



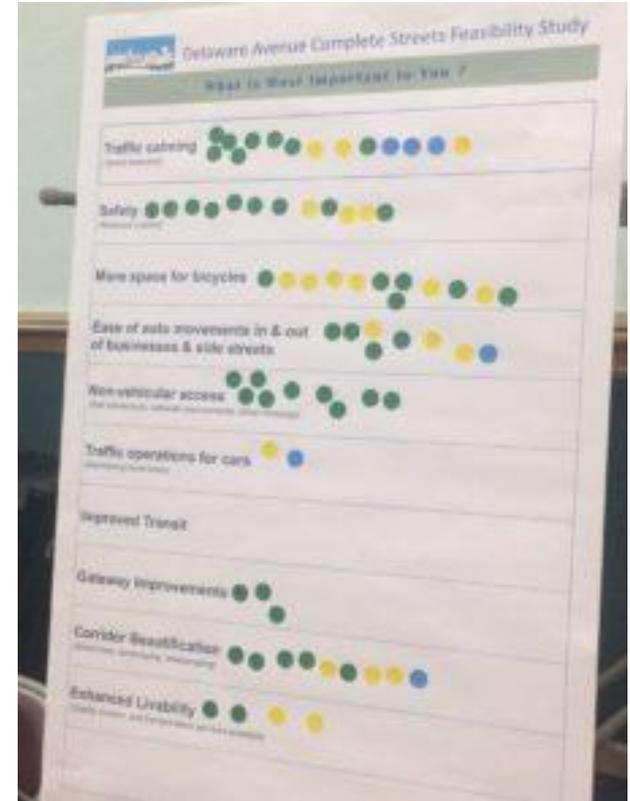
Capital District  
Transportation  
Committee



# Delaware Avenue Complete Streets

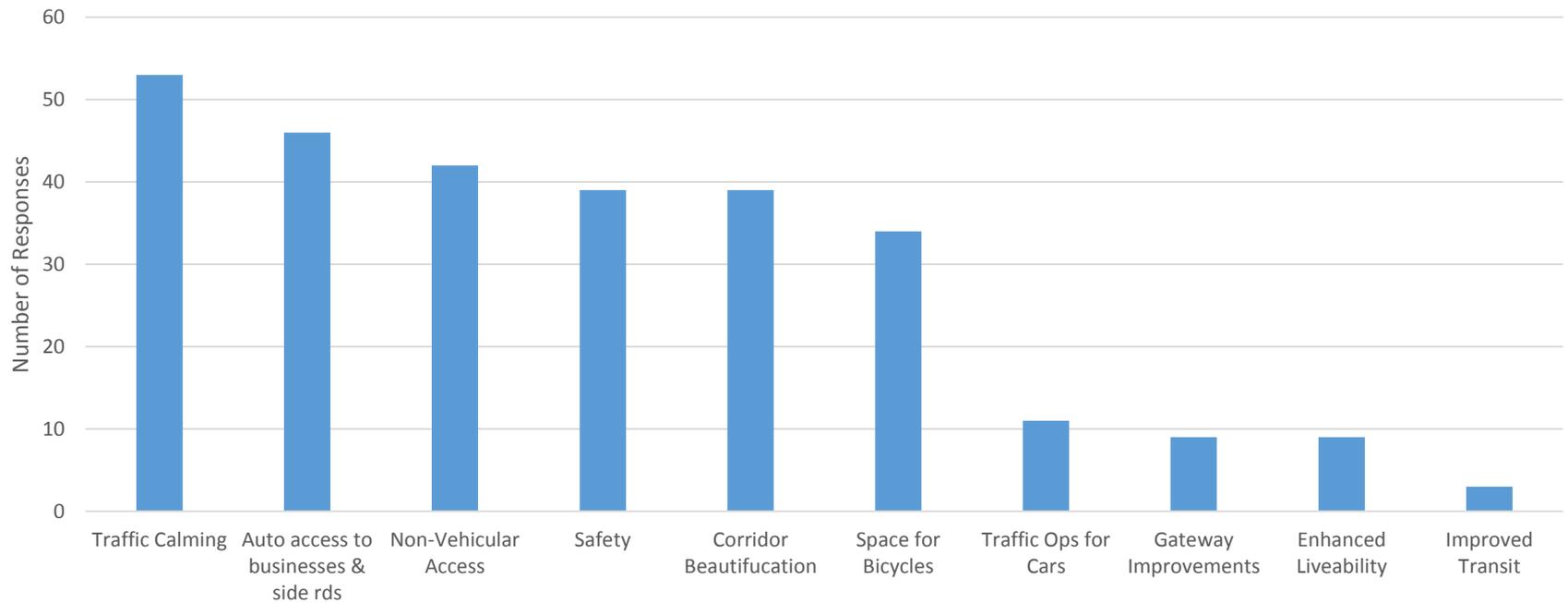
## FEASIBILITY STUDY

# Public Meeting Recap



# What is Most Important to You?

Delaware Avenue Complete Streets Feasibility Study  
What is Most Important to You?



# Five Alternatives

- A** Null
- B** Full Road diet (1-1-1)
- C** Half corridor road diet
- D** 1-1-2 Eastbound
- E** Westbound 2-1-1

# Would you be willing to exchange...

- Up to 50 seconds of travel time during the peak commute

for

- Traffic calming on Delaware Avenue, fewer crashes, better access for left turns, a more comfortable pedestrian environment, greater separation between cars and the sidewalk, improved pedestrian crossings, and space for bicycles?



# Existing – Null Alternative

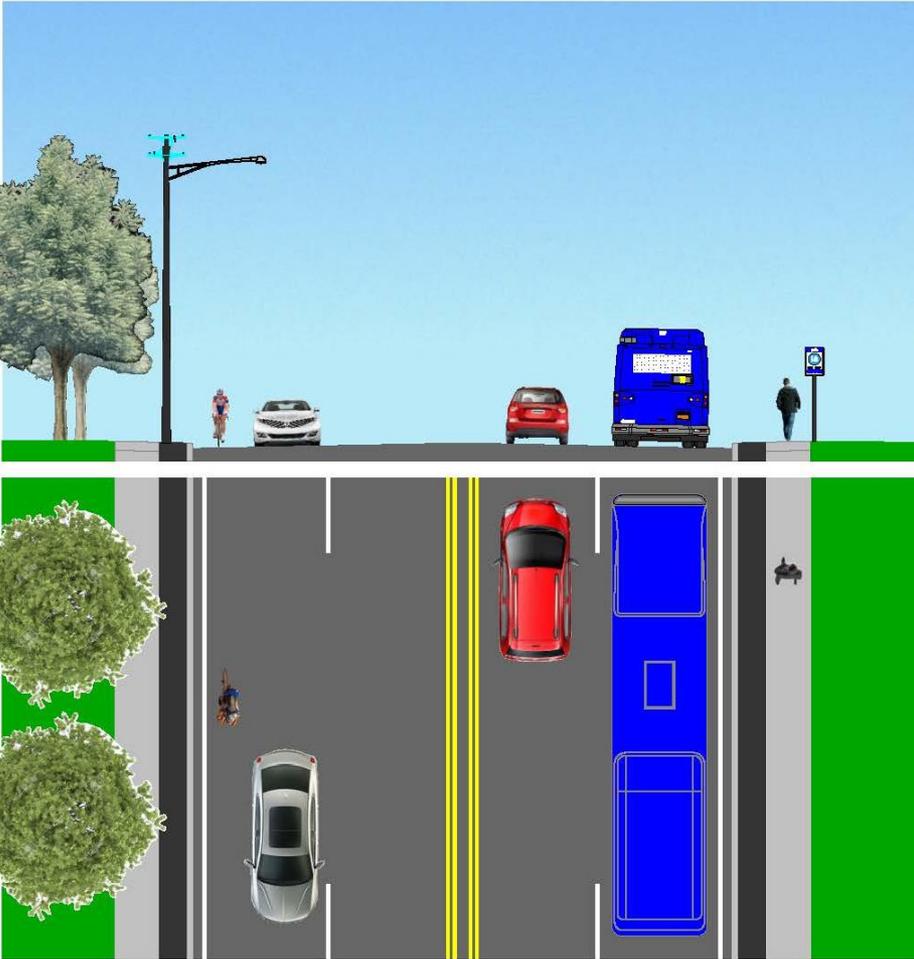


- Pros

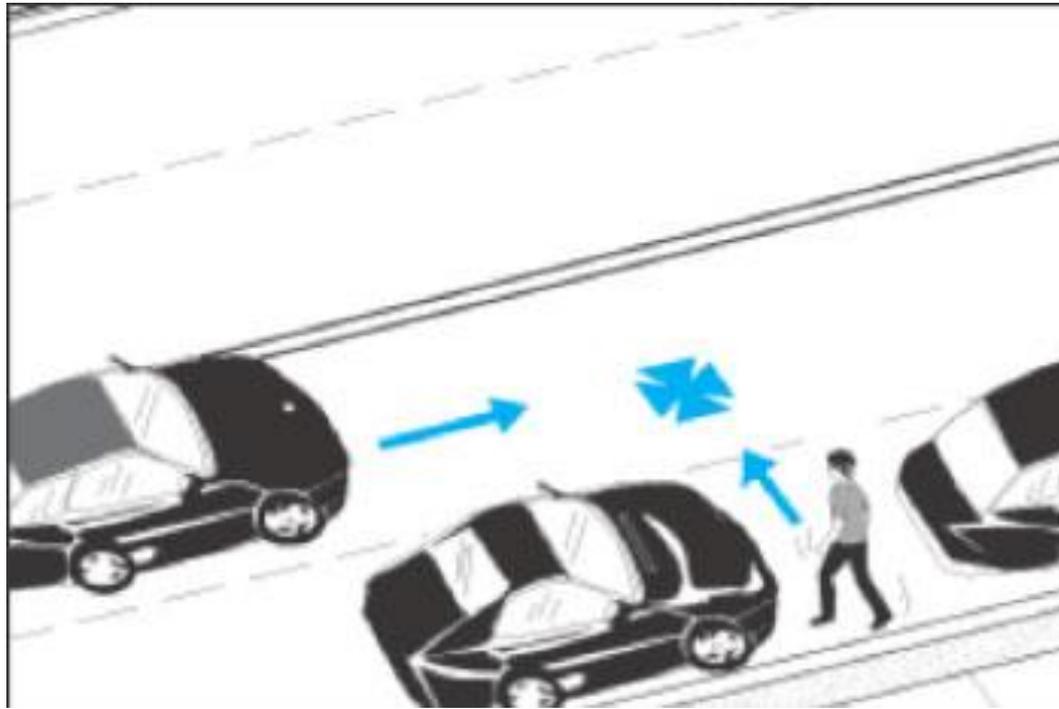
- Maintains current traffic operations
- No cost

- Cons

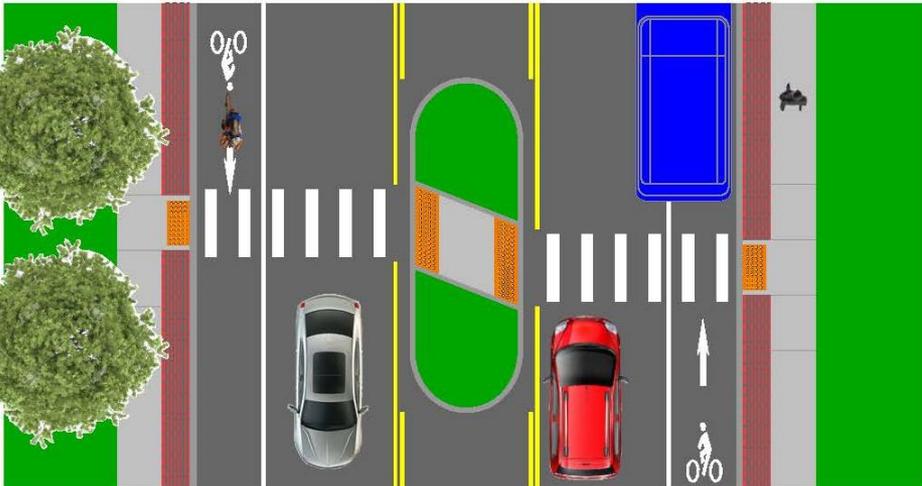
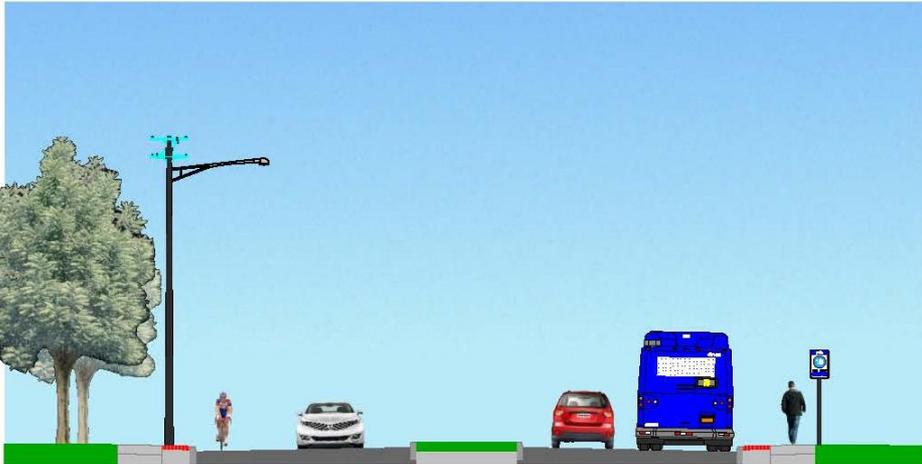
- High crash rate
- Difficult crossing for pedestrians
  - » Multi-threat
- Poor bike accommodation
- Left turn challenge



# Multi-threat



# Full Road Diet (1-1-1)



## • Pros

- Traffic calming
- Improved safety
- Improved bike accommodation
- Improved pedestrian crossing accommodation
- Improved access to/from unsignalized side streets and businesses

## • Cons

- Some traffic diversions (3 to 4 %)
  - » Peak hour only
- Increased peak hour signal delay
  - » +15 to 50 seconds (AM)
- Increased corridor travel times - PM Peak end to end
  - » + 45 seconds each way

# Half Corridor Road Diet

(Delaware Plaza to Normanskill Bridge)



## • Pros

- Maintains traffic operations - Elsmere to Plaza.
- Improved safety, traffic calming bike accommodation and pedestrian crossing accommodation in road dieted section
- Improved access to/from unsignalized side streets and businesses – road dieted section

## • Cons

- High crash rate Elsmere to Plaza
- Multi-threat Elsmere to Plaza
- Lack of bike lane and pedestrian crossing accommodation Elsmere to Plaza

# 1-1-2 Eastbound



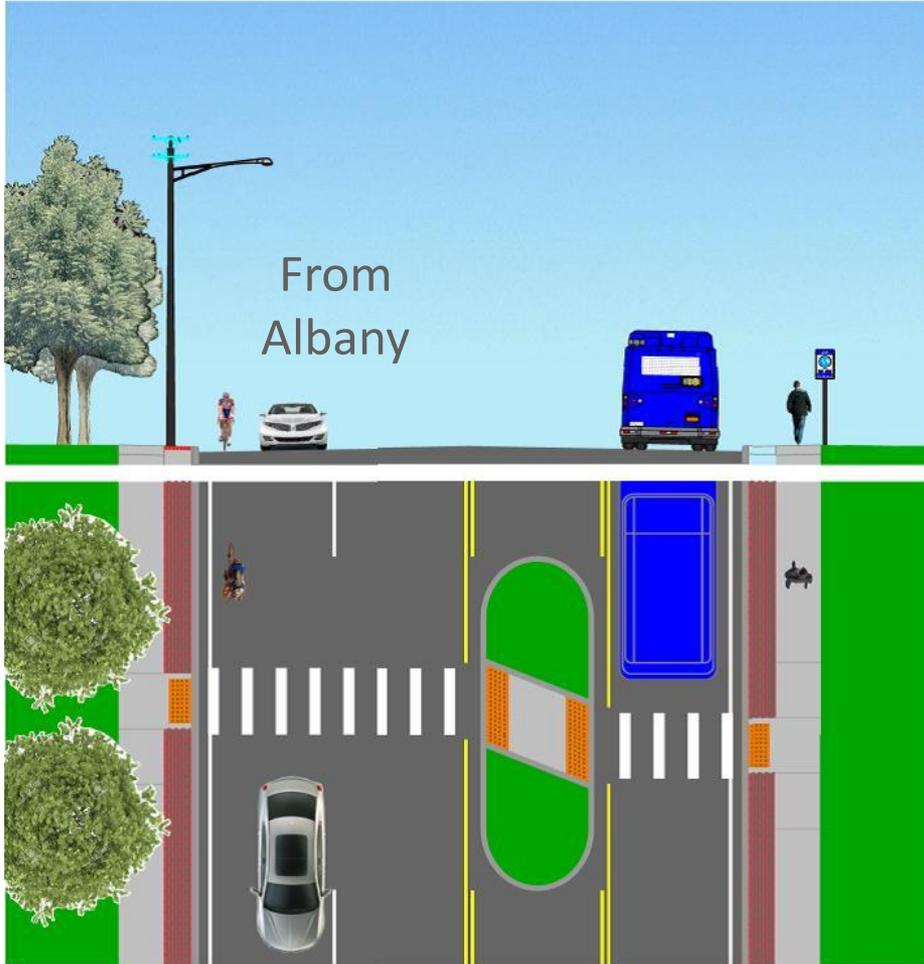
## • Pros

- Ties into existing conditions / Enhancements project at Elsmere
- Some safety and traffic calming benefits
- Improved ped crossing opportunities

## • Cons

- Lack of bike lane Elsmere to Plaza
- Multi-threat in one direction
- Travel time increase
  - » + 45 seconds WB, + 15 seconds EB

# Westbound 2-1-1



## • Pros

- Good PM peak hour traffic operations
- Some safety and traffic calming benefits
- Improved ped crossing opportunities

## • Cons

- Lack of bike lane Elsmere to Plaza
- Multi-threat in one direction
- Travel time increase
  - » + 15 seconds WB, + 45 seconds EB



Safety

# Crashes Reduced (5 years)

- 213 Crashes (2011 to 2015)

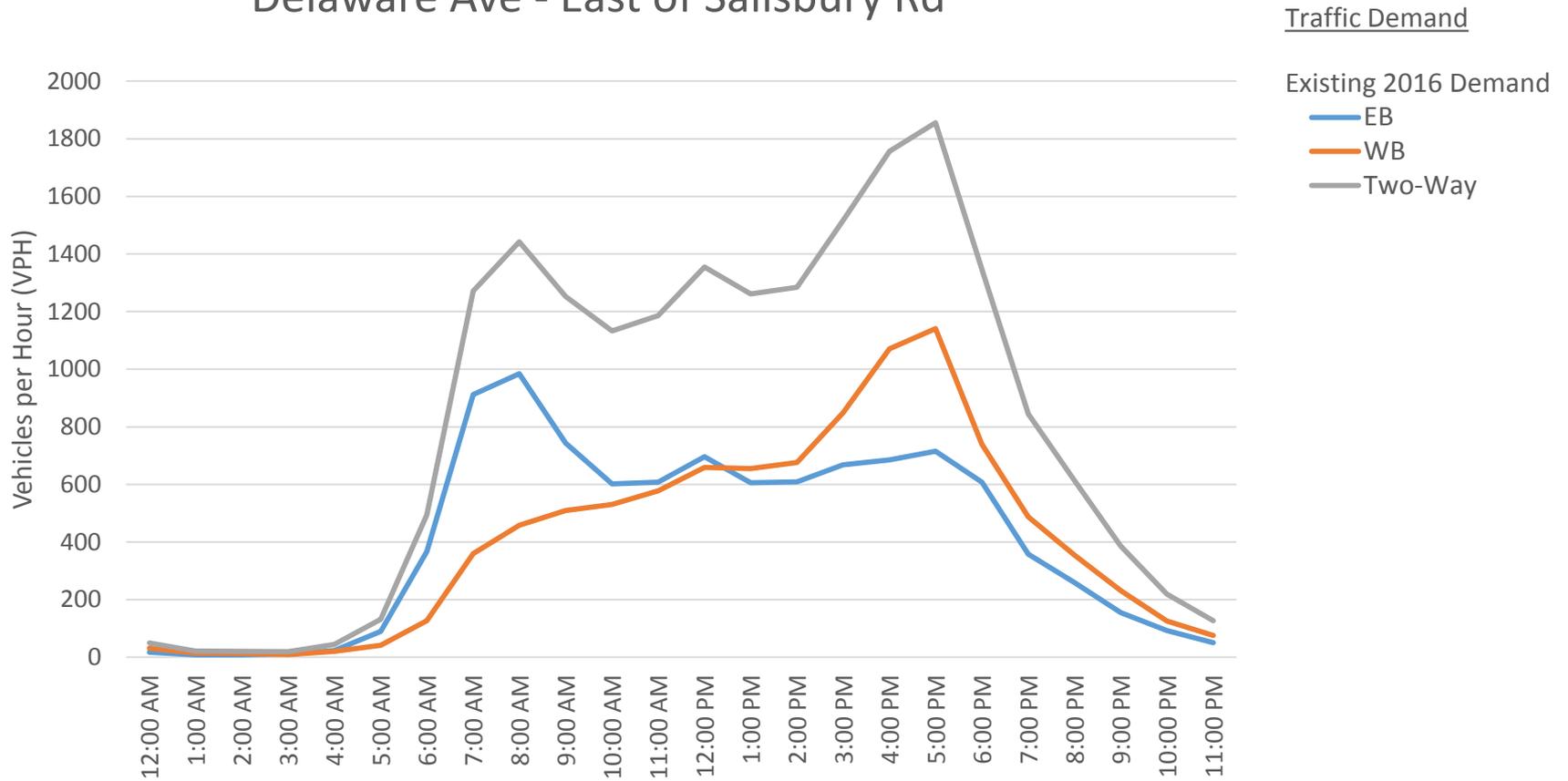
Crashes Reduced					
	A	B	C	D	E
Elsmere to Normanskill Bridge	0	60	21	41	41
		28%	10%	19%	19%



Access

# Hourly Traffic Variations

Hourly Traffic Variations (Typical Weekday)  
Delaware Ave - East of Salisbury Rd



# Pedestrian Scores



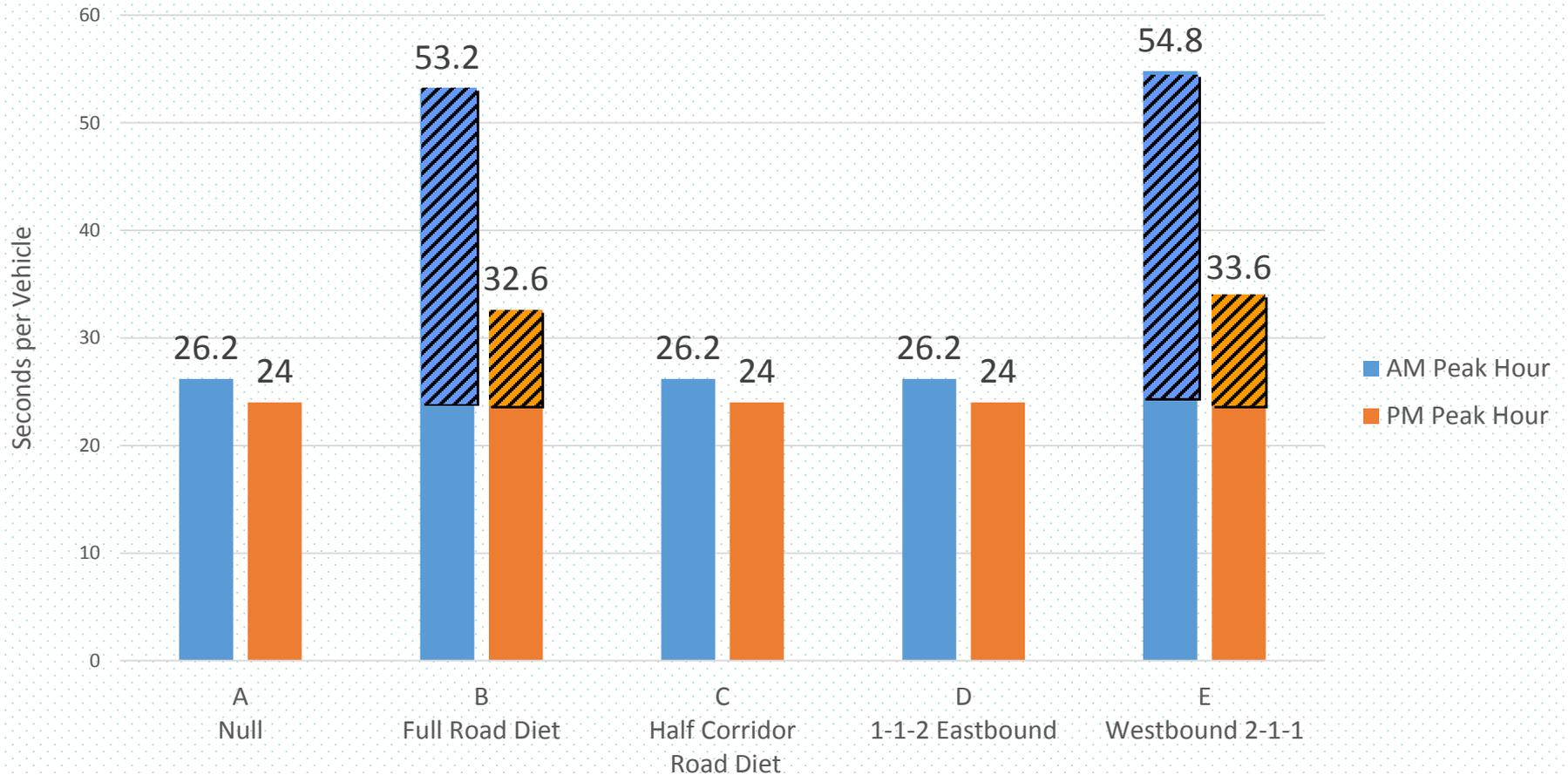
LOS A/B

Pedestrian Scores					
	A	B	C	D	E
Elsmere Ave	B	A	B	B	B
Herrick Ave	D	C	D	D	D
Booth Rd	D	C	D	D	D
Lincoln Ave	D	A	D	B	B
Leonard Place	D	D	D	D	D
Bedell Ave	D	C	D	D	D
Salisbury Rd	D	A	D	B	B
Snowden Ave	D	C	D	D	D
Burhans Place	D	C	D	D	D
Plymouth Ave	D	C	D	D	D
Euclid Ave	D	A	D	B	B
Normanskill Blvd	C	A	C	C	C
Mason Rd	D	C	C	C	C
Winslow St	D	A	A	A	A
Lenox St	D	C	C	C	C
Grant St	D	A	A	A	A
Old Delaware Ave	D	C	C	C	C

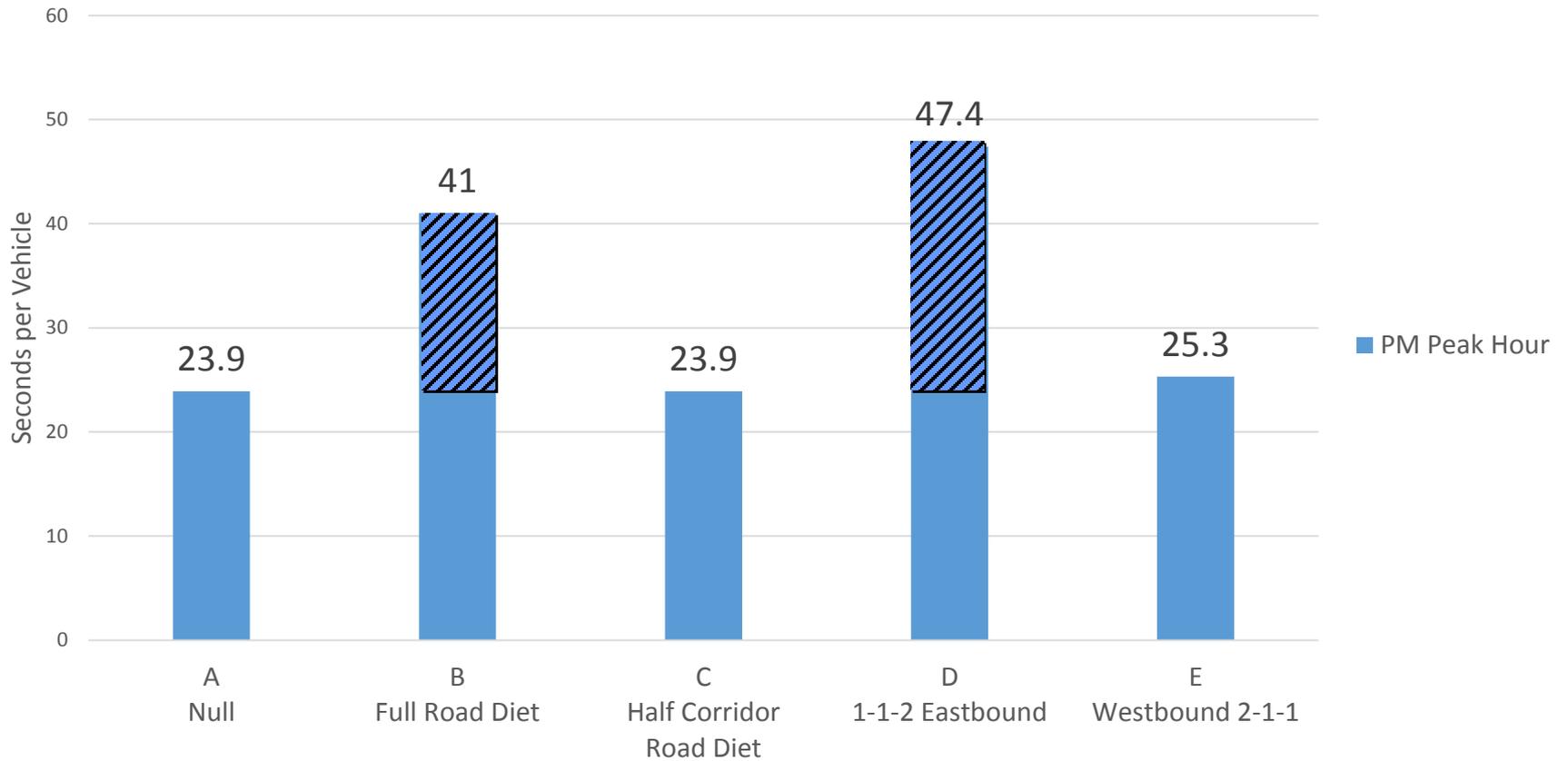
# Bicycle Level-of-Service

Bicycle LOS					
	A	B	C	D	E
Elsmere to Delaware Plaza	E/D	C	D	D	D
Delaware Plaza to Normanskill	E/D	C	D/C	D/C	D/C

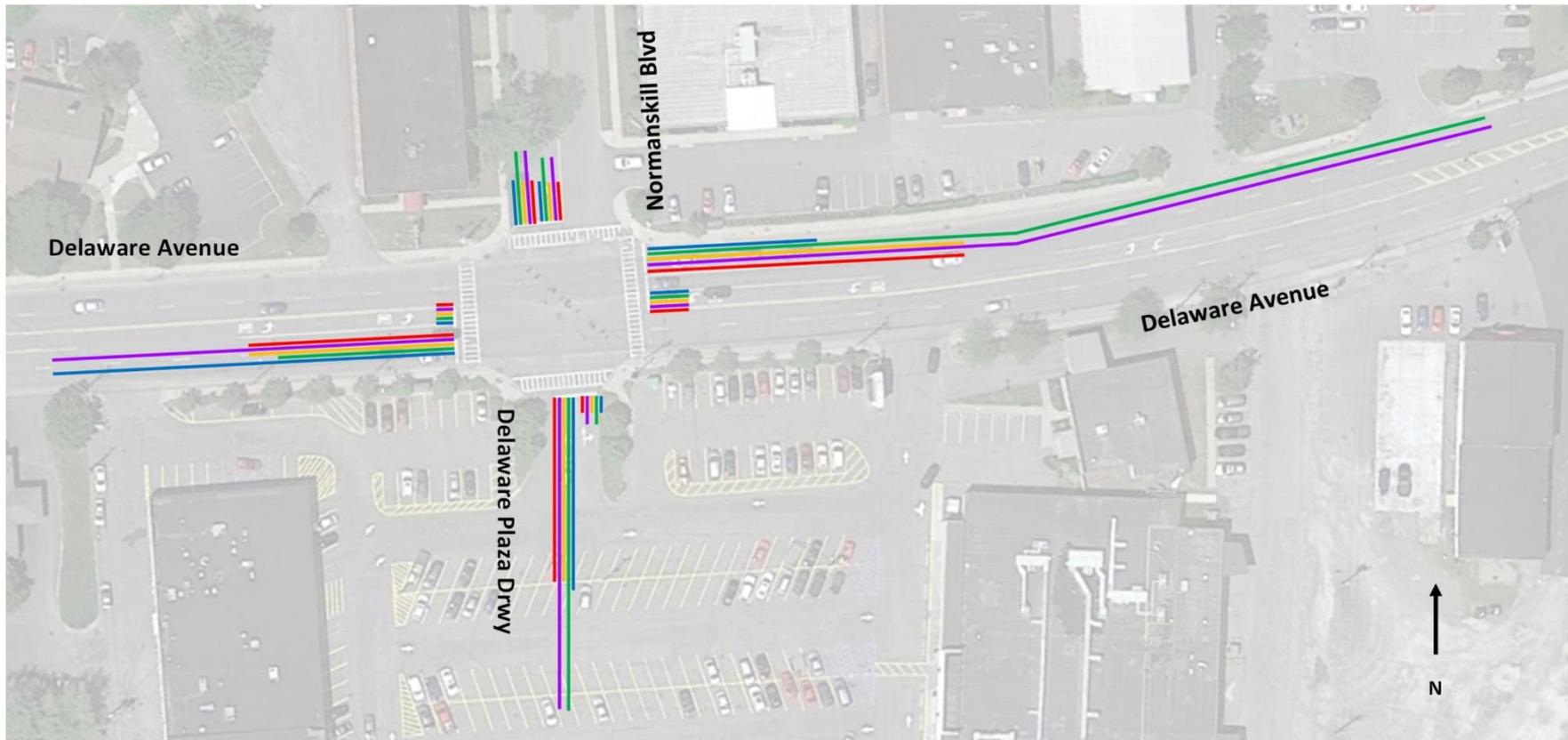
# Signal Delay – Delaware / Elsmere



# Signal Delay – Delaware Ave / Delaware Plaza



# Average Queuing PM Peak Hour Delaware Avenue/Delaware Plaza Drwy/Normanskill Blvd



**A** Null

**B** Full Road Diet

**C** Partial Road Diet

**D** 1-1-2 Eastbound

**E** Westbound 2-1-1

# Average Queuing PM Peak Hour Delaware Avenue/Elsmere Avenue/Groesbeck Place



**A** Null

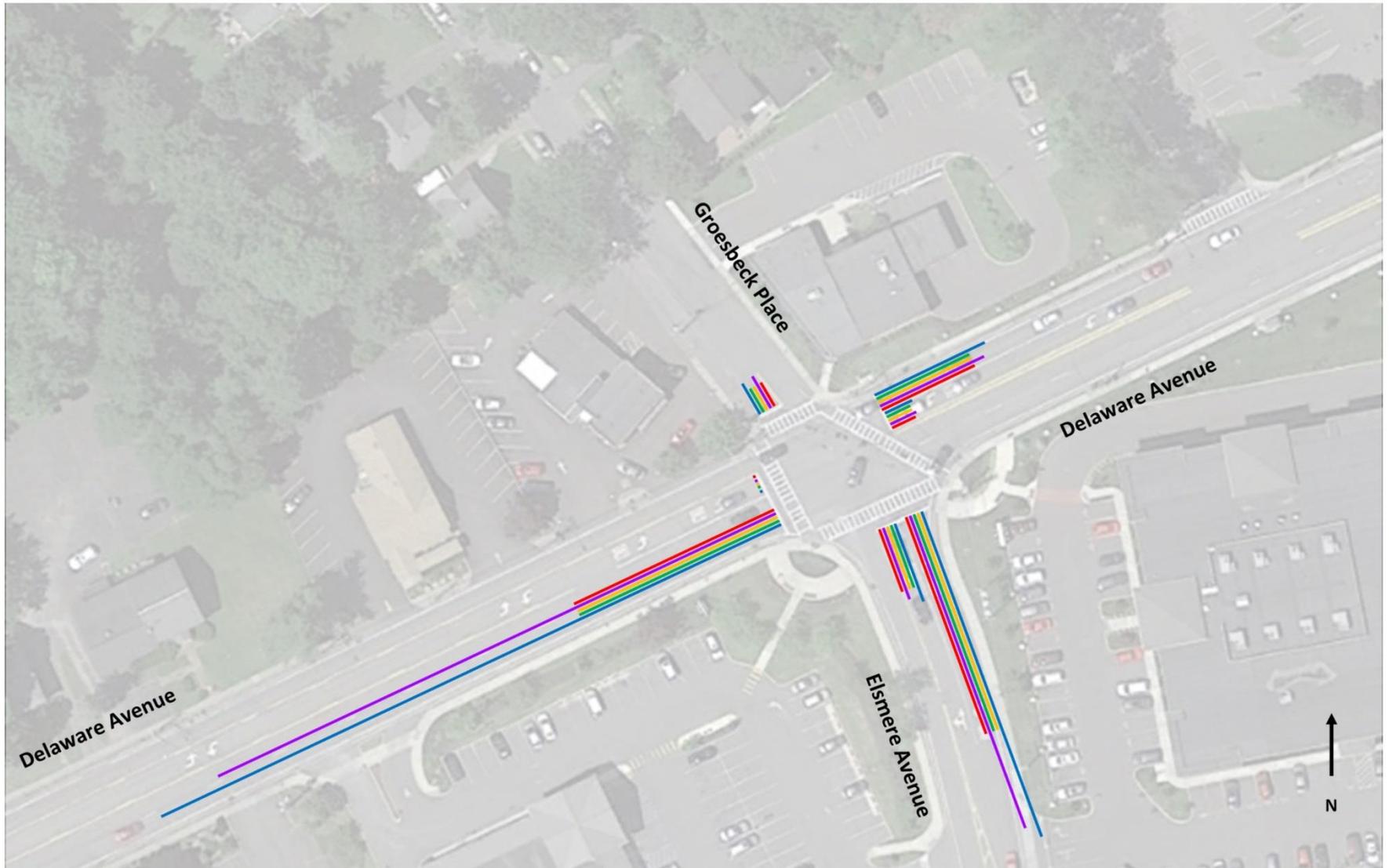
**B** Full Road Diet

**C** Partial Road Diet

**D** 1-1-2 Eastbound

**E** Westbound 2-1-1

# Average Queuing AM Peak Hour Delaware Avenue/Elsmere Avenue/Groesbeck Place

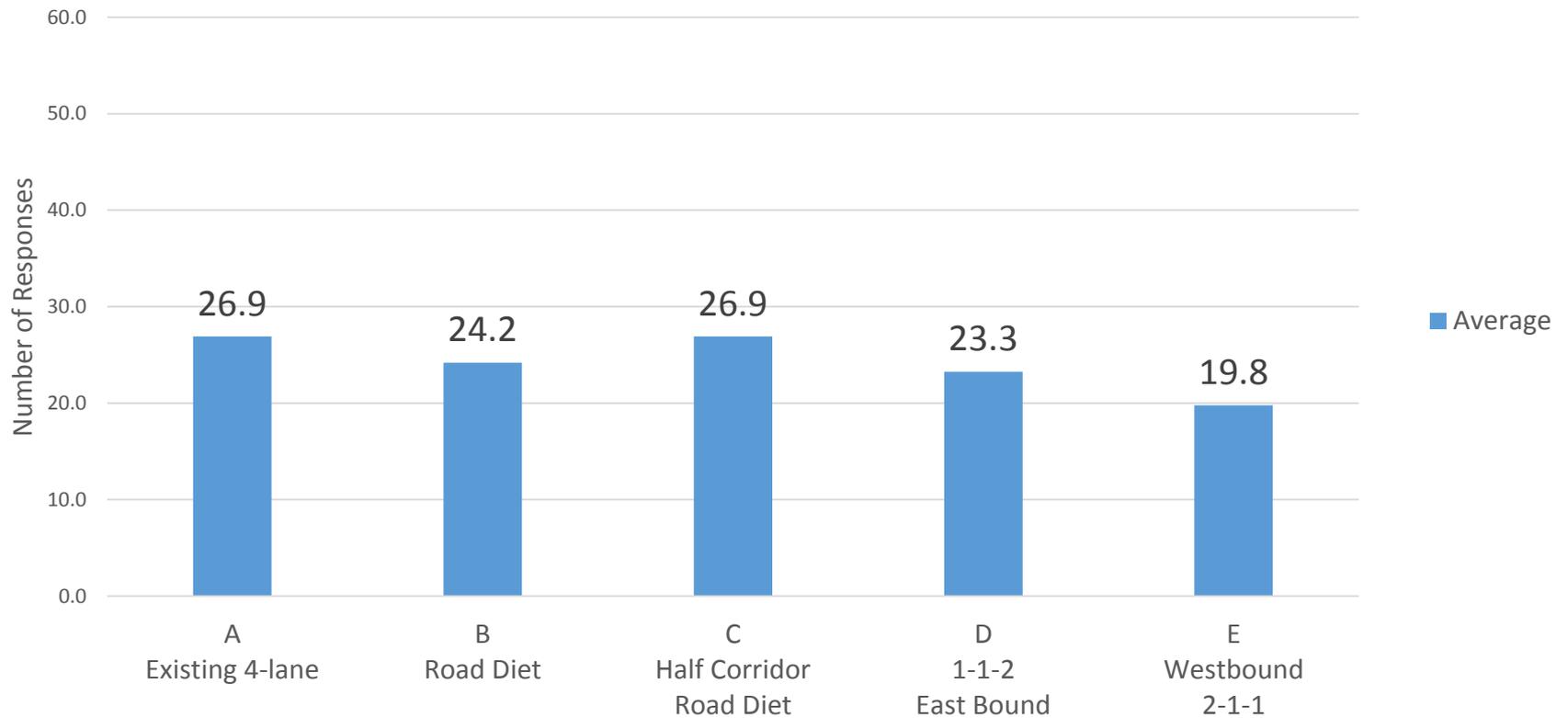


- A** Null
- B** Full Road Diet
- C** Partial Road Diet
- D** 1-1-2 Eastbound
- E** Westbound 2-1-1

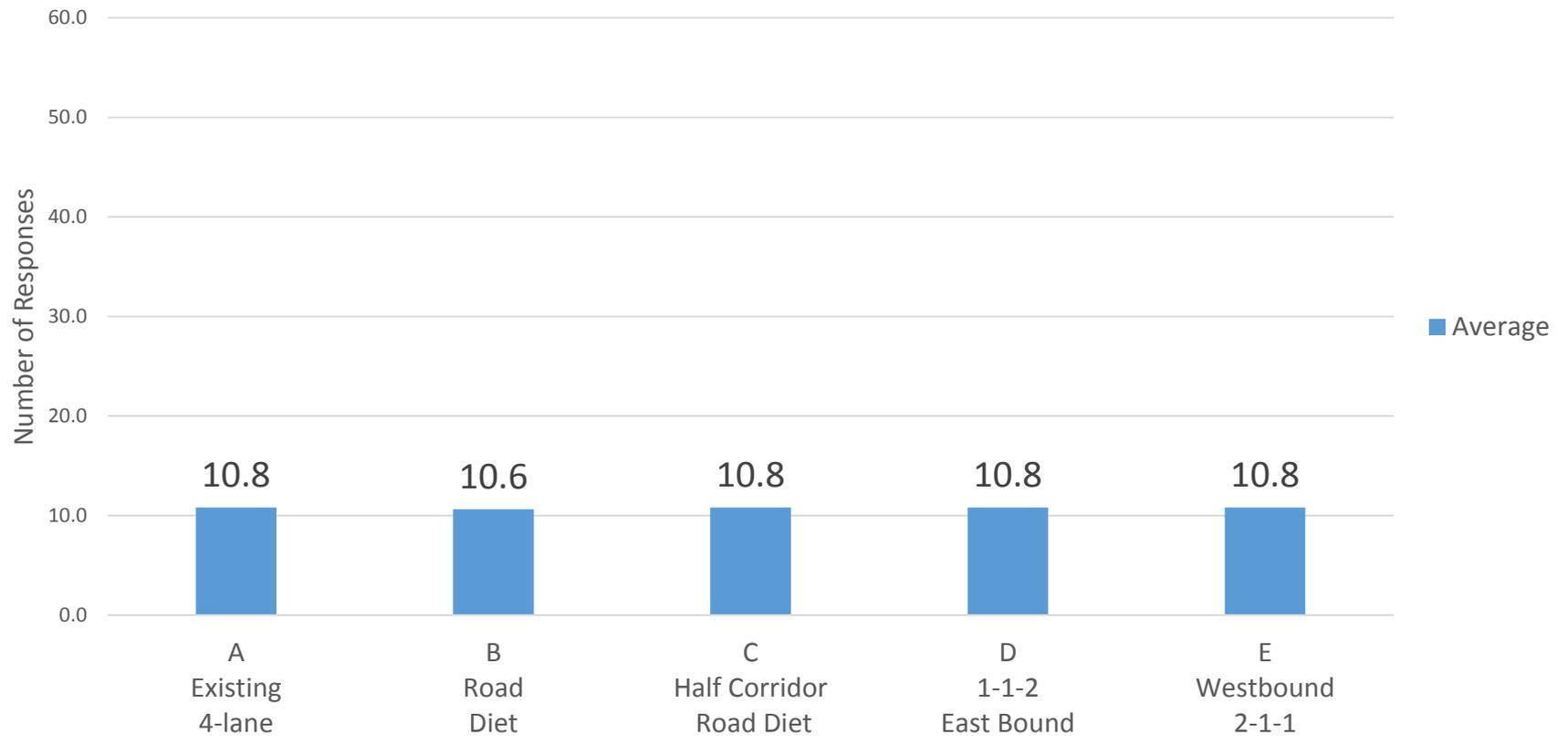


Economy

# Delay from side streets and driveways



# Delay to side streets and driveways



# Case Studies

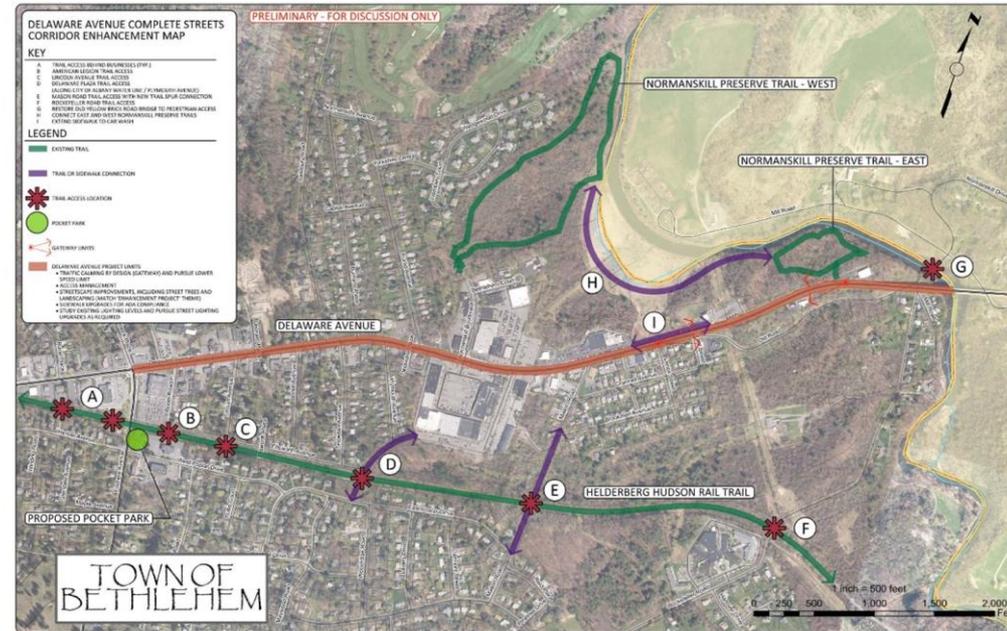
- Economic Impacts of lane elimination (road diet) projects are mixed; most studies point to either no overall economic impacts or some positive impact.
- Business owners are concerned about potential negative economic effects, generally more so if on-street parking is impacted.
- There is little evidence that road diets have a detrimental effect on businesses in terms of their customer volume, revenue, and livelihood.



Place

# Enhancements

- Trail connections
- Traffic calming
- Gateway
- Access management
- Street trees
- Sidewalk extension
- Sidewalk upgrades for ADA compliance
- Bus stop / street crossing integration
- Street lighting upgrades as required





# Would you be willing to exchange...

- Up to 50 seconds of travel time during the peak commute

for

- Traffic calming on Delaware Avenue, a more comfortable pedestrian environment, greater separation between cars and the sidewalk, improved pedestrian crossings, and space for bicycles?

		Evaluation of Alternatives				
		<b>A</b> Null	<b>B</b> Full Road Diet (1-1-1)	<b>C</b> Half Corridor Road Diet	<b>D</b> 1-1-2 Eastbound	<b>E</b> Westbound 2-1-1
Alternative	Performance Measure					
				4 Lanes: Elsmere Ave to Delaware Plaza 3 Lanes: Delaware Plaza to Albany City Line	1-1-2: Elsmere Ave to Delaware Plaza 3 Lanes: Delaware Plaza to Albany City Line	2-1-1: Elsmere Ave to Delaware Plaza 3 Lanes: Delaware Plaza to Albany City Line
	<b>Safety</b>					
	Crashes	● ○ ○ ○ ○	● ● ● ● ●	● ● ● ● ●	● ● ● ● ○	● ● ● ● ○
	Traffic Calming Benefit of Enhancements	● ○ ○ ○ ○	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○
	<b>Access</b>					
	Travel Time	● ● ● ● ●	● ● ● ○ ○	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○
	Signal LOS/Queuing	● ● ● ● ●	● ● ● ○ ○	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○
	Bike LOS	● ○ ○ ○ ○	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○
Ped Access to Transit	● ○ ○ ○ ○	● ● ● ○ ○	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○	
	<b>Economy</b>					
	2030 Volume Change	● ● ● ● ●	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○
	Side St/ Driveway Delay Cost of Alt	● ● ● ○ ○	● ● ● ○ ○	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○
	<b>Place</b>					
	Pedestrian Friendliness	● ○ ○ ○ ○	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○
	Streetscape Quality of Life	● ● ○ ○ ○	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○	● ● ● ● ○

# Roundabouts

