

# Transportation Advisory Committee Belmont Center Improvements



TAC Forum #3 – Review of Design Alternatives  
Town of Belmont

December 9, 2010

# Participants

**Linda Nickens** Belmont Traffic Advisory Committee

**Glenn Clancy** Belmont Town Engineer

**Peter Briere** Traffic Engineer, BSC Group

**Marybeth Murphy** Landscape Architect, BSC Group

**Charles Kalauskas** Planner, BSC Group

# Purpose of Project

1. Analyze alternatives
2. Determine preferred alternative relative to:
  - Roadway
  - Sidewalk
  - Parking
  - Landscape
3. Initiate design & construction

# Project Schedule

## BELMONT CENTER - PROJECT DEVELOPMENT

### PROJECT SCHEDULE

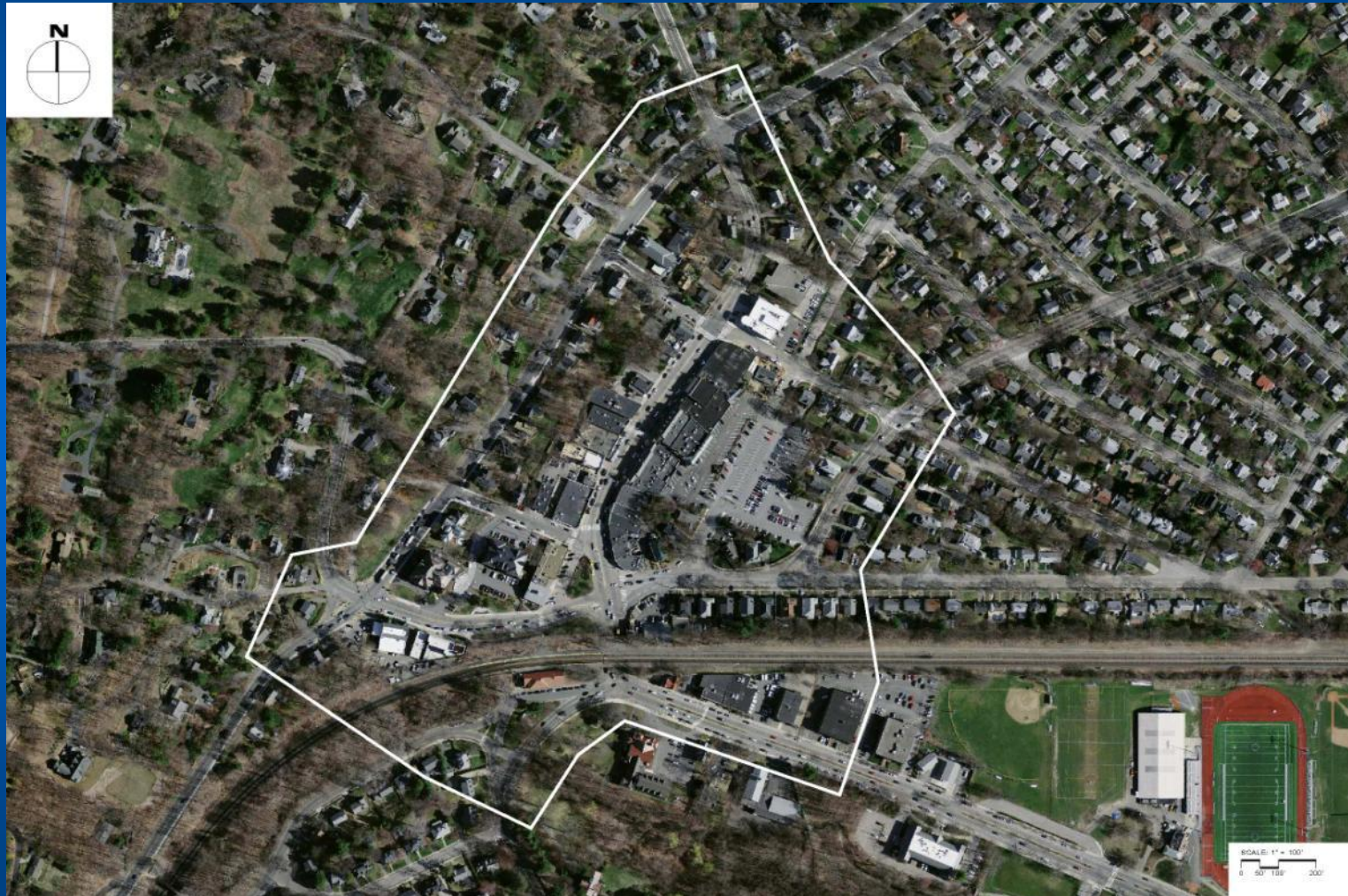
(Revised 9/20/2010)

	YEAR MONTH WEEK ENDING	(Revised 9/20/2010)																																																							
		AUG							SEP							OCT							NOV							DEC							2011 JAN							FEB							MAR						
		7	14	21	28	4	11	18	25	2	9	16	23	30	6	13	20	27	4	11	18	25	2	9	16	23	30	6	13	20	27	6	13	20	27																						
1	Research																																																								
2	Base Plan Preparation																																																								
3	Data Collection & Analysis																																																								
4	Conceptual Rdwy D & A																																																								
5	Conceptual Streetscape																																																								
6	Parking Management																																																								
7.1	Kick Off																																																								
7.2	Public Part. TAC #1																																																								
7.3	8 Alternatives TAC #2																																																								
7.5	2 Alternatives TAC #3																																																								
7.6	Preferred TAC #4																																																								
7.7	Meeting with Selectmen																																																								



# Study Area Context

## Belmont Center



# Process

## Transportation Advisory Committee #3 (Thursday December 9, 2010)

- Describe Existing Conditions
- Describe Alternative Designs
- Evaluate Alternatives
- Select Preferred Alternative

# Analysis Tools

With the Alternative Designs being reviewed, we will evaluate:

- Traffic Operations
- Parking Supply
- Bicycle Accommodation
- Pedestrian Access
- Streetscape Opportunities

Using the following Symbols:

- + Positive Impact
- o No Impact
- - Negative Impact

# Analysis Tools

## Sample Chart

Leonard/Concord/Channing	
Traffic Operations	0
Parking	0
Bicycles	+
Peds / X-walks	-
Streetscape	0

# Review of Design Concepts

- North of Railroad Bridge
  - Leonard– Moore to Alexander
  - Concord– Leonard to Pleasant
  - Intersection at Leonard / Concord / Channing
  - Intersection at Alexander / Claflin
  - Intersection at Channing / Claflin
  - Intersection at Channing / Cross
- South of Railroad Bridge
  - Intersection at Concord / Common
  - Intersection at Common / Royal



# Leonard St. – Moore St. to Alexander Ave.

## Bird's Eye



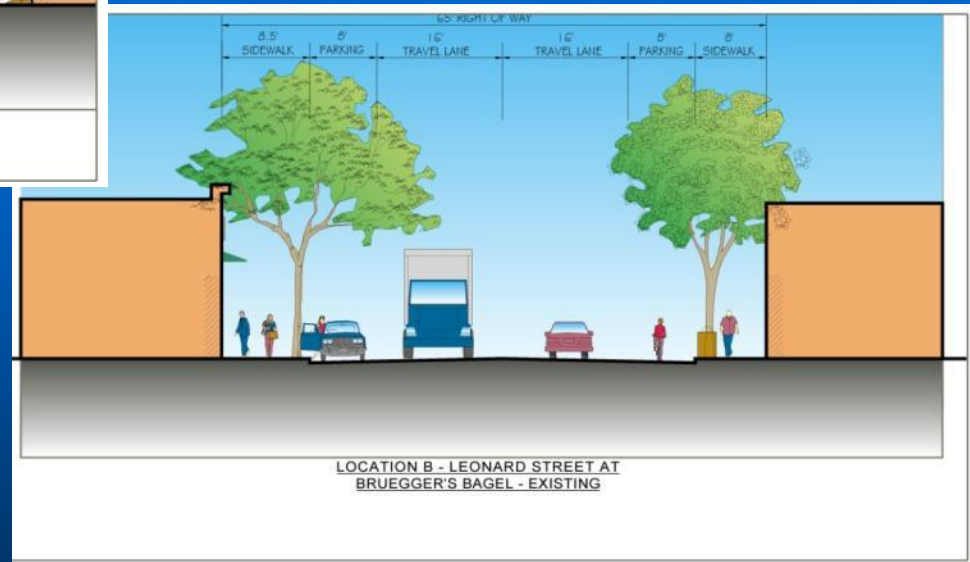
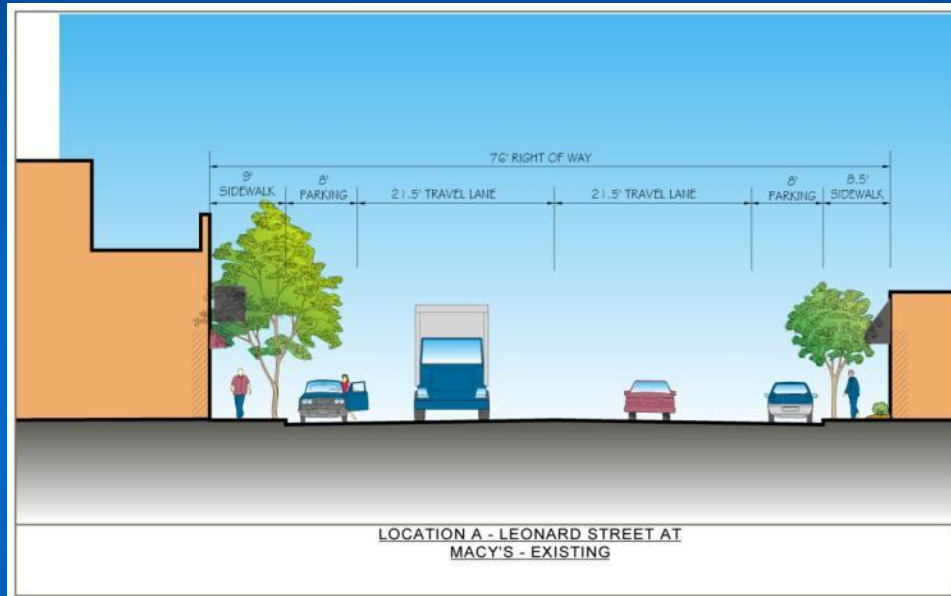
# Leonard St. – Moore St. to Alexander Ave.

## Existing Conditions



# Leonard St. – Moore St. to Alexander Ave.

## Existing Cross Sections at Macy's, Bruegger's Bagel





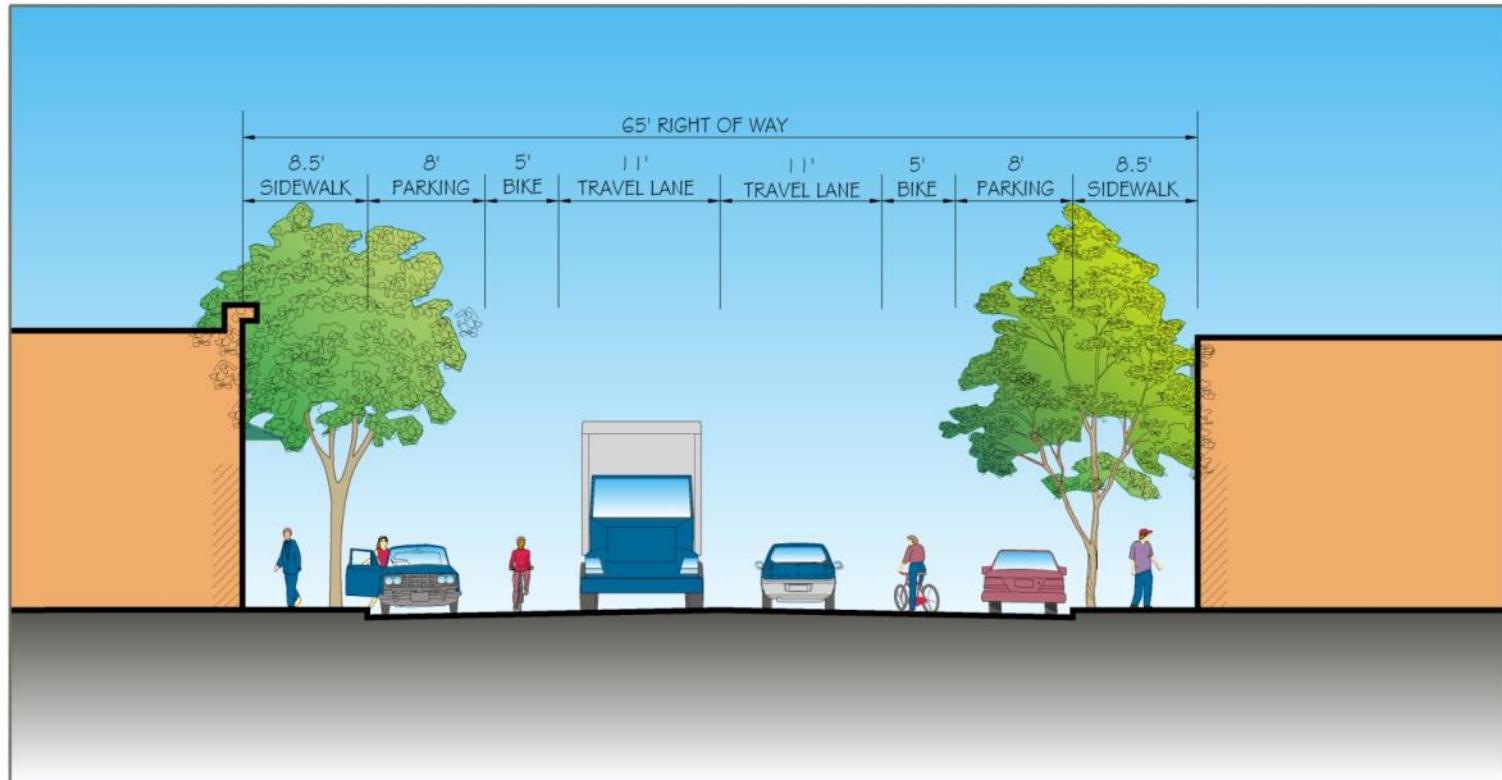
# Leonard St. – Moore St. to Alexander Ave.

## Proposed Conditions: Parallel Parking



# Leonard St. – Moore St. to Alexander Ave.

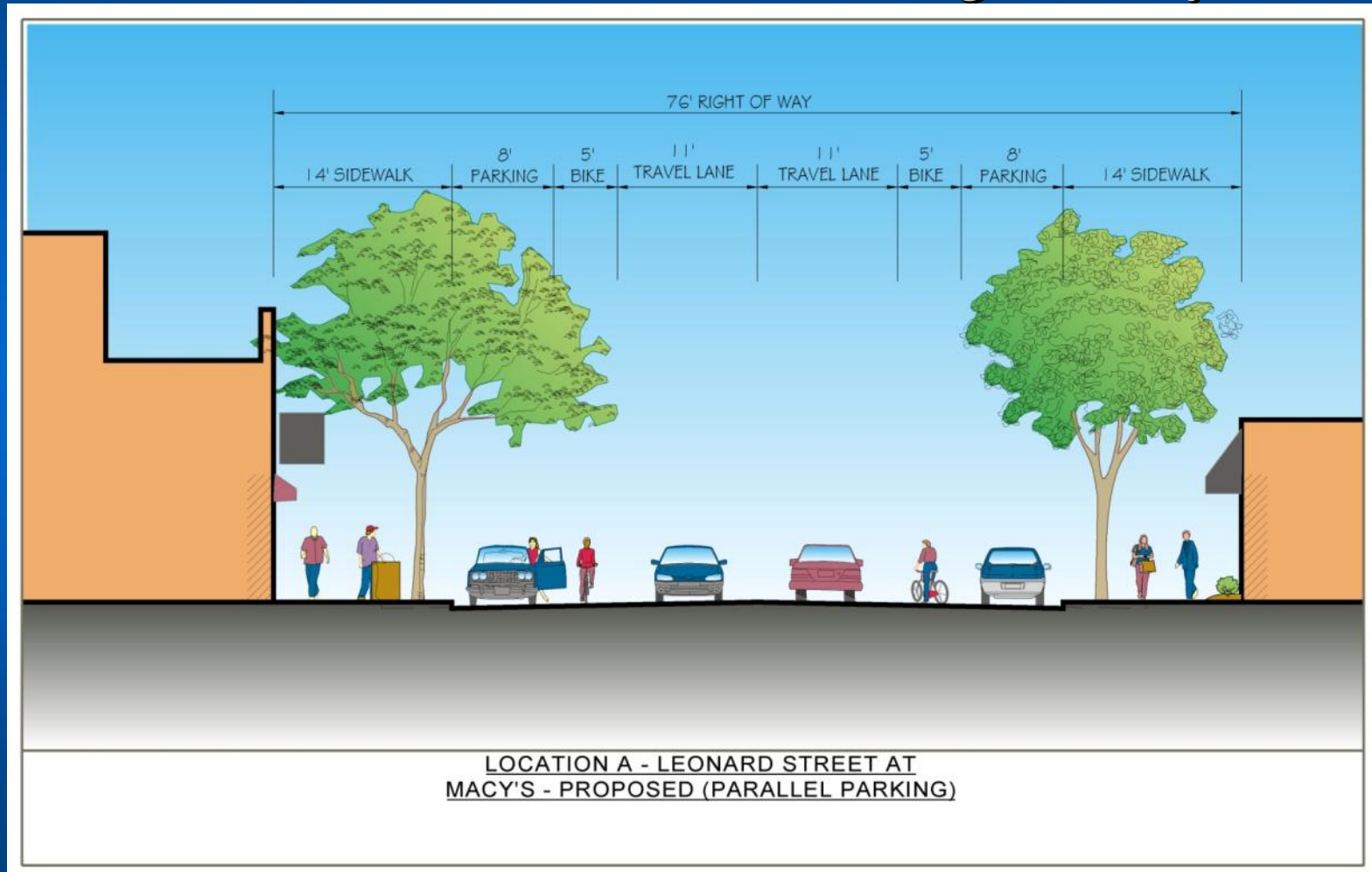
## Cross Sections: Proposed at Bruegger's



LOCATION B - LEONARD STREET AT  
BRUEGGER'S BAGEL - PROPOSED

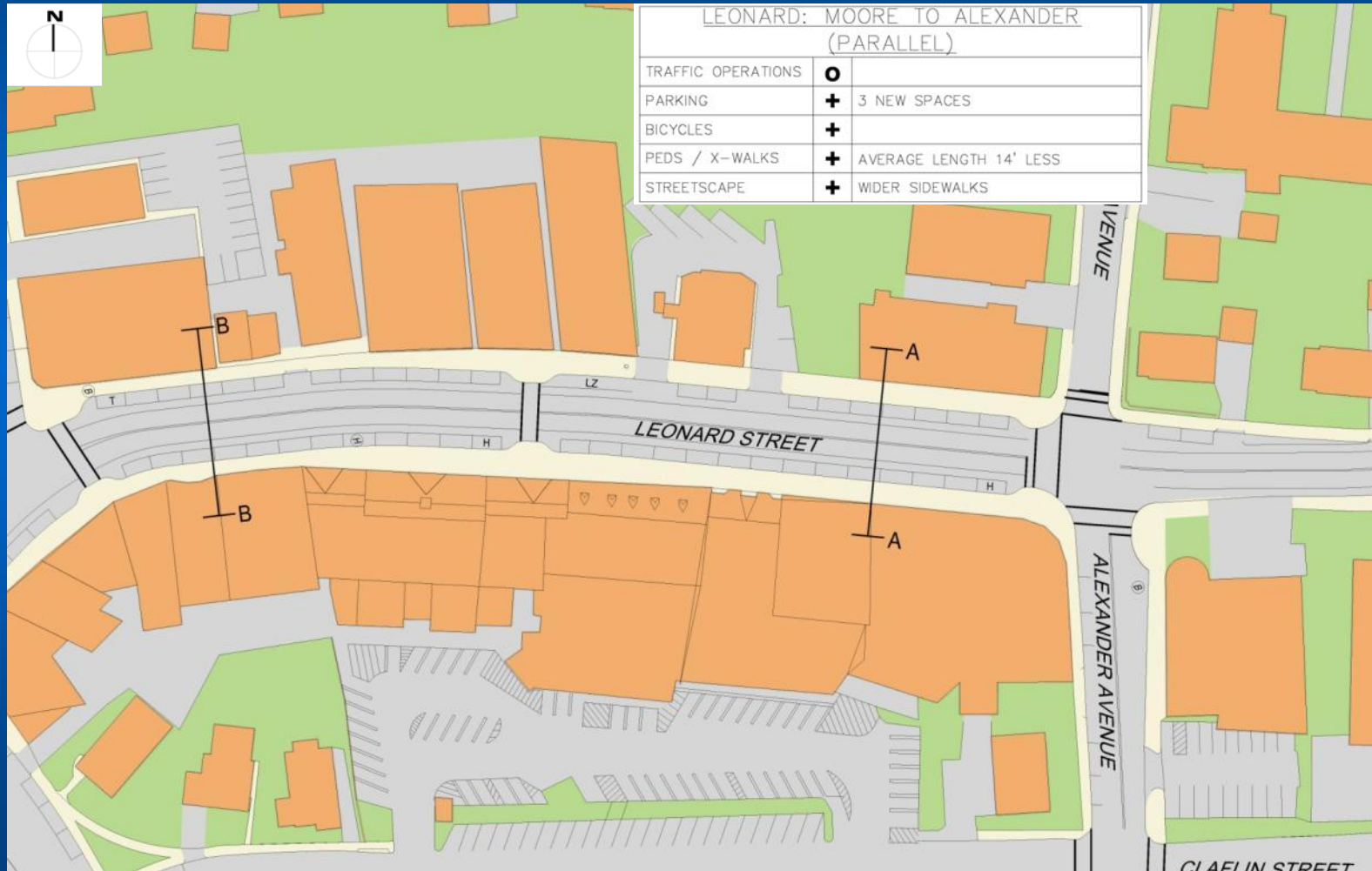
# Leonard St. – Moore St. to Alexander Ave.

## Cross Sections: Parallel Parking at Macy's



# Leonard St. – Moore St. to Alexander Ave.

## Proposed Conditions: Parallel Parking Analysis





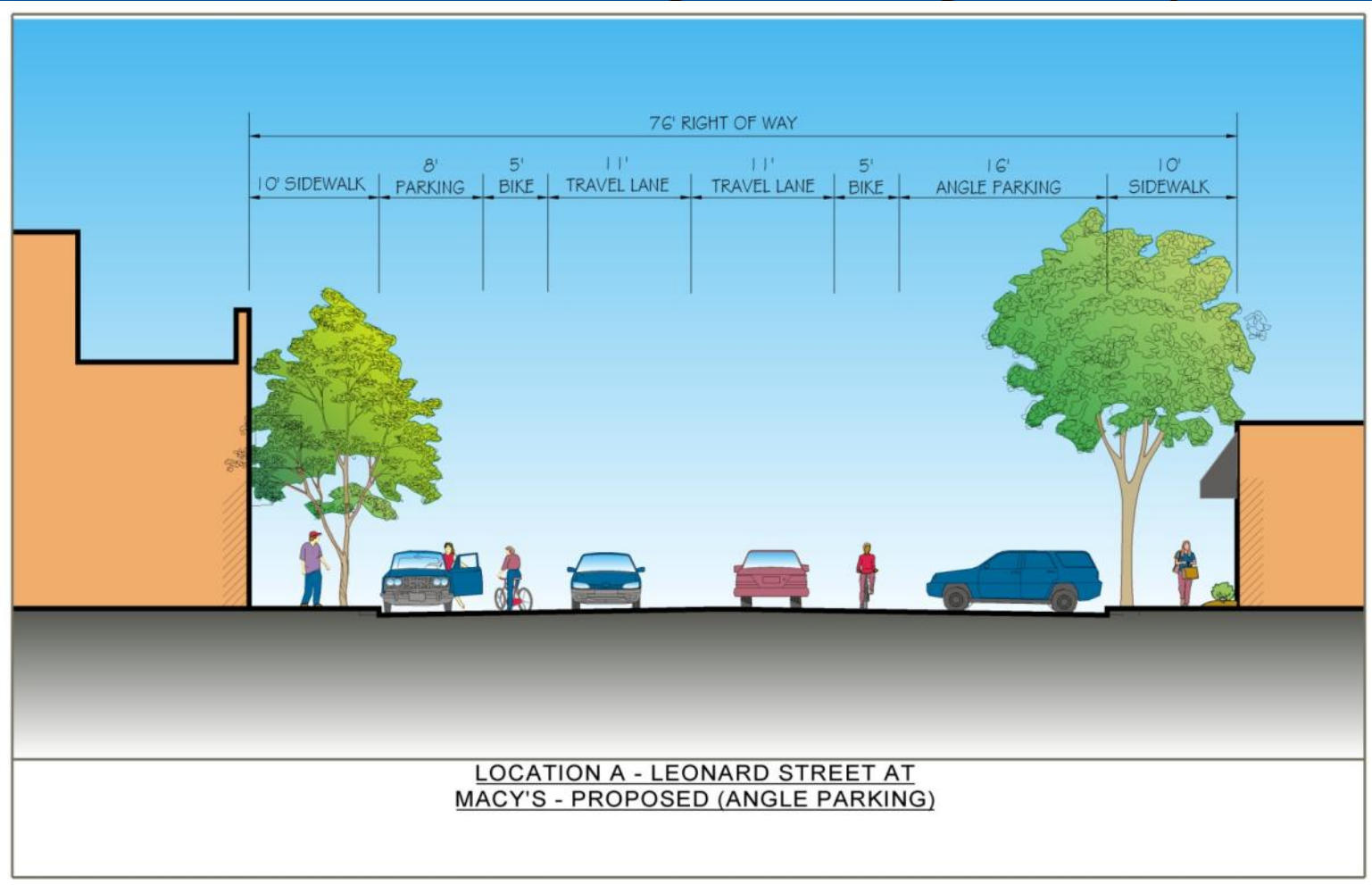
# Leonard St. – Moore St. to Alexander Ave.

## Proposed Conditions: Angle Parking



# Leonard St. – Moore St. to Alexander Ave.

## Cross Sections: Angle Parking at Macy's



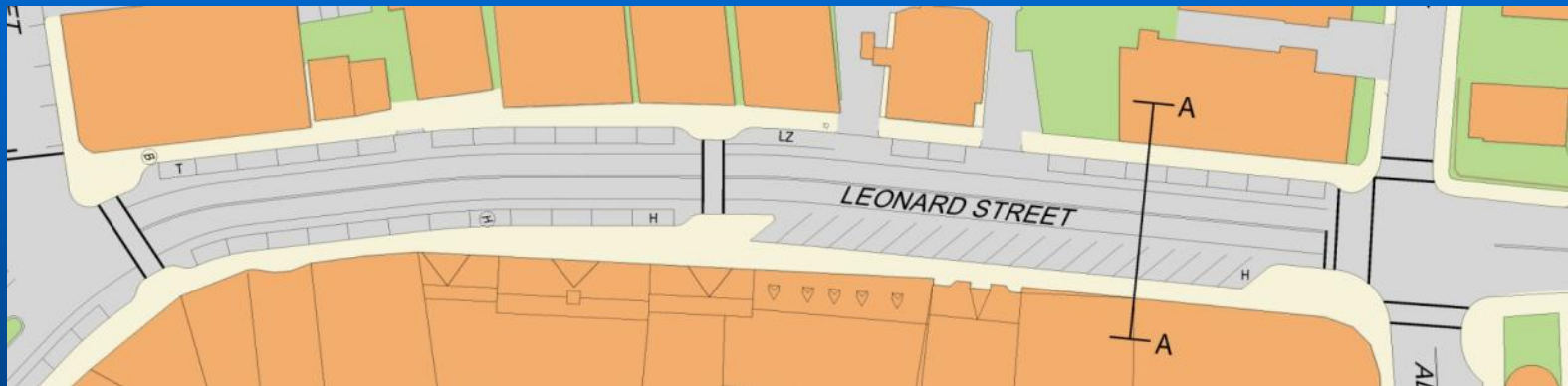
# Leonard St. – Moore St. to Alexander Ave.

## Proposed Conditions: Angle Parking Analysis



# Leonard St. – Moore St. to Alexander Ave.

## Summary/Discussion





# Concord Ave. – Leonard St. to Pleasant St.

## Bird's Eye View



# Concord Ave. – Leonard St. to Pleasant St.

## Existing Conditions



# Concord Ave. – Leonard St. to Pleasant St.

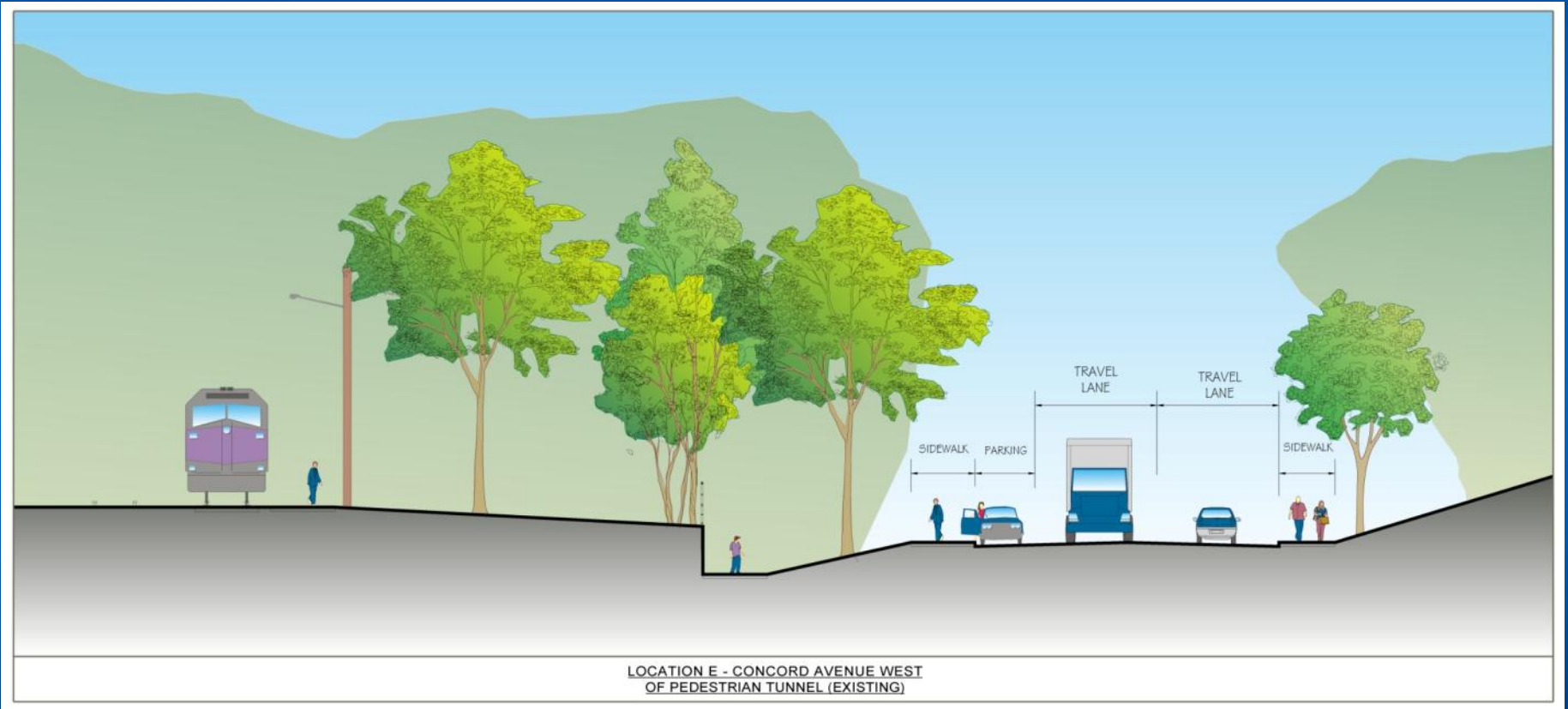
## Existing Cross Sections at Pedestrian Path





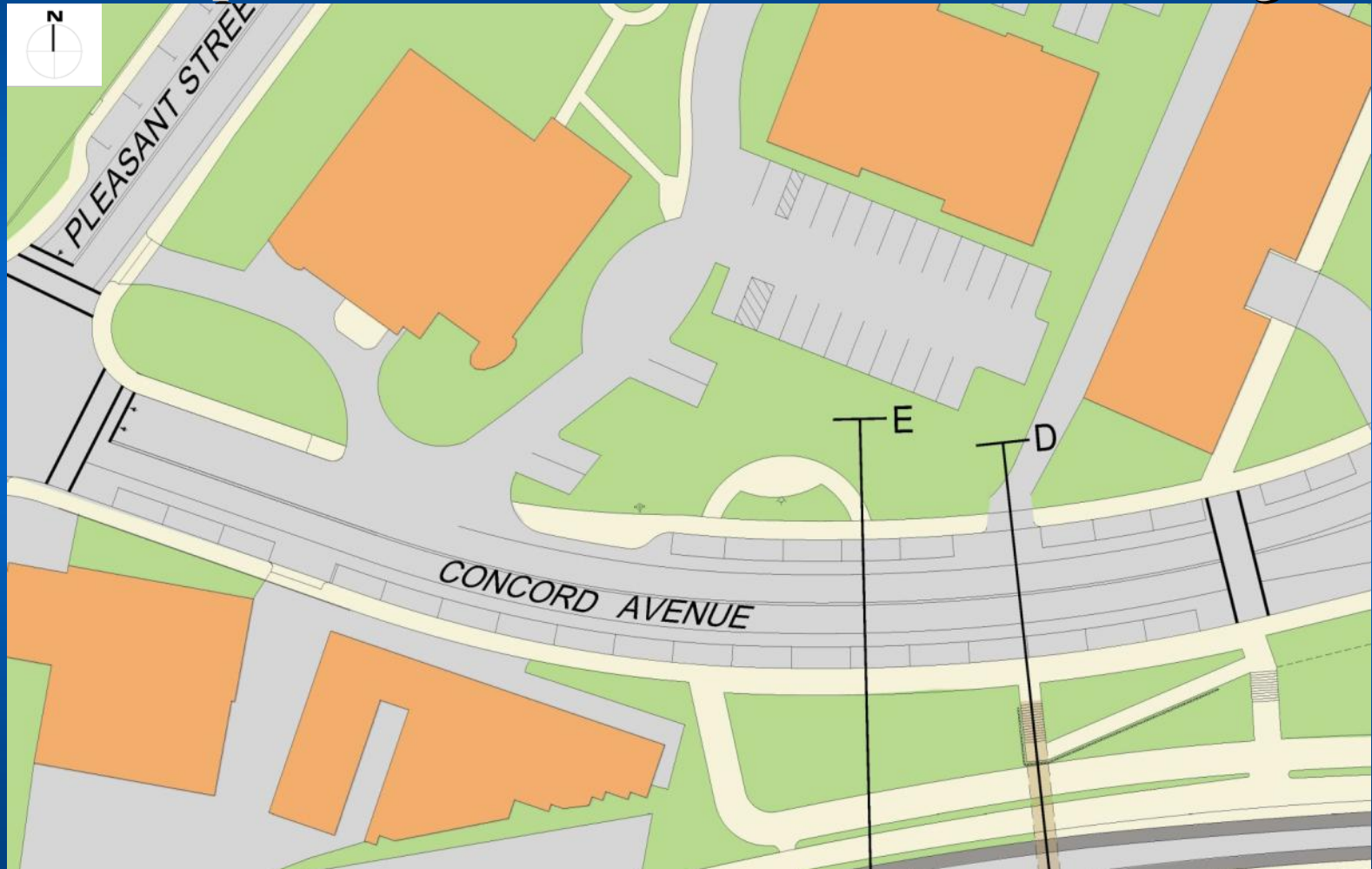
# Concord Ave. – Leonard St. to Pleasant St.

## Existing Cross Sections West of Pedestrian Path



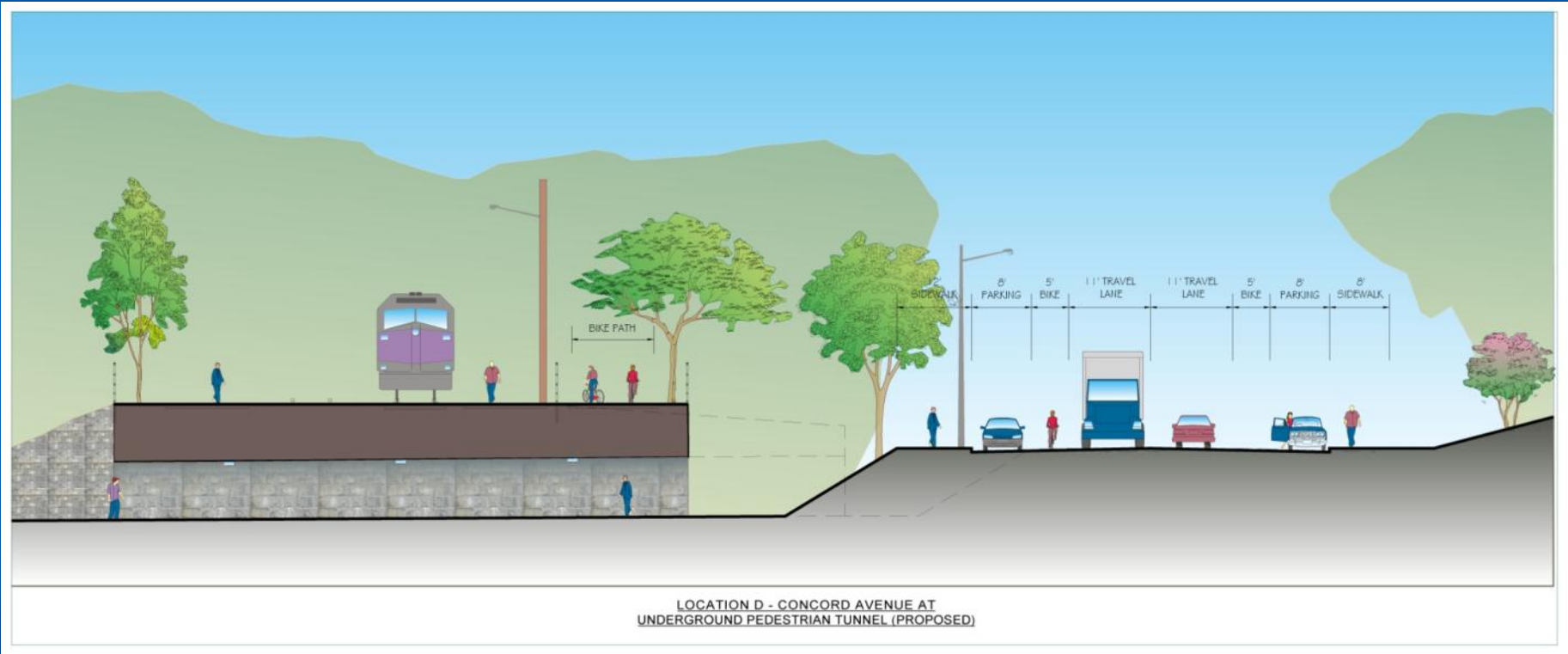
# Concord Ave. – Leonard St. to Pleasant St.

Proposed Conditions: Widened with Parking



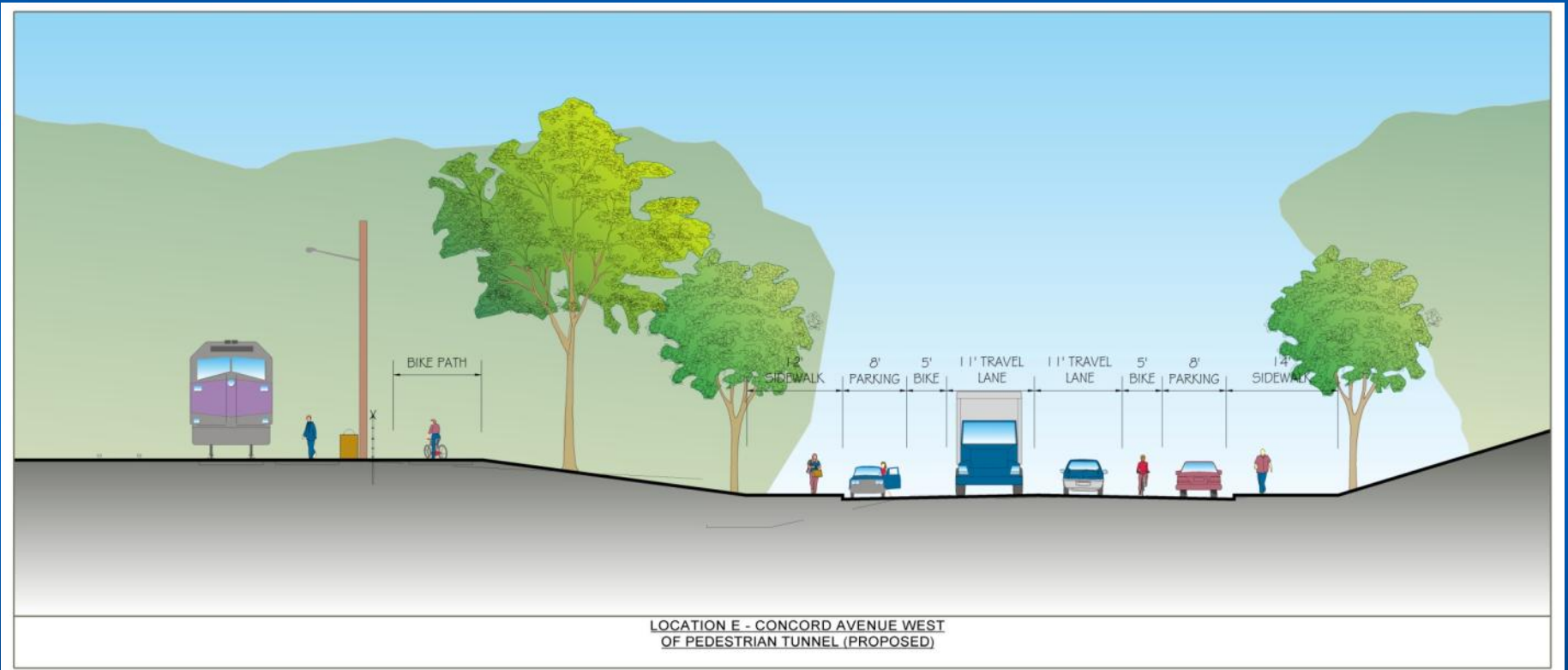
# Concord Ave. – Leonard St. to Pleasant St.

## Cross Sections at Pedestrian Path



# Concord Ave. – Leonard St. to Pleasant St.

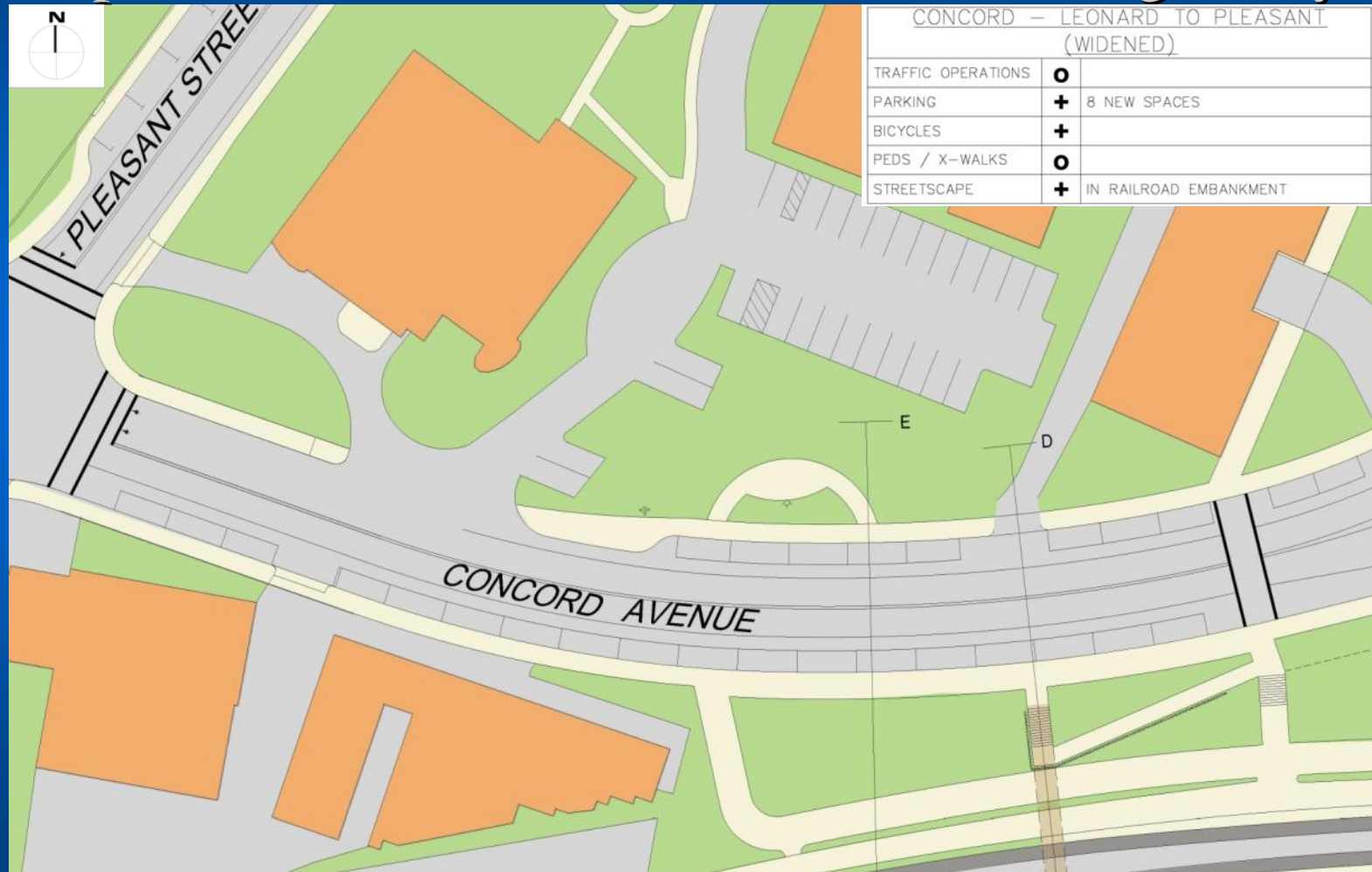
## Cross Sections West of Pedestrian Path





# Concord Ave. – Leonard St. to Pleasant St.

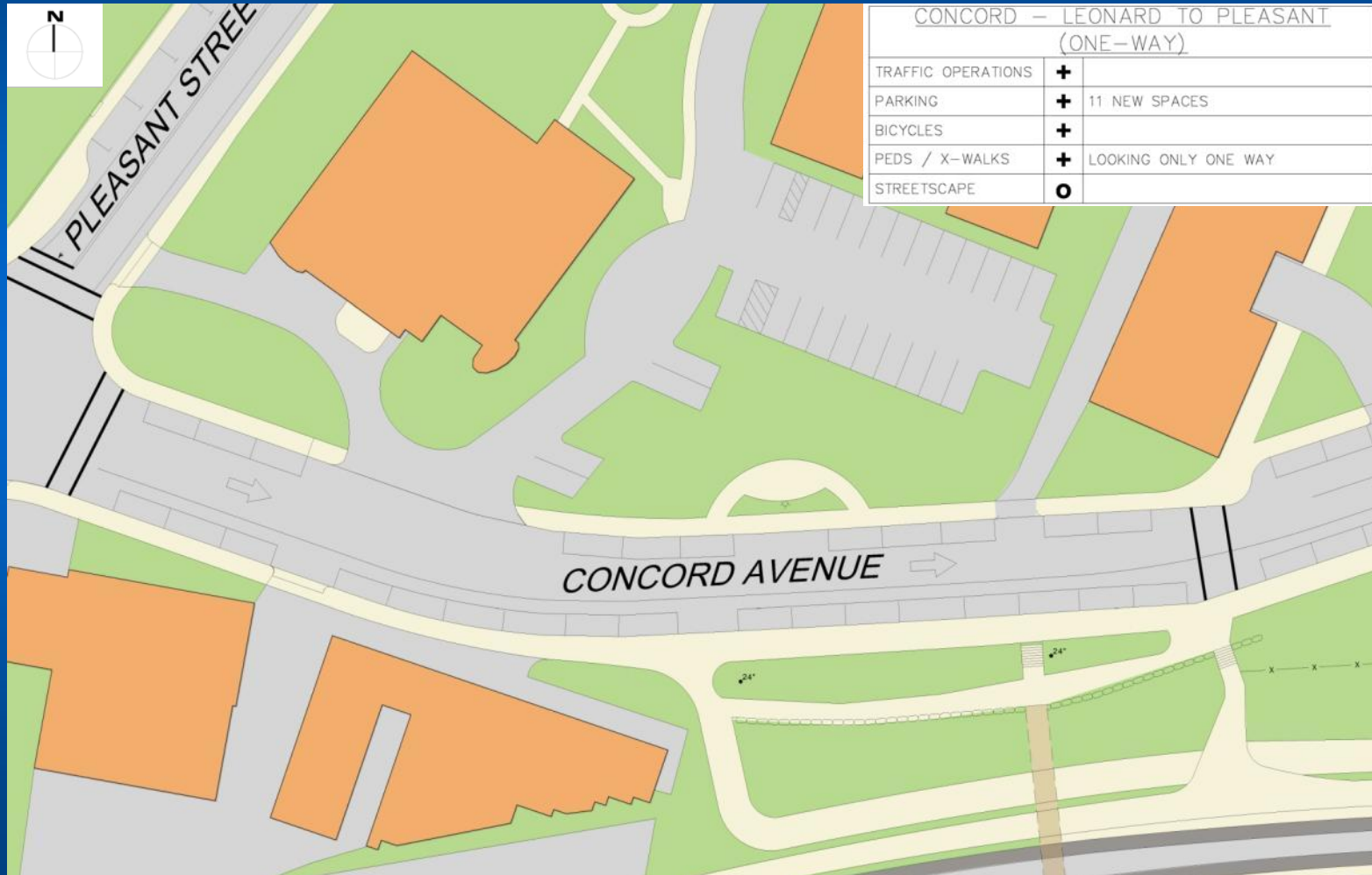
## Proposed Conditions: Widened with Parking Analysis





# Concord Ave. – Leonard St. to Pleasant St.

## Proposed Conditions: One-Way Travel



# Concord Ave. – Leonard St. to Pleasant St.

## Summary/Discussion





# Leonard St. / Concord Ave. / Channing Rd.

## Bird's Eye



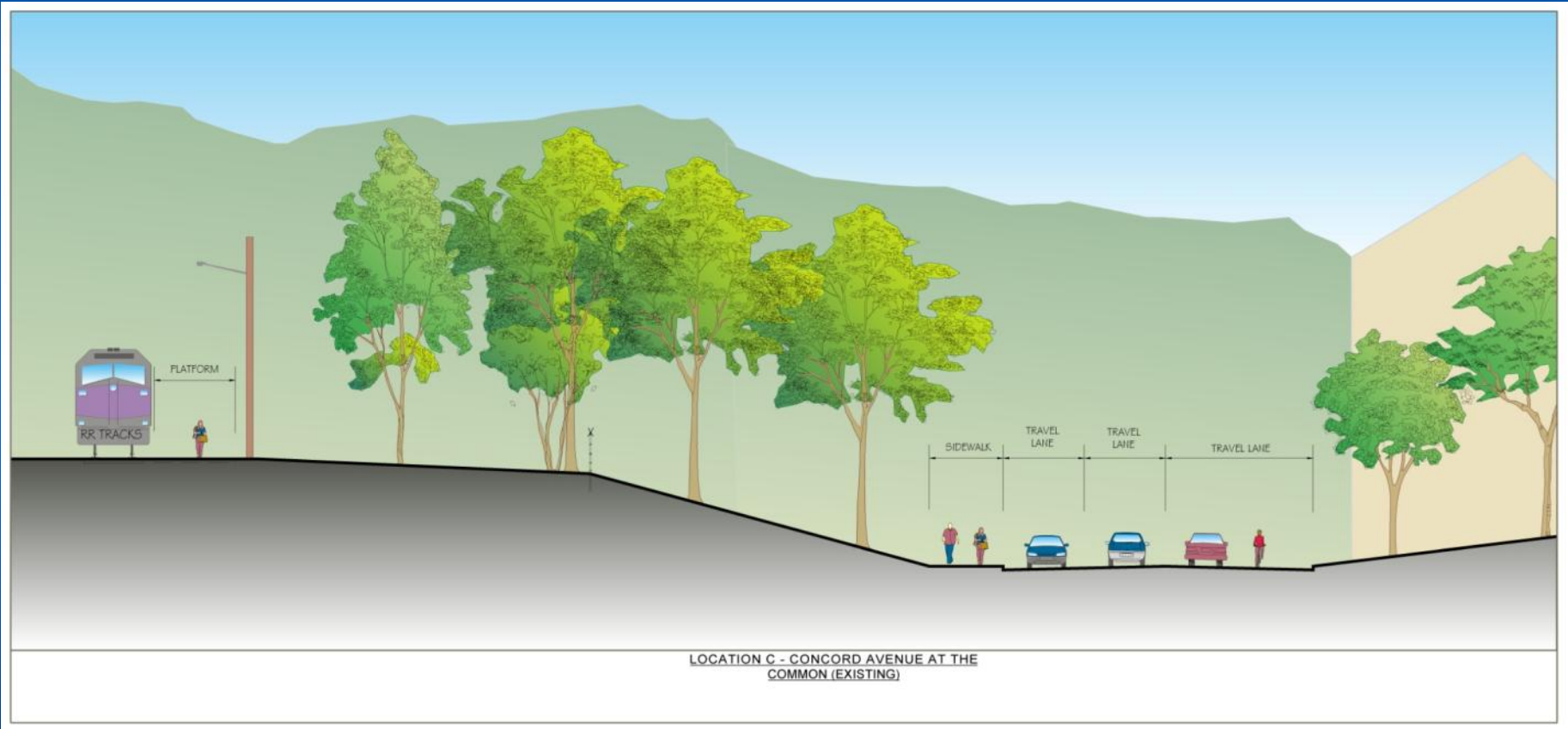
# Leonard St. / Concord Ave. / Channing Rd.

## Existing Conditions



# Leonard St. / Concord Ave. / Channing Rd.

## Existing Cross Section: at Railroad Embankment





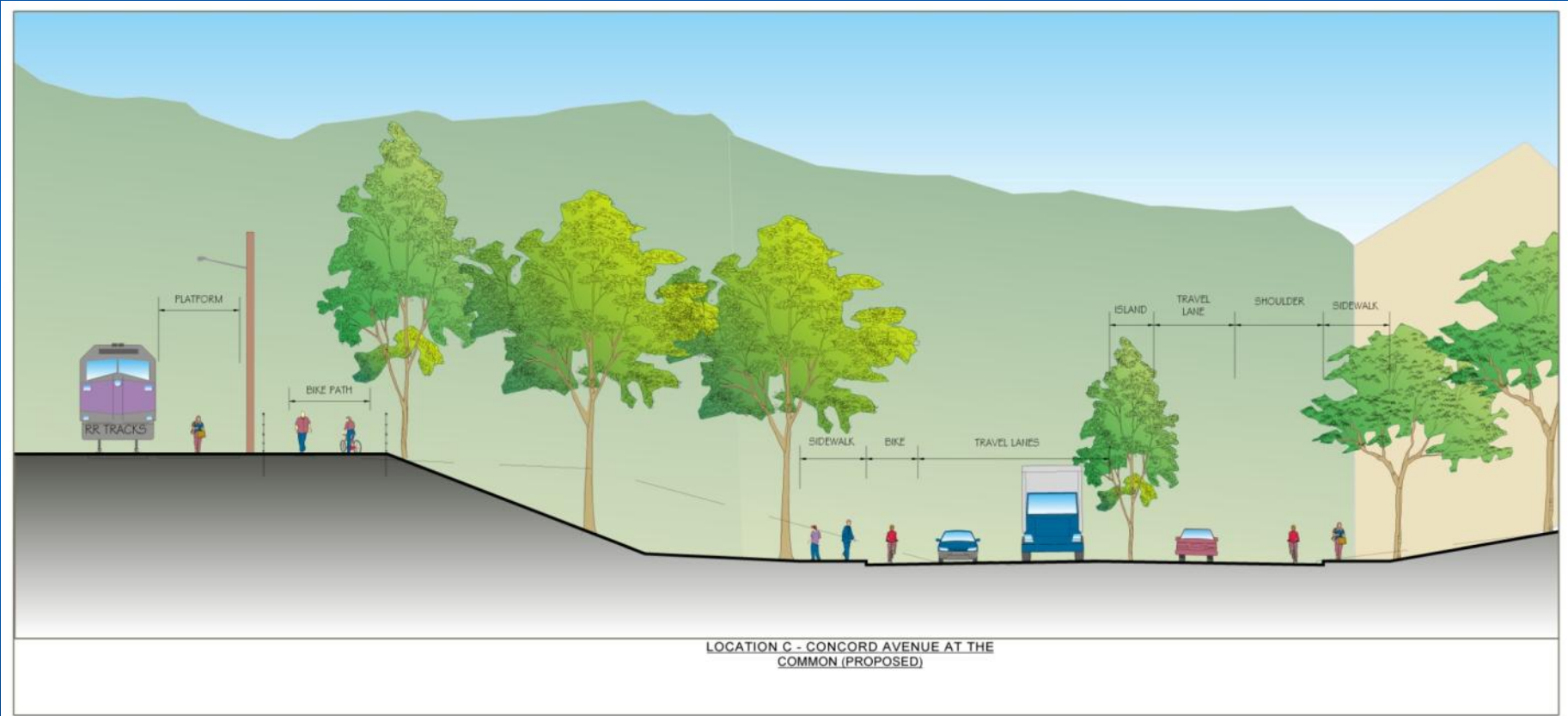
# Leonard St. / Concord Ave. / Channing Rd.

## Proposed Conditions: Enhanced Intersection



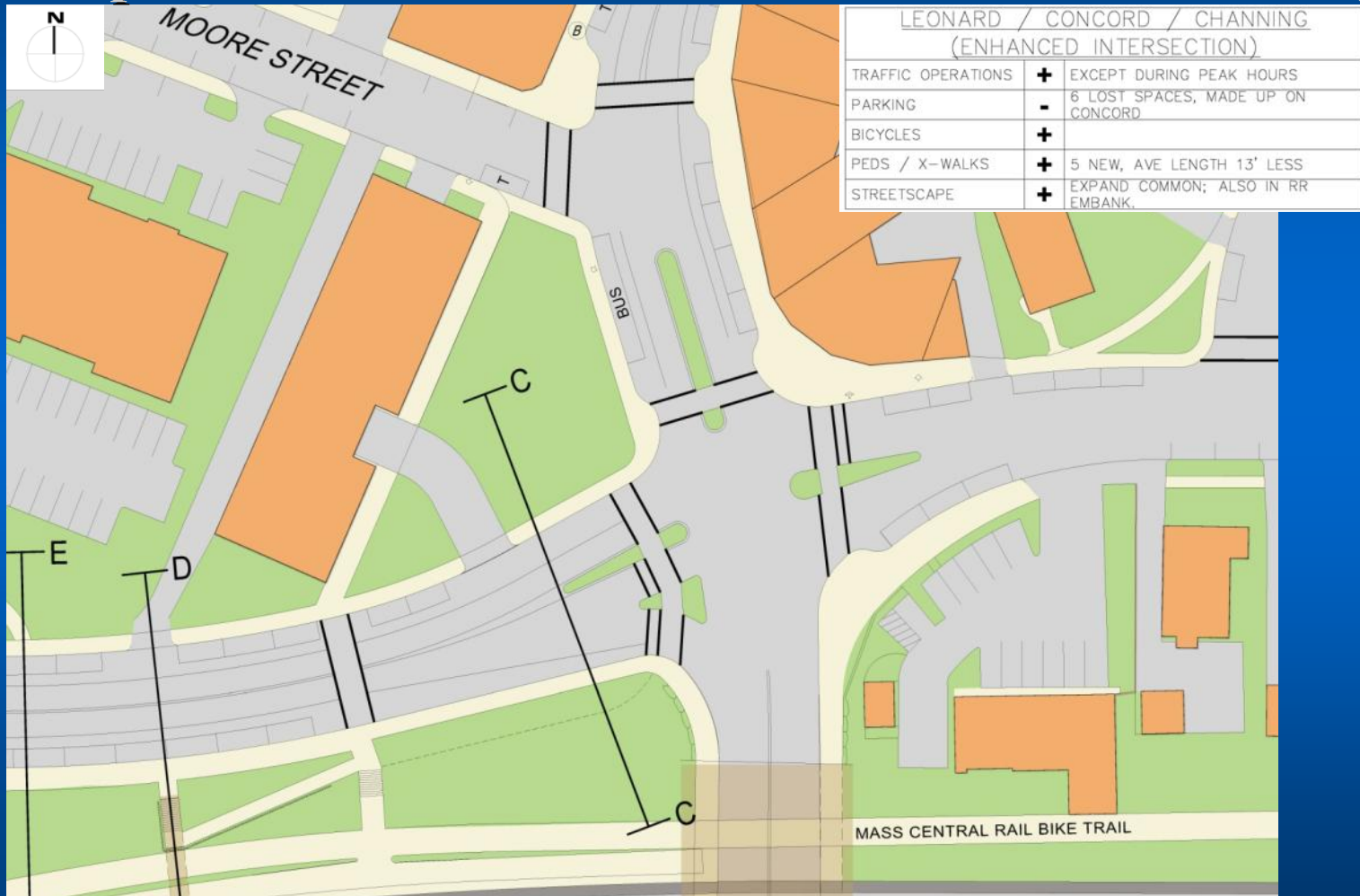
# Leonard St. / Concord Ave. / Channing Rd.

## Cross Section: at Railroad Embankment



# Leonard St. / Concord Ave. / Channing Rd.

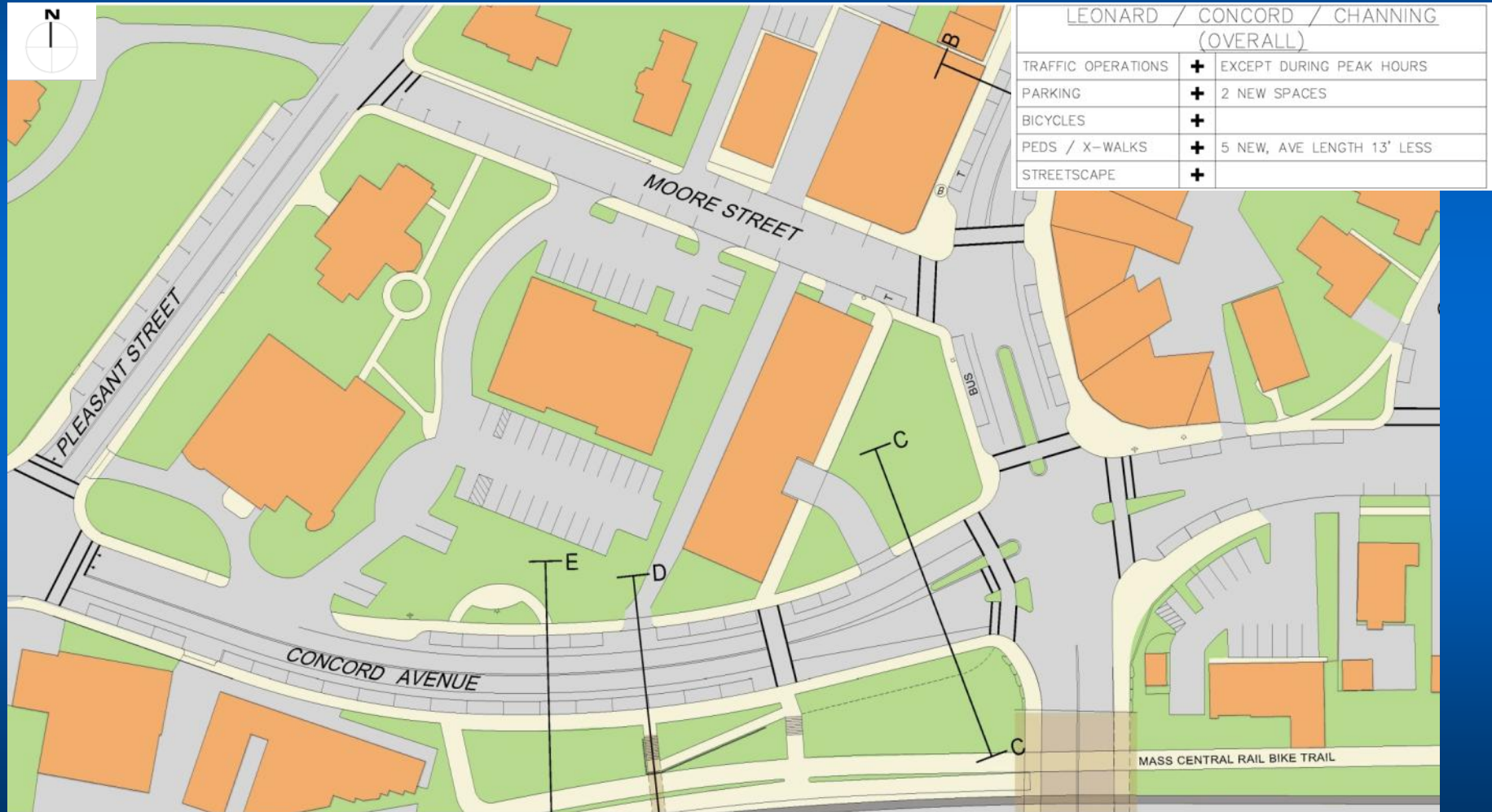
## Proposed Conditions: Enhanced Intersection Analysis





# Leonard St. / Concord Ave. / Channing Rd.

## Proposed Conditions: Enhanced Intersection Overall



# Leonard St. / Concord Ave. / Channing Rd.

## Proposed Conditions: Roundabout



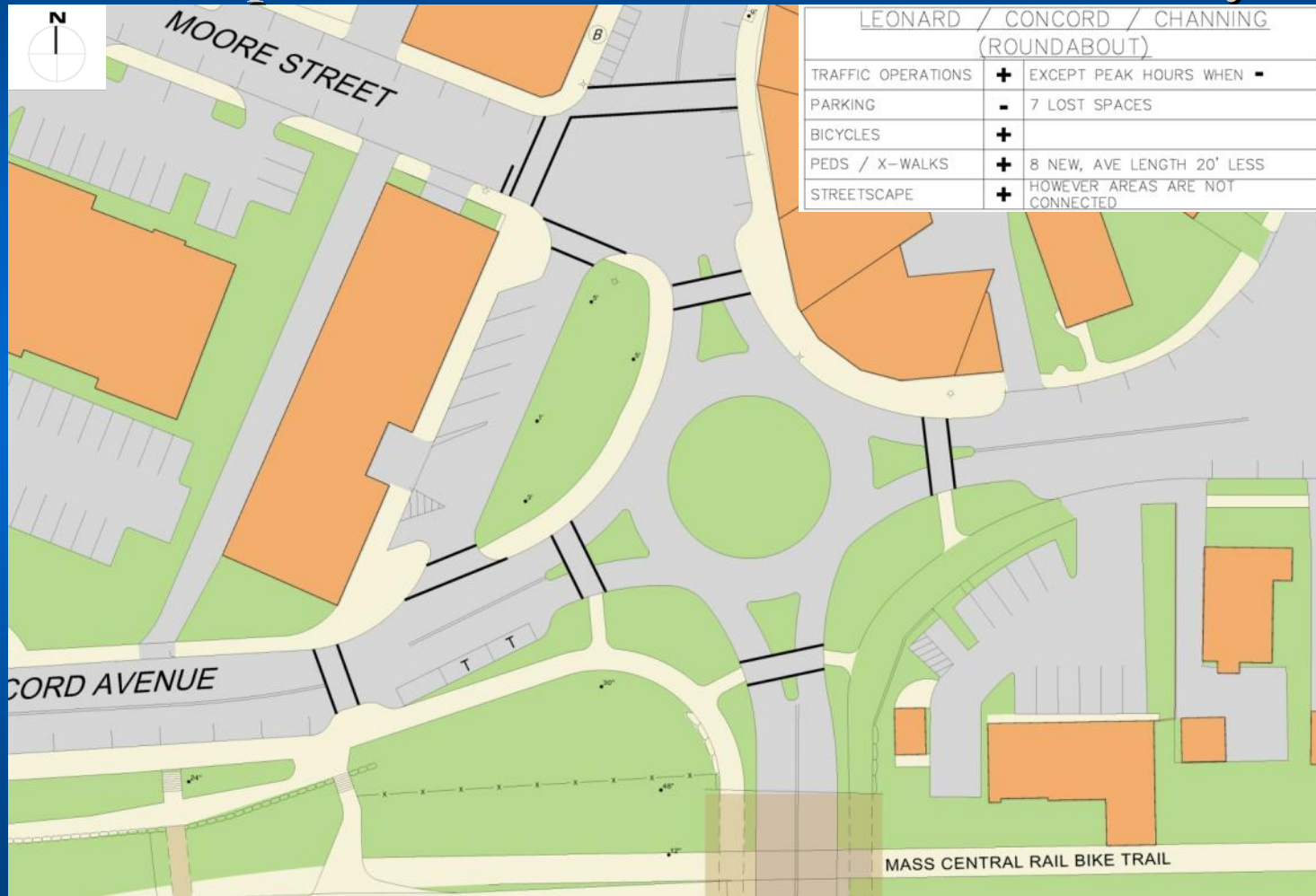
# Leonard St. / Concord Ave. / Channing Rd.

## Comparison with Blanchard/Washington/Grove

Total Volumes Entering Roundabout		
	<u>AM Peak Hour</u>	<u>PM Peak Hour</u>
Blanchard/Washington/Grove	1764	2179
Concord/Leonard/Channing	2918	2653
Change	+65%	+22%

# Leonard St. / Concord Ave. / Channing Rd.

## Proposed Conditions: Roundabout Analysis





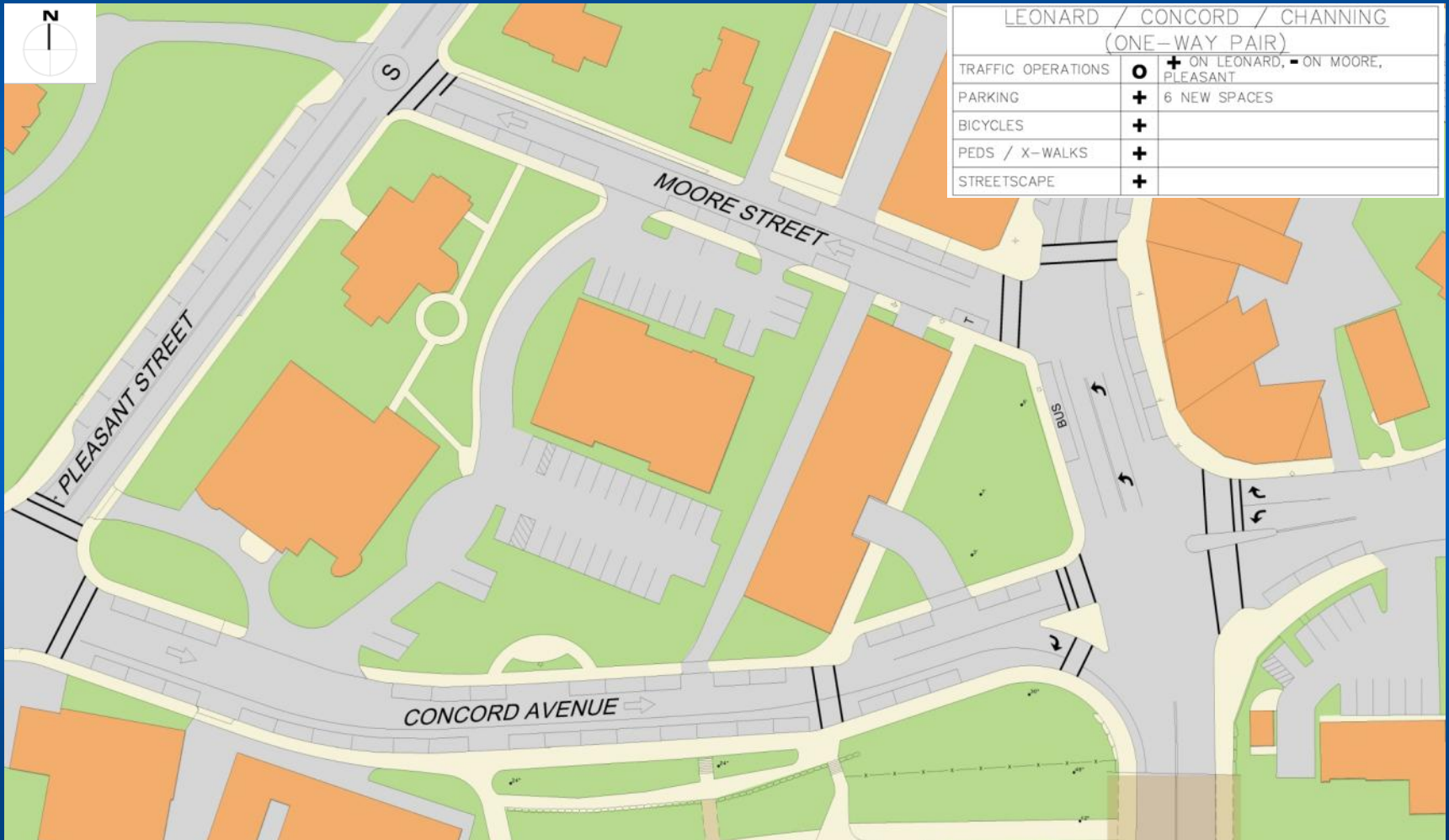
# Leonard St. / Concord Ave. / Channing Rd.

## Proposed Conditions: One-Way Pair



# Leonard St. / Concord Ave. / Channing Rd.

## Proposed Conditions: One-Way Pair



# Alexander Avenue / Claflin Street

## Bird's Eye





# Alexander Avenue / Claflin Street

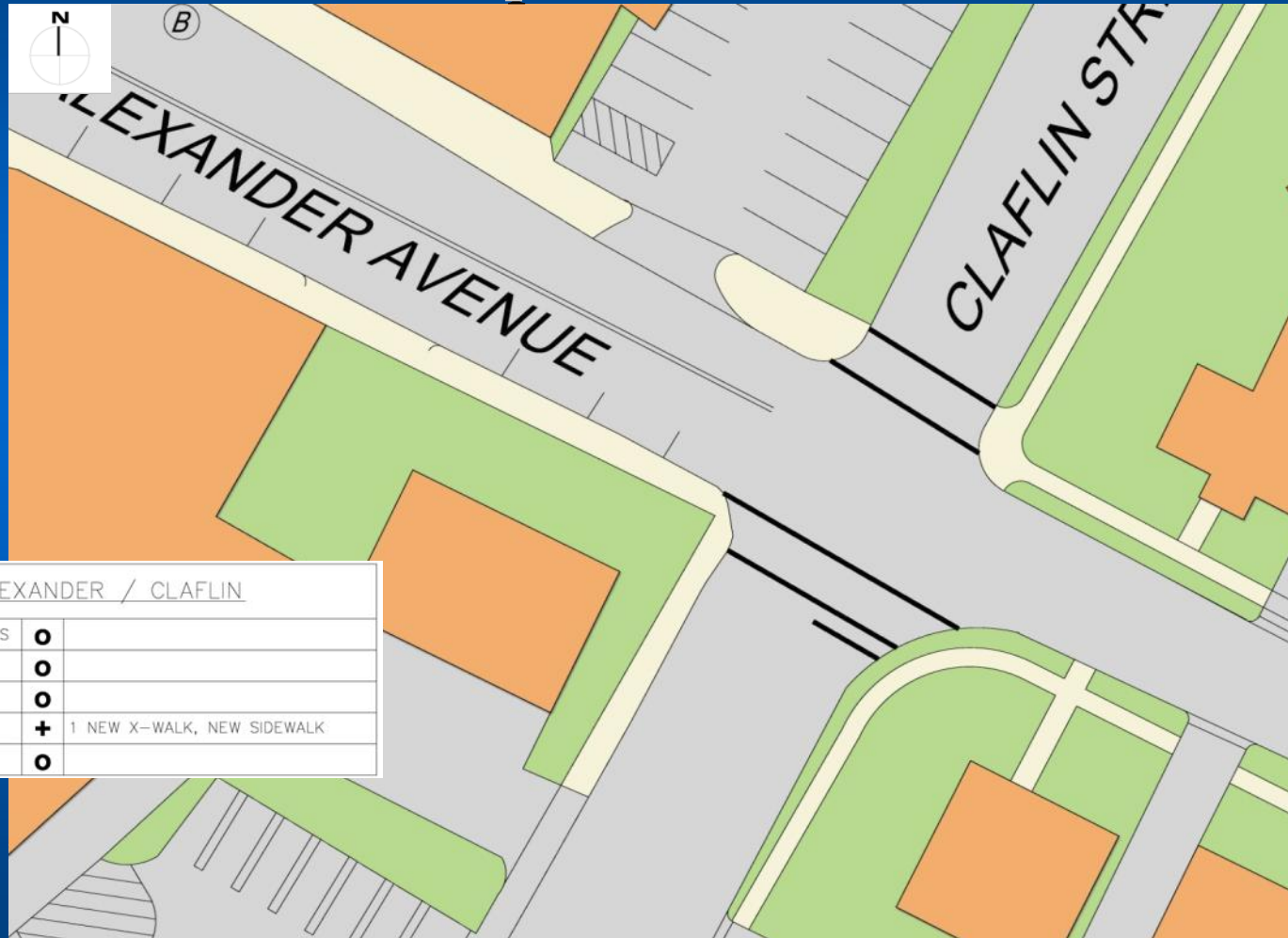
## Existing Conditions





# Alexander Avenue / Claflin Street

## Proposed Conditions



### ALEXANDER / CLAFLIN

TRAFFIC OPERATIONS	○	
PARKING	○	
BICYCLES	○	
PEDS / X-WALKS	+	1 NEW X-WALK, NEW SIDEWALK
STREETSCAPE	○	

# Channing Road / Claflin Street

## Bird's Eye



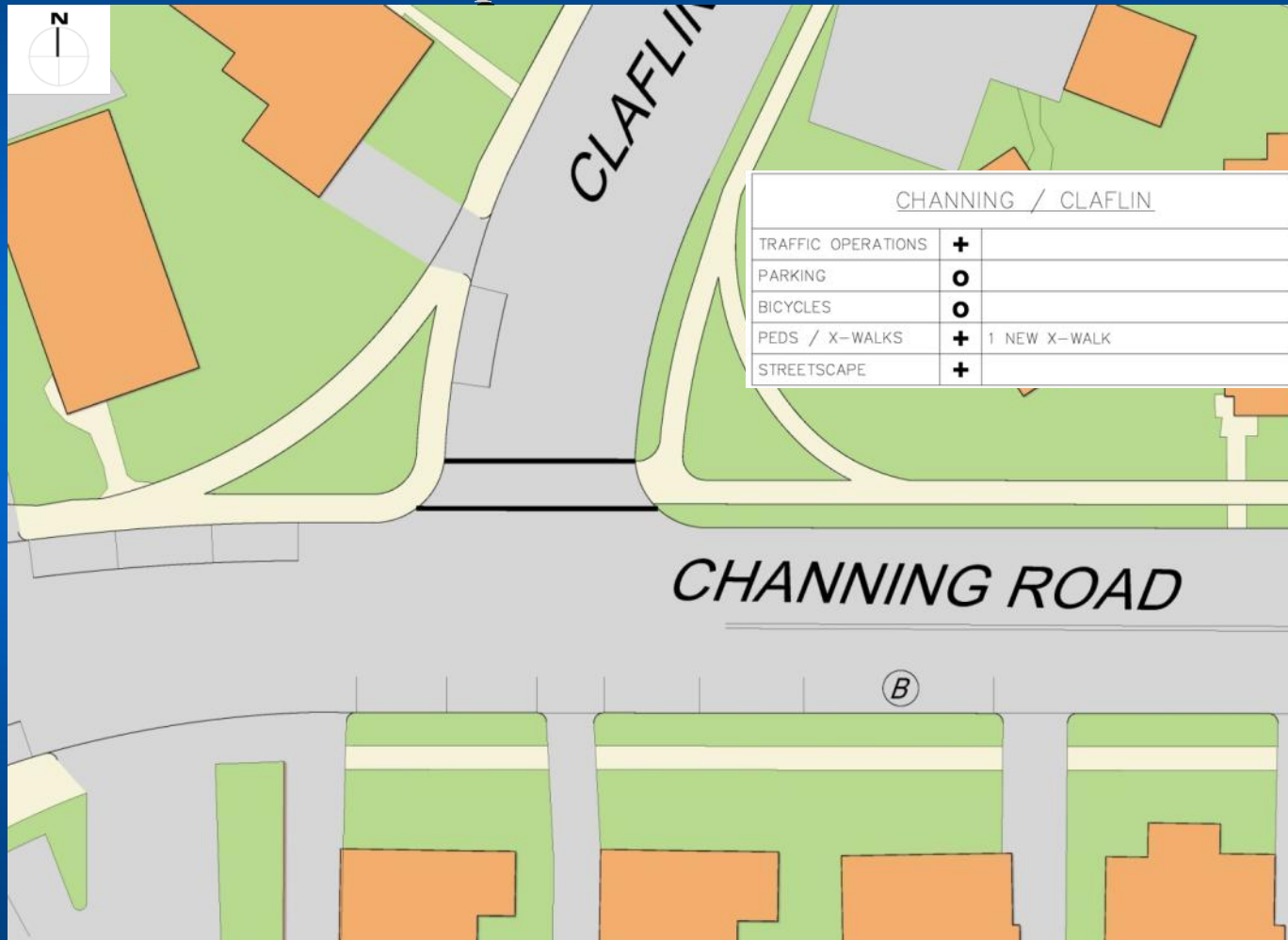
# Channing Road / Claflin Street

## Existing Conditions



# Channing Road / Claflin Street

## Proposed Conditions





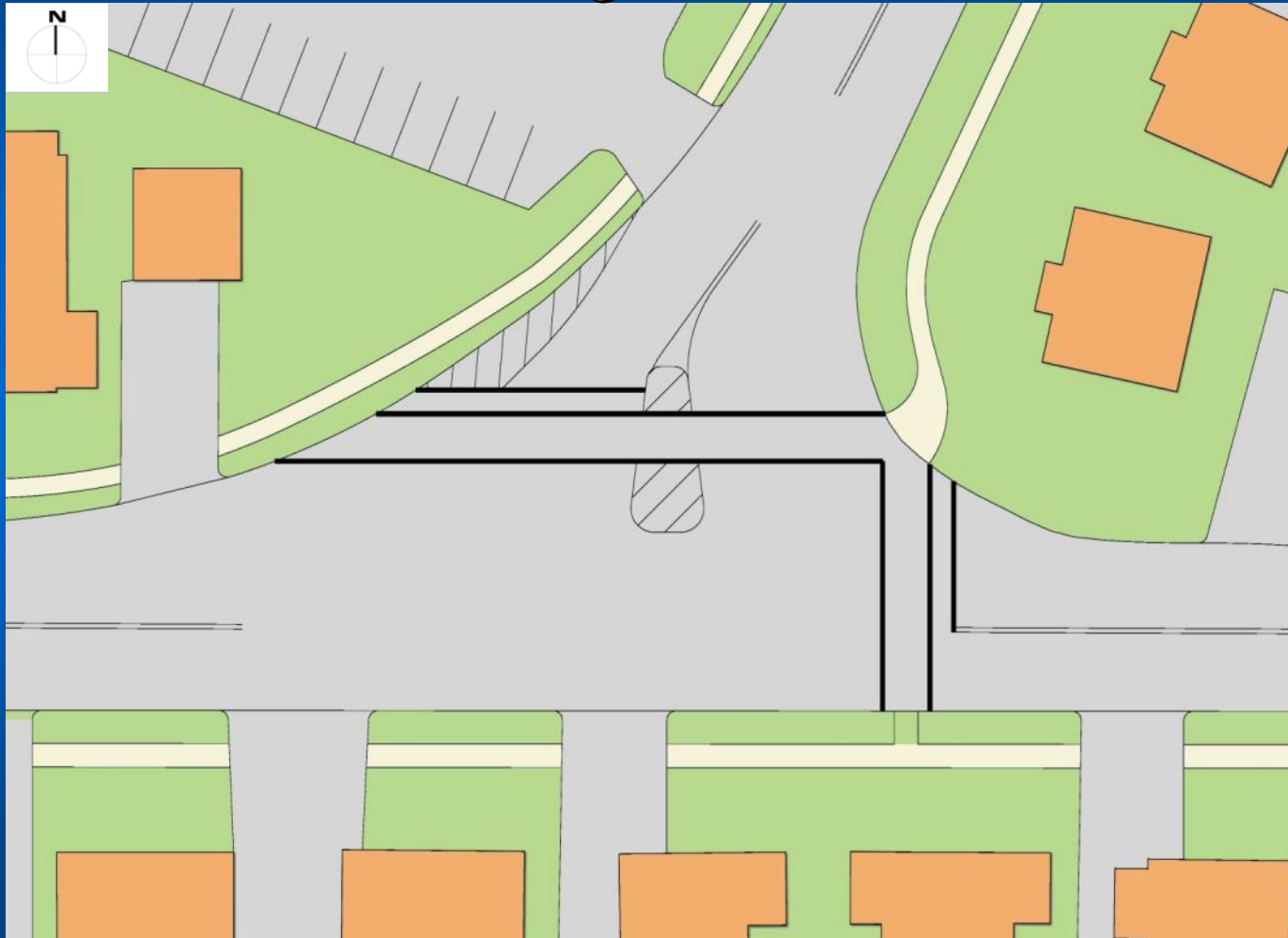
# Channing Road / Cross Street

## Bird's Eye



# Channing Road / Cross Street

## Existing Conditions



# Channing Road / Cross Street

## Proposed Conditions





# Alexander/Claflin, Channing/Claflin, & Channing/Cross Intersections



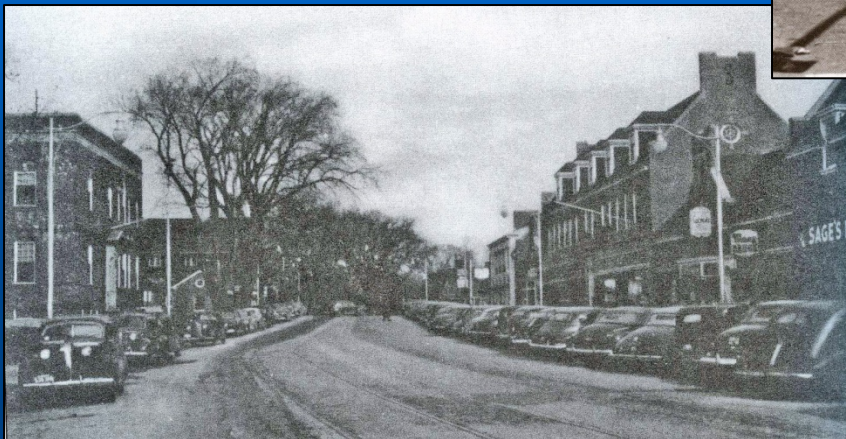
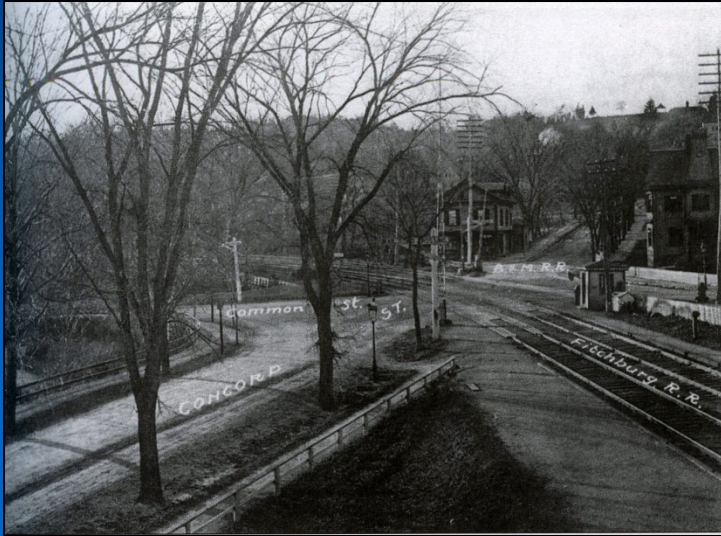


# Belmont Center Historic Streetscape



Image Courtesy of the Belmont Historical Society

# Belmont Center Historic Streetscape



Images Courtesy of the Belmont Historical Society



# Belmont Center Existing Streetscape



# Belmont Center Existing Streetscape





# Belmont Center Existing Streetscape



# Belmont Center Existing Streetscape





# Belmont Center Existing Streetscape



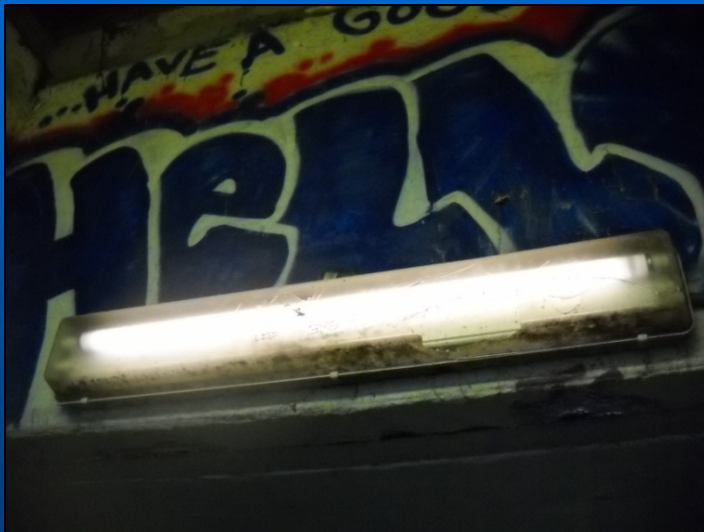


# Belmont Center Existing Streetscape





# Belmont Center Existing Streetscape



# Belmont Center Existing Streetscape





# Streetscape Concepts



# Streetscape Concepts





# Streetscape Concepts

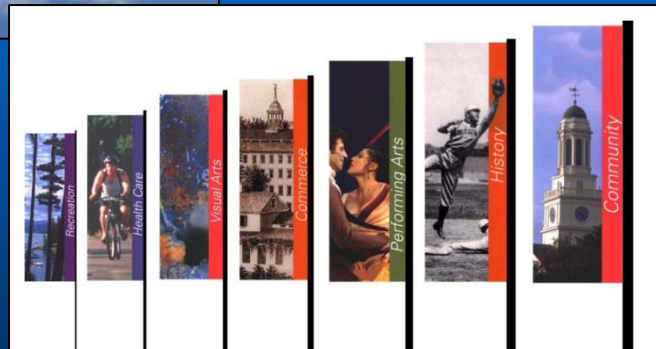


# Streetscape Lighting





# Streetscape Banners & Hanging Baskets



# Streetscape Furnishings





# Streetscape - Bollards

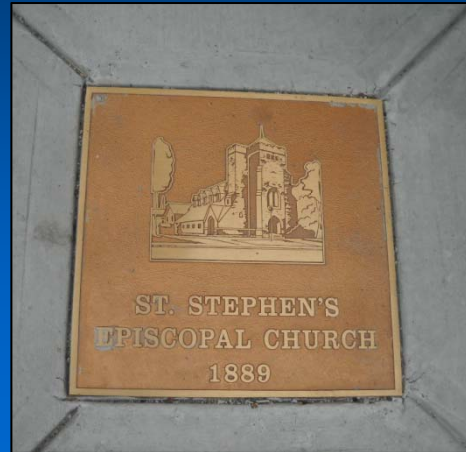


# Streetscape - Planters





# Streetscape Enhancements





# Streetscape Paving



# Concord Avenue / Common Street

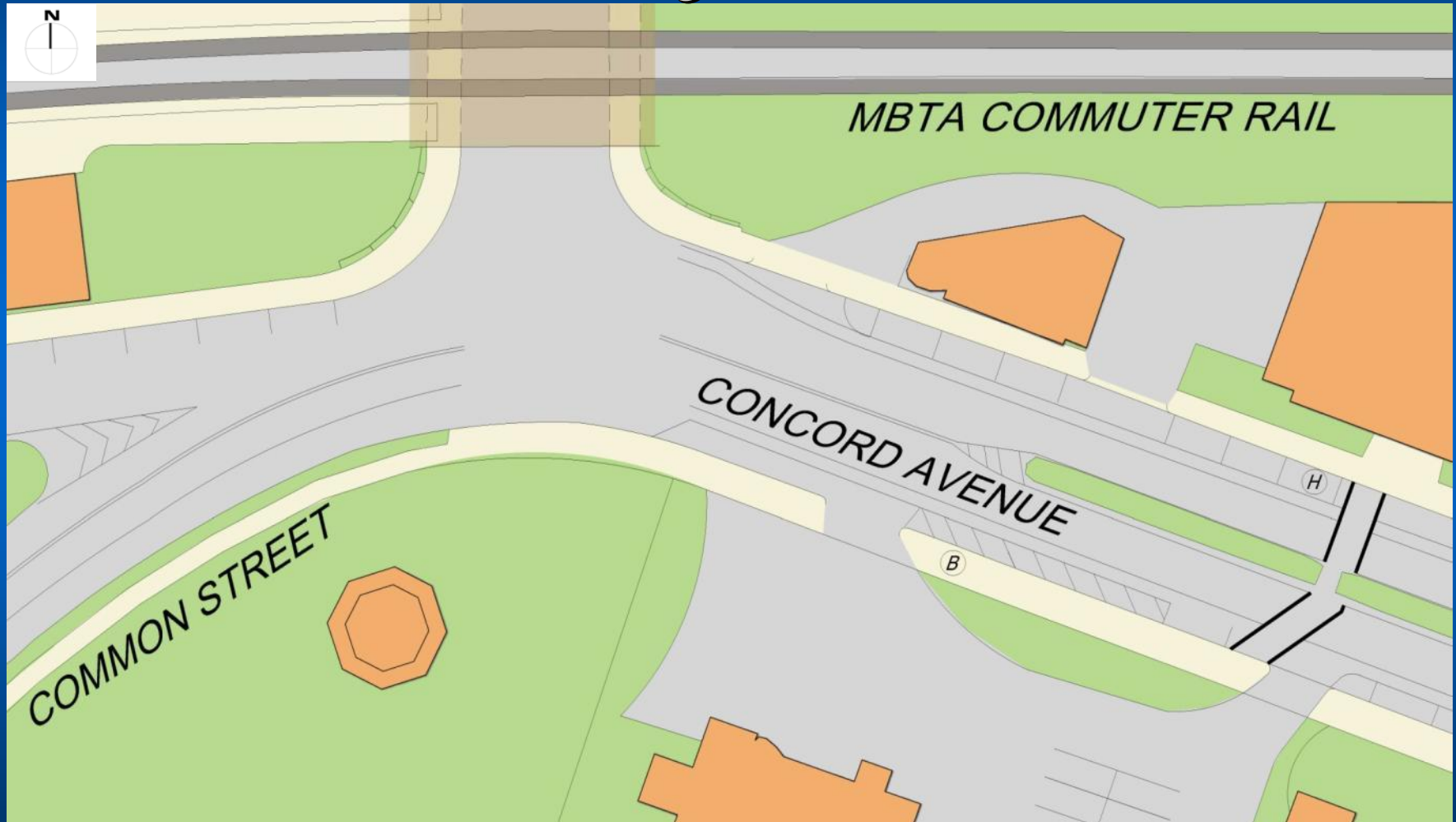
## Bird's Eye





# Concord Avenue / Common Street

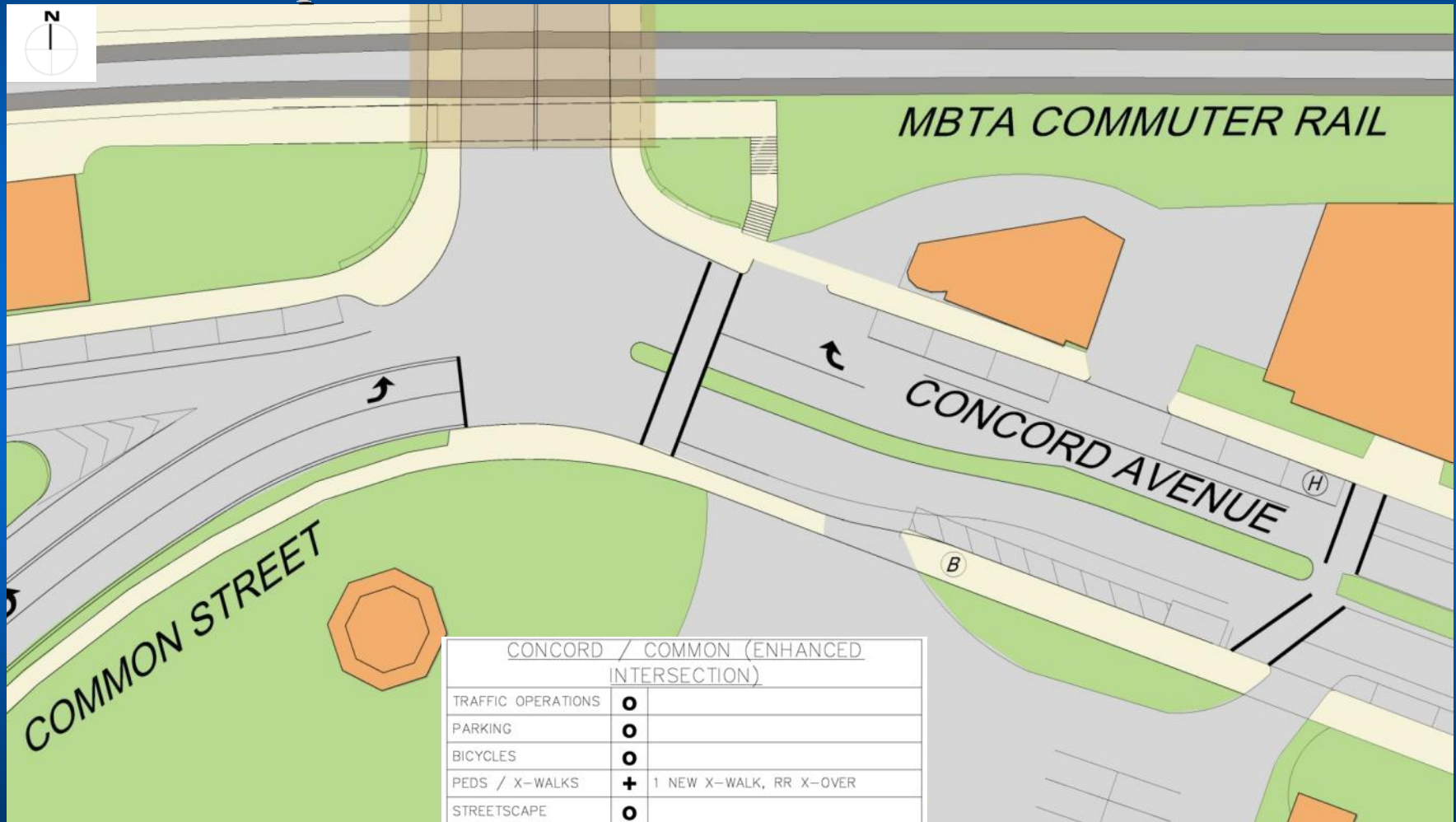
## Existing Conditions





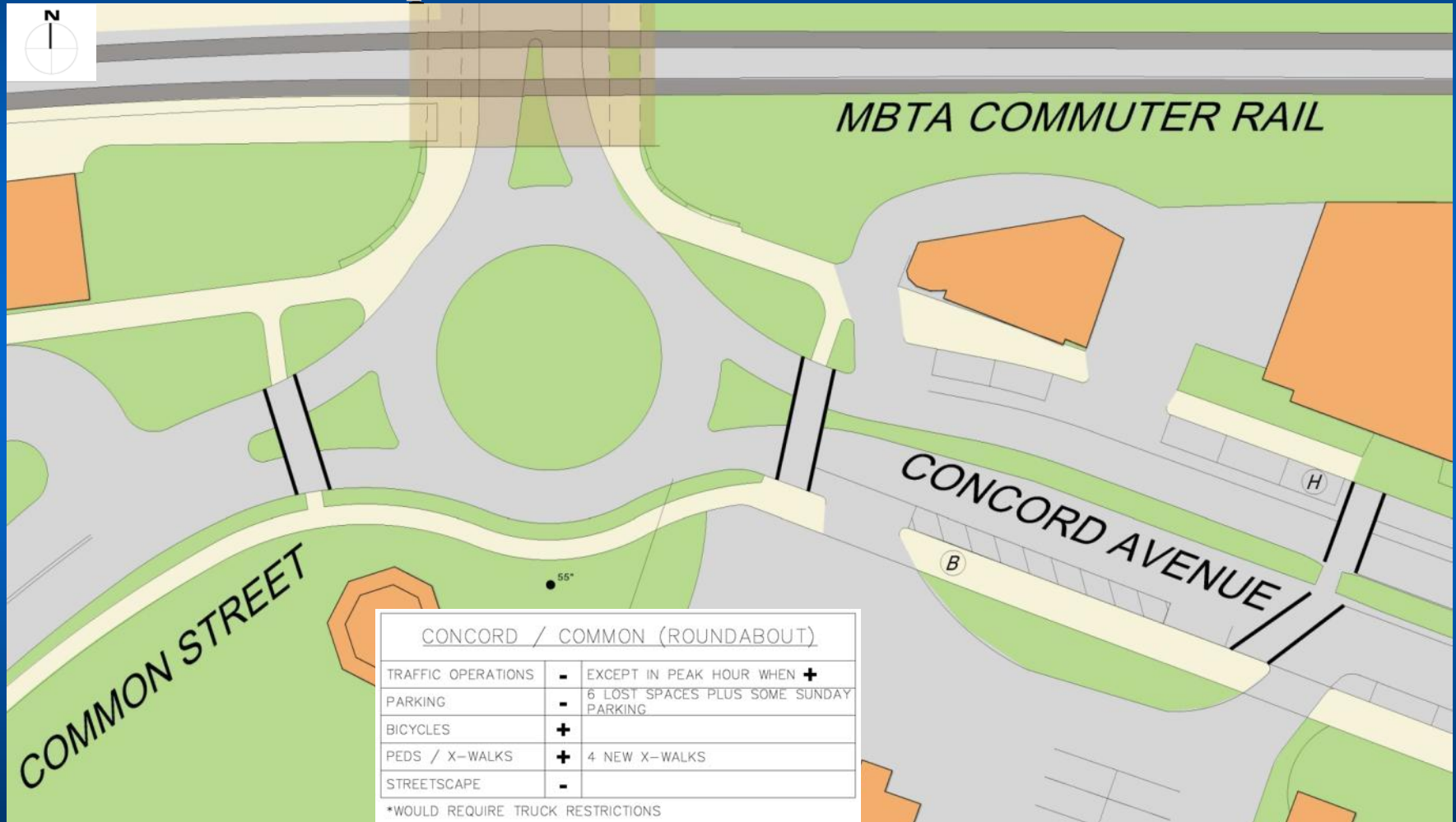
# Concord Avenue / Common Street

## Proposed Conditions: Enhanced Intersection



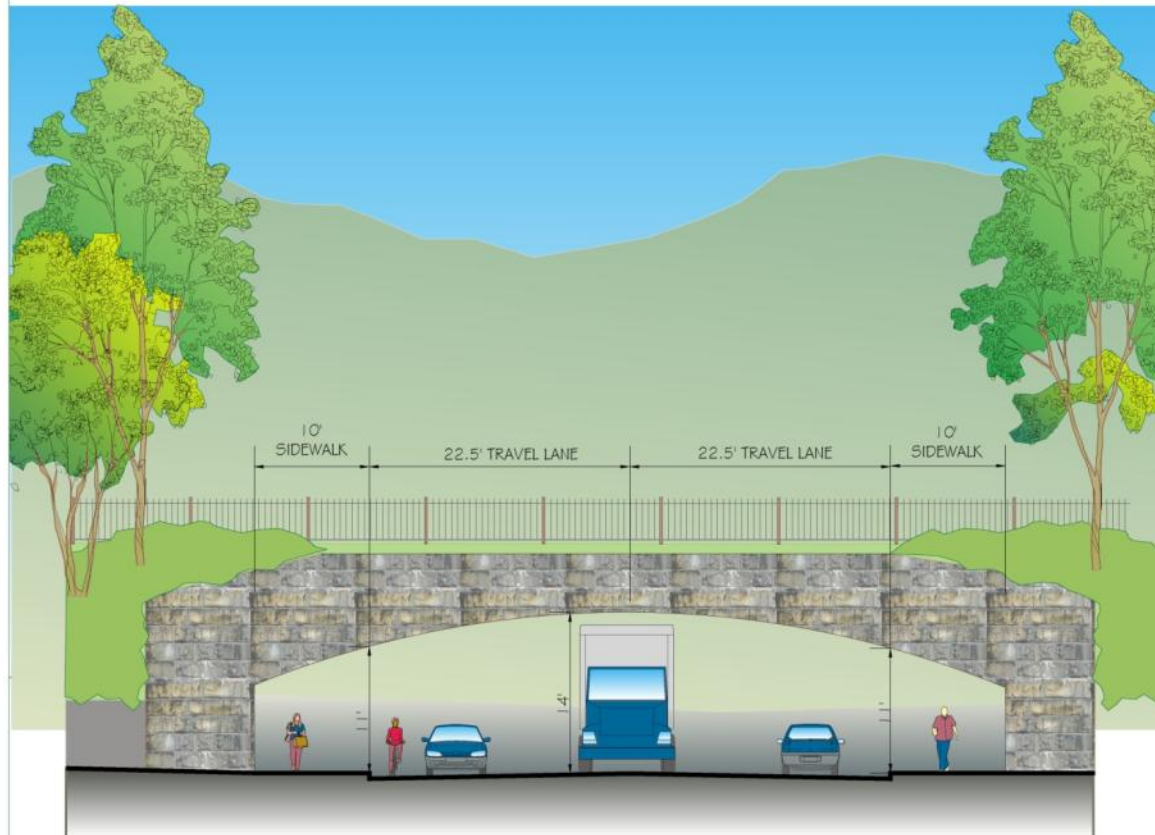
# Concord Avenue / Common Street

## Proposed Conditions: Roundabout



# Concord Avenue / Common Street

## Cross Section: Bridge

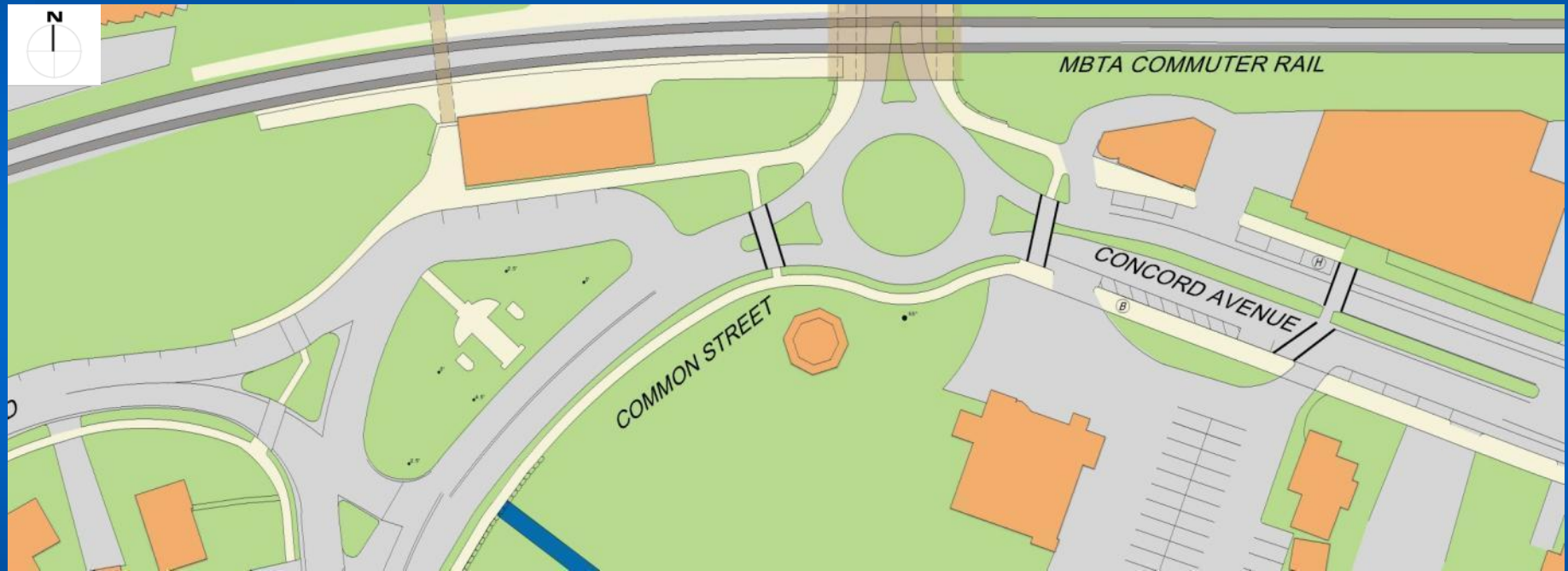


CONCORD AVENUE UNDER  
RAILROAD BRIDGE



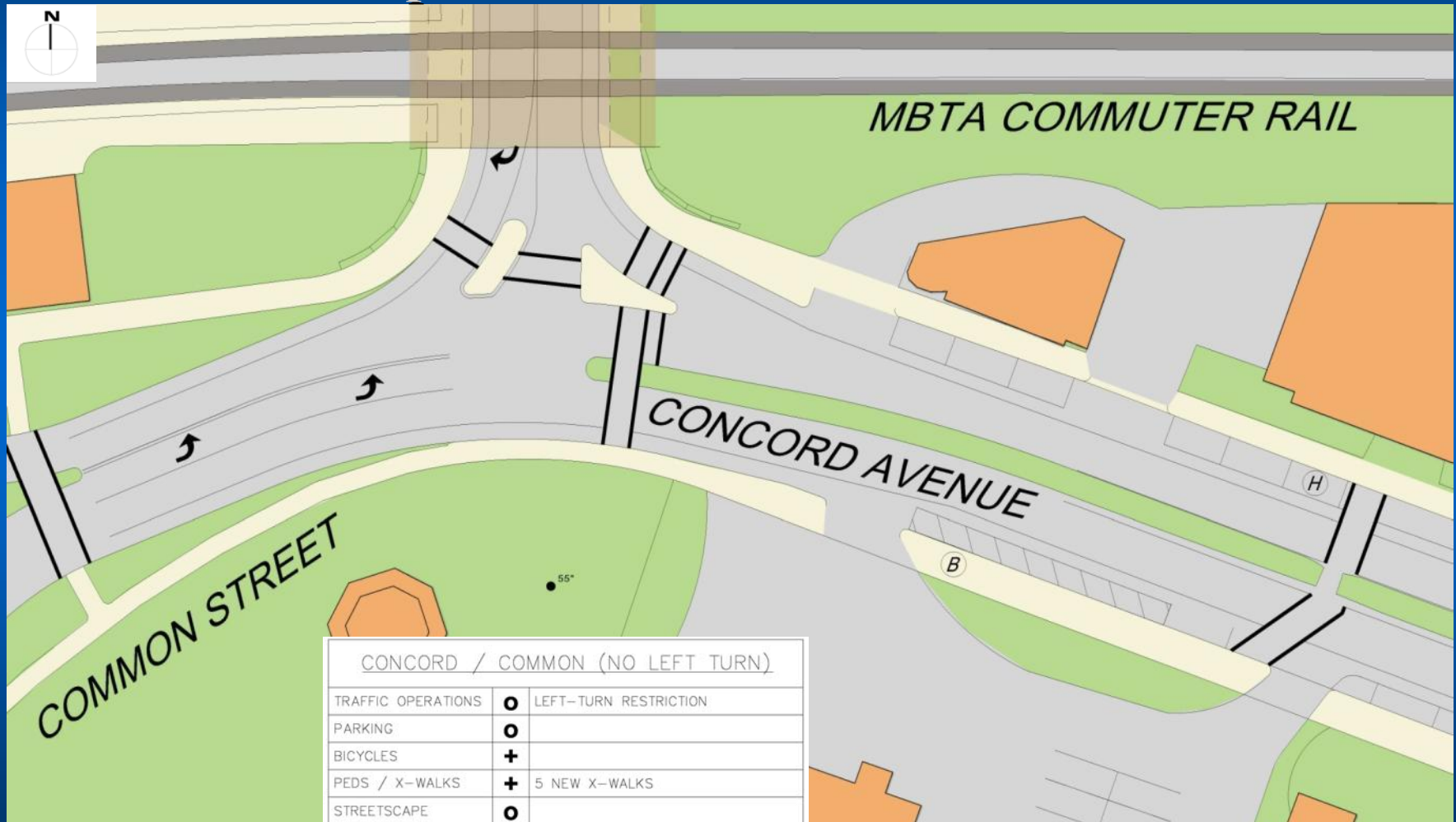
# Concord Avenue / Common Street

## Proposed Conditions: Roundabout - Overall



# Concord Avenue / Common Street

## Proposed Conditions: No Left Turn





# Common Street / Royal Road

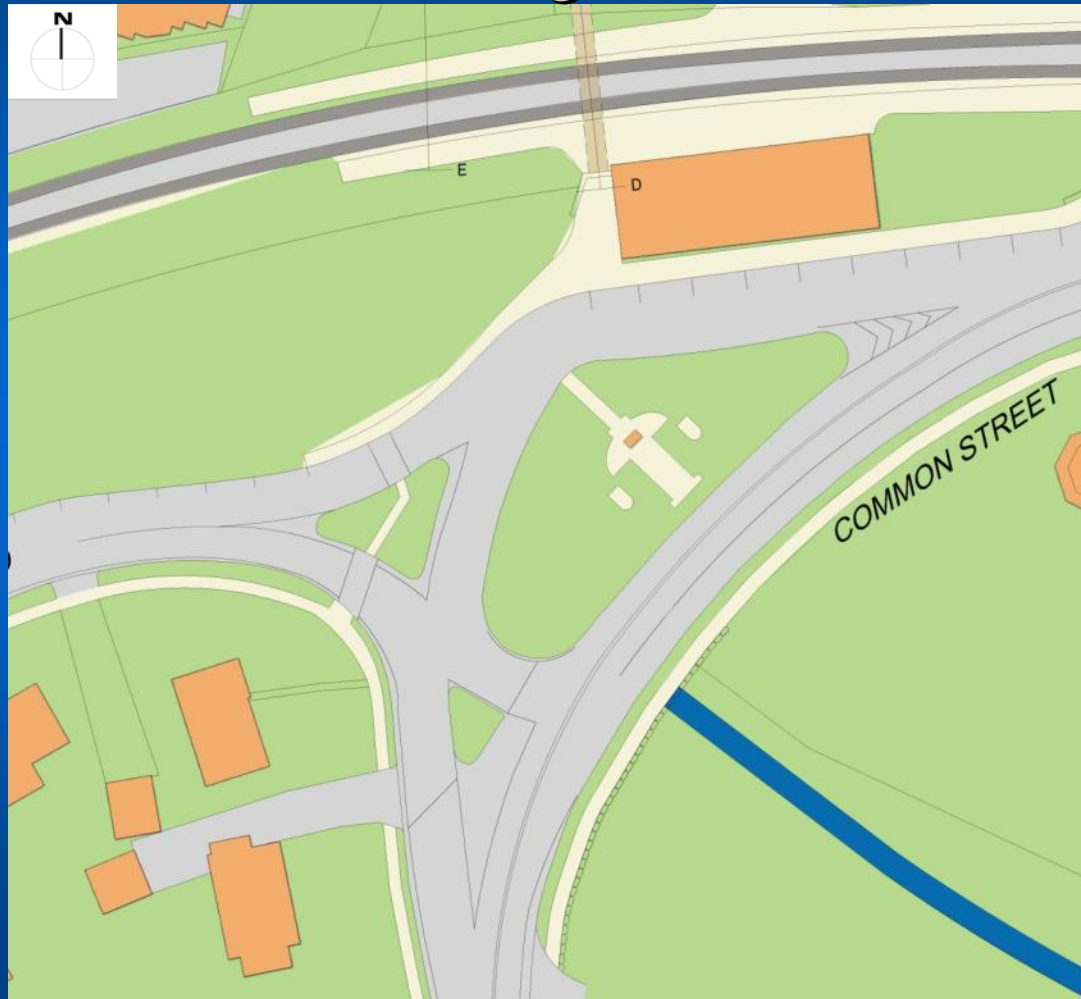
## Bird's Eye





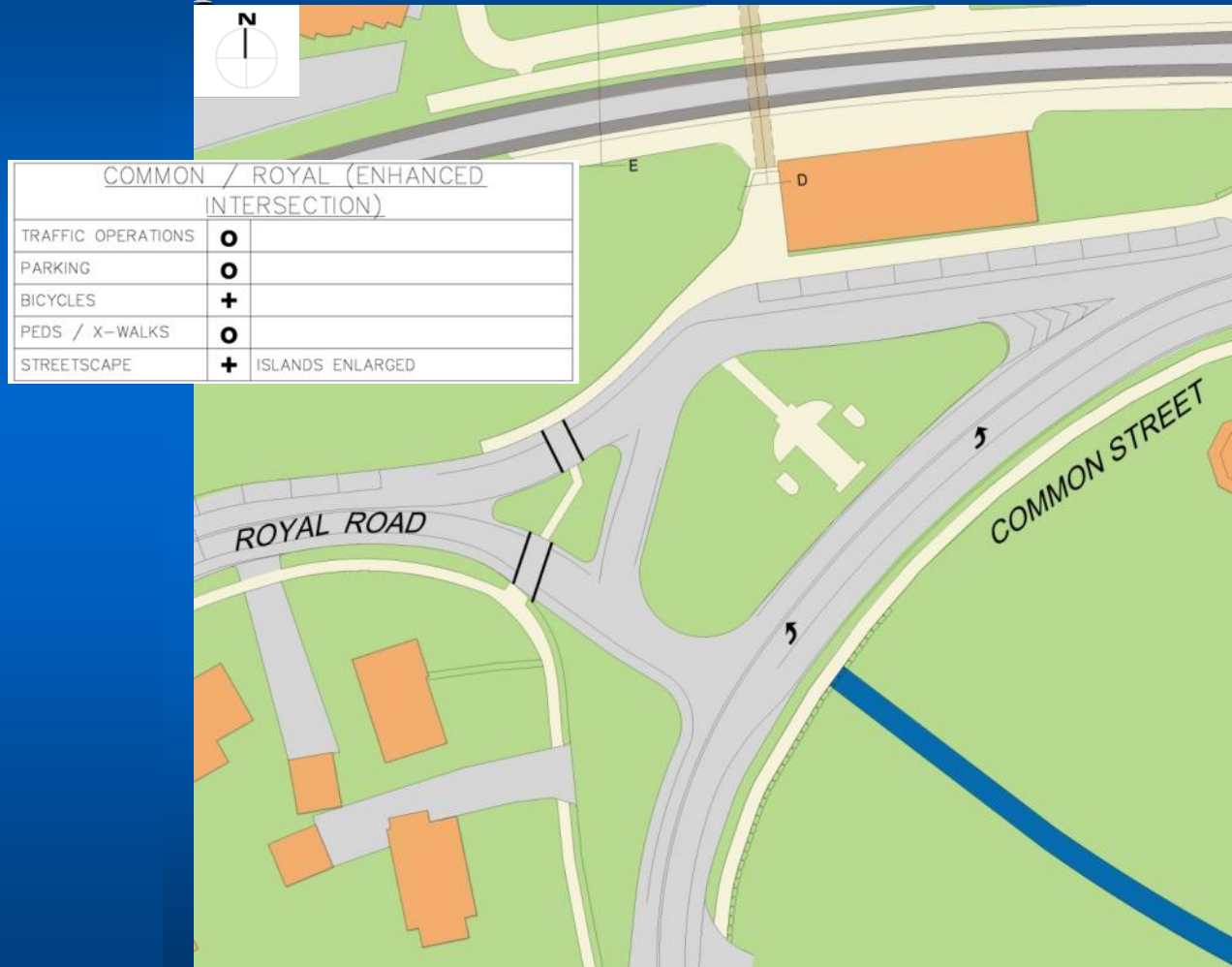
# Common Street / Royal Road

## Existing Conditions



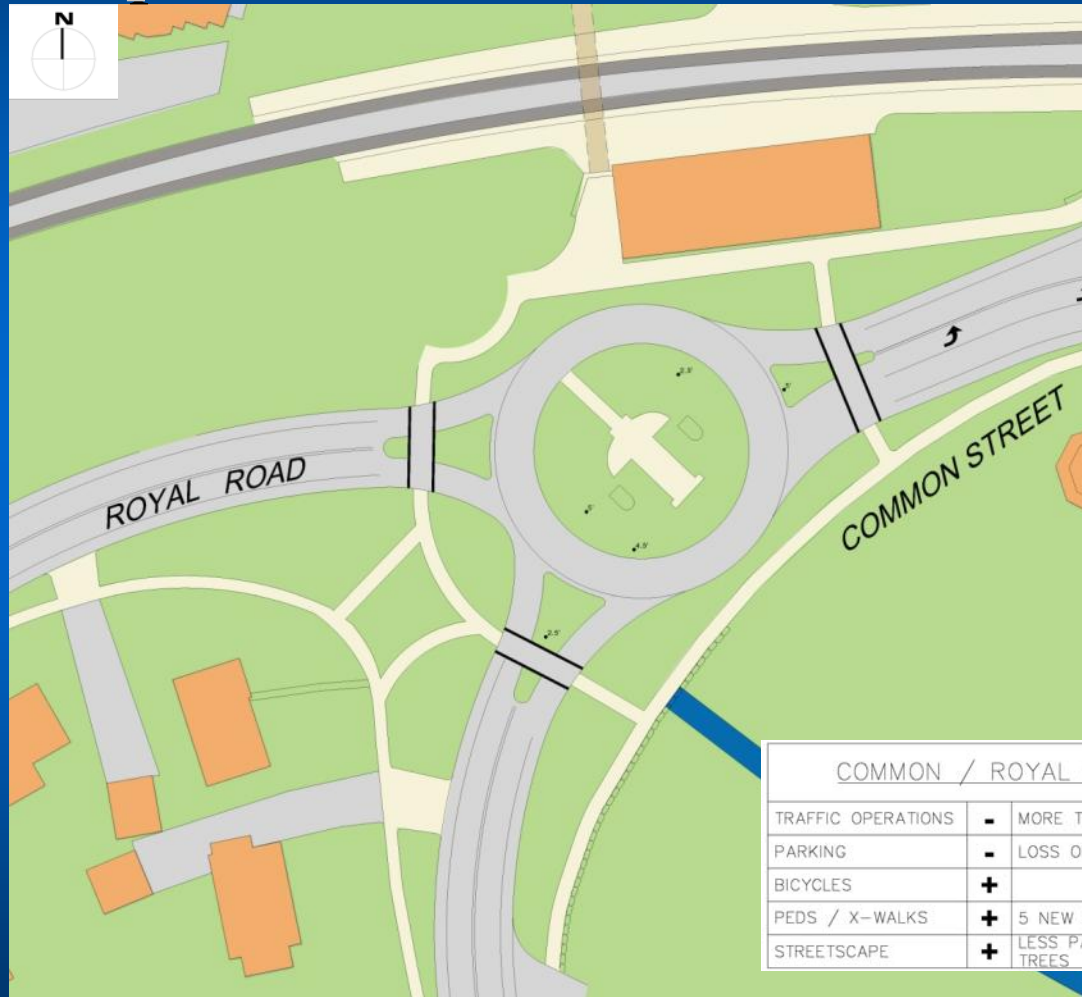
# Common Street / Royal Road

## Proposed Conditions: Enhanced Intersection



# Common Street / Royal Road

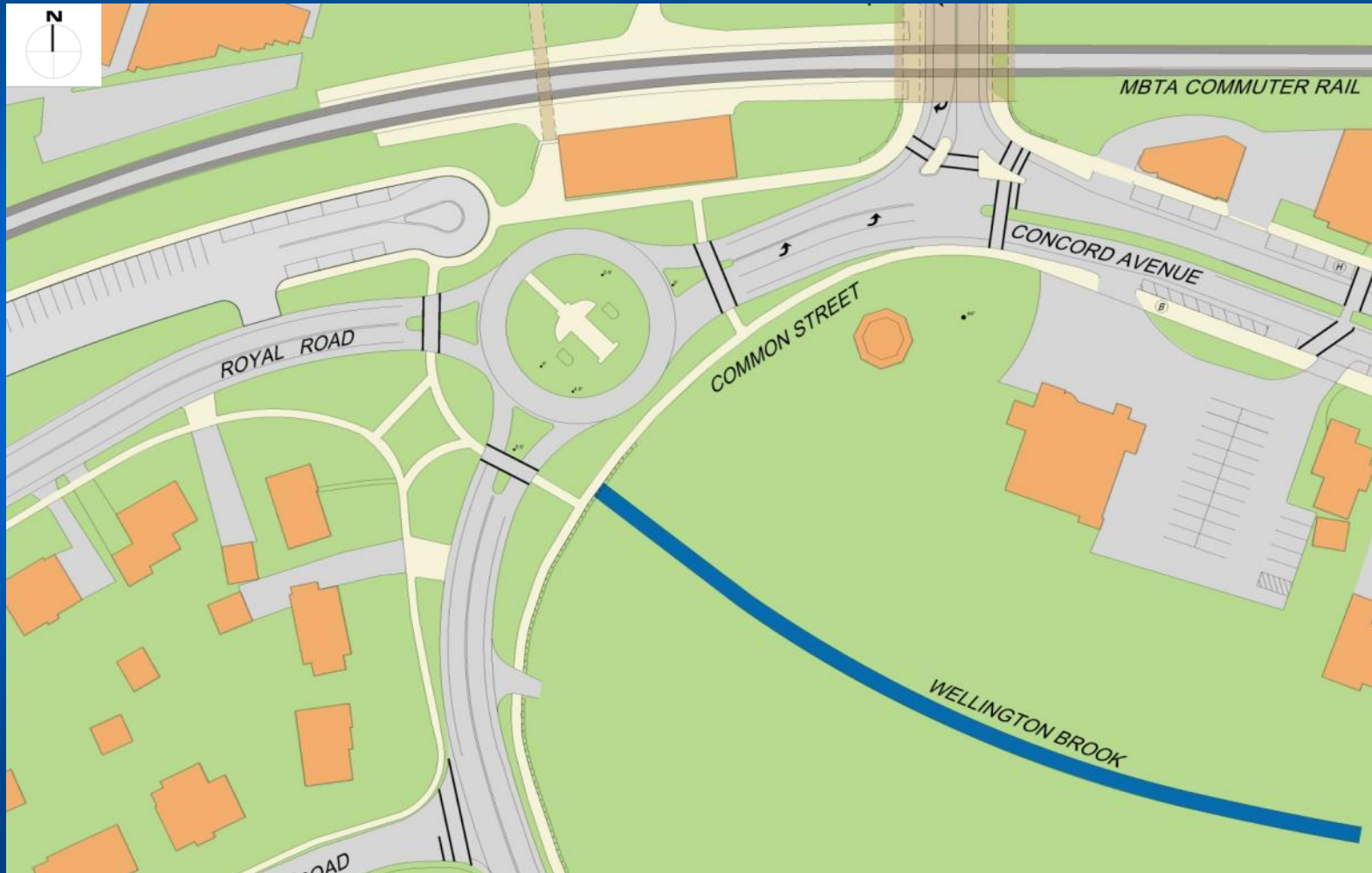
## Proposed Conditions: Roundabout





# Common Street / Royal Road

## Proposed Conditions: Roundabout – Overall



# Discussion