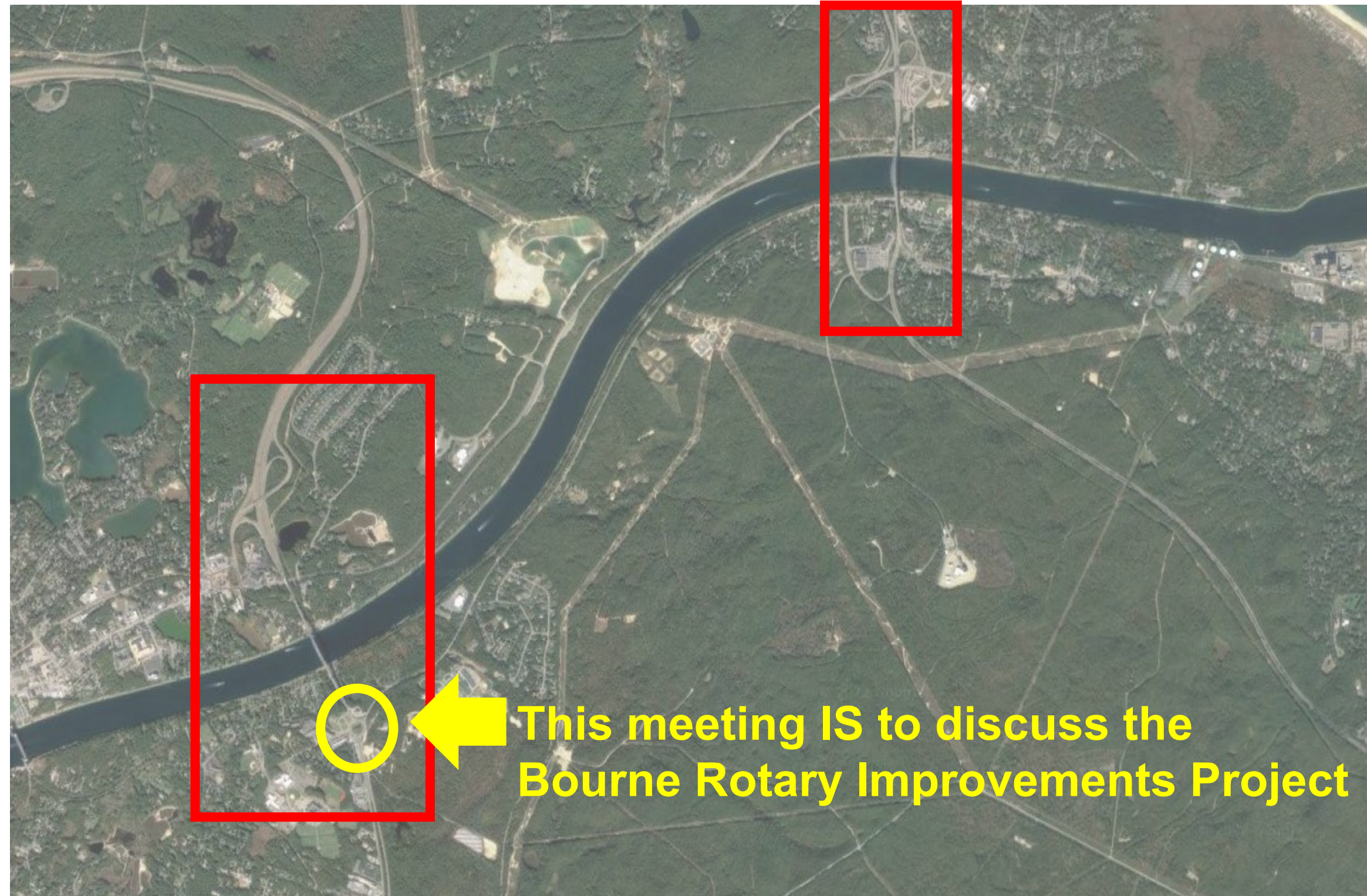


# Bourne – Cape Cod Canal Bridges Program

- This meeting is **NOT** to discuss the Cape Cod Canal Bridges Program Project.
- Cape Cod Bridges Program: 
- Bourne Rotary Improvements: 
- Public Meeting Information:  
<https://www.mass.gov/cape-bridges>

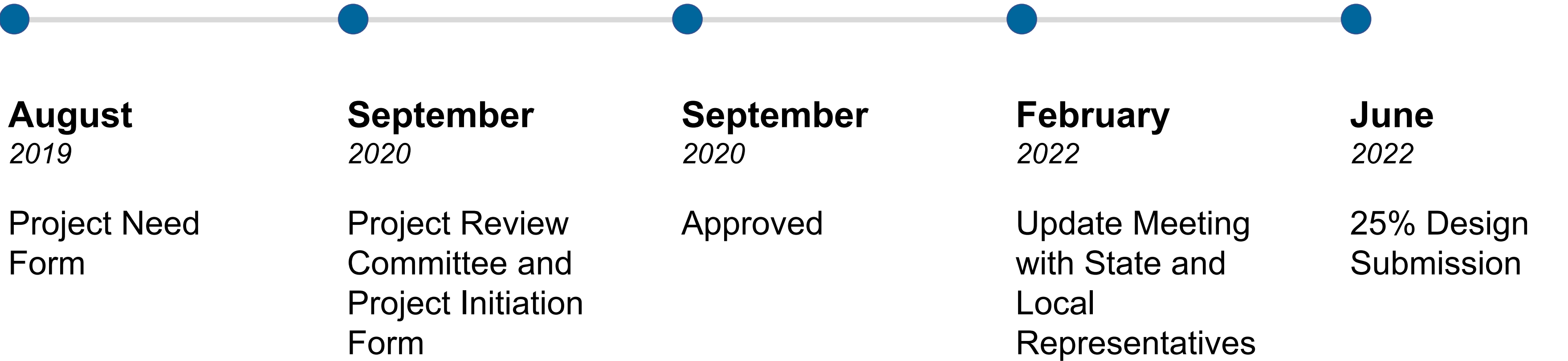


- Public Comment Portal:  
[https://pima.massdotpi.com/public/comment/project-comment-dynamic?project\\_id=13868](https://pima.massdotpi.com/public/comment/project-comment-dynamic?project_id=13868)





# How did we get here?

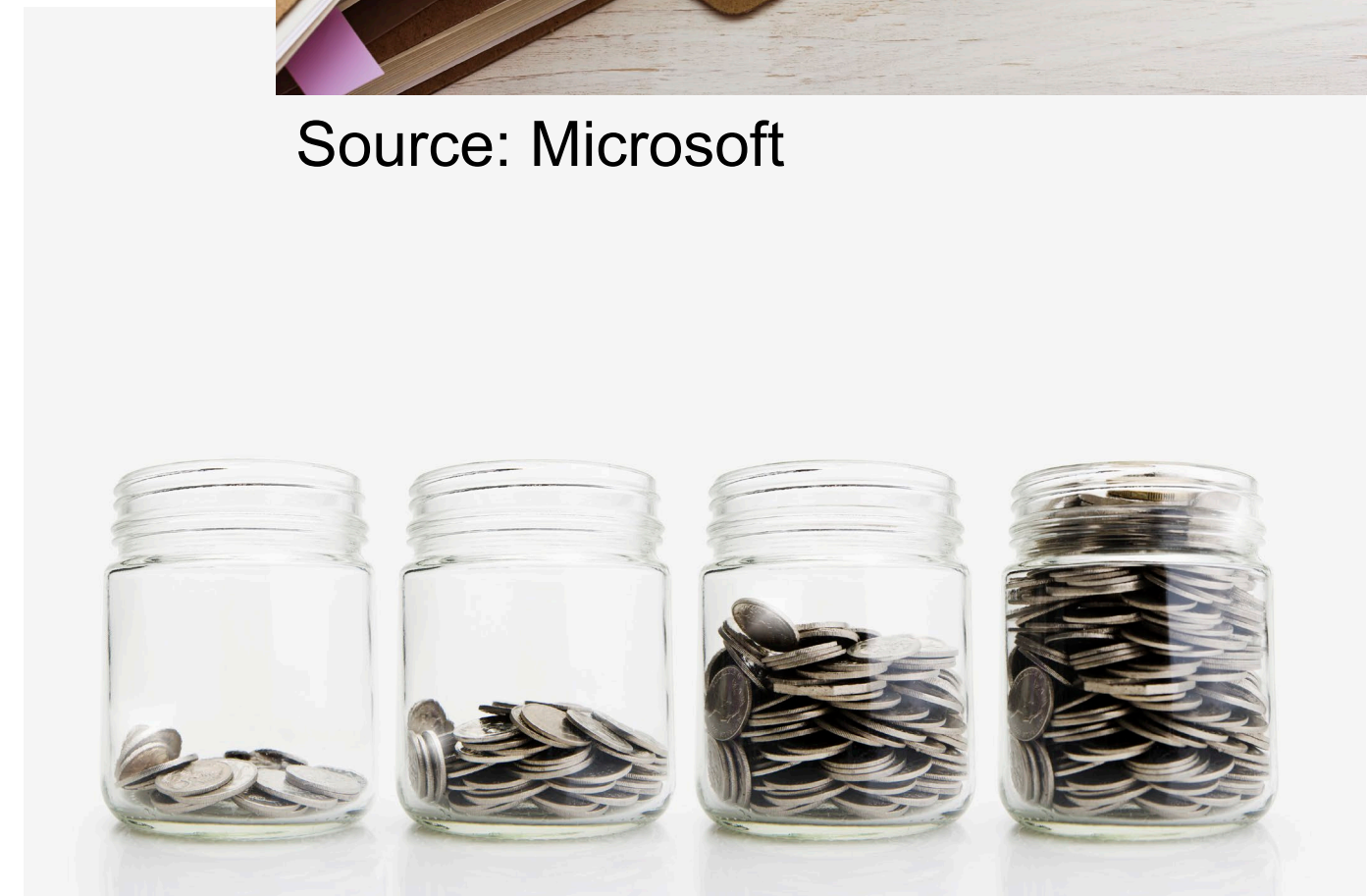


# Funding

- The total estimated project cost is approximately \$1,800,000.
- The Federal Highway Administration will fund 80% of the total construction cost.
- MassDOT will fund 20% of the total construction cost.



Source: Microsoft



Source: Microsoft





**Why was this  
project  
initiated?**

## Poll #2

What are your biggest concerns about this rotary? [Select all that apply]






- ✓ Lane Weaving
- ✓ Vehicle Collisions
- ✓ Traffic Congestion
- ✓ Speeding
- ✓ Facilities for People Walking or Biking
- ✓ Other
- ✓ Not sure





# Project Background

- The Bourne rotary serves as one of the two entrances vehicular to Cape Cod and the gateway to the Bourne Bridge. This rotary serves as an evacuation route.
- The rotary has been identified as a high crash location **with concerns raised over safety and traffic congestion.**
  - According to the Cape Cod Crash Dashboard: **Bourne Rotary ranked #1 for 2018-2020 for circular intersections.**
    - **236 crashes**
  - The posted speed limit entering the rotary is 25 miles per hour.

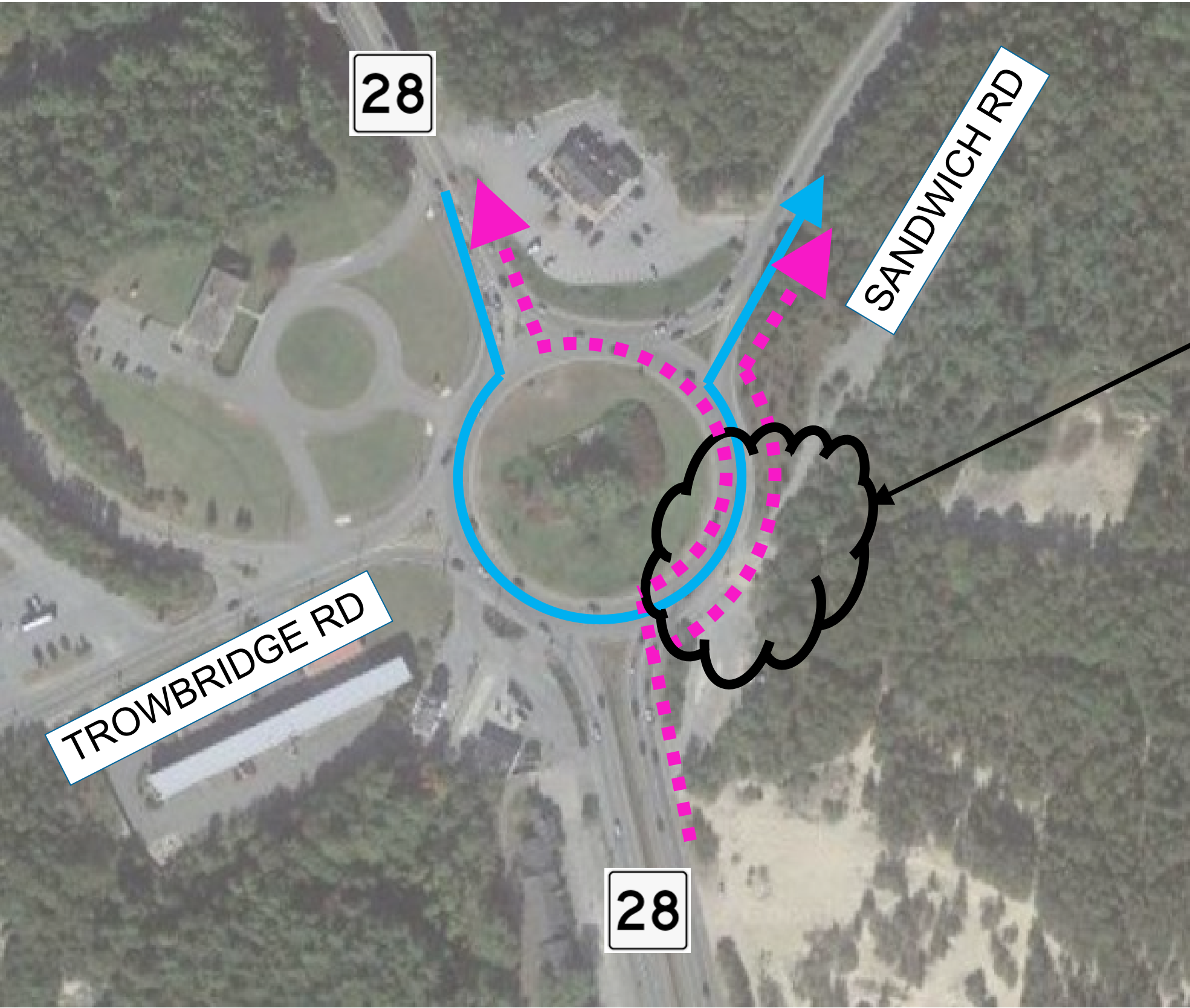
Circular Intersections	
	#1 Bourne Rotary (Bourne): 236 crashes
	#2 Barnstable Airport (Barnstable): 94 crashes
	#3 Mashpee Rotary (Mashpee): 84 crashes
	#4 Orleans/Eastham Rotary (Orleans/Eastham): 79 crashes
	#5 Otis Rotary (Bourne): 76 crashes

Source: Cape Cod Crash Dashboard



Source: Google Street view

# Traffic Operations Concerns



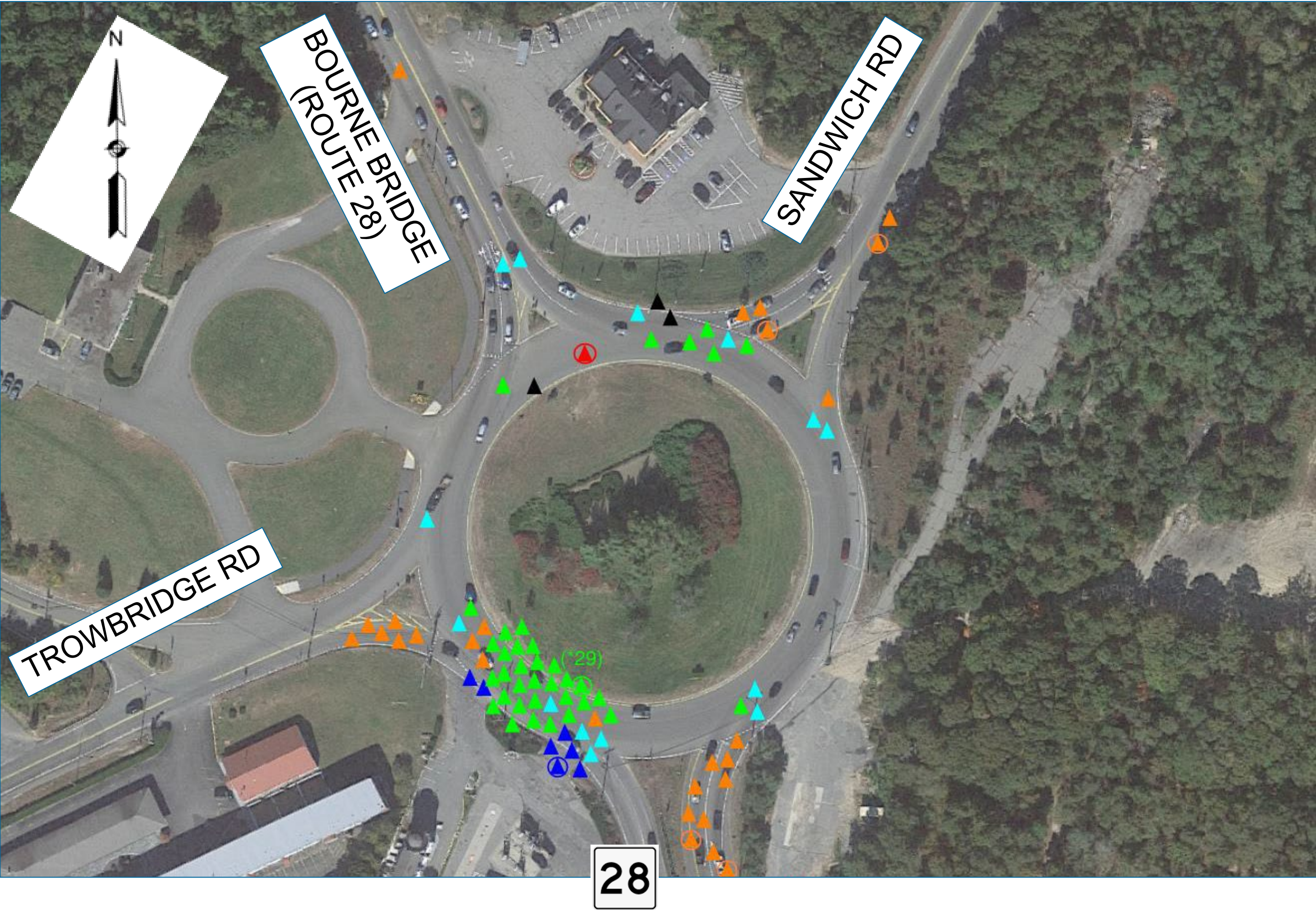
**MAJOR  
CONFLICT AREA**

**Major conflict between movements:**

- Bourne Bridge to Sandwich Road  
and
- ■ ■ Route 28 NB to Sandwich Road or  
Route 28 NB to Bourne Bridge



# Safety Concerns – Crash Types & Locations (2009-2012)

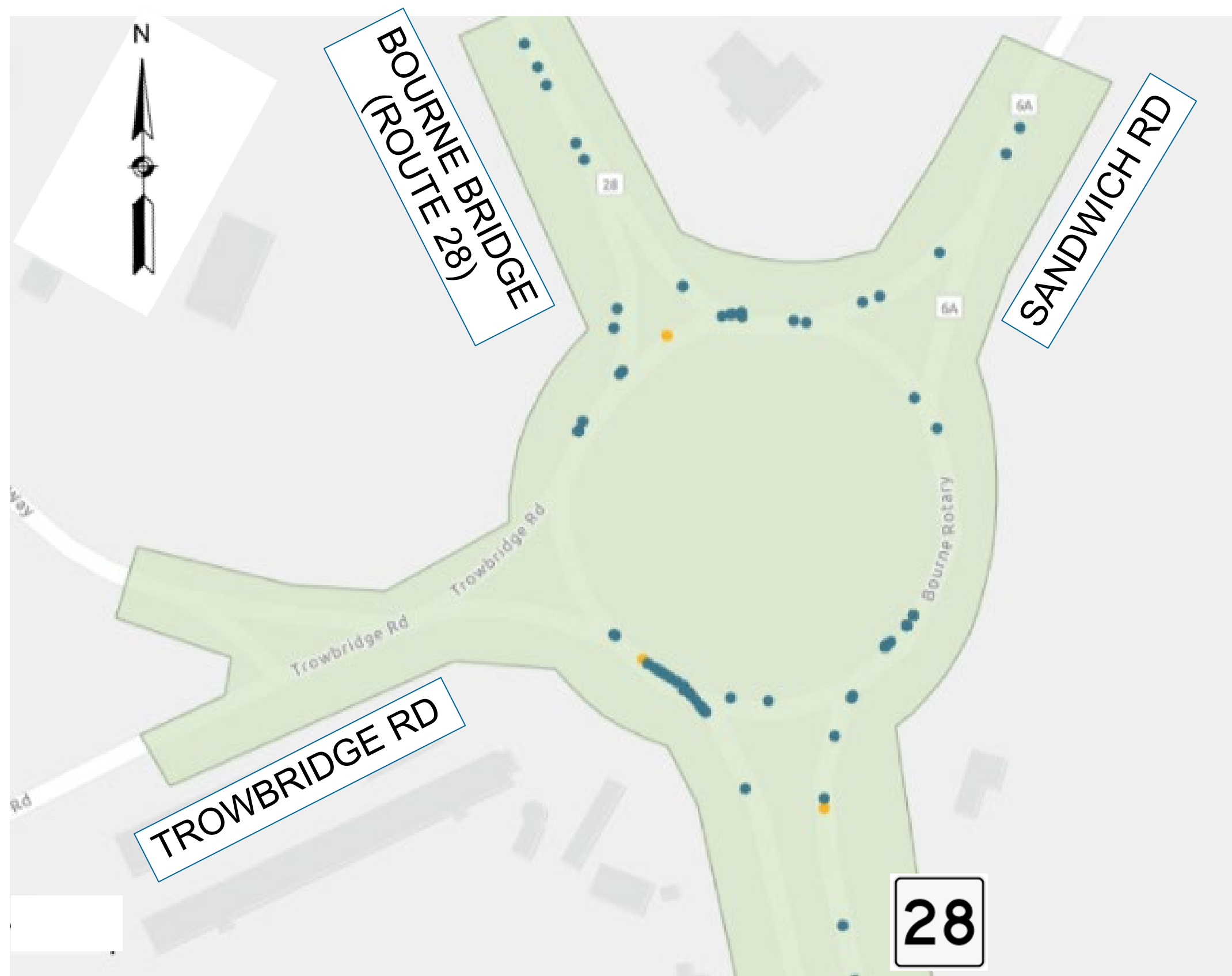


**KEY LEGEND**

- ▲ ANGLE
- ▲ SIDE SWIPE
- ▲ REAR END
- ▲ TURNING MOVEMENT
- ▲ SINGLE VEHICLE
- ▲ HEAD ON



# Safety Concerns – Crash Severity & Locations (2018-2020)




#1 top crash location in the Cape Cod region  
(Source: Cape Cod Commission)

 236

CRASHES IN CURRENT EXTENT



KEY LEGEND

-  PROPERTY DAMAGE (91.95%)
-  NON-FATAL INJURY (7.2%)
-  UNKNOWN (0.42%)
-  NOT REPORTED (0.42%)





**What do we  
want to  
accomplish?**

## Project Goals

- Improve **Safety & Traffic Congestion**
  - New pavement markings
  - Signage
  - Adjusting roadway geometry
- **Short-term** improvements prior to any major changes advanced by the Bridge project.



Source: Microsoft



Source: Microsoft





**What are the  
benefits of  
rotary retrofits?**



# Rotary Retrofit Example – Otis Rotary

Before

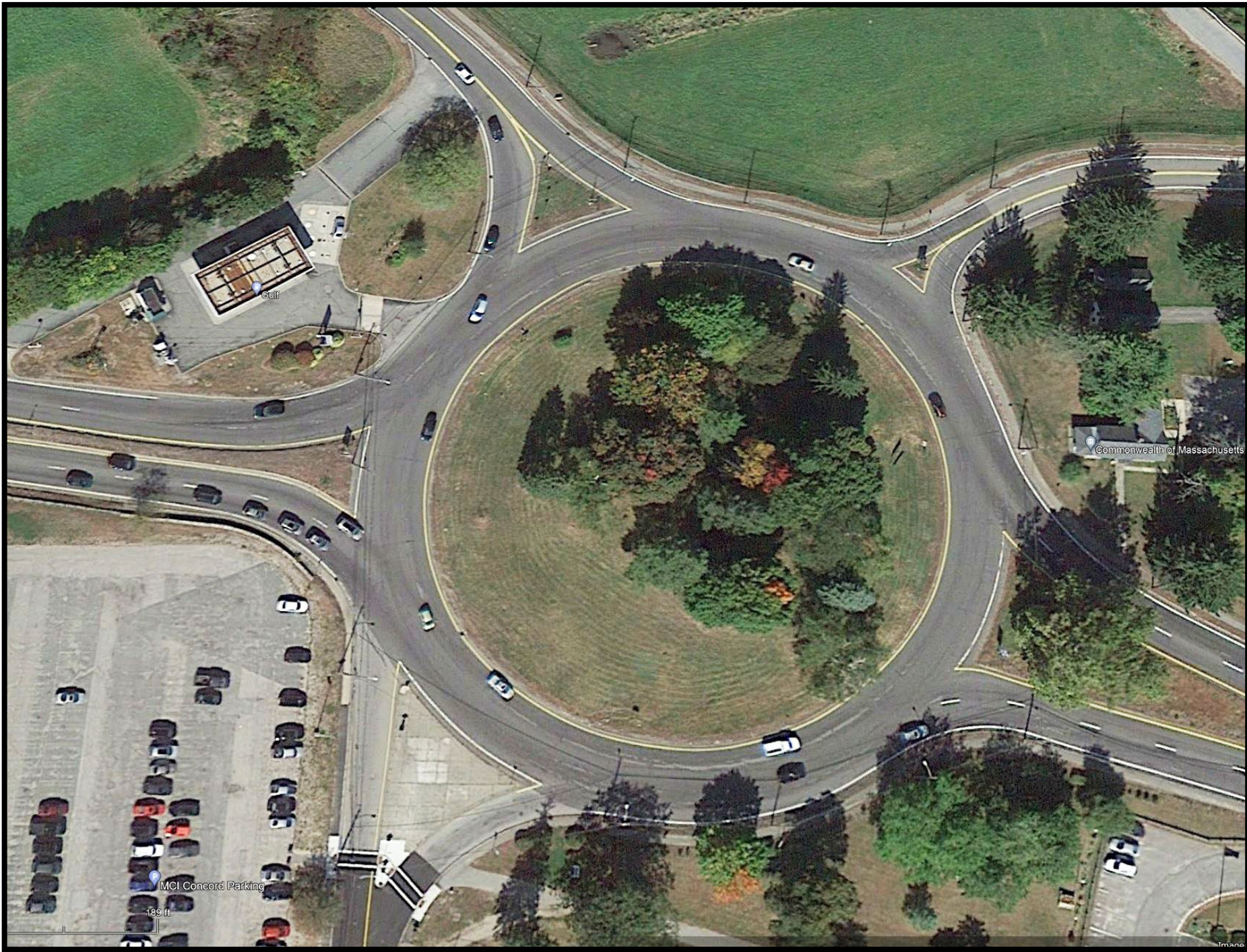
After



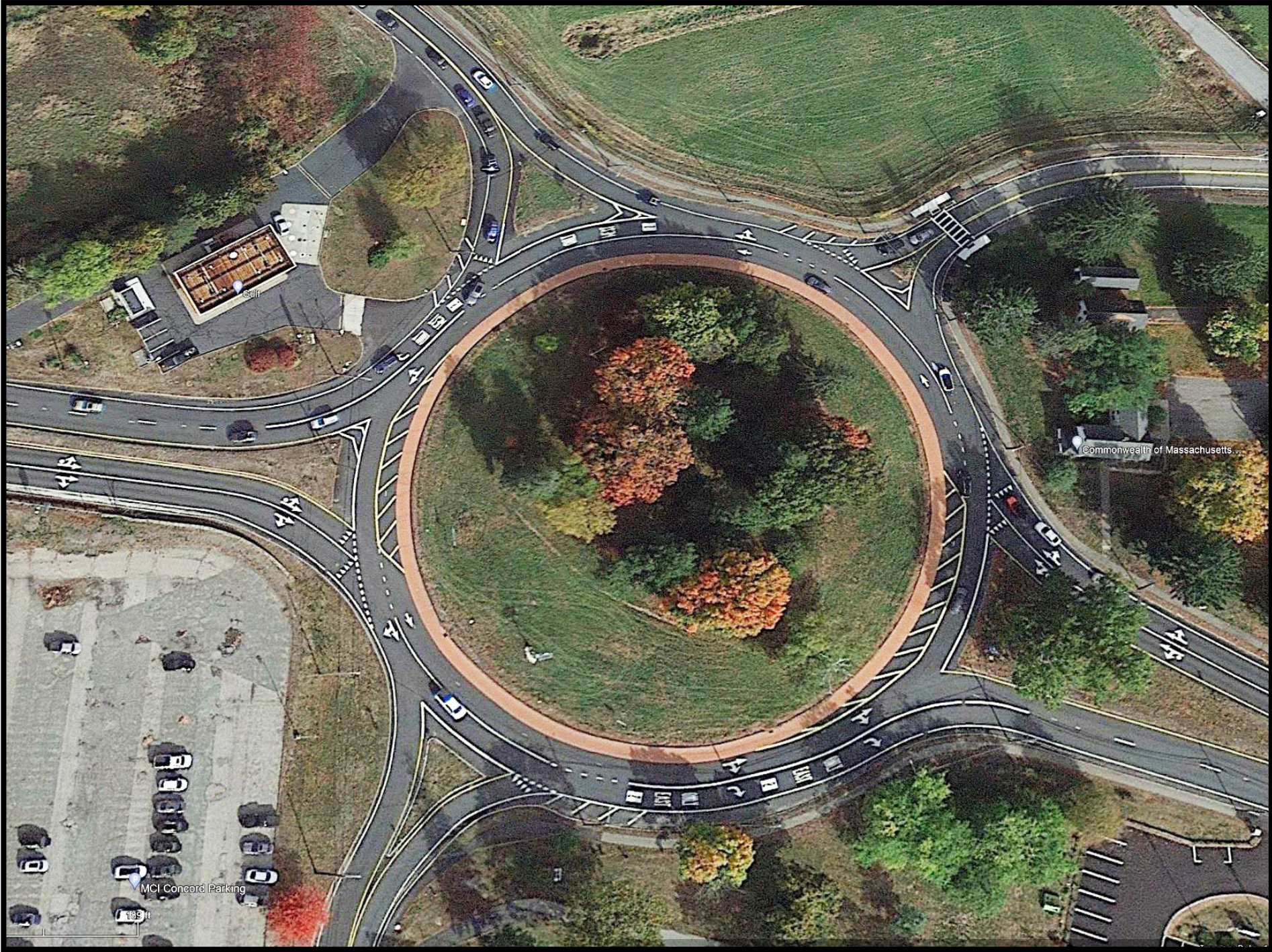


# Rotary Retrofit Example – Concord

Before



After





# Rotary Retrofit Example – Middleborough

Before



After





# Improved Safety Conditions

Location		Before Crash Data Range	Before Number of Crashes	After Crash Data Range	After Number of Crashes	% Reduction of Crashes
Greenfield	Rt 2 at I-91	2005-2007	55	2009-2011	42	24%
West Springfield	Rt 5 and Rt 20	2012-2014	105	2016-2018	83	21%
West Springfield	Rt 5 and Rt 147	2012-2014	44	2016-2018	27	39%
Bourne	Otis Rotary (Rt 28 at Connery Ave)	2012-2014	93	2017-2019	73	22%

Disclaimer: This was a high-level data gathering effort that used a buffer around each rotary to select crashes around the intersection. Results are localized crash data at similar rotaries. We don't want to draw any general conclusions from this data since it was not curated or analyzed in detail.





# Proposed Rotary Retrofit Improvements



Existing Bourne Rotary

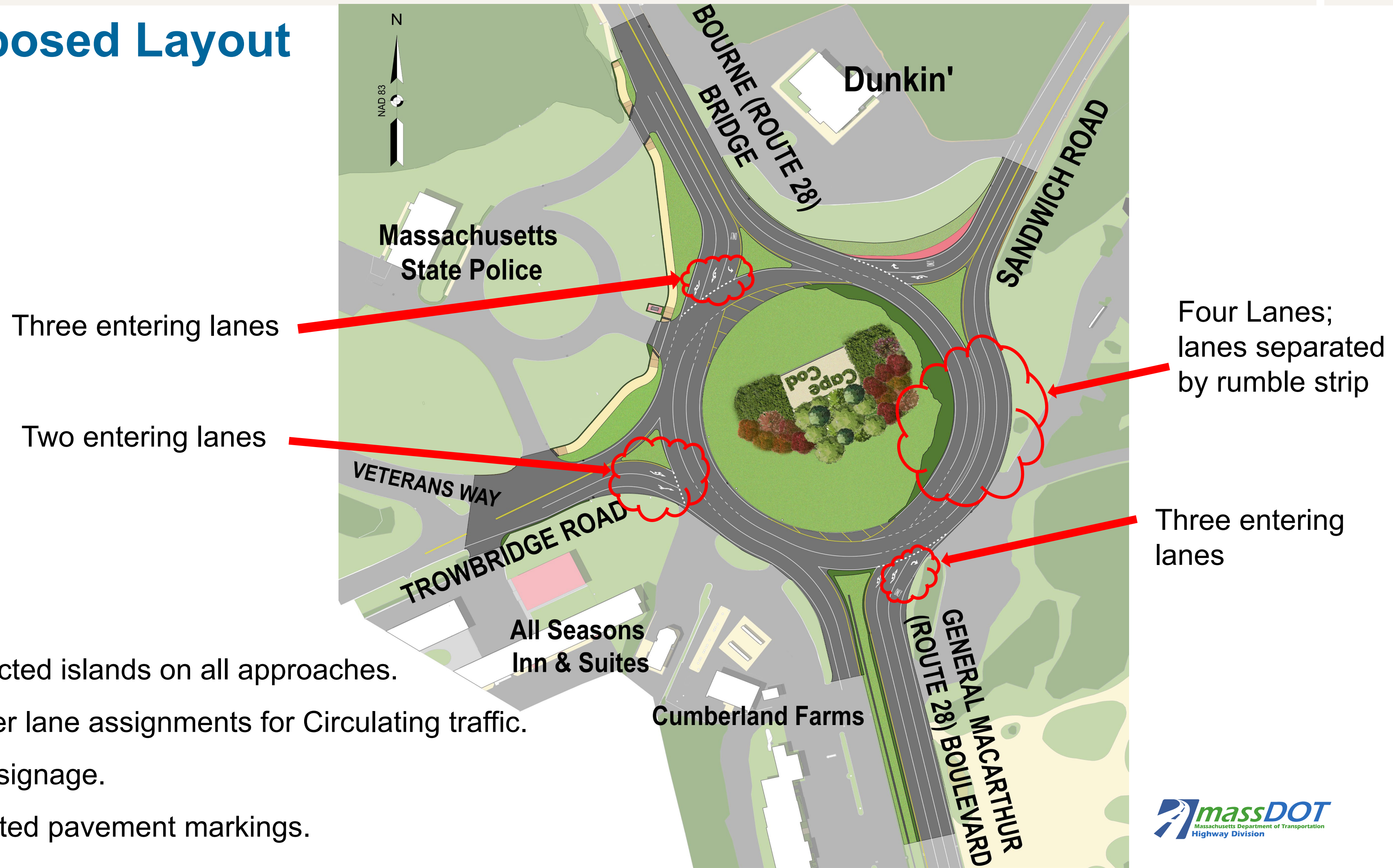


Proposed Bourne Rotary Retrofit





# Proposed Layout

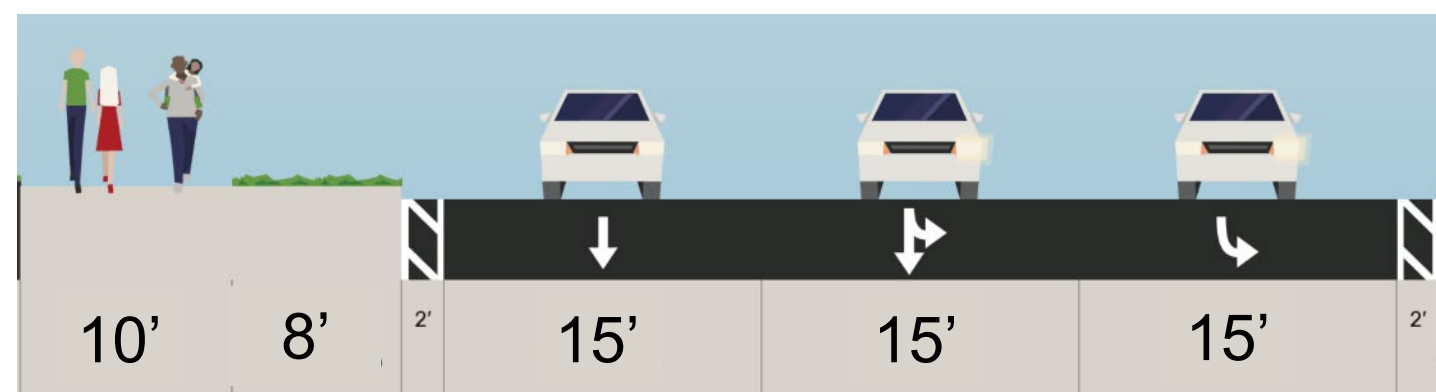


- Deflected islands on all approaches.
- Proper lane assignments for Circulating traffic.
- New signage.
- Updated pavement markings.

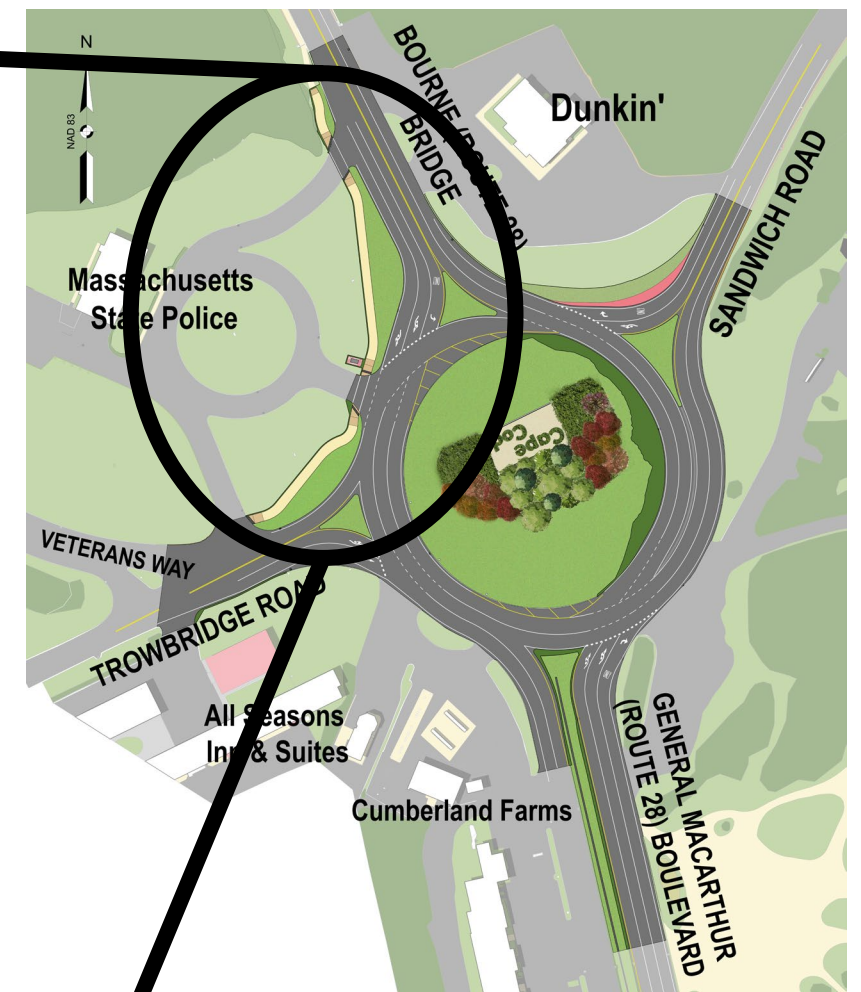
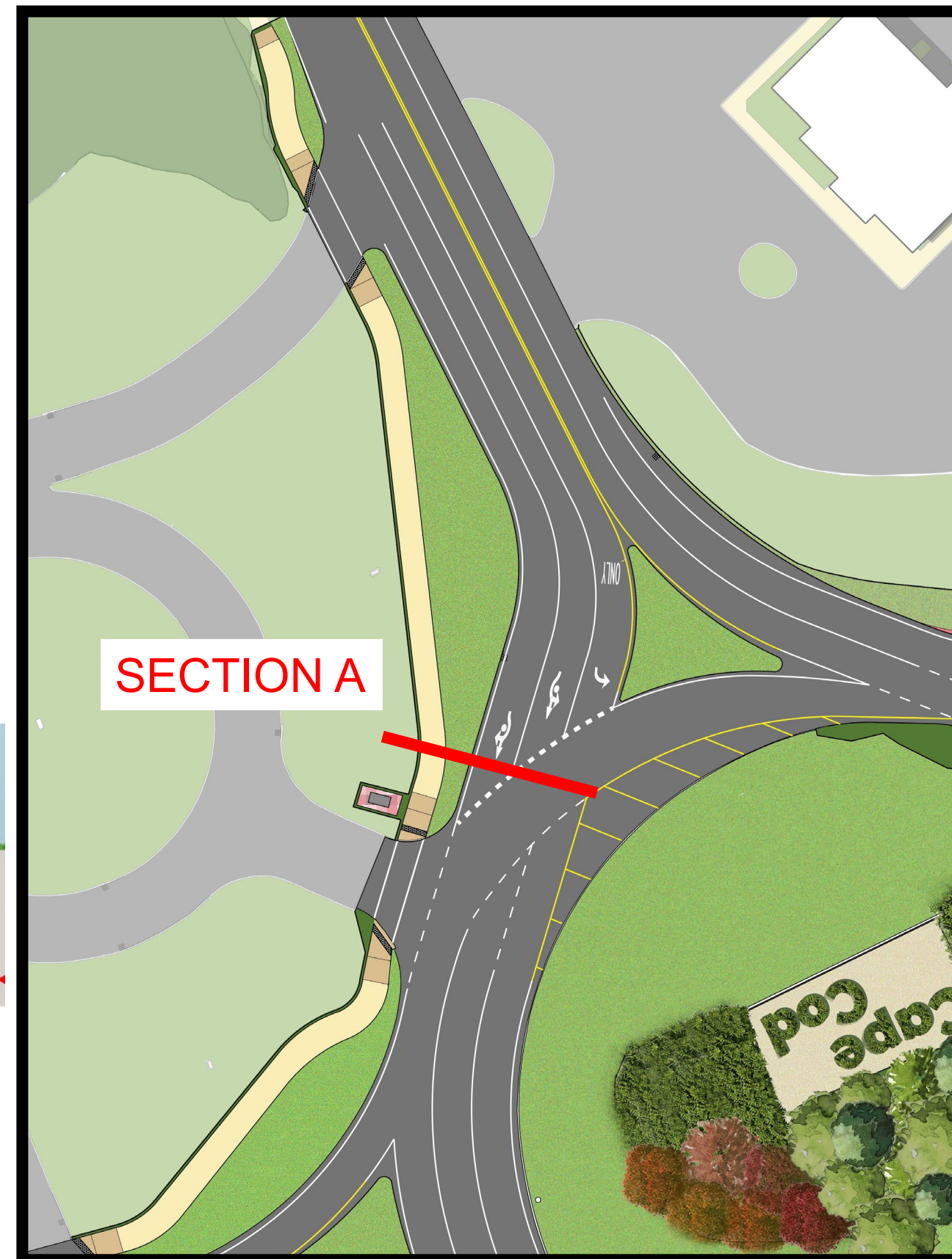


## Proposed Layout (Cont.)

- Shared use path updated to meet ADA standards.
- Distance from roadway increased for pedestrian safety.



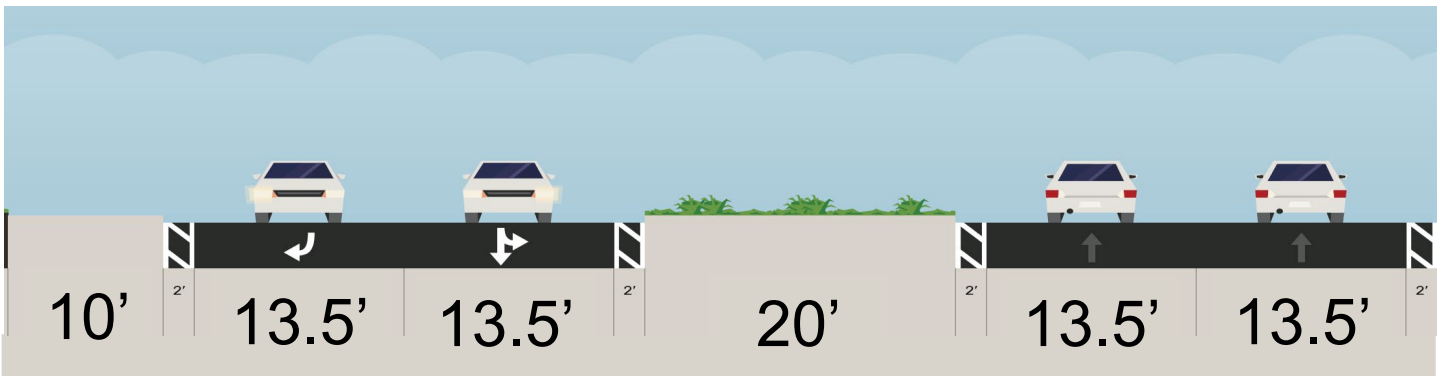
SECTION A



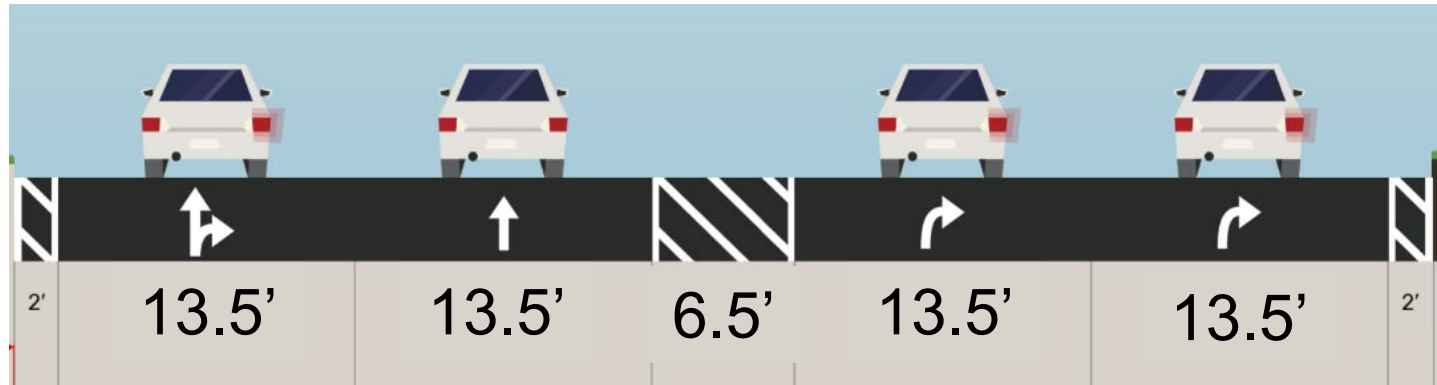


# Proposed Layout (Cont.)

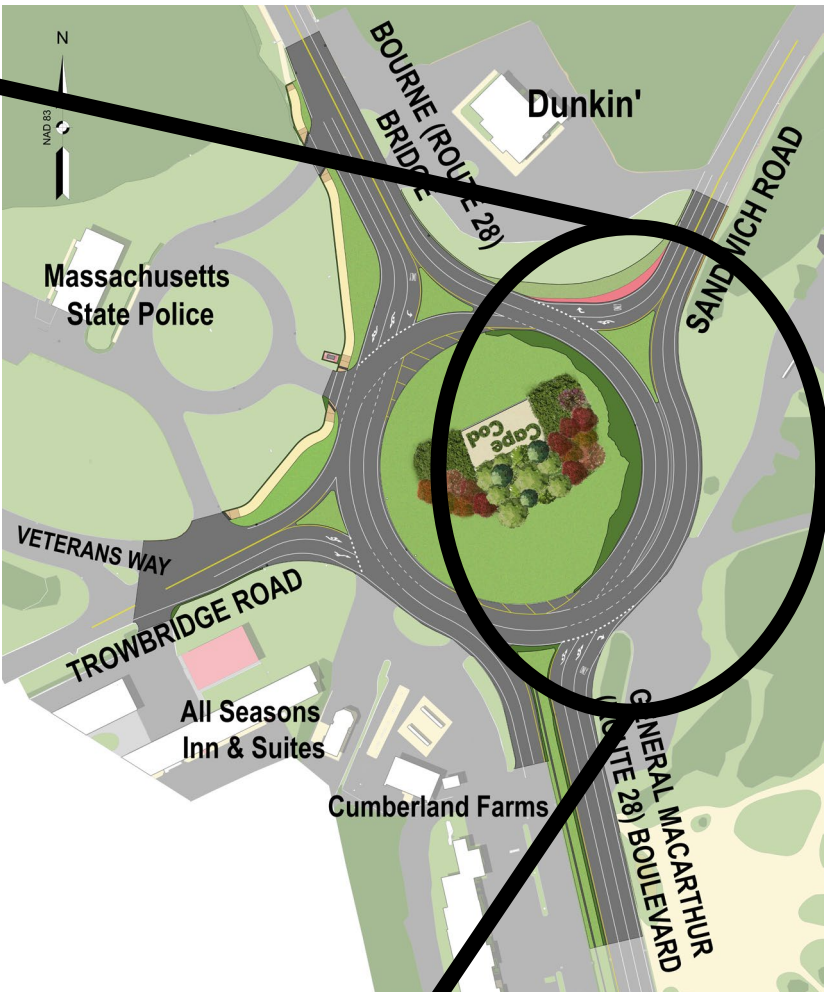
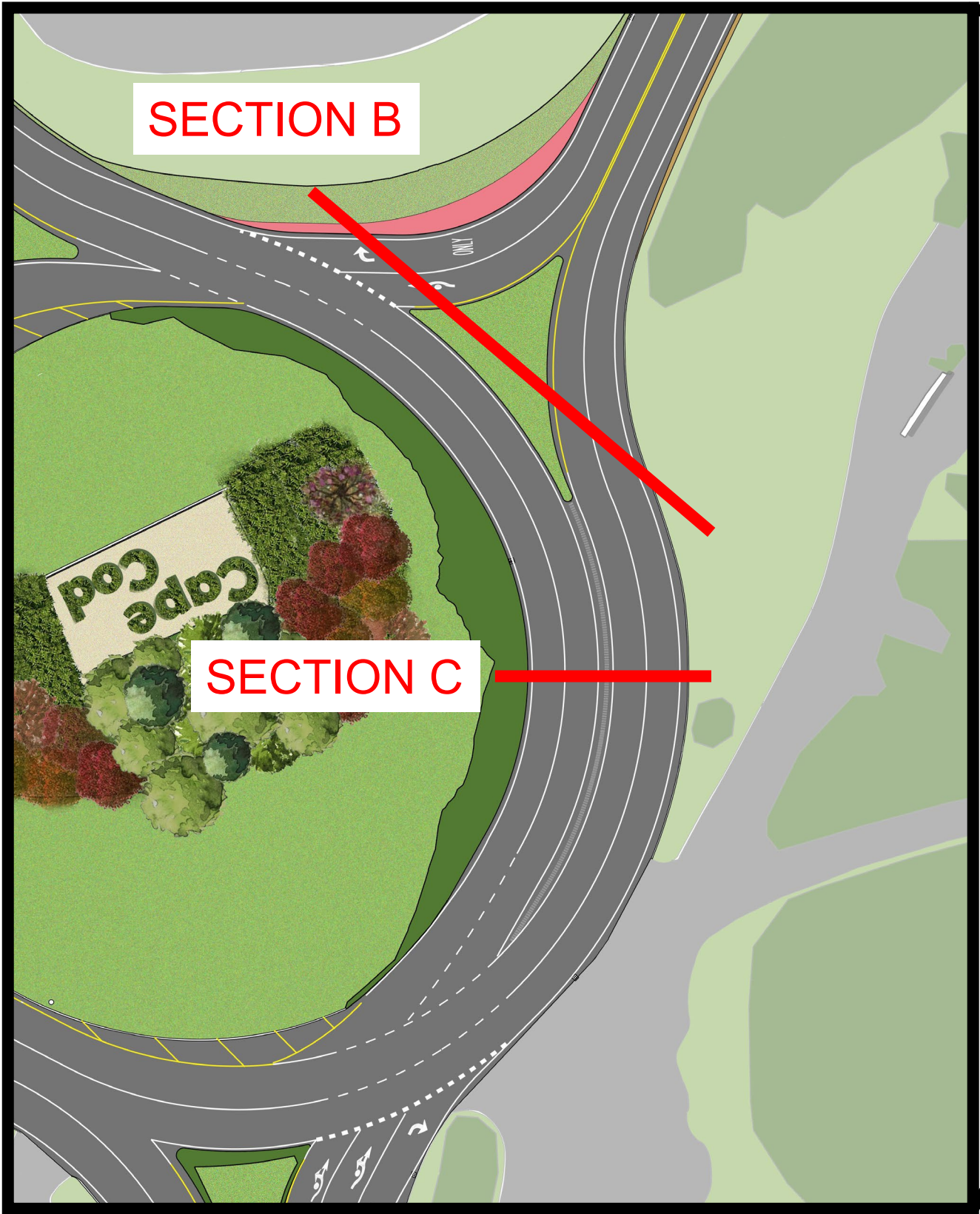
- Two lanes for Eastbound traffic to enter Sandwich road.
- Rumble strip separates traffic entering Sandwich road from traffic continuing through the rotary.



SECTION B



SECTION C







**How will  
bicyclists and  
pedestrians  
be impacted?**



## Pedestrian/Bicycle Impacts

- Shared use path in the northwest quadrant will be moved to accommodate the additional lane.
- Ramps will be built as per ADA standards.
- No exclusive facilities for people biking within the project limits.
- Access for people walking and biking will be maintained throughout construction.







**What are the  
environmental,  
cultural  
resource, and  
community  
impacts?**



# Environmental Impact Evaluation

- **Wetlands and Biological Resources**
  - No impacts to regulated wetlands.
- **Recreational and Cultural Resources Areas**
  - No impacts to Inventoried Property.
  - No impacts to protected open space.
- **Permitting**
  - Early Environmental Coordination Checklist to be submitted in February 2023.
  - National Environmental Protection Agency (NEPA) Categorical Exclusion Checklist to be submitted at 100% design.





**What is the  
construction  
approach?**



## Construction Approach

- Completed within one construction season.
- Vehicle and Pedestrian access maintained.
- Coordinate roadwork with the Town of Bourne.
- Maintain access to all adjacent businesses.
- Lane closures may be needed during off-peak periods.
- No summer work during the Cape Cod Summer Moratorium.





# Our next steps



Respond to  
comments from  
Public Meeting  
*December 2022*



Prepare and  
submit 75%/100%  
Design  
*January 2023*



Final Design  
*Summer 2023*



Receive necessary  
permits  
*Summer 2023*



Construction  
*Fall 2023 through  
Fall 2024*





**How will we  
keep you  
informed?**



# How to reach us?

- Submit written comments to:  
Carrie Lavalley, P.E. Chief Engineer  
MassDOT  
10 Park Plaza  
Boston, MA 02116  
Attention: PROJECT MANAGEMENT, PROJECT FILE NO. 610542
- Submit email comments to:  
[MassDOTProjectManagement@dot.state.ma.us](mailto:MassDOTProjectManagement@dot.state.ma.us)
- For project information visit the MassDOT Design Public Hearing web site at:  
<https://www.mass.gov/massdot-highway-design-public-hearings> or  
use the QR Code:







**Questions and  
discussion**



## Questions and Answers



- “Raise your hand” to be unmuted for verbal questions (Alt + Y if using a phone)



- Submit your questions and comments using the Q&A button



- Please state your name before your question



- Please share only 1 question or comment at a time, limited to 2 minutes, to allow others to participate



- To ask a question via phone, dial \*9 and the moderator will call out the last 4-digits of your phone number and unmute your audio when it is your turn



- Please take a few minutes to complete the survey after the meeting to let us know how your experience was with this virtual meeting

**All questions and comments are subject to disclosure for public records. Please use these functions for project related business only.**





# ***Thank You***

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