

Woodbury Avenue Traffic Calming

- ▶ Public Meeting
- ▶ February 15, 2023

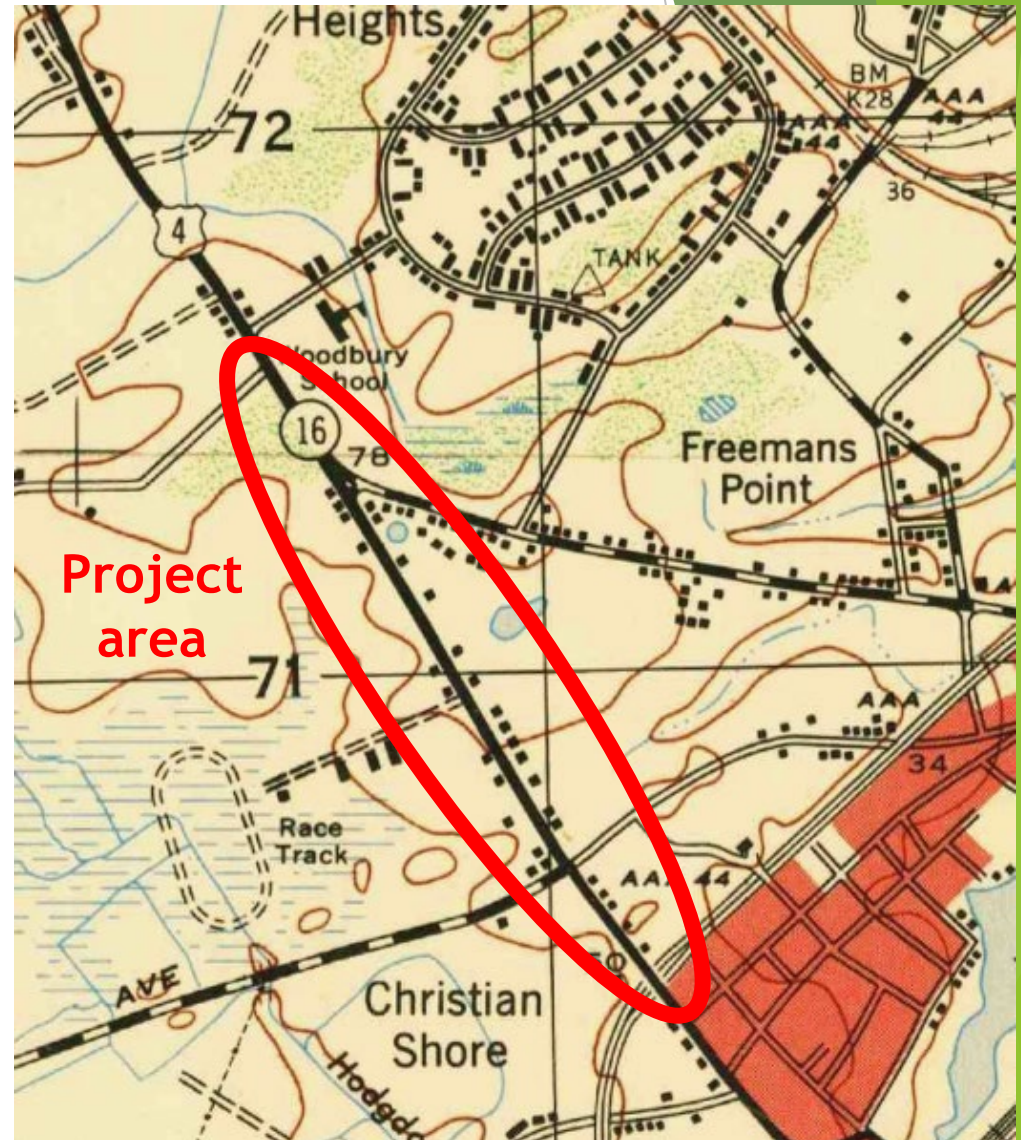


Meeting Agenda

- ▶ Introductions
- ▶ Woodbury Avenue Existing Conditions
- ▶ Past Efforts
- ▶ Recent CIP Requests
- ▶ Recent Petition Requests
- ▶ Traffic Calming Alternatives
- ▶ Questions and Comments

Woodbury Avenue History

- ▶ Original section of White Mountain Highway (Route 16)
 - ▶ Designed for large traffic volumes and higher speeds
- ▶ Spaulding Turnpike opened in 1956, providing easier access to main roads and removing large volumes of traffic from Woodbury Avenue



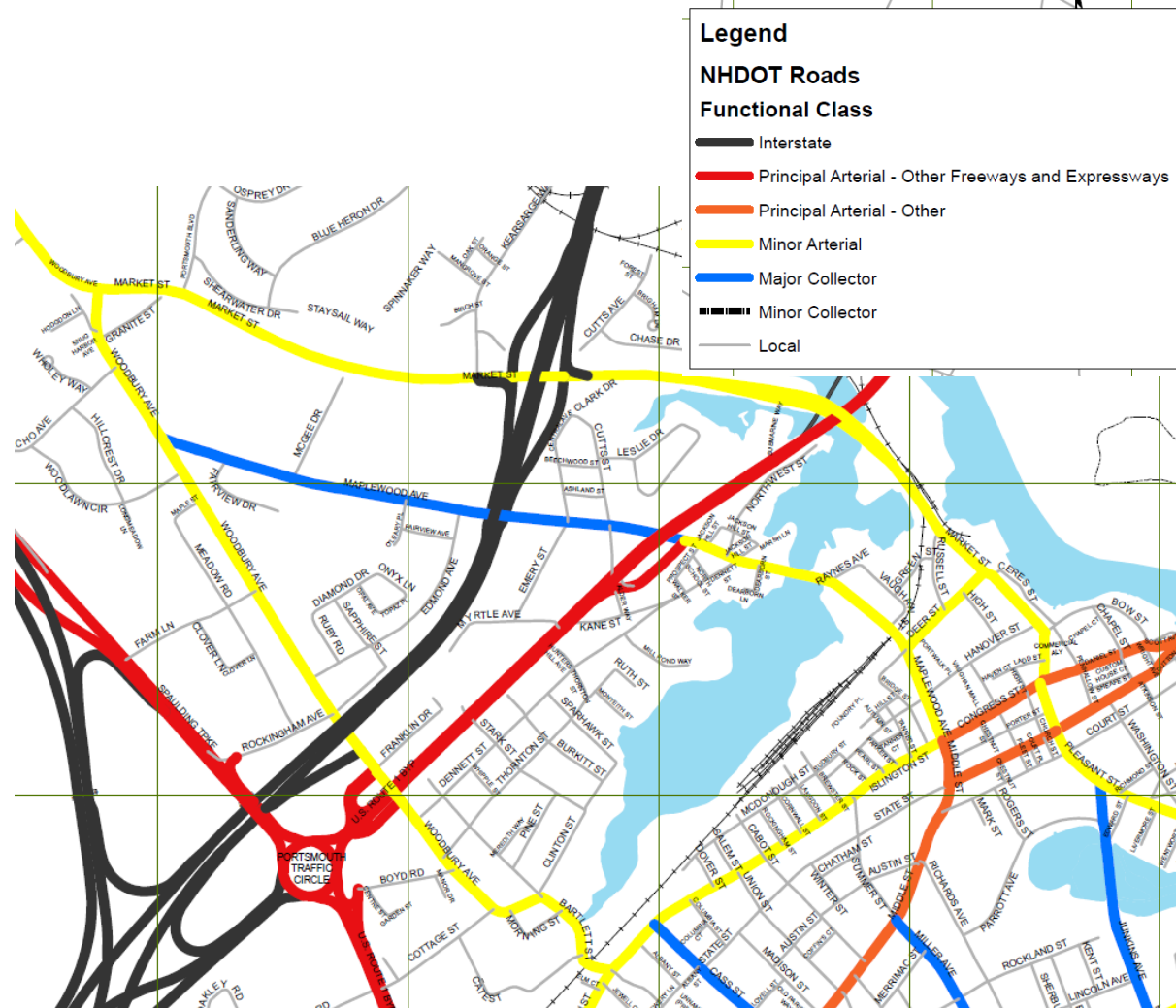
1952

Woodbury Avenue Existing Conditions

► Functional Classification -Minor Arterial

Designed to move large volumes of longer-distance traffic between important centers of activity. A minor arterial places more emphasis on providing land access than a principal arterial.

- Determined by County, State and Federal Highway Admin
- Connection to both I-95 and Rt 1 Bypass
- Backbone of City's traffic network



Woodbury Avenue Existing Conditions



10' travel lane, 2' shoulders

Sidewalk on East side of Woodbury Avenue from Granite Street to Dennett Street

10-foot parking areas on east side

Houses set back over 100 feet from each other

Sidewalk on West side of Woodbury Avenue from Dennett Street to Edmond Avenue

Double yellow center line, white edge lines

Woodbury Avenue Existing Conditions

- ▶ 2001 - 10,500 ADT
- ▶ 2022~7,000 average daily traffic volume
60%/40% Southbound/Northbound split

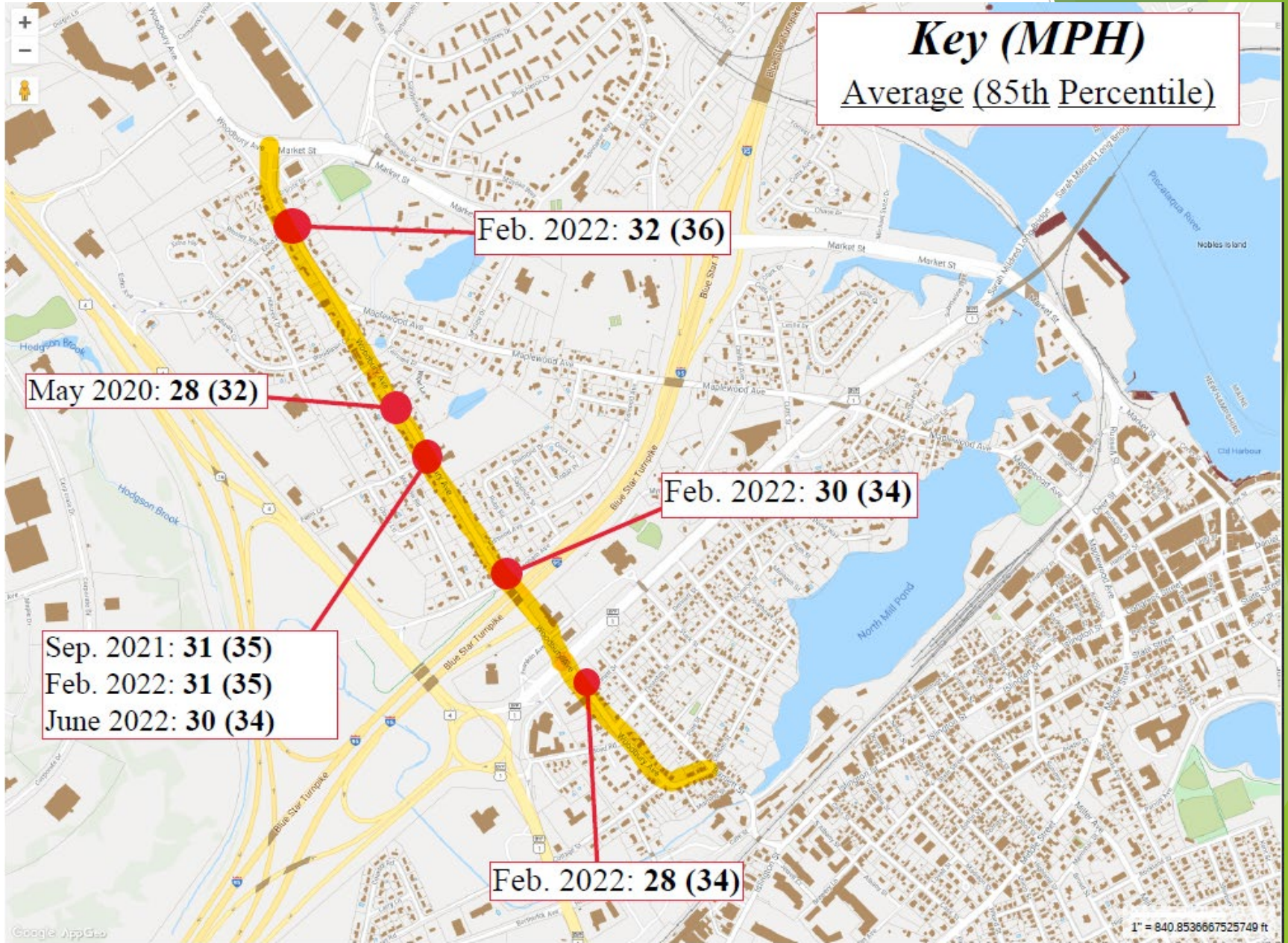
- ▶ Posted Speed Limit 25 MPH
- ▶ City's 2017 Complete Streets Design Guidelines show a 25 MPH target speed for Woodbury Avenue

- ▶ Actual Speeds
 - ▶ Average range 28-32 MPH
 - ▶ 85th percentile 32-36 MPH

- ▶ Meets traffic calming warrants
 - ▶ 85th Percentile speeds are \geq 7-10 MPH over posted limit
 - ▶ Average speeds are \geq 5 MPH over posted limit
 - ▶ 5% of speeds are \geq 10 MPH over posted limit

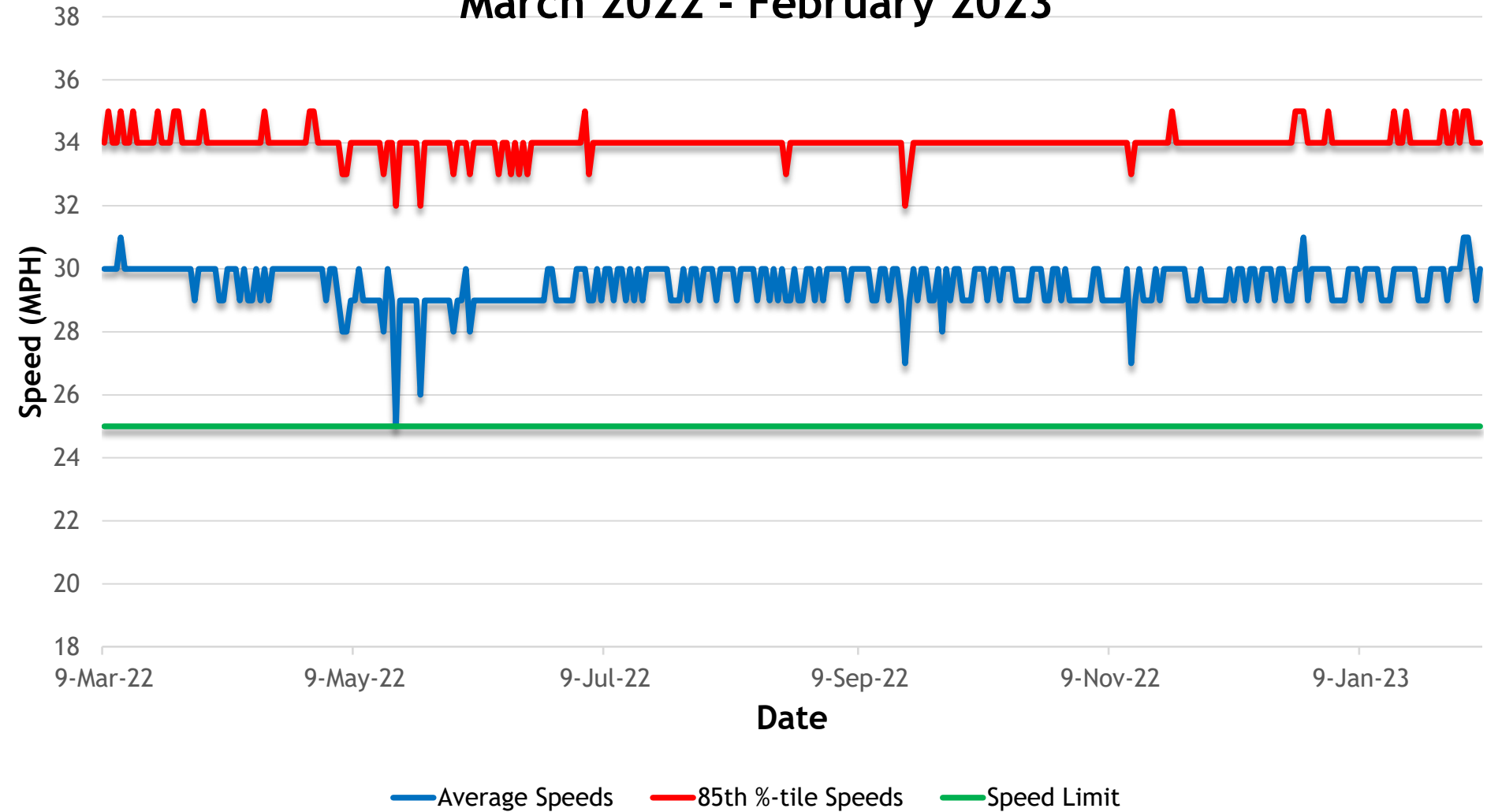
- ▶ 35 accidents from 2018-2022, from Granite Street to Bartlett Street. No more than one per year on average at highest locations. Not a high crash experience.

Speed Data



Speed Data-Feedback Sign at Maple St

Woodbury Avenue at Maple Street Southbound Speeds March 2022 - February 2023



Past Efforts

- ▶ 2009 reconstruction and narrowing
 - ▶ Avg. speeds at Farm Lane
 - ▶ prior to project - 32 MPH
 - ▶ after project - 31 MPH
- ▶ Maplewood Avenue intersection reconstruction, RRFB and median island installation
- ▶ ENTERING RESIDENTIAL AREA signs installed
- ▶ Replaced median island with left turn lane to improve safety at Franklin Drive
- ▶ Truck restriction enacted
- ▶ Upgraded speed limit signs to current standards
- ▶ Conducted traffic corridor and intersection study in 2015, between Rockingham Avenue and Dennett Street
- ▶ Worked with NHDOT to install truck directional signage on I-95 Northbound
- ▶ School zone speed feedback signs installed
- ▶ Working with NHDOT for additional truck restriction signage on Rt. 1 Bypass



Traffic Calming

- ▶ **Physical characteristics of the roadway need to be changed to achieve lower speeds**
 - ▶ 2009 narrowing project attempted to change the character of road, and had a small effect on lowering travel speeds
 - ▶ Road is still straight, with homes and buildings set back from roadway
 - ▶ Relatively low volume of turning and entering traffic
 - ▶ Long sight lines

Recent CIP Requests

► Install stop signs

- 2013 study by outside consultant RSG concluded that stop signs are not appropriate for this section of roadway

- “One common misapplication of an all-way stop is to deter or slow down drivers. Research has shown this tactic is not effective and often may cause drivers to speed up after the unwarranted stop sign since they did not see a need for it.”

-*All You Need to Know About All-Way Stops*, Laura Slusher, PE, LTAP Traffic Engineer

- “Safety of pedestrians is decreased at unwarranted multi-way stops, especially small children. It seems that pedestrians expect vehicles to stop at the stop signs but many vehicles have gotten in the habit of running the “unnecessary” stop sign. Thirteen references found this to be their finding.”

-*Multi-way Stops - The Research Shows the MUTCD is Correct!*, W. Martin Bretherton Jr., P.E.(M)

► Install at least 2 permanent speed feedback signs

- Temporary speed feedback sign currently located at Maple Street
- Will identify locations where most visible and effective
- Effectiveness wanes over time

Recent CIP Requests

▶ Install pedestrian crossing signage

- ▶ Existing pedestrian signage needs to be replaced with signs meeting current standards.
- ▶ Crosswalks should not be placed indiscriminately. Should only be placed where 20 pedestrians cross during peak hour.
- ▶ Crosswalks must comply with ADA requirements. Tip downs, grades, sidewalks.



▶ Install speed tables

- ▶ Woodbury Avenue is designated as minor arterial roadway
- ▶ Not appropriate for arterial roadways used as emergency service routes
- ▶ Has impact on emergency vehicles and response times
- ▶ Increases noise for abutters
- ▶ Will continue to work with emergency services

Recent CIP Requests

▶ Install sidewalk on Edmond Avenue

- ▶ In design, anticipated construction 2024

▶ Close Spaulding Turnpike connections

- ▶ Will require support from majority of property owners located on Farm Lane and abutting streets
- ▶ Will require traffic study of neighborhood, from Maple Street to Rockingham Avenue, to determine impacts
- ▶ Farm Lane average daily traffic volumes have not increased significantly after Echo Avenue closure
 - ▶ Farm Lane - 1998: 750 vehicles per day
 - ▶ Farm Lane - July 2018 (before Echo Avenue closure): 450 vehicles per day
 - ▶ Farm Lane - June 2022: 470 vehicles per day

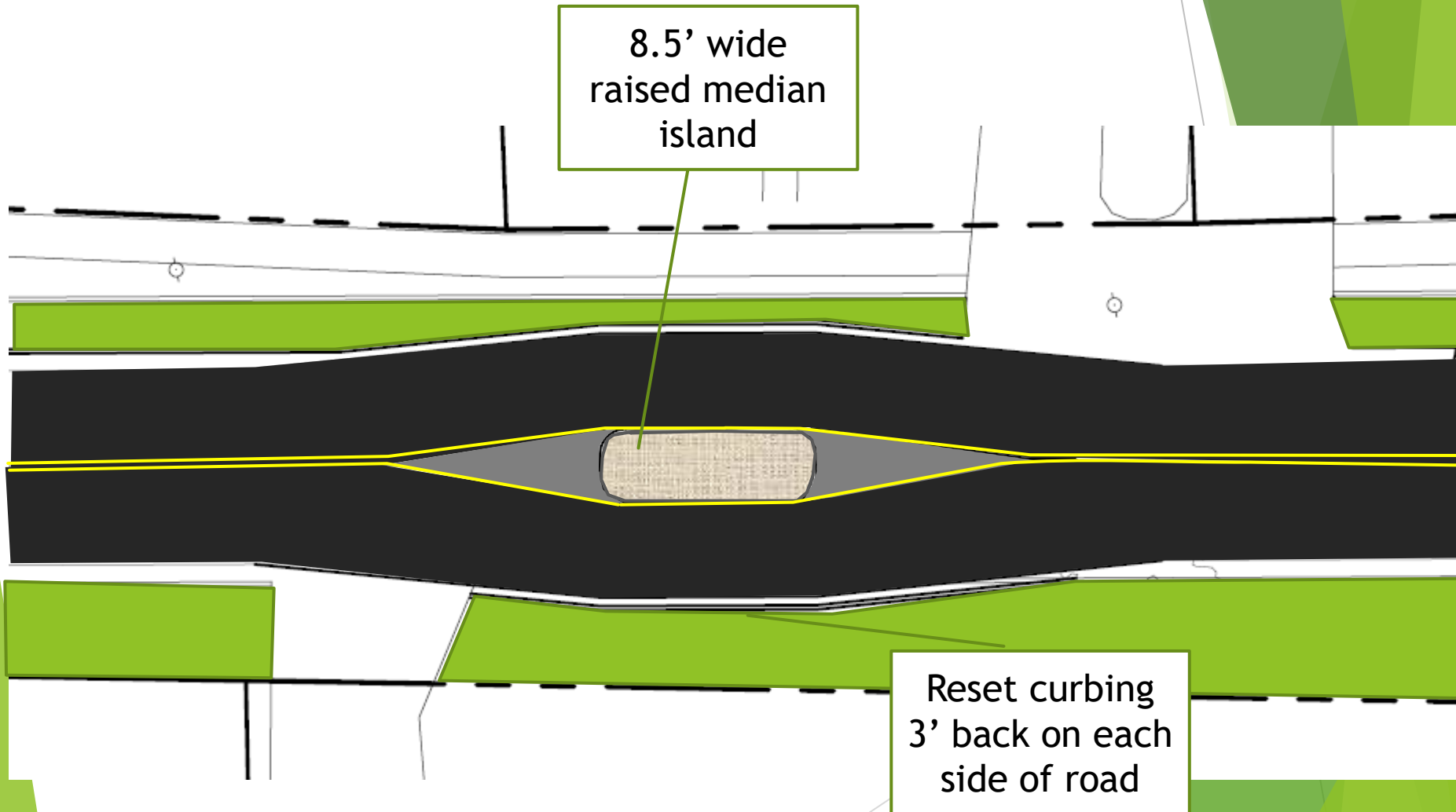
Echo Avenue Nov. 2016: 430 vehicles per day

Recent Petition Requests

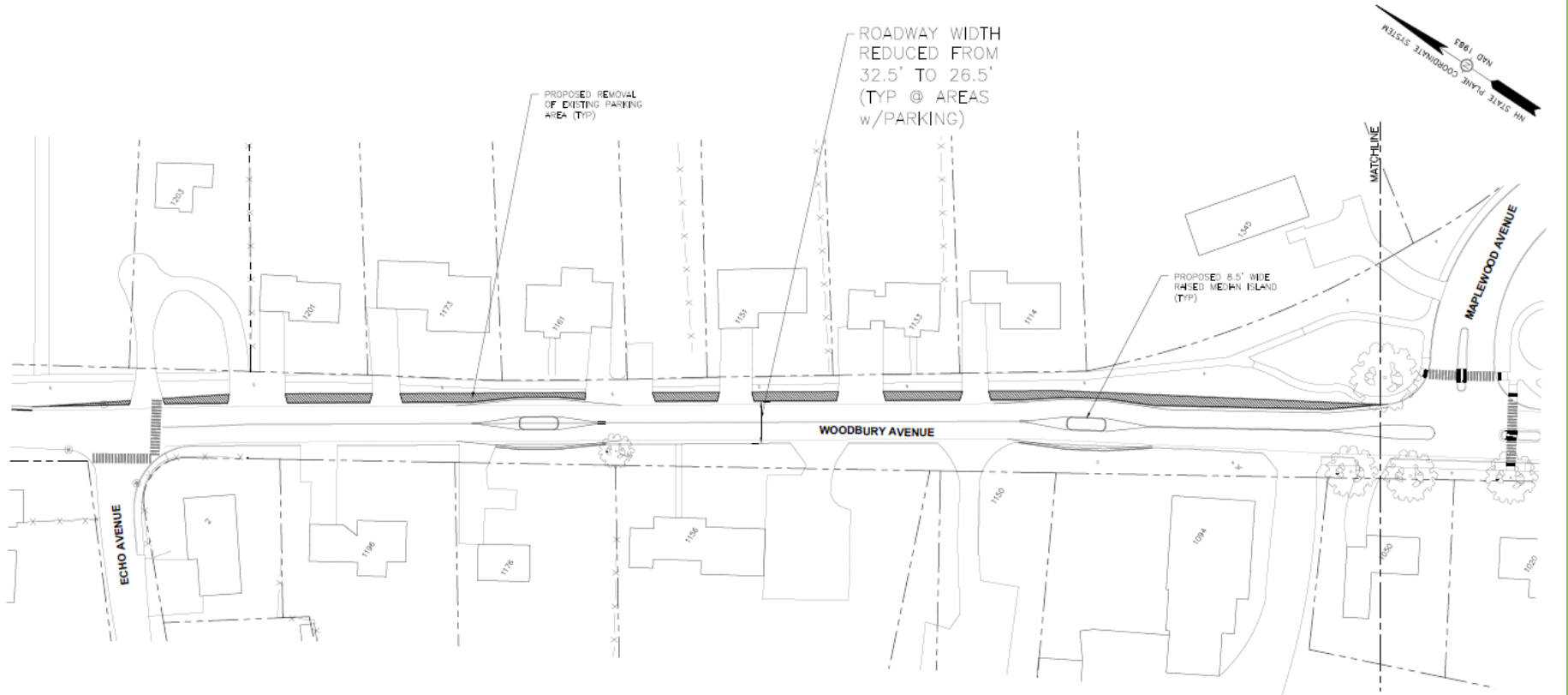
- ▶ Petition to add crosswalk / island at Edmond Avenue intersection
- ▶ Request was denied at October 2017 Parking & Traffic Safety Meeting due to low pedestrian volumes
 - ▶ 26 pedestrians in 4 day period, peak volume of 7 pedestrians/hour
 - ▶ Count was taken in Early September 2017, while school was in session
- ▶ Will re-evaluate pedestrian volumes in spring of 2023 while school is in session



Proposed Traffic Calming Measures

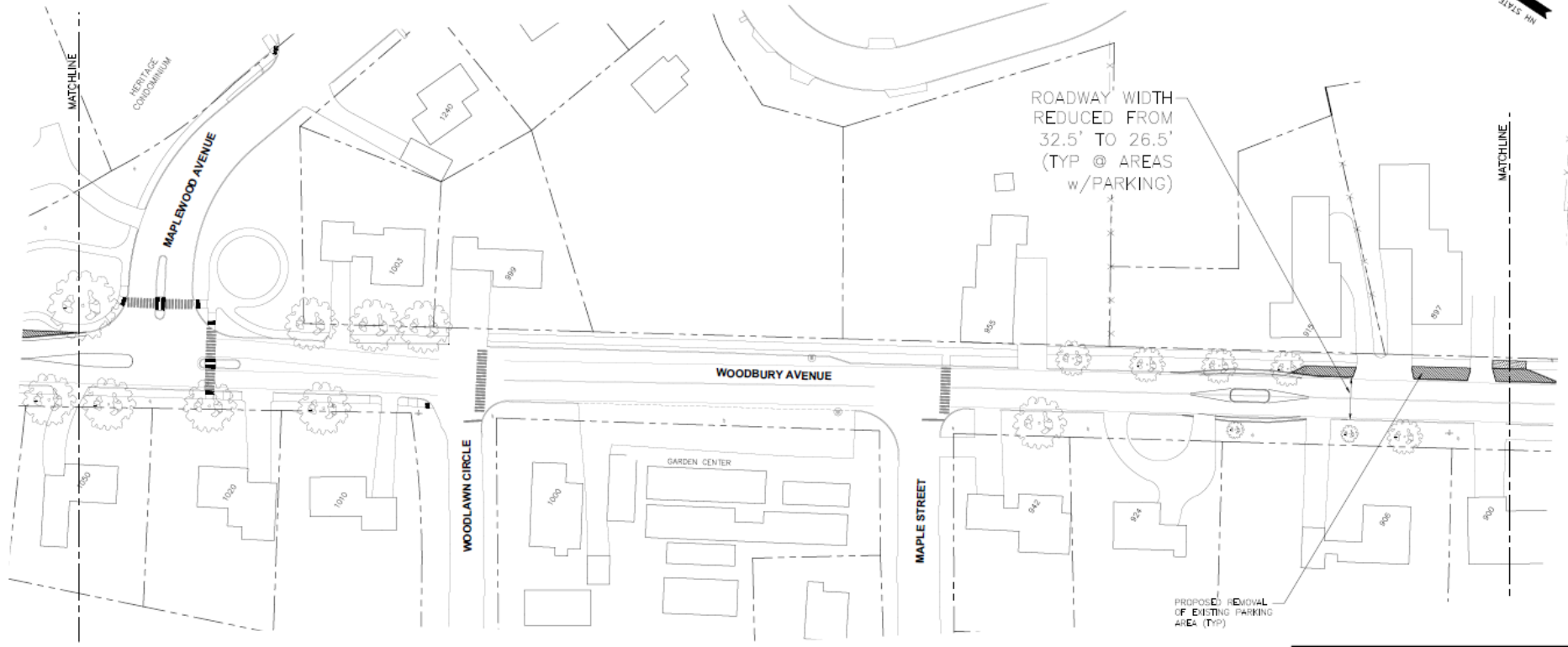
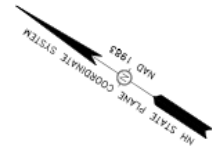


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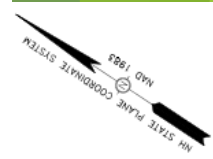
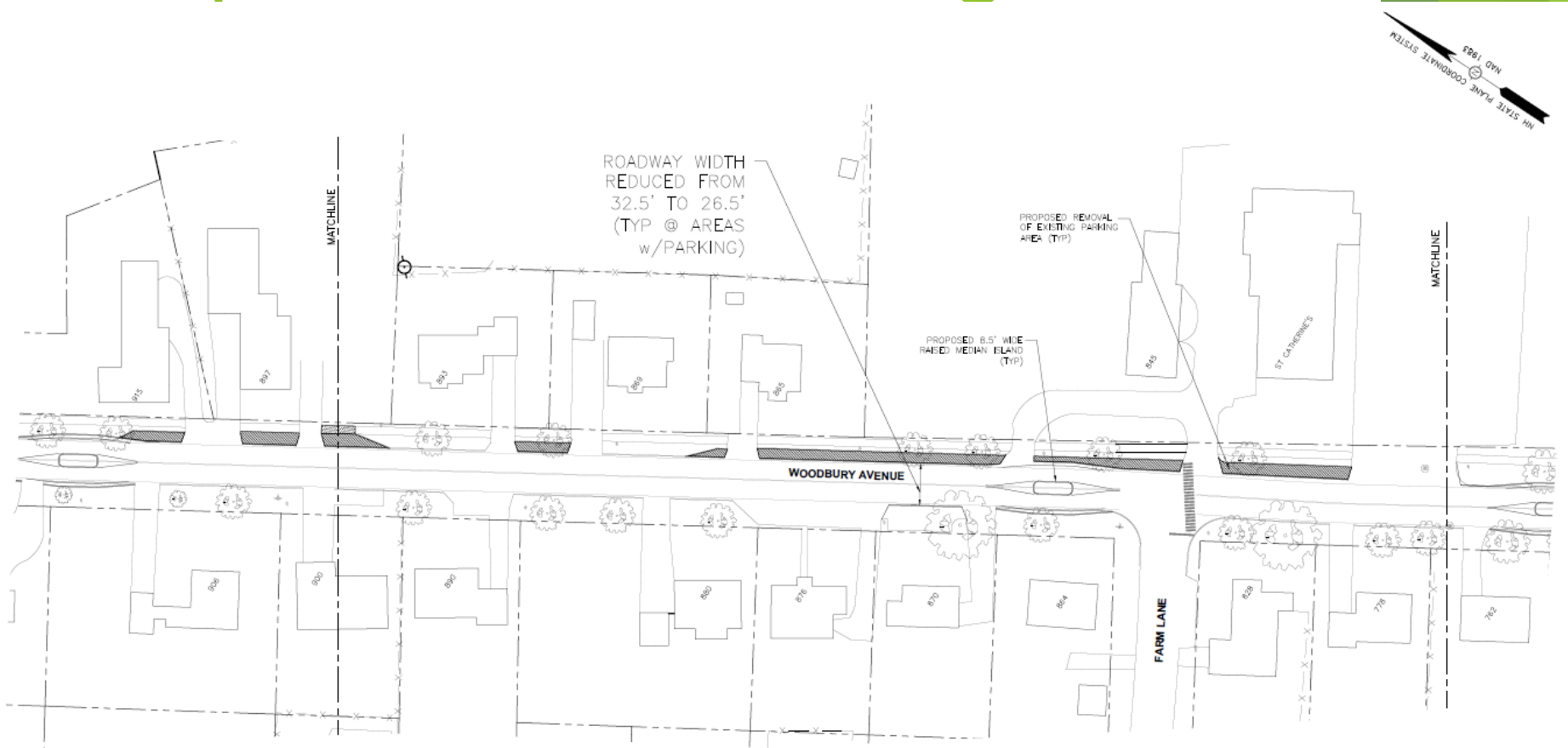
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B	PUBLIC MEETING & FEBRUARY P.T.S.	MRB	1/26/23
A	INTERNAL REVIEW	MRB	1/20/23
PROJECT: WOODBURY AVENUE TRAFFIC CALMING			
TITLE: ROADWAY LAYOUT PLAN			
DRAWING SCALE: AS SHOWN		DATE: JANUARY 2023	
PROJECT NO.: 7247		SHEET: 1	
APPROVED BY: MRB		C-101	

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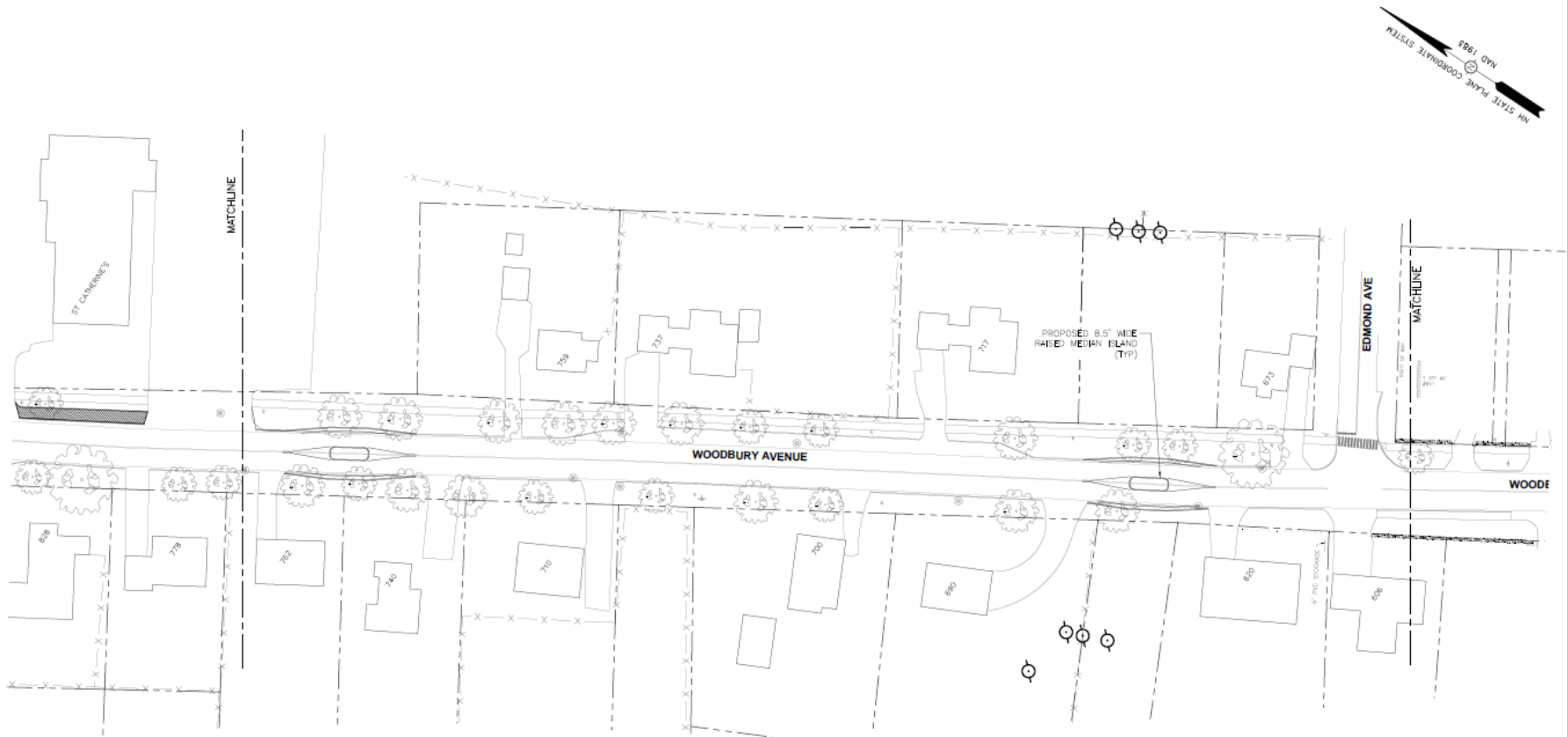
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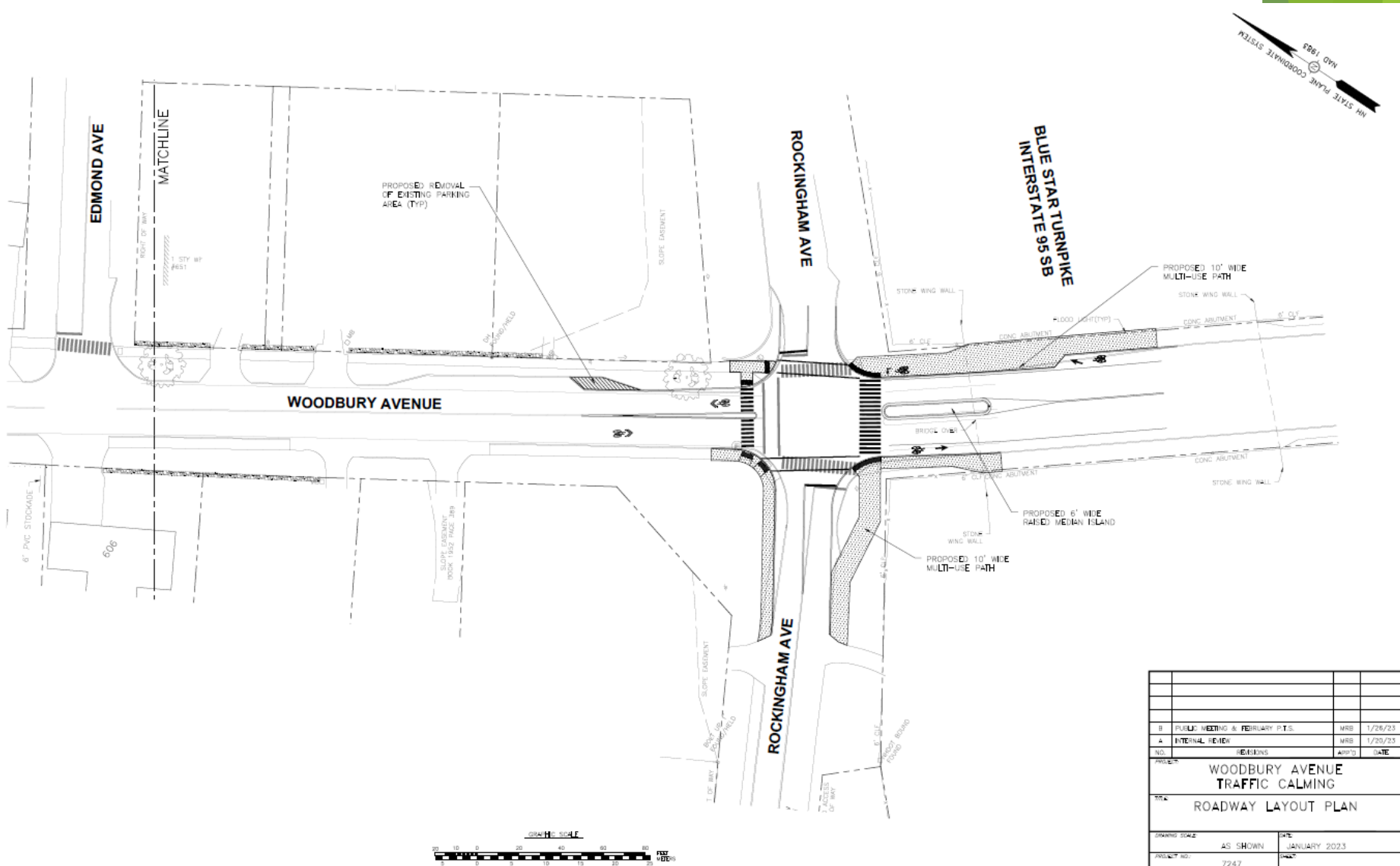
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TITLE: ROADWAY LAYOUT PLAN			
DRAWING SCALE	AS SHOWN	DATE	JANUARY 2023
PROJECT NO.	7247	ISSUE	
APPROVED BY	MRB		C-103

Proposed Traffic Calming Measures



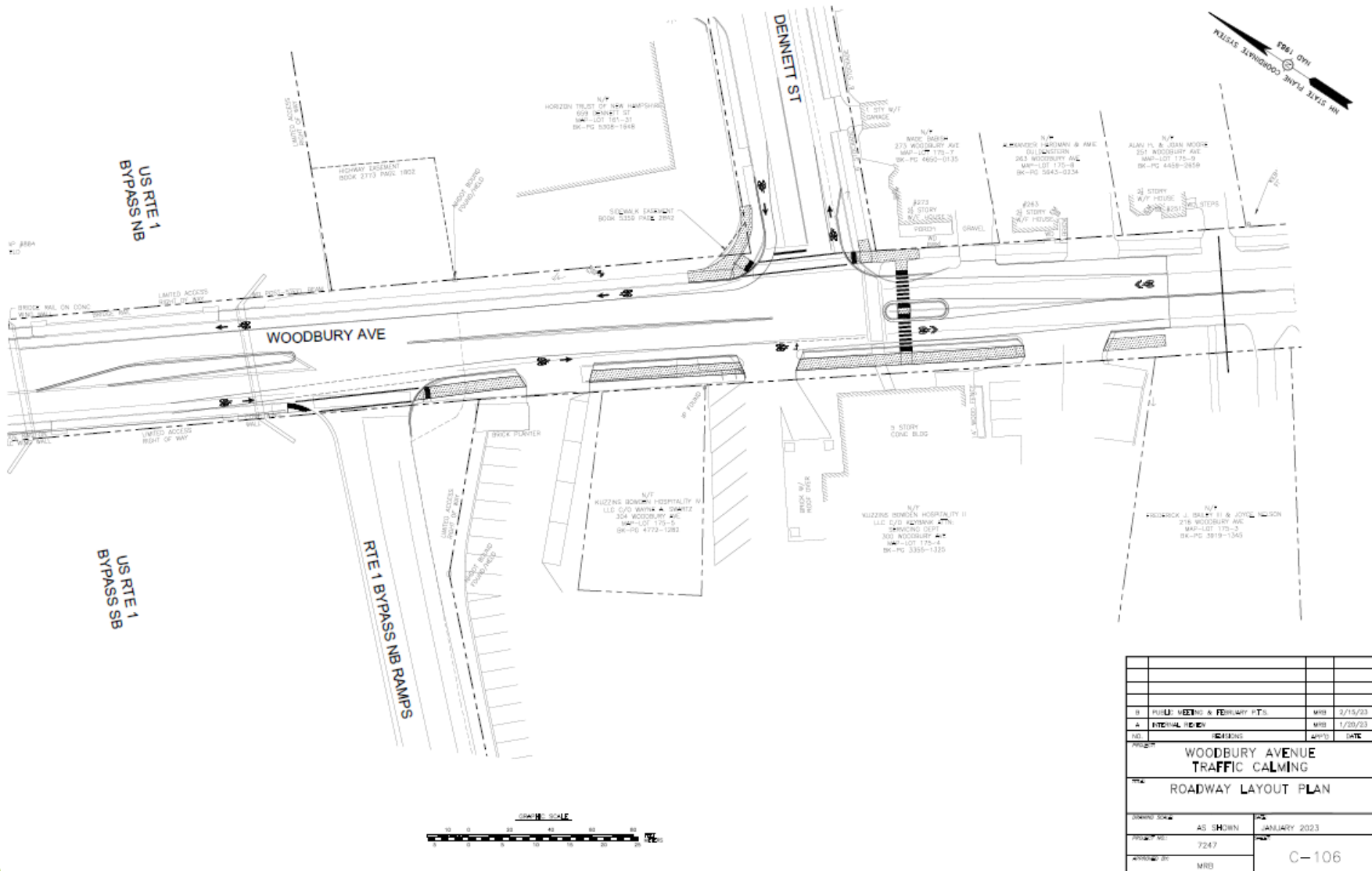
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APPROVED BY:	MRB	C-104	

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B	PUBLIC MEETING & FEBRUARY P.T.S.	MRB	1/26/23
A	INTERNAL REVIEW	MRB	1/25/23
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APPROVED BY:	MRB	CHECKED BY:	

Proposed Traffic Calming Measures



NO.	REVISIONS	DATE
B	PUBLIC MEETING & FEEDBACK PT'S.	MHB 2/15/23
A	INTERNAL REVIEW	MHB 1/20/23
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TITLE: ROADWAY LAYOUT PLAN		
DRAWING SCALE:	AS SHOWN	JANUARY 2023
PROJECT NO.:	7247	
APPROVED BY:	MHB	C-106

Next Steps

- ▶ City Staff report back to Parking and Traffic Safety Committee on tonight's feedback and input
- ▶ Parking and Traffic Safety Committee recommendation to City Council
- ▶ City Council decision
- ▶ Final design and implementation of chosen measures

Questions and Comments

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