

# CENTRE STREET POST-CONSTRUCTION REPORT

May 28, 2024

# STREETS CABINET VISION



Public Works



Transportation

*To make Boston's streets work for everyone.*

- Safe and welcoming for people of all ages and abilities, regardless of how they travel.
- Functional, well-maintained, and reflective of the uniqueness and vitality of every neighborhood.
- Designed for a zero-carbon future and adapted for the impacts of climate change.





# SAFETY

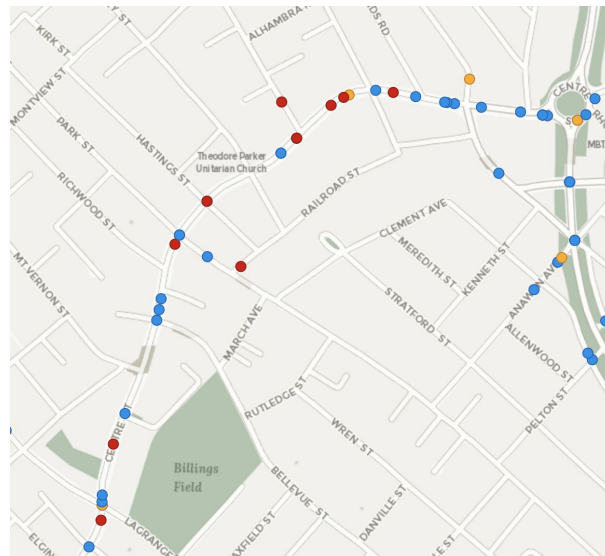
Our *Vision Zero* goal is to end serious and fatal crashes in the city by 2030.

- Streets that are safer for people walking and biking *are safer for everyone*
- When vehicles travel at speeds below 25 mph, streets are safer
- Shorter crossing distances reduce the risk of crashes for pedestrians.



# WHY REDESIGN CENTRE ST?

- The majority of motorists were driving faster than the speed limit of 25 mph
- Hundreds of drivers per day travelled at 40+ mph. A pedestrian of any age struck at this speed is highly likely to suffer a severe injury or fatality
- **64 crashes in 3 years** (2019-21); crash rate of 4.68 crashes per million vehicle miles traveled is 34% higher than the statewide average for an urban minor arterials



Data from January 2018 through April 2023:

- Pedestrian crash
- Bicyclist crash
- Motor vehicle crash

Some dots represent multiple crashes.

<b>Centre at Lagrange:</b>	9 crashes (6 mv, 2 bike, 1 ped)
<b>Center at Hastings:</b>	4 crashes (3 ped, 1 mv)
<b>Maple-&gt;Willow:</b>	7 crashes (4 ped, 2 mv, 1 bike)
<b>Greaton-&gt;rotary:</b>	15 crashes (13 mv, 2 bike)

# CENTRE STREET: PROJECT GOALS

- **Reduce speeding to make pedestrians safer** especially older adults or families with children
- **Simplify traffic patterns** with better organization and predictable turns
- Ensure **access and parking for the many small businesses** on the street
- Ensure **sufficient road capacity** to avoid pushing traffic onto side streets
- Coordinate traffic signals and **add time for pedestrians to cross.**
- Support the **Lyndon School and Parkway YMCA drop-off and pick up**



# EVALUATION AND FOLLOW UP

We committed to:

- Collect **before/after measurements of speeds and traffic counts** on Centre Street and side streets identified as cut throughs to evaluate changes
- Use third party data to **assess changes in traffic patterns** before and after implementation of the project
- Implement **traffic calming measures** as needed to mitigate traffic diversion on side streets

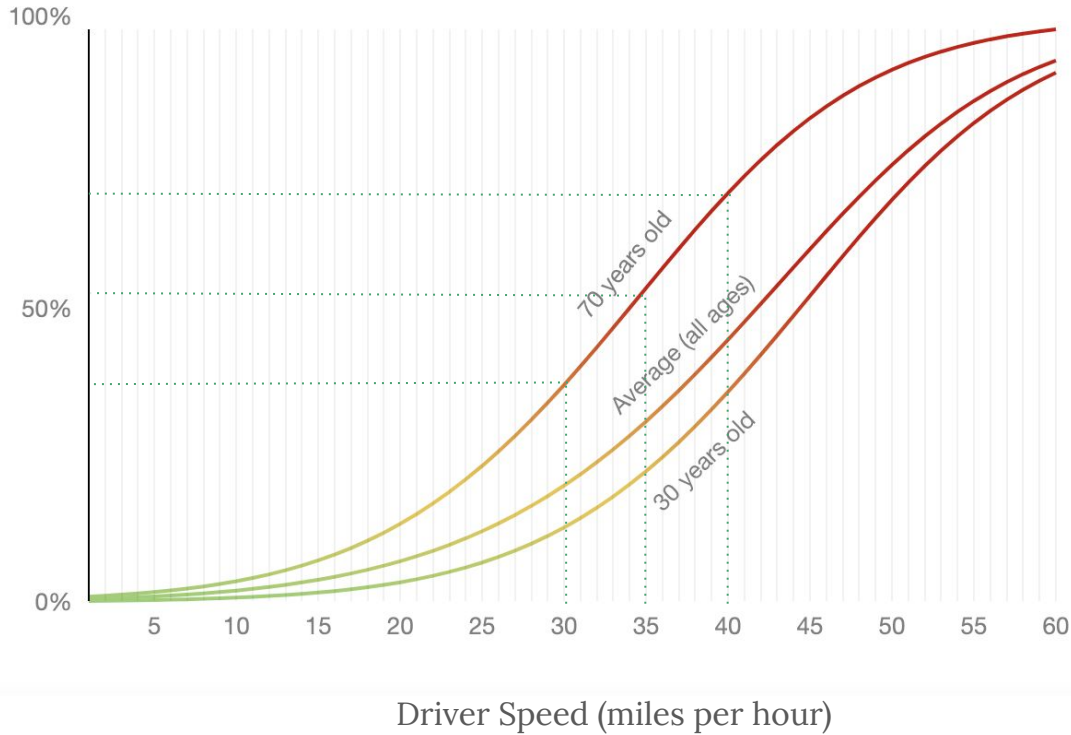


# SPEEDS

# CHANCE OF BEING KILLED WHEN STRUCK BY A DRIVER AT VARIOUS SPEEDS BY AGE



Likelihood that  
Pedestrian  
Would be Killed



Source:  
<https://www.propublica.org/article/unsafe-at-many-speeds>  
based on data from  
Tefft (2013)



# SPEEDS ON CENTRE STREET

- The majority of cars are no longer speeding on Centre Street
- Extreme speeding (>30mph) has dropped dramatically



# SPEEDS NORTH OF LAGRANGE



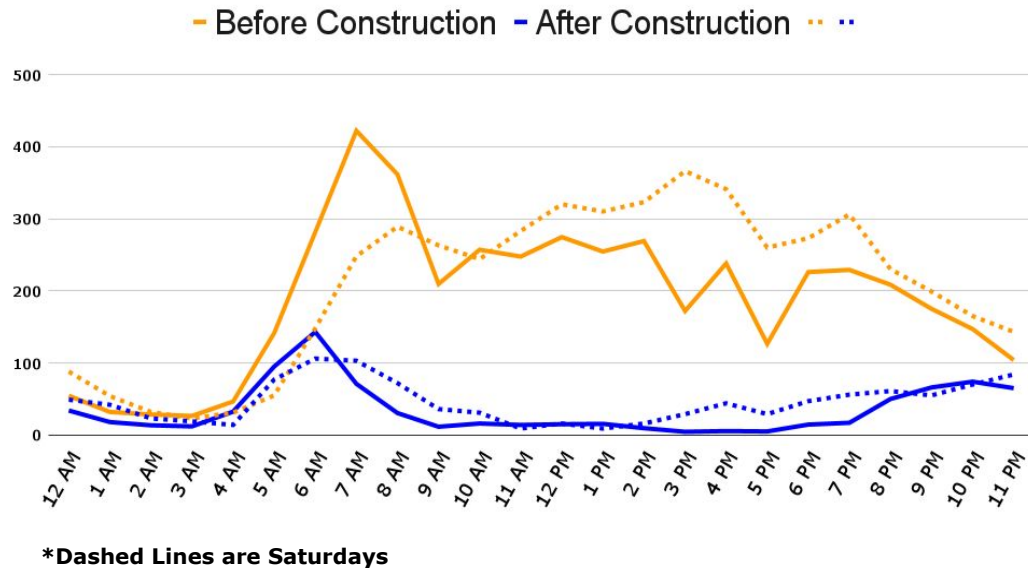
## Pre-Construction Speeds (Jan 2023)

- Median: 29 mph
- 85th Percentile: 34 mph
- 95th Percentile: 37 mph

## Post-Construction Speeds (May 2024)

- Median: 23 mph
- 85th Percentile: 29 mph
- 95th Percentile: 32 mph

Number of Drivers Traveling 30+ mph  
Centre St North of Lagrange St  
Weekdays and Saturdays



# SPEEDS BETWEEN COREY & WILLOW



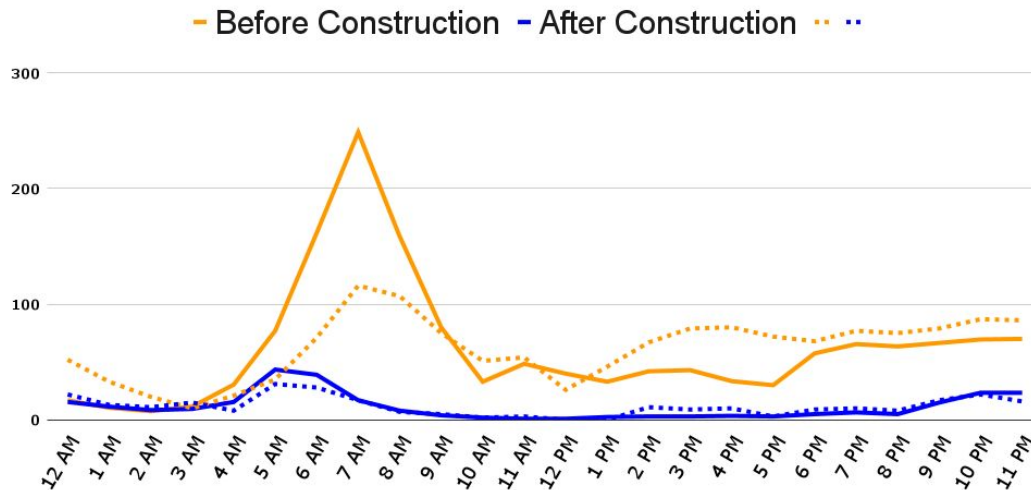
## Pre-Construction Speeds (Jan 2023)

- Median: 26 mph
- 85th Percentile: 31 mph
- 95th Percentile: 33 mph

## Post-Construction Speeds (May 2024)

- Median: 21 mph
- 85th Percentile: 25 mph
- 95th Percentile: 28 mph

Number of Drivers Traveling 30+ mph  
Centre St Between Corey St and Willow St  
Weekdays and Saturdays

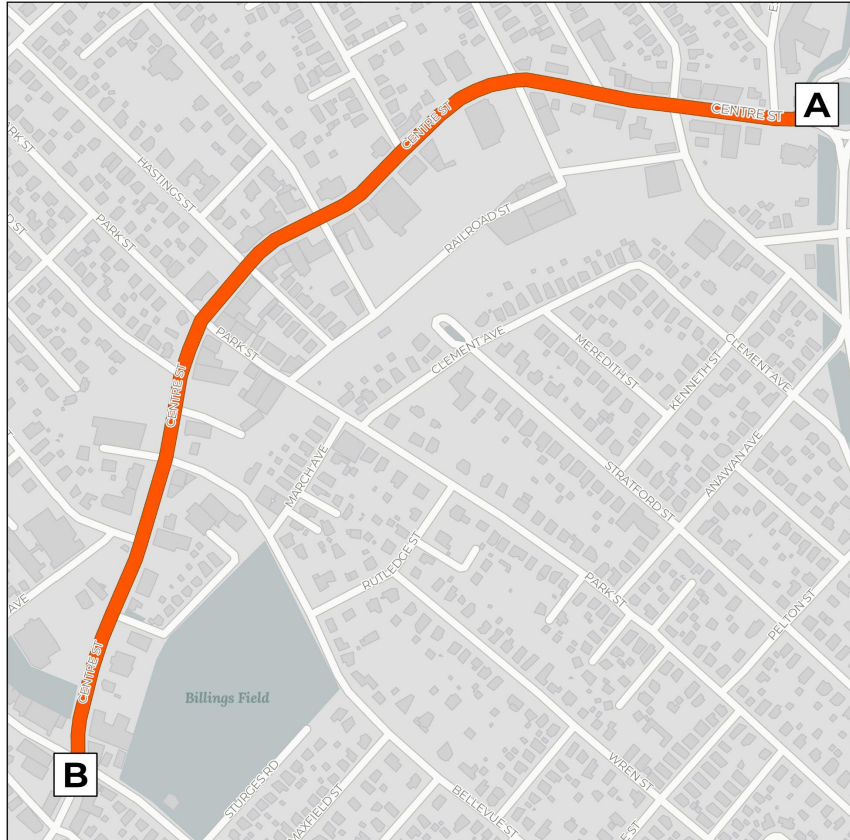


# TRAVEL TIMES



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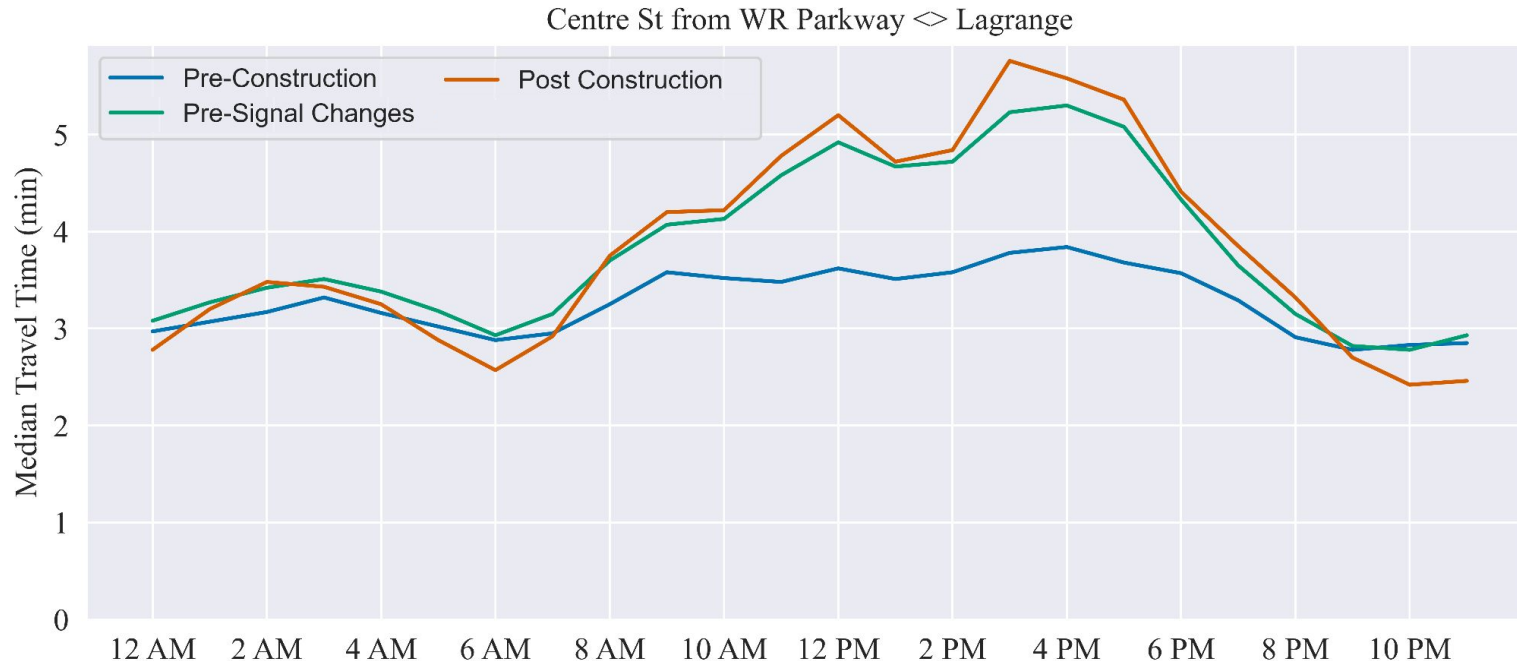


**Travel time** = Time estimated by Waze to drive on Centre St from Lagrange St to West Roxbury Pkwy and vice versa

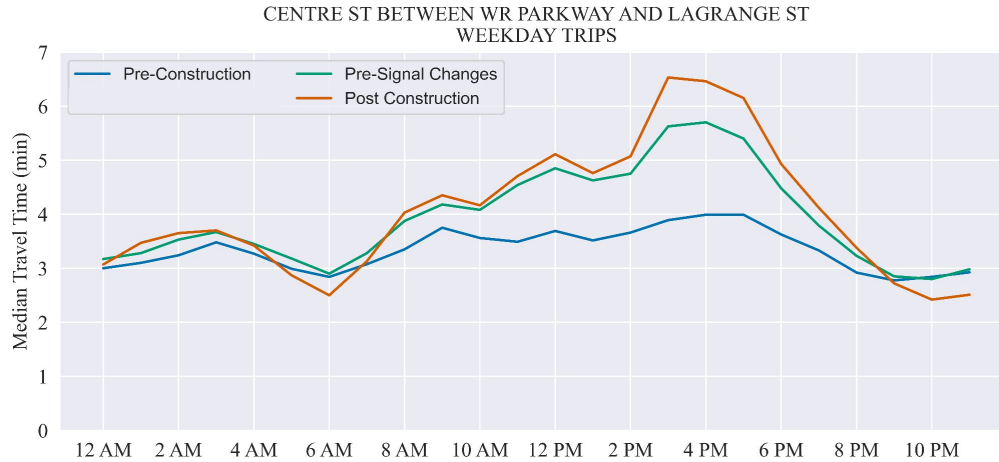
Every 5 minutes, a snapshot of the current estimated travel time is recorded for analysis along with any recommended alternative routes.

# TRAVEL TIMES: WEEKDAYS

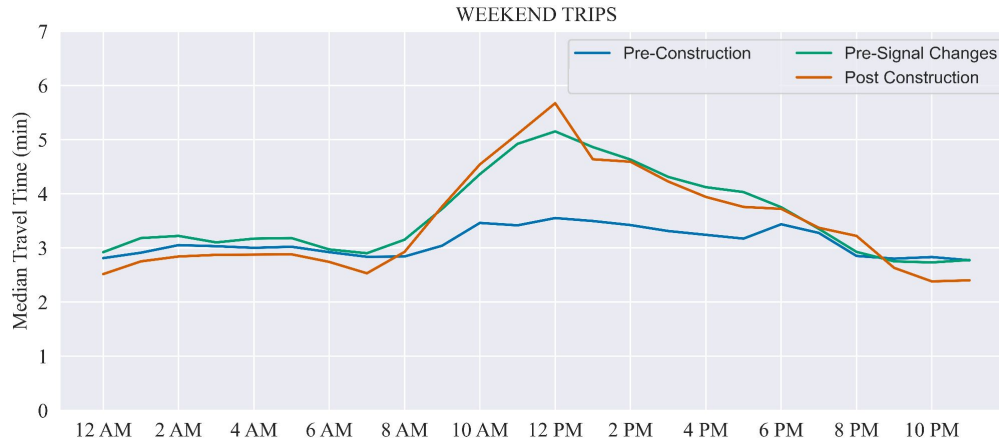
- Daytime travel times (8am-8pm) generally increased by about 1 minute
- Travel times during peak hours (3-5pm) increased by about 2 minutes (1 min 44 secs)



# TRAVEL TIMES: WEEKDAYS VS. WEEKENDS



Weekday travel times are highest from 3-5 pm



Weekend travel times are highest from 11 am-1 pm

# CENTRE ST VOLUMES

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- Traffic counts show similar volumes on Centre St (January 2023 vs May 2024)
- Counts can vary significantly from day-to-day and month-to-month
- Analyzing volumes, using bigger data sets (INRIX and StreetLight) to better understand trends

## **WEEKDAYS**

Pre-construction:

- Max (Friday): 15,602
- Average: 15,235

Post-construction:

- Max (Tues): 14,120
- Average: 13,654

## **SATURDAYS**

Pre-construction:

- Max: 13,173
- Average: 13,131

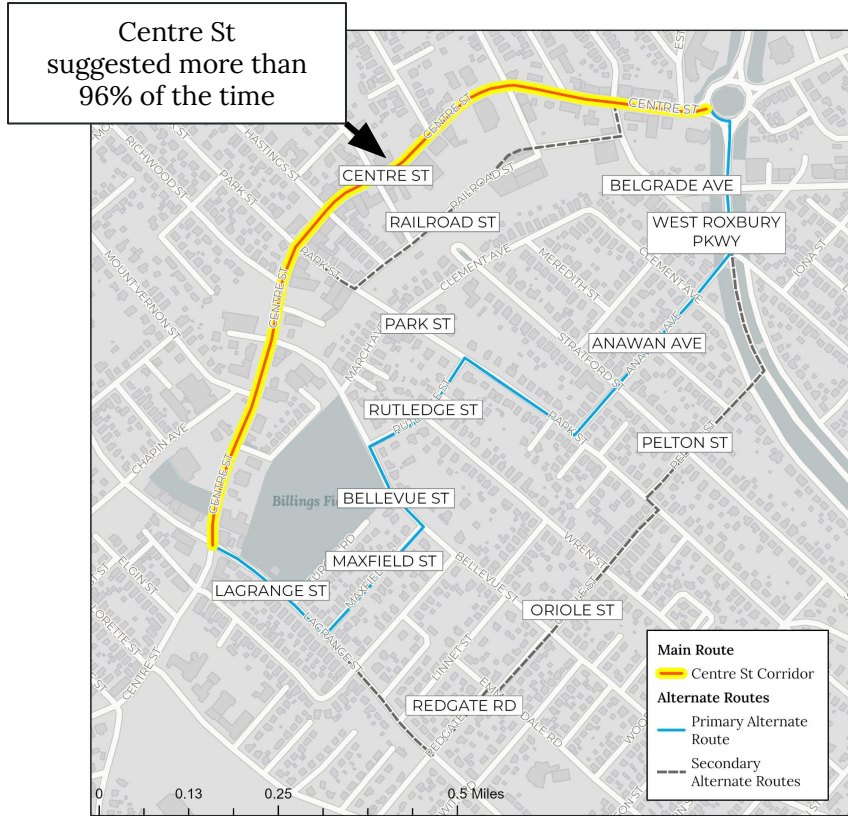
Post-construction:

- Max: 12,924
- Average: 12,456



# REROUTING

# REROUTING



## How frequently did Waze suggest users take an alternate route?

- Pre-construction: Alternative routes suggested 0.3% of the time
- Post-construction: Alternative routes suggested 3.3% of the time.

**After construction, the main route along Centre Street was suggested 96+% of time**

**PARKING**

# PARKING IMPACTS

- Parking reduced by 7 spaces out of 171 on Centre St. In addition, 2 spaces were removed on Belgrade Ave.
- Updated curb regulations to better support business needs with loading and delivery
- Addition of 1 ADA space from the original 10 on the corridor; plans to add 3 more.





# SUMMARY

# SUMMARY OF FINDINGS

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## SPEEDS

Speeding ( $\geq 30$  mph) down more than 75%  
Median and 85% percentile speeds down 5+ mph  
Most people driving below the speed limit (25 mph)

## TRAVEL TIMES

Daytime (8am-8pm) travel times increased by about 1 min  
Peak hour travel times increased by about 2 mins  
Peak hours are between 3-5pm on weekdays, and 11am-1pm on weekends

## REROUTING

Re-routing suggested about 3.3% of the time, vs. 0.3% pre-construction  
Staying on Centre Street was suggested more than 96% of the time

## PARKING

Parking reduced by 7 spaces on Centre St, 2 spaces on Belgrade Ave  
ADA spaces increased by 1; plans to add 3 more

# CHANGES WE'RE MAKING

# CHANGES MADE BASED ON FEEDBACK

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- Restored parking space in front of Corrib
- Made traffic signal at Mt. Vernon exclusive
- Replaced left turn lane with two-way-left turn at Richwood
- Replaced painted median with left turn lane at Redlands
- Added bike lens to southbound bike signal at Belgrade
- Moved northbound bike signal at Belgrade to near-side
- Will add thru/right markings at Willow
- Will add more flex posts at intersections
- Exploring ways to calm right turns into CVS parking lot



# WHAT WE'RE DOING: SPEED HUMP ZONES

- We propose to expedite the installation of Safety Surge speed humps zones in areas most likely to be suggested for rerouting by navigation apps
- Speed humps are gradual mounds of asphalt built into the pavement.
  - About 3 inches high and between 12 and 14 feet long.
  - Comfortable to drive over at 20 miles per hour or less.





# Q&A

