



# Morrissey Boulevard Commission Meeting #5

Boston Collegiate Charter School &  
Virtual via Zoom

August 6, 2024





# Meeting Notes and Procedures

## Notification of recording

- This virtual public meeting will be recorded. The Massachusetts Department of Transportation may choose to retain and distribute the video, still images, audio, and/or chat transcript.
- By continuing attendance with this virtual public meeting, you are consenting to participate in a recorded event.
- All recordings and chat transcript will be considered a public record.
- If you are not comfortable being recorded, please turn off your camera, keep your microphone muted, and refrain from chatting in the transcript box. Otherwise, you may choose to excuse yourself from the meeting.

## Important notes

- Your microphone and webcam are automatically disabled upon entering the meeting.
- The meeting will be open to questions and answers at the end of the presentation.

**All questions and comments are welcomed and appreciated, however we do request that you refrain from any disrespectful comments.**

# Zoom Controls



- Drop down menu to check microphone and speakers



- Ask a question and share comments



- Raise your hand



- If you are unable to access the internet or are having technical problems, please call into the meeting at 312-626-6799, Webinar ID: 884 0334 8122



If you have trouble with the meeting technology during the presentation, please call:

1-888-799-9666

**Closed captioning automatically generated by Zoom**



Unmute



Start Video



Q&A



Raise Hand



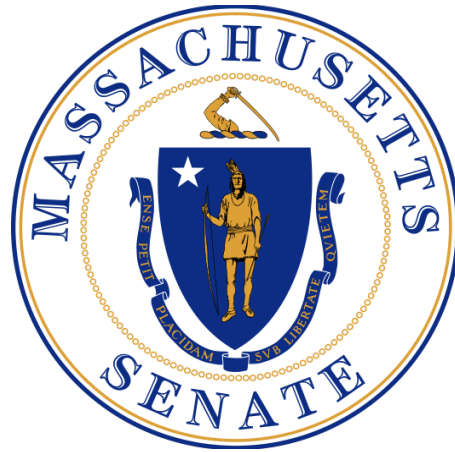
Interpretation

Leave

# Agenda

- **Call to Order**
- **Introduction of Commission Members**
- **Presentation on Study**
  - **Review of Feedback Received**
  - **Future No-Build (Transportation Modeling)**
  - **Build Forecast (Transportation Modeling)**
  - **Alternatives Testing (Transportation Simulation)**
  - **Next Steps**
- **Commission Discussion**
- **Public Comment**

# Commission Introductions

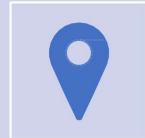


\*Please note the responsibilities of the Boston Planning & Development Agency have moved to the City of Boston Planning Department as of July 1, 2024

# Commission Goals



Improve **mobility** for pedestrians, transit users, cyclists, and motorists



Strengthen **climate resiliency** in the Dorchester section of the City of Boston and along Morrissey Boulevard in the city



Develop a comprehensive plan and **design concept alternatives** for the Morrissey Boulevard corridor



Identify **short-term investments** to improve mobility for pedestrians, transit users, cyclists, and motorists along the Morrissey Boulevard corridor

## Please note:

**The charge of the Morrissey Boulevard Commission is to evaluate and recommend transportation and infrastructure improvements**

**The study team's support role is limited to presenting relevant background information and developing and evaluating transportation resiliency improvements**

**This presentation includes content outside the scope of the Morrissey Boulevard Commission**

**This additional content is intended to provide regional context for the corridor and facilitate broader public discussion and input**

# **Review of Feedback Received**



# Summary of Feedback Received

Questions about modeling and development scenarios

Concerns about reduced roadway capacity

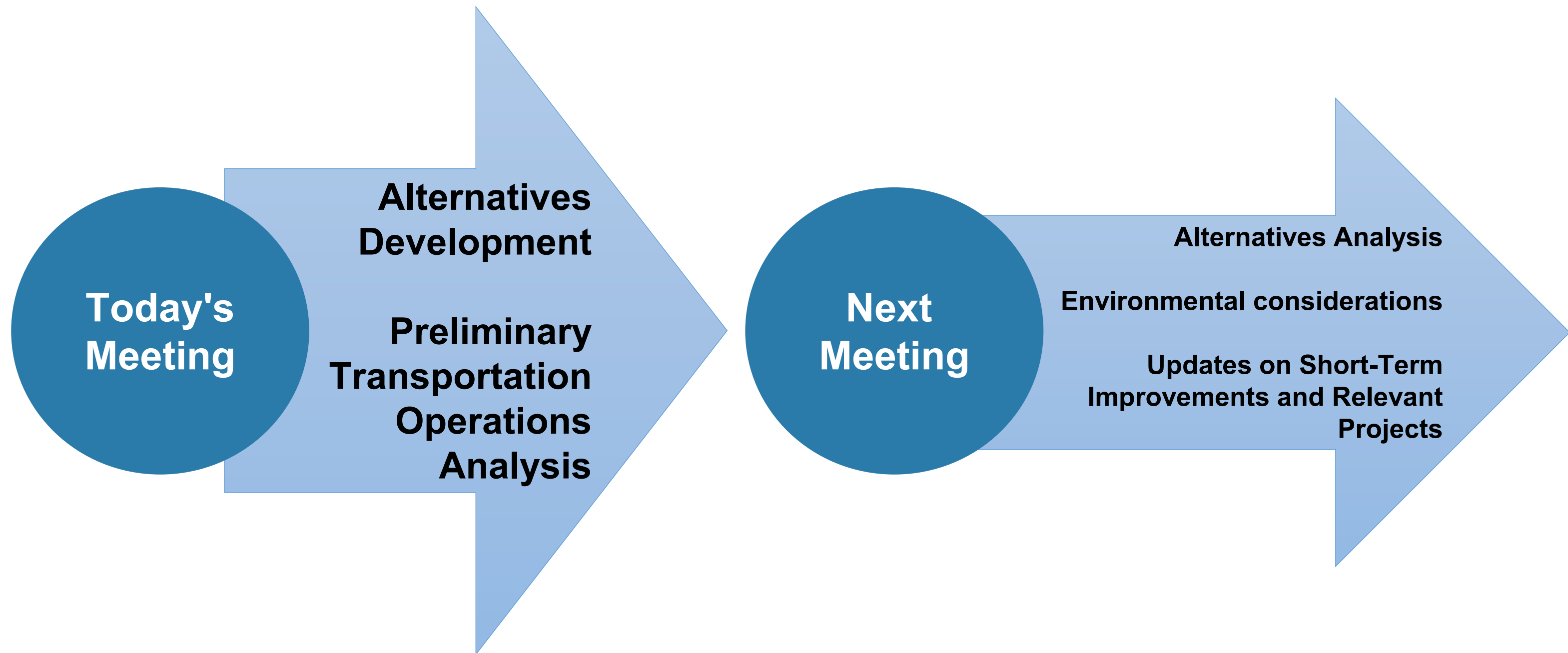
U-Turns at Bianculli Boulevard

Need for improved active transportation / access

Environmental considerations  
– noise, pollution, visual barriers

Updates on short-term improvements and relevant projects

# Upcoming Topics



# **Future No-Build Transportation Modeling**

**Refining the Boston Region Metropolitan Planning Organization  
2050 Plan Scenario**



# Background

- The **Boston Region Metropolitan Planning Organization (MPO)** conducts planning activities for approximately 100 municipalities in the Commonwealth
- One of its planning activities is the development of a **Long-Range Transportation Plan (LRTP)**
- Most recent update, *Destination 2050*, was completed in 2023
- As part of this update, the Boston Region MPO developed its population, household, and employment projections for the future horizon year 2050, which serve as inputs to the regional travel demand model
- This future year is referred to as the **Plan Scenario**

# Base Year and 2050 Plan Scenario Demographics

- The Boston Region MPO regional travel demand model (TDM23) includes:
  - 2019 Base Year
  - 2050 Future Year - Plan Scenario

Data	Boston Region MPO Base Year (2019)	Boston Region MPO Future Year (2050 Plan Scenario)	Growth Difference	% Growth
Population	68,919	87,741	18,822	27.3%
Households	27,294	36,205	8,911	32.6%
Employment	38,076	44,432	6,356	16.7%

- **Based on feedback received, these projections were reviewed and refined for the study area**

# Refining the 2050 Plan Scenario

- As a result, **refinements were made to the population and household projections for the study area based on recent under development, planned, and proposed projects**
- This refinement added 9,018 people and 3,920 households to the Boston Region MPO 2050 Plan Scenario's projections for the study area

Data	Boston Region MPO Base Year (2019)	Boston Region MPO Future Year (2050 Plan Scenario)	Refined 2050 Future No-Build	Difference (growth rate) between Refined Future No-Build and Base Year
Population	68,919	87,741	96,759	27,840 (40.4%)
Households	27,294	36,205	40,125	12,831 (47%)
Employment	38,076	44,432	44,432	6,356 (16.7%)

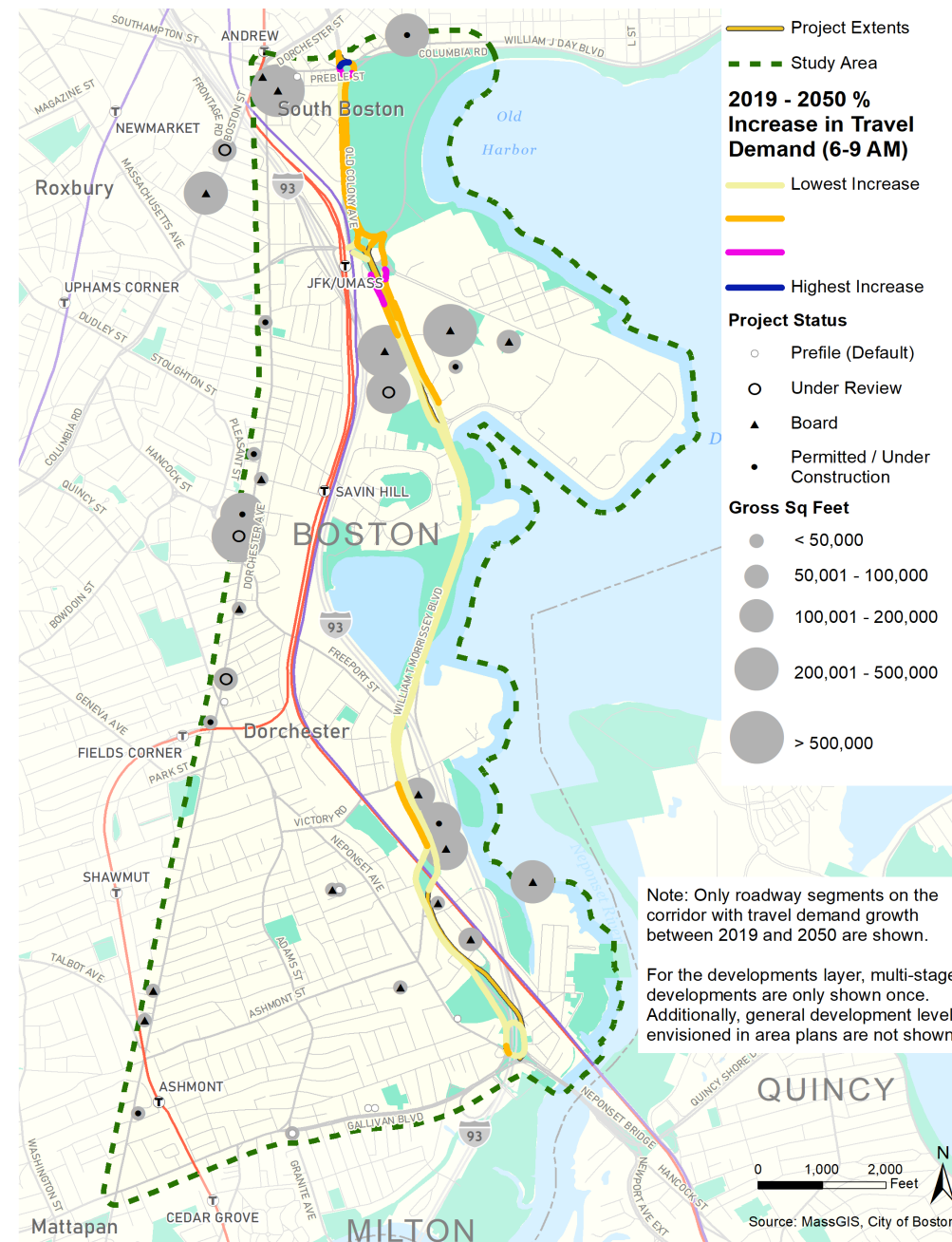
*\* Identified developments were added and tracked to ensure that that data was as up-to-date as possible over the life of this project. For this reason, some developments were added off-model.*



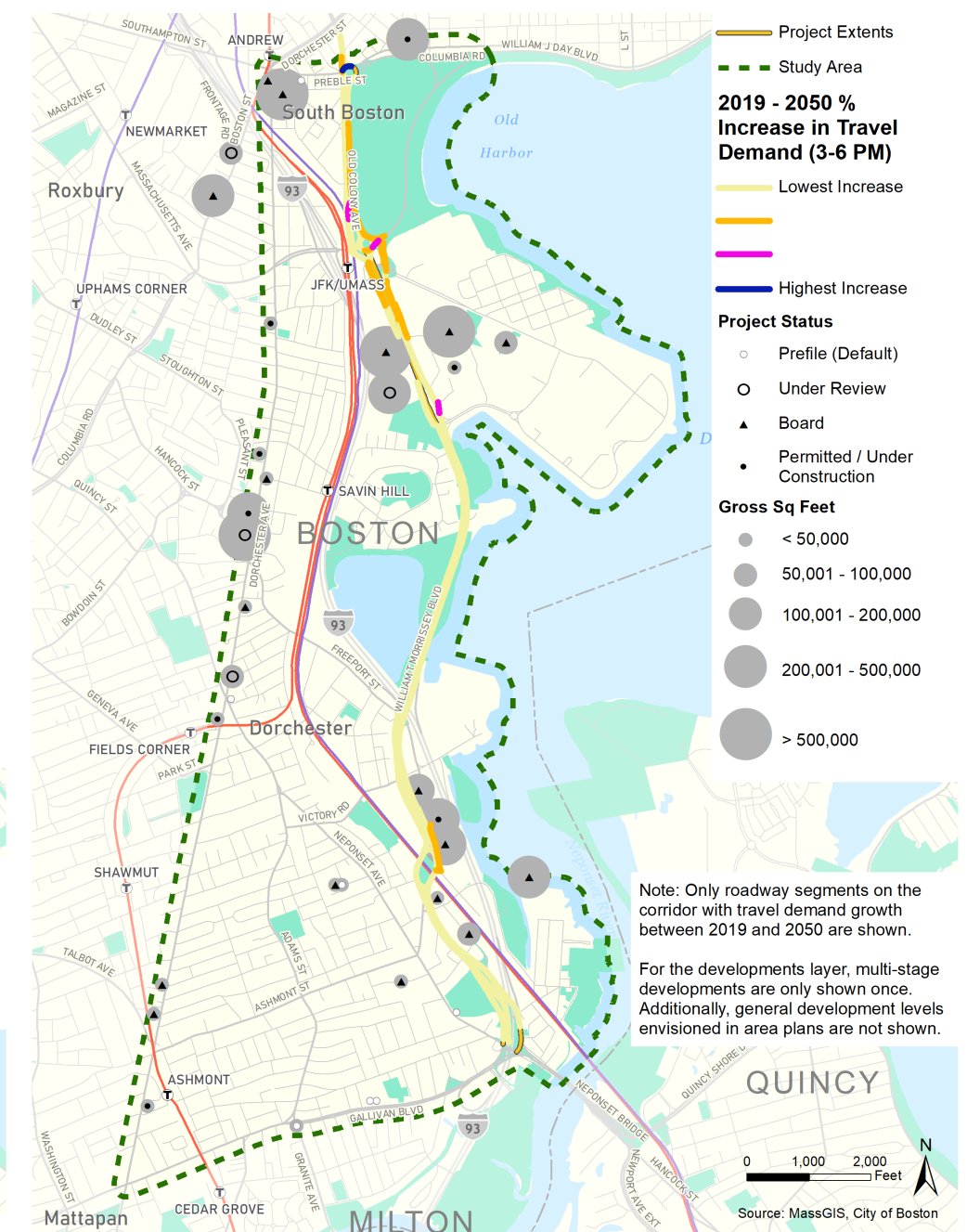
# Refined 2050 Travel Demand Forecasts

- More upcoming development and expected travel demand growth on the north side of the study area
- **Locations with higher growth include:**
  - Old Colony Rotary
  - Kosciuszko Circle
  - Bianculli Boulevard/  
Morrissey Boulevard  
intersection

## AM PEAK PERIOD



## PM PEAK PERIOD



# **Build Forecast (Projected) Transportation Modeling**

# 2050 Future Build Model Forecast

- Future Build features **refined demographics, roadway network changes, and other modal refinements**
- **Roadway network modifications** include:
  - Morrissey Boulevard reconfiguration
  - Change to frontage road approach (west leg) at the intersection of Morrissey Boulevard and Bianculli Boulevard
  - Construction of First Street
- **Forecast helps to answer:**
  - **Would traffic divert? If so, where?**
  - **How would Morrissey Boulevard be affected?**

## How was the 2050 Future Build model calibrated for the study area?

### Step 1: Model incorporates roadway network modifications

Results were compared against the auto, walk/bike, and transit mode shares included in the No-Build

### Step 2: Updates to mitigate potential impacts on operations

Second model run also includes new walk/bike access links

### Step 3: Updates to modify and better reflect vehicle availability in new developments



# 2050 Future Build Model Forecast Results

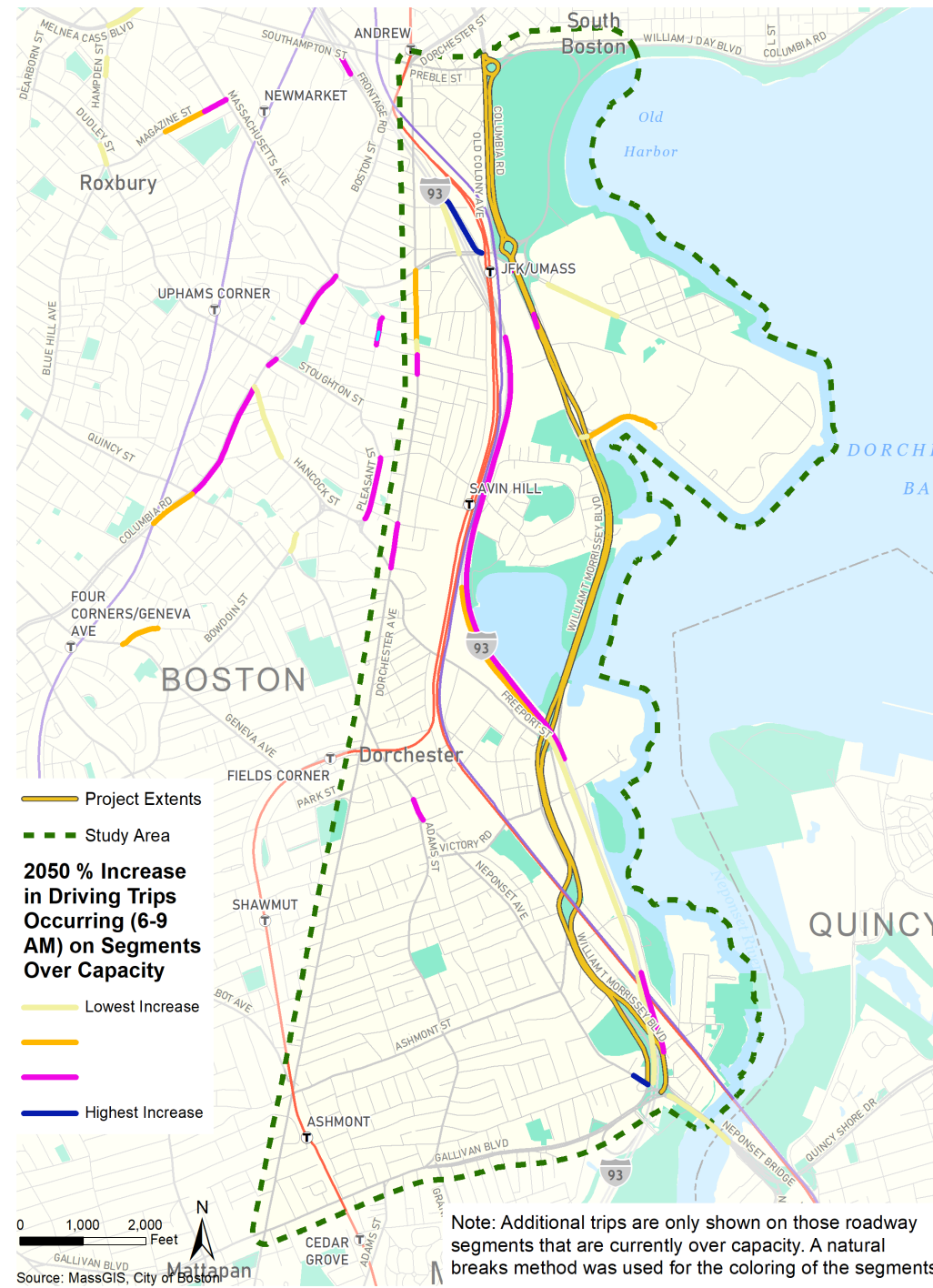
- Using this methodology resulted in the following 2050 Future Build Forecast Results

Mode	Boston Region MPO Base Year (2019) Trips	Boston Region MPO Future Year (2050) No-Build Forecast Trips	2050 Future Build Forecast Trips
Vehicles	200,107	243,573 (+21.7%)	236,329 (+18.1%)
Walk/Bike	49,898	73,279 (+46.9%)	75,812 (+51.9%)
Transit	25,803	37,010 (+43.4%)	41,184 (+59.6%)
Total	275,808	353,862 (+28.3%)	353,325 (+28.1%)

# Projected Vehicle Diversions

- Due to the proposed roadway reconfiguration, **some drivers who currently use Morrissey Boulevard as a through road may move to I-93**
- **Some travel mode shift could occur** (e.g., shift from driving to transit or bicycling)
- Overall, traffic shifts to I-93 during both the AM and PM peak travel periods

## AM PEAK PERIOD



## PM PEAK PERIOD



# **Alternatives Testing Transportation Simulation**



# Transportation Simulation Process

- **SYNCHRO** used initially to test individual intersection alternatives to identify operational constraints or "fatal flaws"
  - Using 2050 Build Model traffic volumes
- **Next Step:** VISSIM will then be used to model subareas of the corridor based on the results of the SYNCHRO testing
  - Bicycle and pedestrian crossings at intersections will be refined
- The following slides detail the results of the initial SYNCHRO analysis for the alternatives

## What is the difference between SYNCHRO and VISSIM?

**SYNCHRO** is a tool used to assess signalized and unsignalized intersections, with a focus on vehicular movement

**VISSIM** is a tool used to assess signalized and unsignalized intersections, with a focus on the interaction between vehicular, bicycle, pedestrian, and transit movements

## Transportation Simulation Process

Initially assess how the alternatives impact vehicular movement and identify issues (or "fatal flaws")

Then incorporate bicyclists, pedestrians, and transit users, and identify "fatal flaws"

Alternatives with limited to no "fatal flaws" advanced for additional analysis

# Preble Circle (Alternative 1) - Modern Roundabout

## Pros

- Reduced vehicle delay overall compared with Existing Infrastructure scenario

## Cons

- Struggles to handle westbound (AM) and southbound (PM) vehicle demand
- Long bike/ped travel routes through intersection





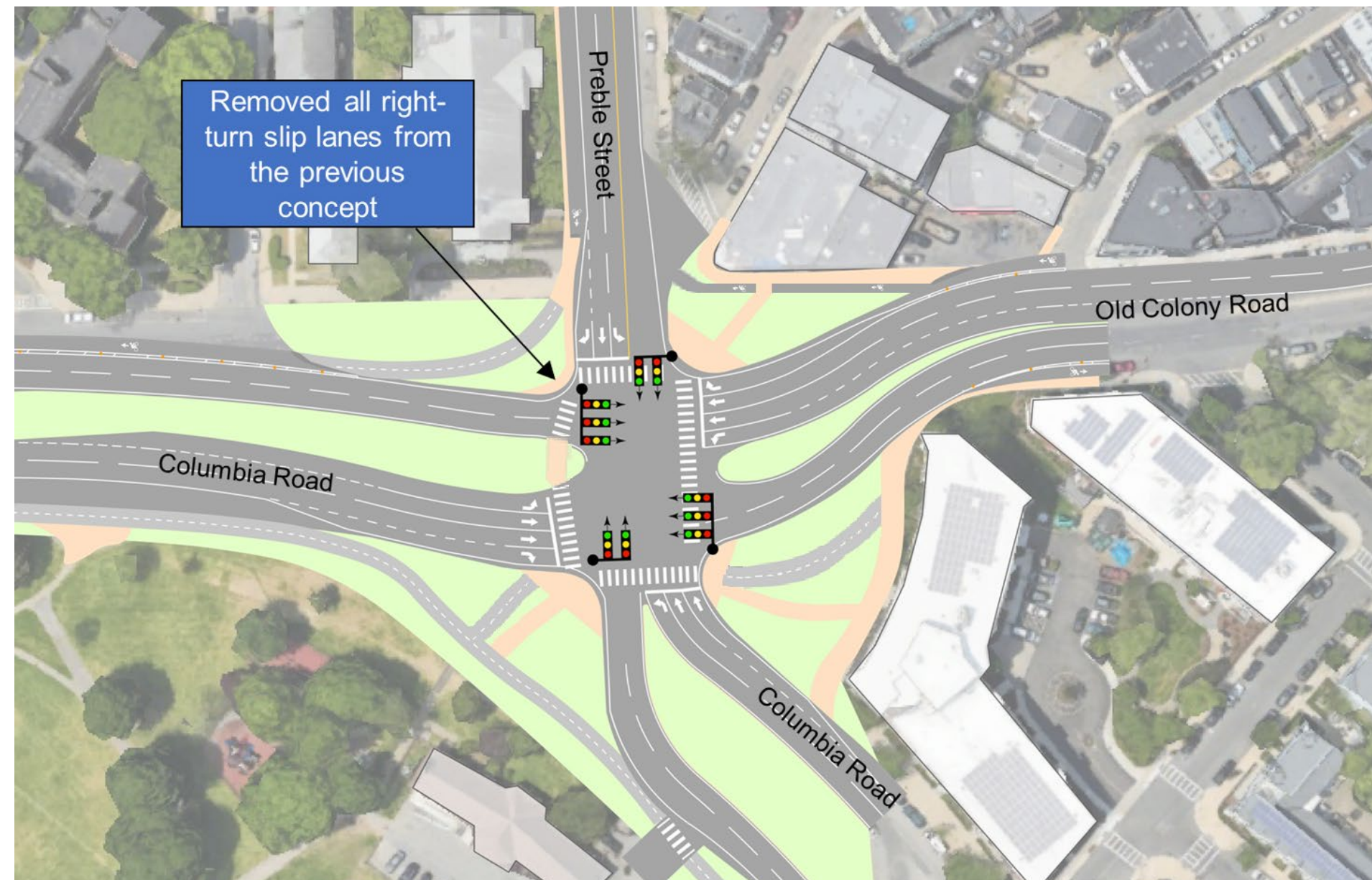
# Preble Circle (Alternative 2) - Signalized Control

## Pros

- Performs more efficiently than the Existing Infrastructure scenario and Preble Circle Alternative 1
- Shorter pedestrian crossing distance
- Smaller footprint than a roundabout

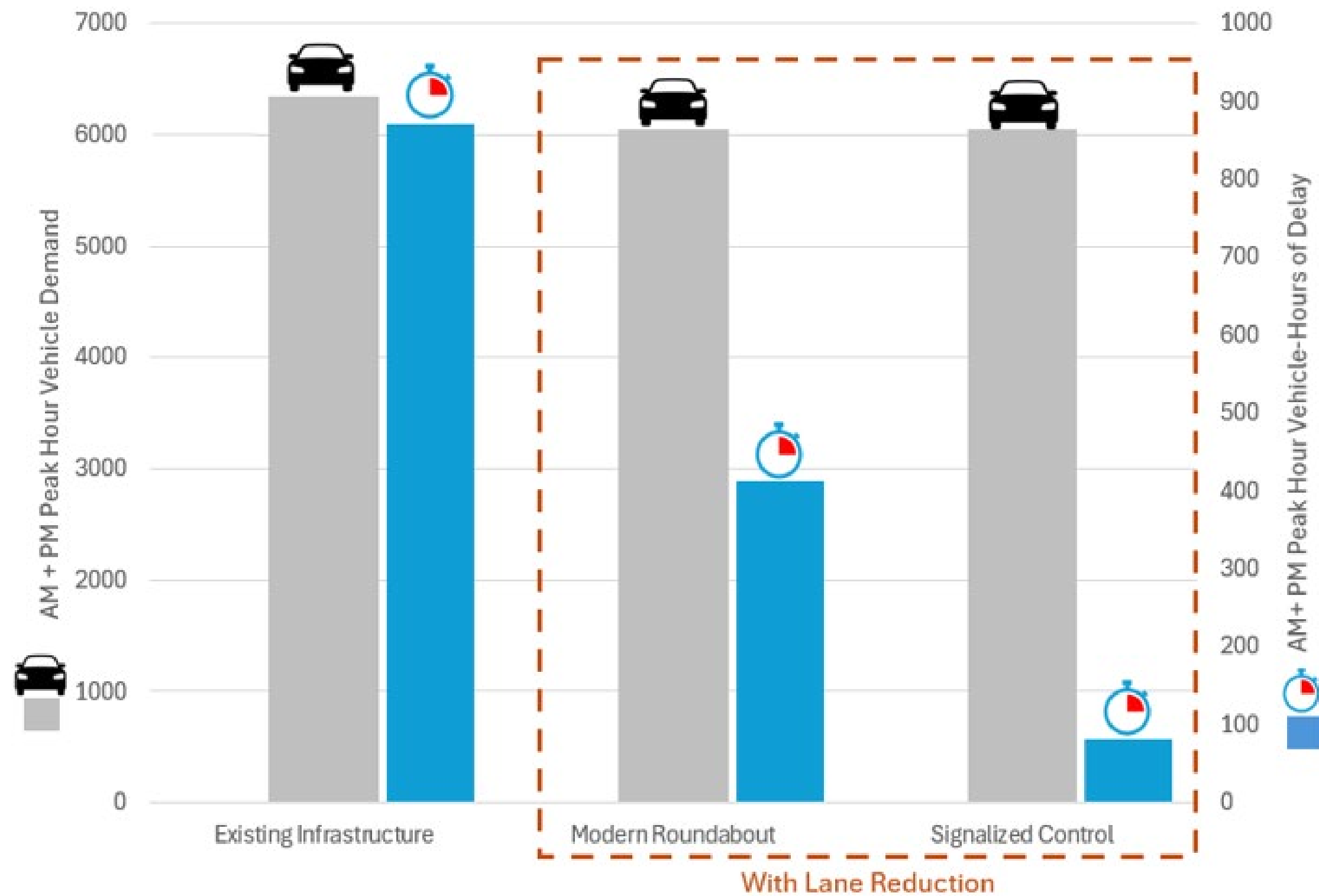
## Cons

- Challenges with operations on northbound left turn and southbound through movements in PM peak hour



# Preble Circle Alternatives - Initial Analysis

Upon initial analysis, the vehicular operations for the **Preble Circle Alternative 2 (Signalized Control)** performed better than the other alternatives





# First Street (Alternative 1) - Service Roads

## Pros

- Uninterrupted traffic flow on Morrissey Boulevard

## Cons

- Limited number of east-west pedestrian crossing opportunities
- More traffic reliant on Mt. Vernon Street





# First Street (Alternative 2) - Signalized Control

## Pros

- Reduces vehicle volume on Mt. Vernon Street
- Provides east-west crossing opportunity
- Smaller footprint/impervious area
- Consistent with Columbia Point Master Plan

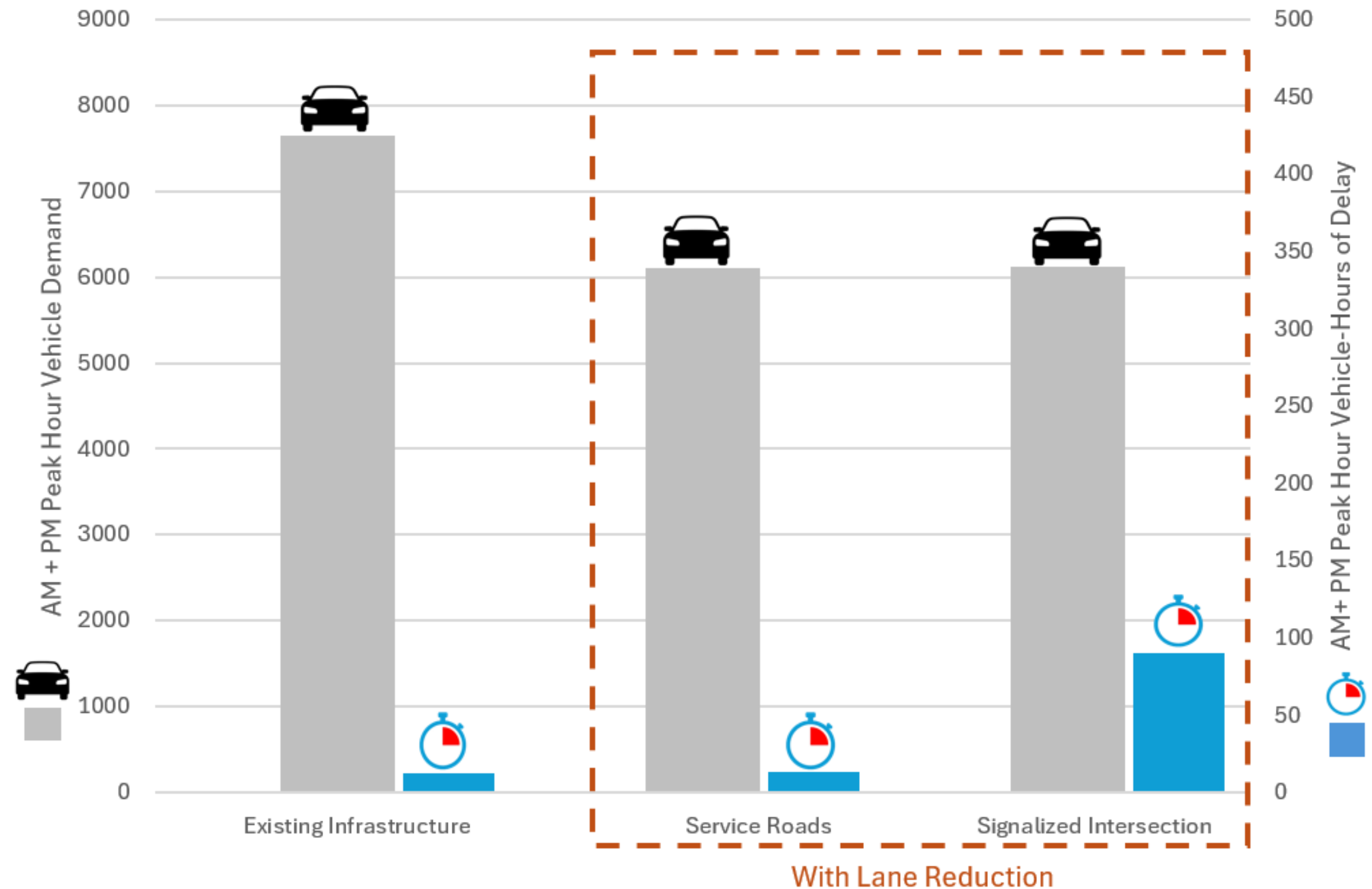
## Cons

- Increased traffic delay and queueing on Morrissey Boulevard



# First Street Alternatives - Initial Analysis

Upon initial analysis, the vehicular operations for the **First Street Alternative 1 (Service Roads)** performed better than the other alternatives





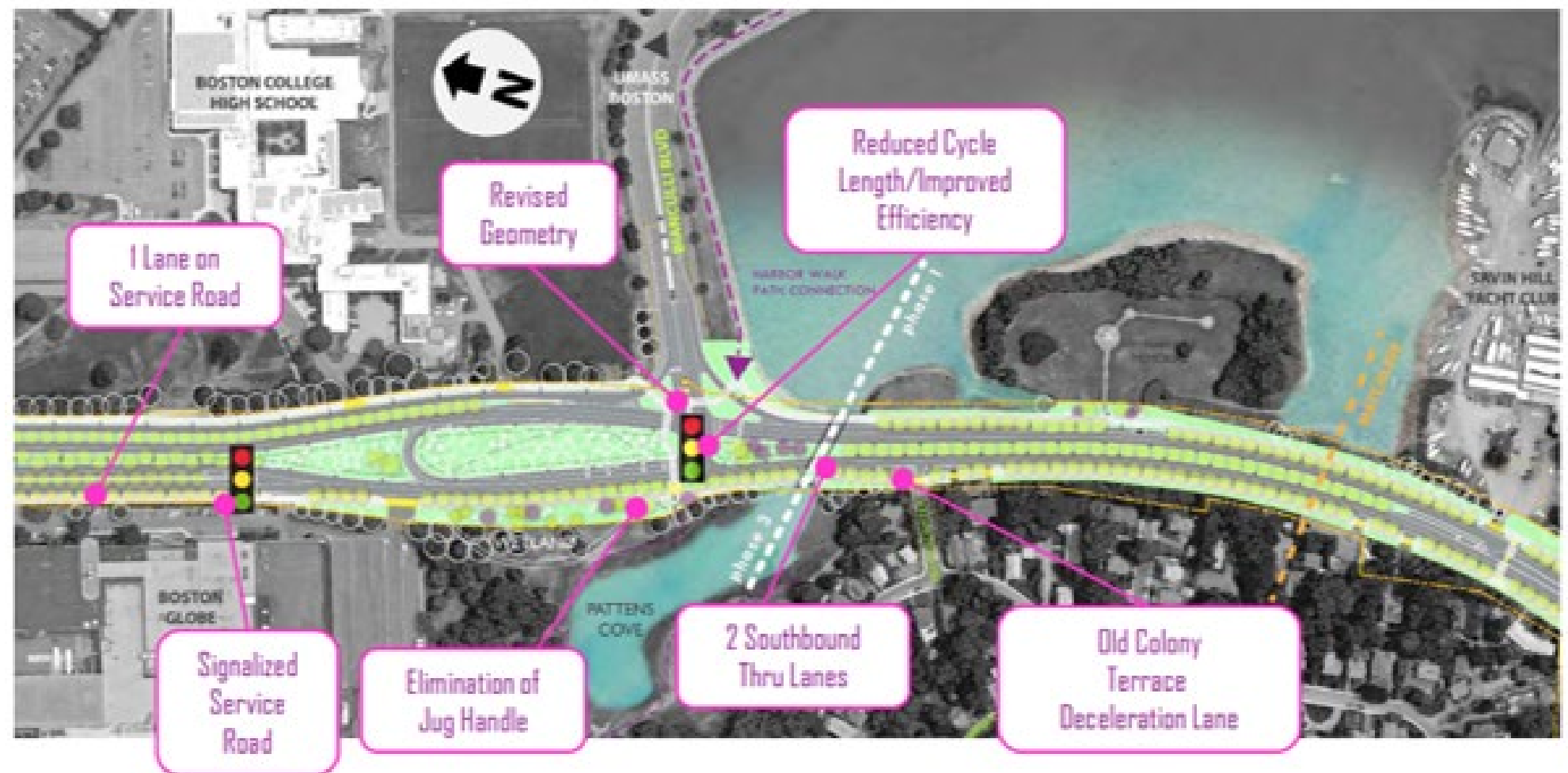
# Bianculli Boulevard - Massachusetts Department of Conservation and Recreation Design (2017)

## Pros

- Strong overall vehicular traffic operations
- Pedestrian and bicycle connections across all legs of intersection
- Smallest footprint/impervious area

## Cons

- Delay for southbound U-turn in AM peak hour



Source: Massachusetts Department of Conservation and Recreation

# Bianculli Boulevard (Alternative 1) - Continuous Green Tee

## Pros

- Strong overall vehicular traffic operations

## Cons

- Limited number of east-west pedestrian crossings (no crossing on south leg)
- Delay for southbound U-turn in AM peak hour
- Weave to access Old Colony Terrace from Bianculli Boulevard





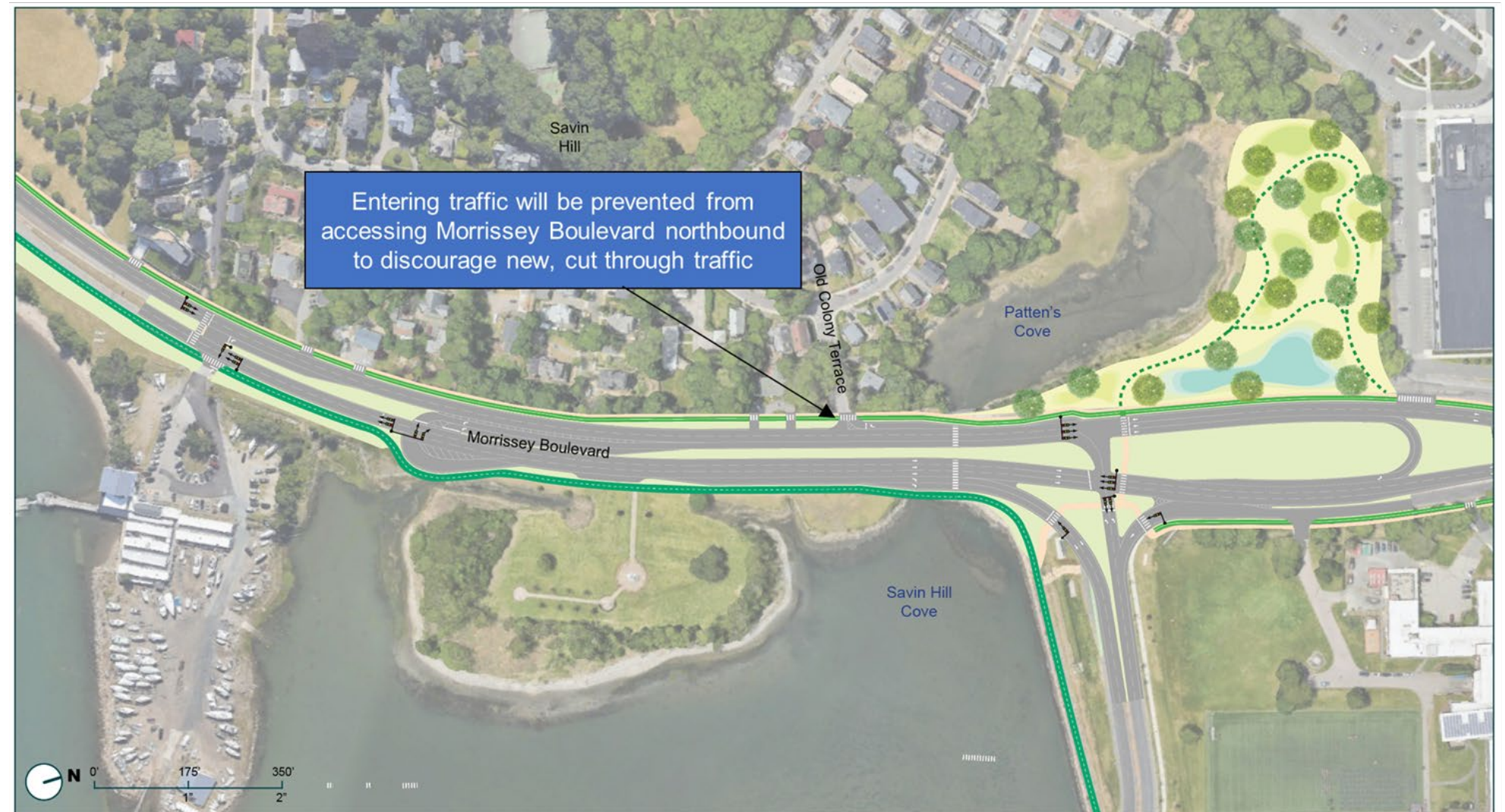
# Bianculli Boulevard (Alternative 2) - Median U-Turn

## Pros

- Pedestrian and bicycle connections across all legs of intersection
- Fewer conflict points at intersection

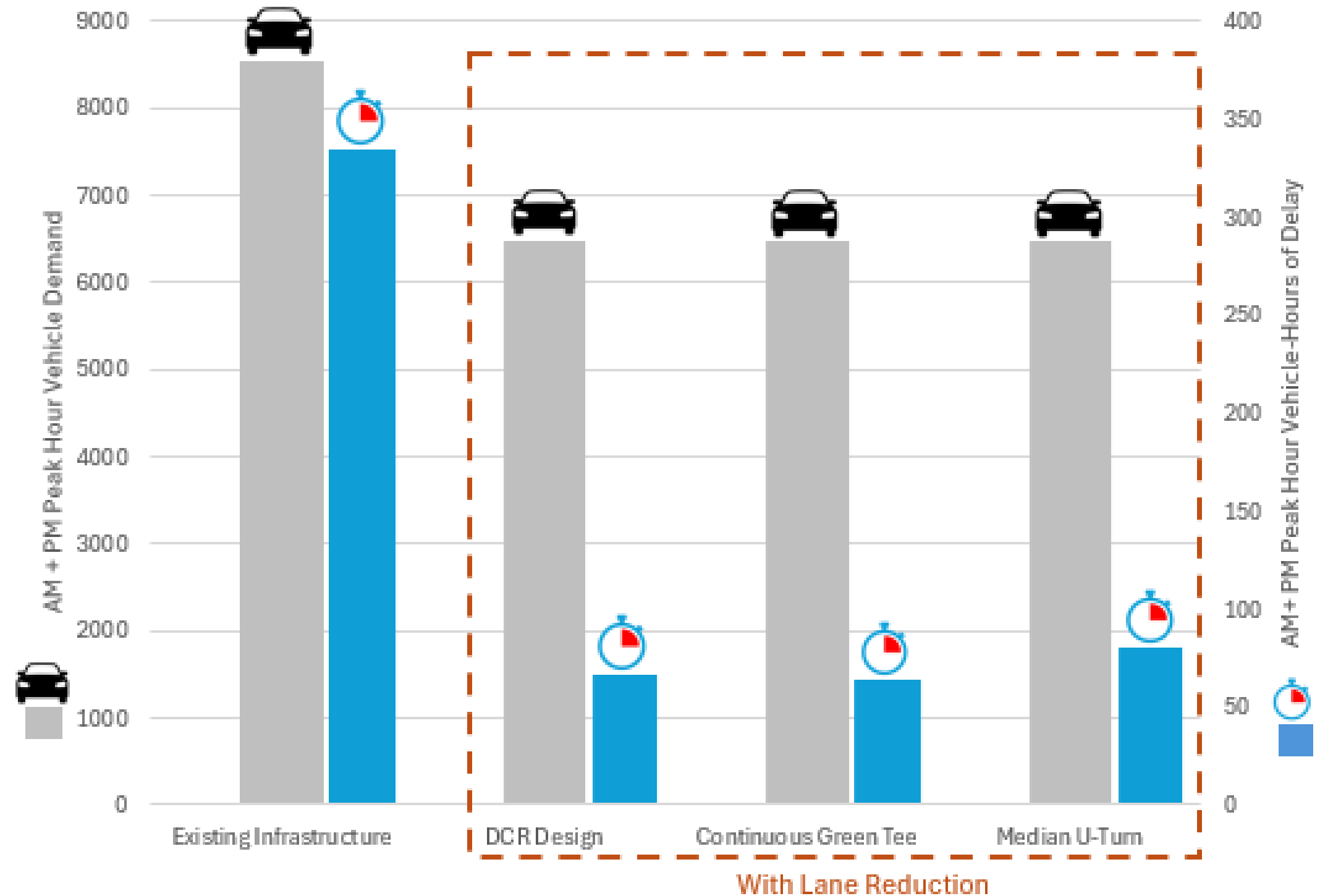
## Cons

- Higher overall vehicular delay compared to other alternatives
- Median U-turn requires wider pavement area south of Vietnam Veterans Memorial



# Bianculli Boulevard Alternatives - Initial Analysis

Upon initial analysis, while the alternatives are comparable, **Bianculli Boulevard Alternative 2 (Median U-Turn)** provides more pros and fewer cons than the other alternatives





# Freeport Street - Massachusetts

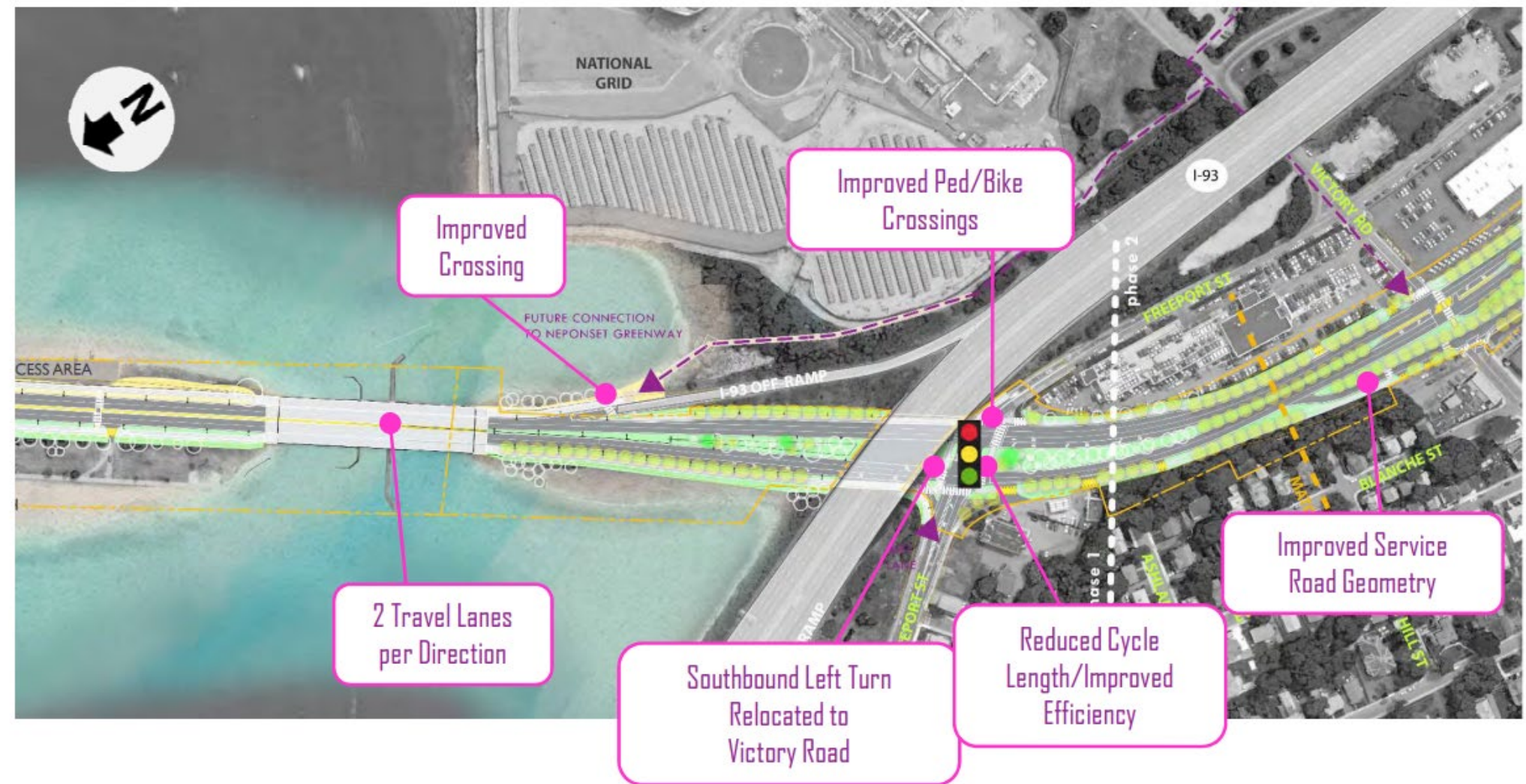
## Department of Conservation and Recreation Design (2017)

### Pros

- Reduced vehicle delay compared with Existing Infrastructure scenario
- Fewer vehicle conflicts at Freeport Street
- New east-west pedestrian/bike connection at Victory Road

### Cons

- Delay for northbound left turn and westbound approach in PM peak hour



Source: Massachusetts Department of Conservation and Recreation



# Freeport Street (Alternative 1) - Median U-Turn

## Pros

- Reduced vehicle delay compared with Existing Infrastructure scenario
- Fewer vehicle conflicts at Freeport Street

## Cons

- More vehicle delay than other alternatives
- More impervious surface for median U-turns
- No new east-west pedestrian/bike connection at Victory Road





# Freeport Street (Alternative 2) - Quadrant Roadway

## Pros

- Reduced vehicle delay compared with Existing Infrastructure scenario
- Fewer vehicle conflicts at Freeport Street
- New east-west pedestrian/bike connection at Victory Road

## Cons

- Challenging operations on northbound approach in AM peak hour, eastbound and westbound approaches in AM and PM peak hours





# Freeport Street and Victory Road (Alternative 3) - Full Intersection at Victory Road

## Pros

- New east-west pedestrian/bike and vehicular connection at Victory Road
- Eliminating service road reduces impervious surface
- Fewer vehicle conflicts at Freeport Street

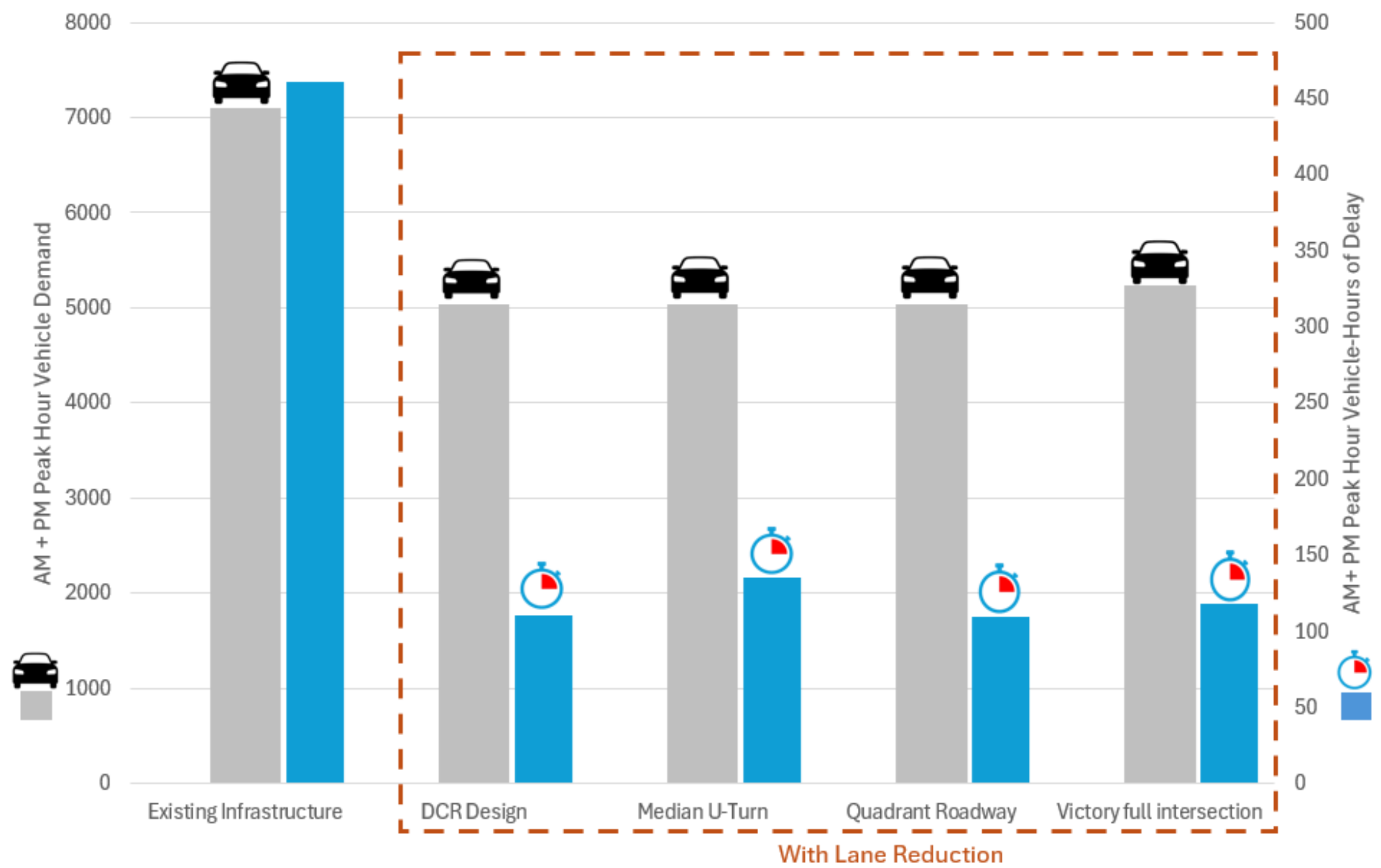
## Cons

- Delay for eastbound Freeport St approach in PM peak hour
- Challenging operations on southbound Morrissey at Freeport in PM peak hour



# Freeport Street Alternatives - Initial Analysis

Upon initial analysis, the vehicular operations for the **Freeport Street Alternative 2 (Quadrant Roadway)** performed better than the other alternatives





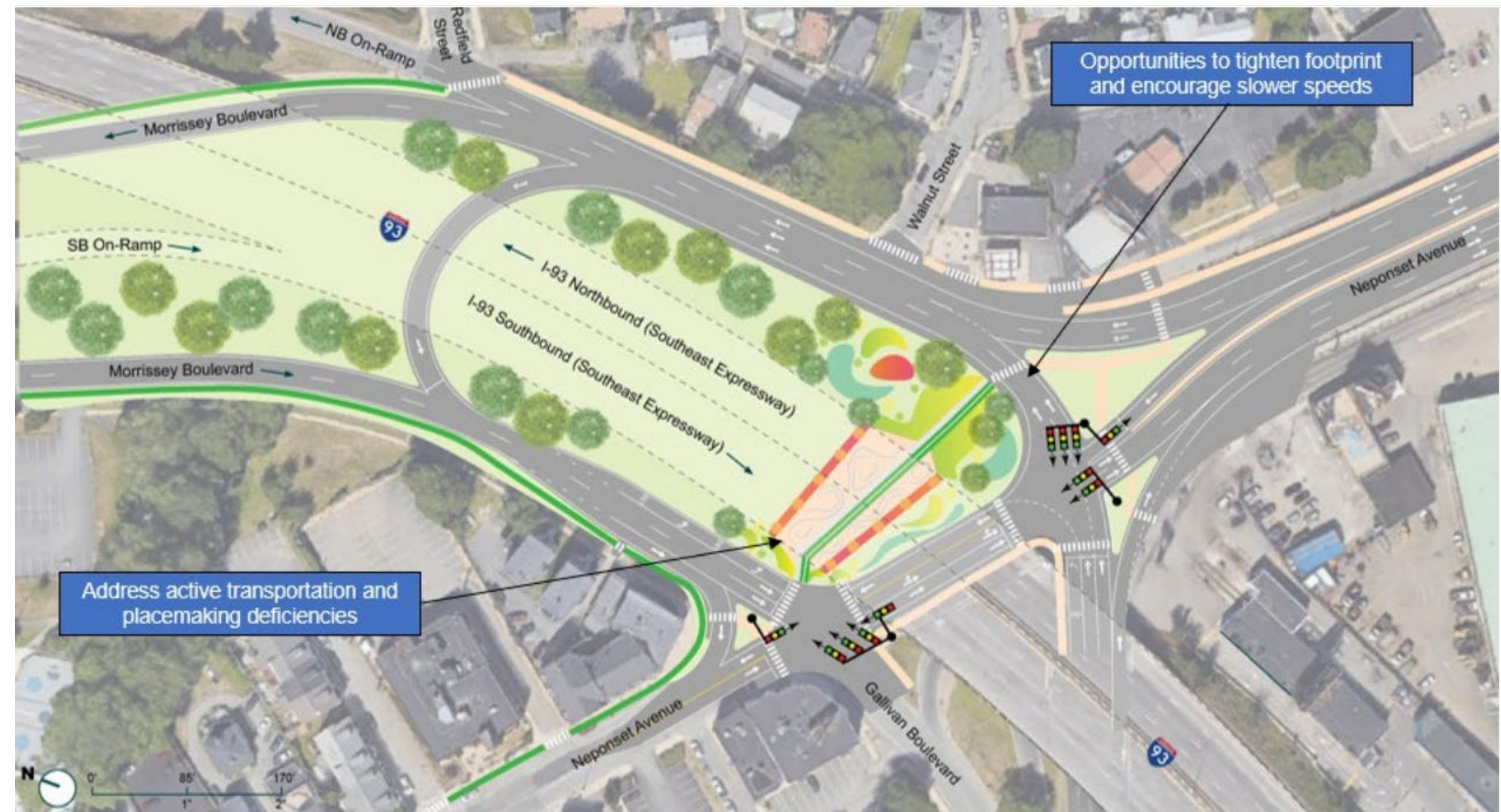
# Neponset Circle Alternative

## Pros

- Reduces volume of vehicles having to weave
- Provides additional pedestrian and bicycle connections
- Improves ADA accessibility

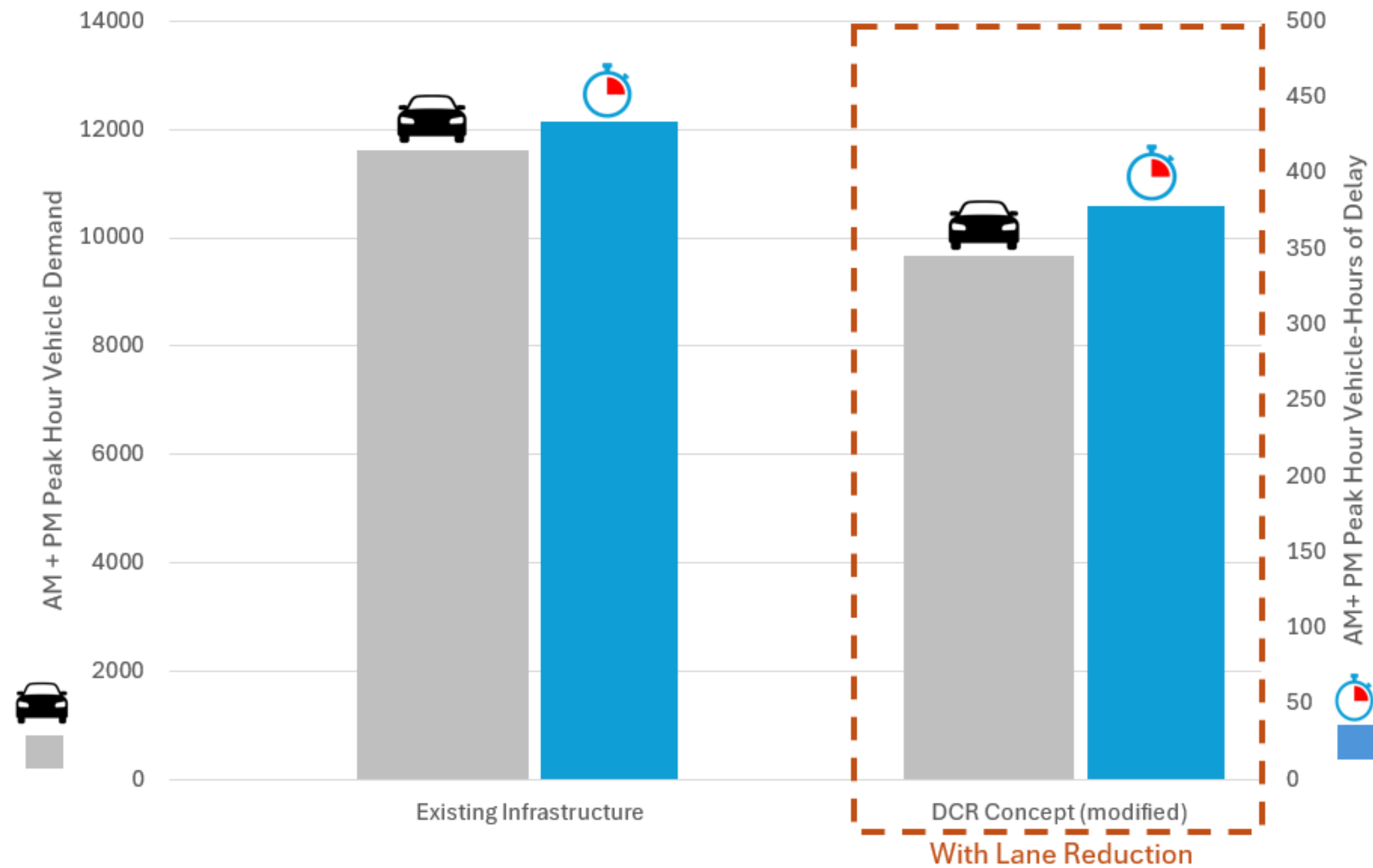
## Cons

- I-93 on-ramp congestion would remain



# Neponset Circle Alternative - Initial Analysis

Upon initial analysis, the **Neponset Circle Alternative** performed better than the Existing Infrastructure scenario



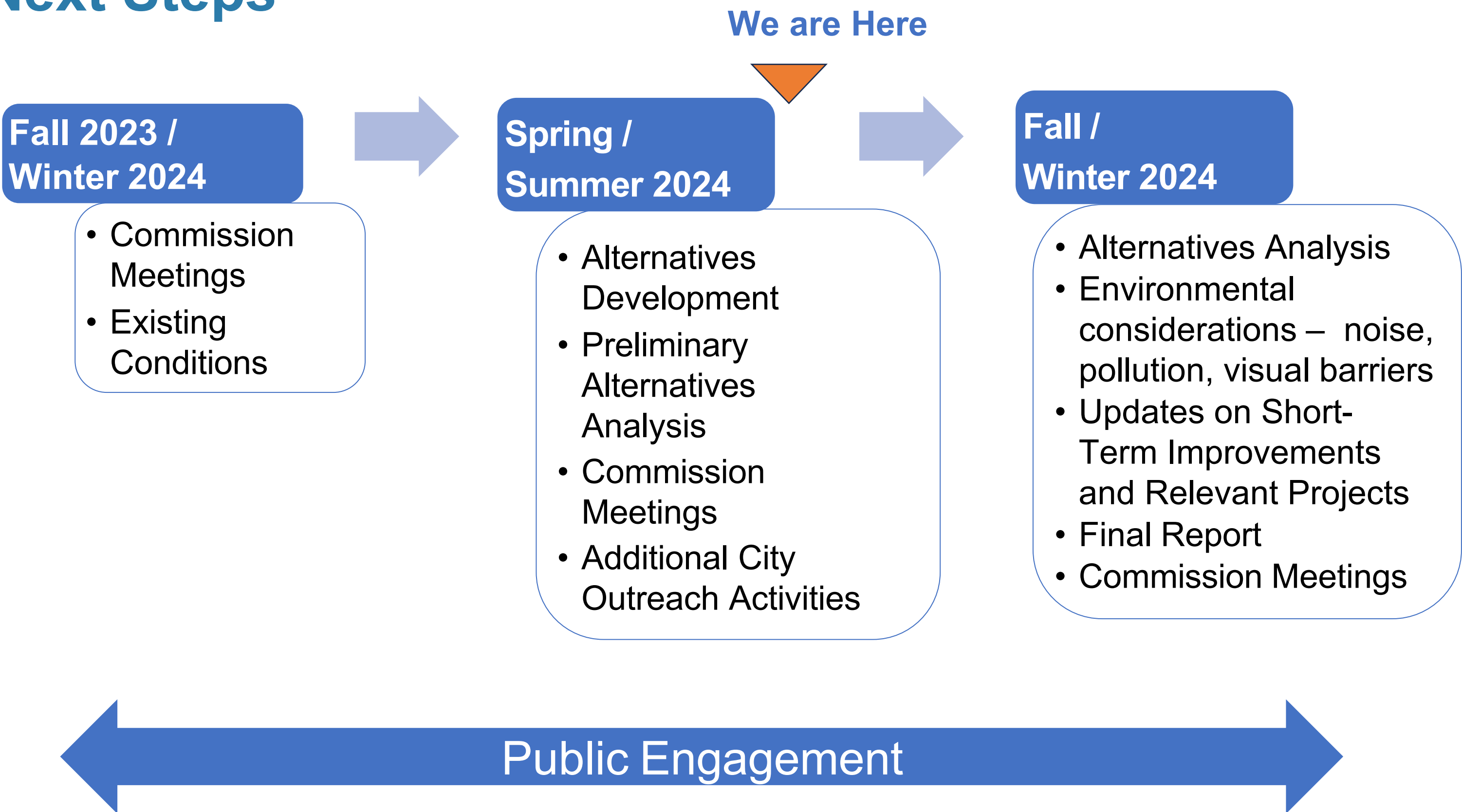
# Key Takeaways

- SYNCHRO analysis provides insights into potential operational constraints or "fatal flaws"
- **Initial analysis uncovers pros and cons related to each of the alternatives**
- **Interactions between vehicular, bicycle, pedestrian, and transit movements to be assessed** using VISSIM, which will provide additional insights into how well each alternative performs



# Next Steps

# Next Steps



# Commission Discussion

# Commission Discussion

**General comments or questions on  
the Alternatives Development and/or  
Preliminary Transportation Operations  
Analysis?**

**Which alternatives should be  
advanced for further analysis using  
VISSIM?**

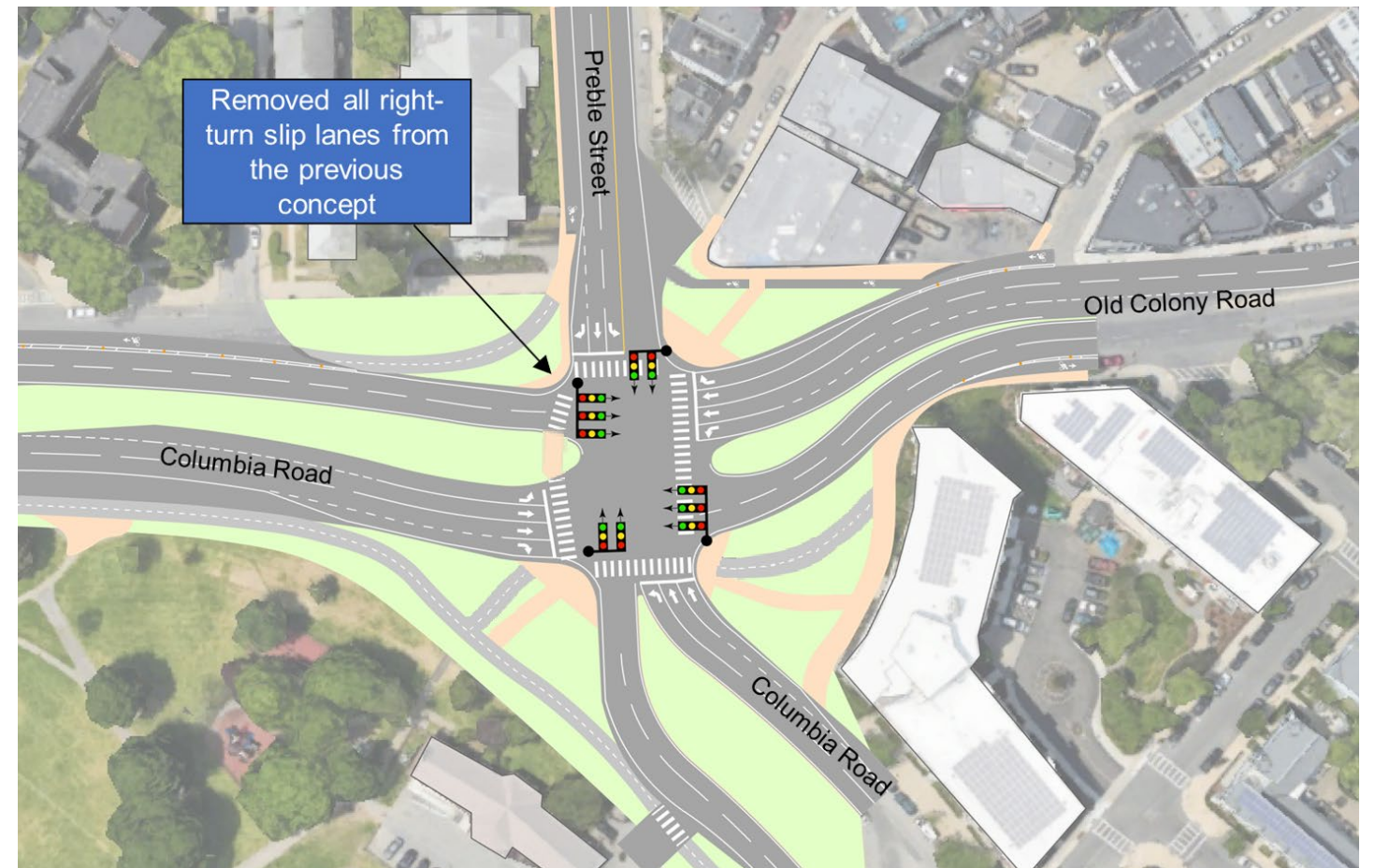


# Commission Discussion – Preble Circle Alternatives

Preble Circle (Alternative 1) - Modern Roundabout



Preble Circle (Alternative 2) - Signalized Control





# Commission Discussion – First Street Alternatives

## First Street (Alternative 1) - Service Roads



## First Street (Alternative 1) - Signalized Control





# Commission Discussion – Bianculi Boulevard Alternatives

Bianculi Boulevard (Alternative 1) - Continuous Green Tee



Bianculi Boulevard (Alternative 2) - Median U-Turn





# Commission Discussion – Freeport Street Alternatives

## Freeport Street (Alternative 1) - Median U-Turn



## Freeport Street (Alternative 2) - Quadrant Roadway



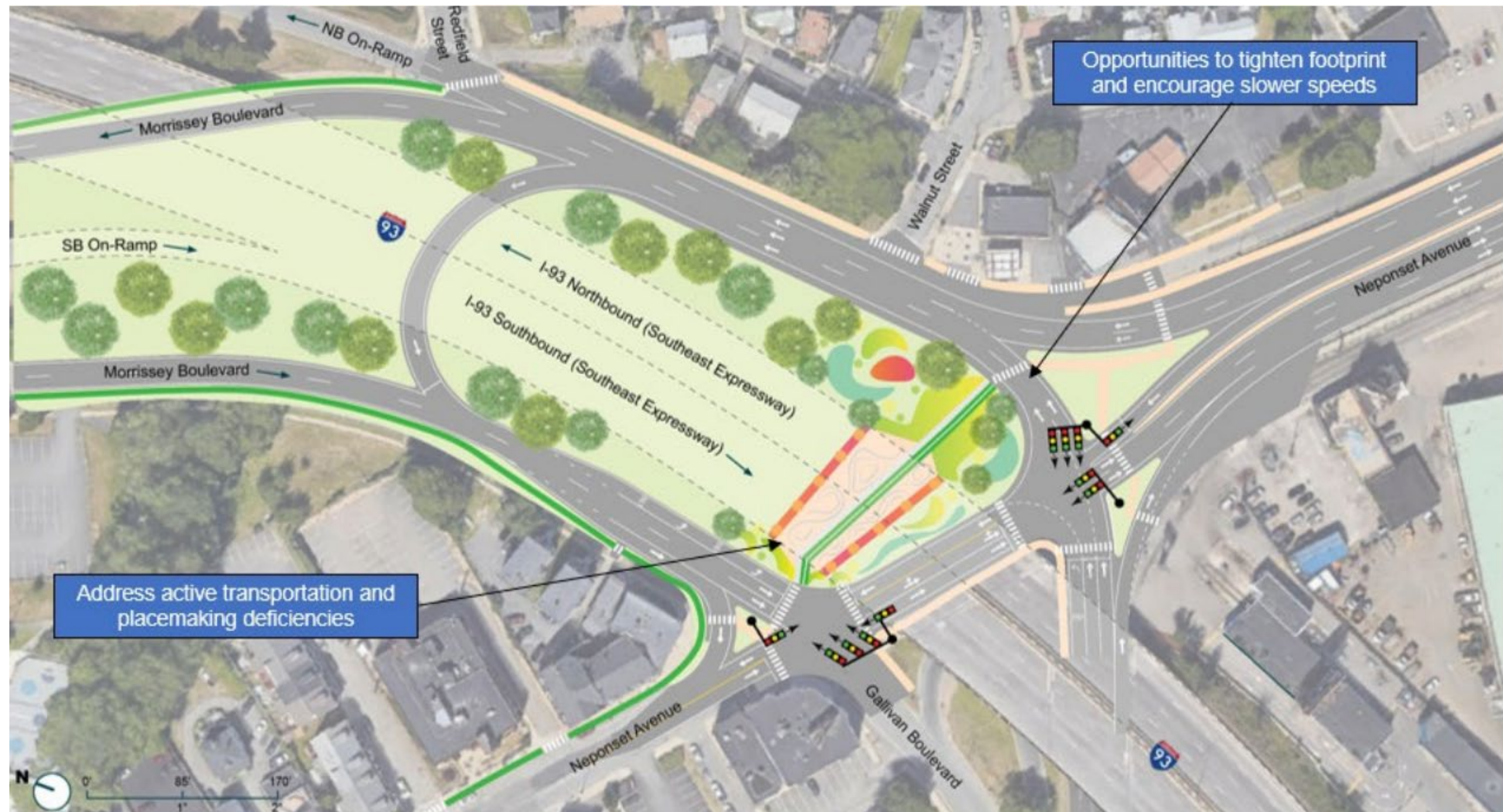
## Freeport Street and Victory Road (Alternative 3) - Full Intersection at Victory Road





# Commission Discussion – Neponset Circle Alternative

## Neponset Circle Alternative



# Public Comment



# Share Your Questions and Comments: Hybrid Meeting Process

- In-Person and Virtual moderators will work together to ensure that attendees in both spaces can share their questions and comments
- Moderators will take a few comments at a time in one space and then switch throughout the public comment period
- If multiple people ask the same question, moderators will inform the audience how many asked and answer the question once

**Please be advised that all Q&A and comments are subject to disclosure for public records, therefore use these functions for project-related business only**

# Share Your Questions and Comments: Virtual Attendees



- Submit your questions and comments using the Q&A button (Alt+H)



- “Raise your hand” to be unmuted for verbal questions, (Alt + Y to raise your hand)



- 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 digits of your phone number and unmute your audio when it is your turn

Please be advised that all Q&A and comments are subject to disclosure for public records, therefore use these functions for project-related business only

# Share Your Questions and Comments: In-Person Attendees



- Use Microphone provided and please line up three (3) at a time to allow for virtual audience to participate



- Please state your name before your question or comment



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

Please be advised that all Q&A and comments are subject to disclosure  
for public records





# How to Reach Us

**Submit written comments to:**

Attention: Office of Transportation Planning  
10 Park Plaza, Suite 4150  
Boston, MA 02116

**Submit email comments to:**

[planning@dot.state.ma.us](mailto:planning@dot.state.ma.us)

**For project information, visit the study web site at:**

<https://www.mass.gov/k-circle-morrissey-study> or QR Code:



Study Website  
QR Code





Thank You!