



PROPOSED SOLID WASTE & RECYCLING TRANSFER STATION

**CARLETON DRIVE
GEORGETOWN, MA**

Georgetown Planning Board

January 13, 2021

AGENDA

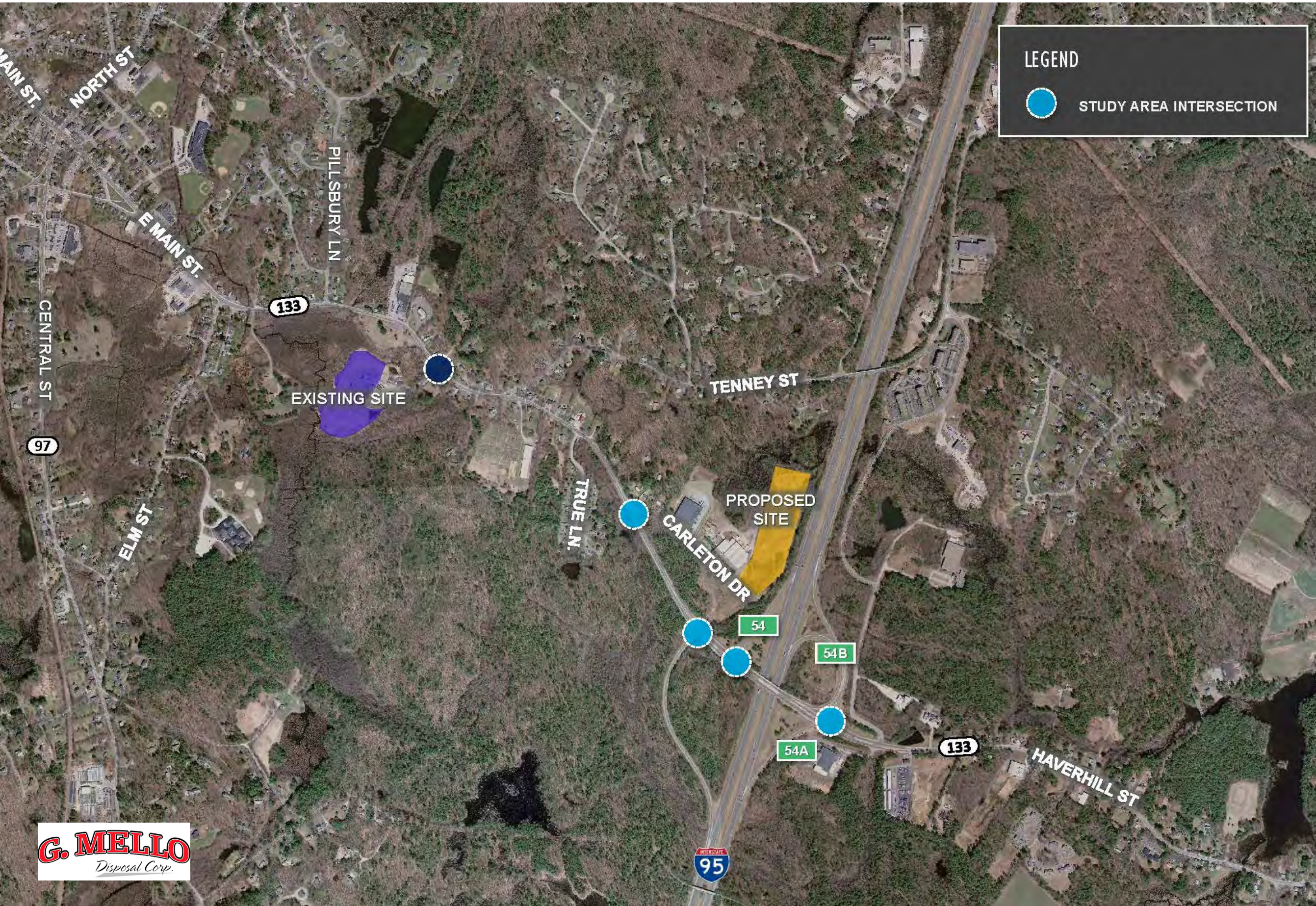
- Project Recap / Overview
- Permit Summary
- Site Plan Recap / Overview
- Traffic Presentation

TRAFFIC
STUDY AREA

LEGEND



STUDY AREA INTERSECTION



EXISTING TRAFFIC



PROPOSED SOLID WASTE
& RECYCLING
TRANSFER STATION
CARLETON DRIVE
GEORGETOWN, MA



Time Period	Vehicle Trips					
	Existing Facility (50 tpd)		Proposed Facility (500 tpd)		Net Increase	
	Heavy Vehicles	Passenger Vehicles	Heavy Vehicles	Passenger Vehicles	Heavy Vehicles	Passenger Vehicles
Weekday Daily	96	606	280	610	184	4
Weekday AM Peak						
Enter	3	40	20	41	17	1
Exit	4	38	17	41	13	3
Total	7	78	37	82	30	4
Weekday PM Peak						
Enter	0	0	0	0	0	0
Exit	0	1	3	3	3	2
Total	0	1	3	3	3	2
Weekend Daily	33	792	60	812	27	20
Weekend Midday Peak						
Enter	2	97	7	100	5	3
Exit	2	83	7	100	5	17
Total	4	180	14	200	10	20

PROPOSED

SITE-GENERATED

TRIPS

TRIP GENERATION SUMMARY



PROPOSED SOLID WASTE






& RECYCLING

TRANSFER STATION

CARLETON DRIVE

GEORGETOWN, MA

WEEKDAY DAILY

Type of Truck	Tonnage	Vehicles Per Day		
		Existing Facility (50 tpd)	Proposed Facility (500 tpd)	Net Increase
 Residents	~20 lb.	298 (3 tons)	300 (4 tons)	2
 Small Commercial Vehicles	1	41 (41 tons)	50 (50 tons)	10
 Roll-Off Containers	5	1 (5 tons)	60 (300 tons)	59
 Packer Trucks	15	0 (0 tons)	10 (150 tons)	10
 100 cy Transfer Trailers	25	6 (49 tons)	20 (504 tons)	14
Employees	--	5	5	--
TOTAL VEHICLES	--	346 (49 tons)	440 (504 tons)	94

TONNAGE INCREASE VS. TRIP INCREASE

PROPOSED
SITE-GENERATED
TRIPS

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WEEKEND DAILY

PROPOSED
SITE-GENERATED
TRIPS

Type of Truck	Tonnage	Vehicles Per Day		
		Existing Facility (50 tpd)	Proposed Facility (500 tpd)	Net Increase
Residents	~20 lb.	390 (7 tons)	400 (8 tons)	10
Small Commercial Vehicles	1	15 (15 tons)	20 (20 tons)	5
Roll-Off Containers	5	1 (5 tons)	10 (50 tons)	9
Packer Trucks	15	0 (0 tons)	0 (0 tons)	0
100 cy Transfer Trailers	25	0 --	0 --	0
Employees	--	5	5	--
TOTAL VEHICLES	--	406 (27 tons)	430 (78 tons)	24



TONNAGE INCREASE VS. TRIP INCREASE

PROPOSED SOLID WASTE
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TRIP DISTRIBUTION



XX% (XX%)= PERCENTAGE OF RESIDENTIAL TRIPS (PERCENTAGE OF TRUCK TRIPS)

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SITE-GENERATED TRIPS

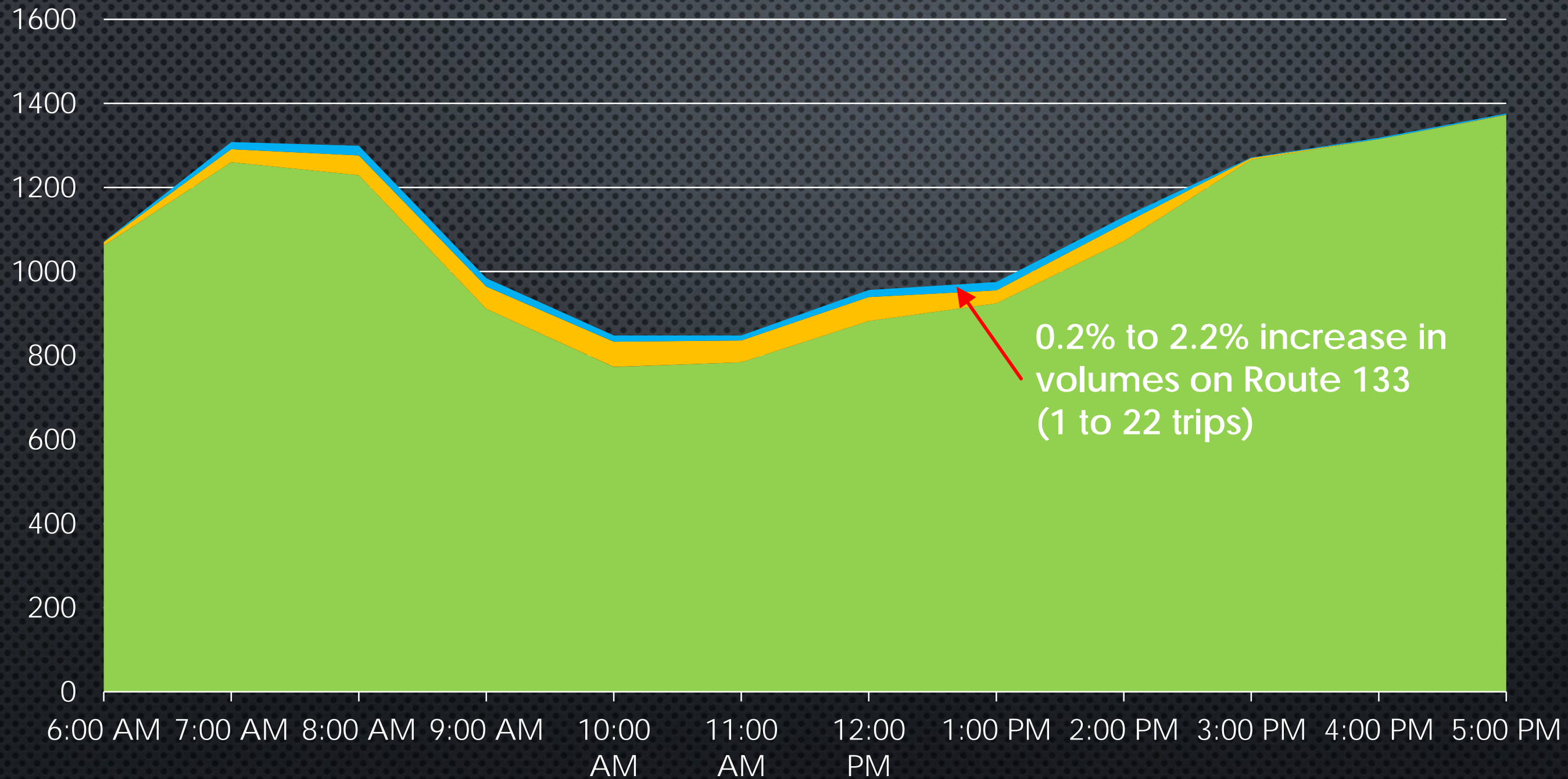


SITE-GENERATED TRIPS



Route 133 southeast of Carleton Drive Weekday Daily

DAILY TRAFFIC VOLUME DISTRIBUTION

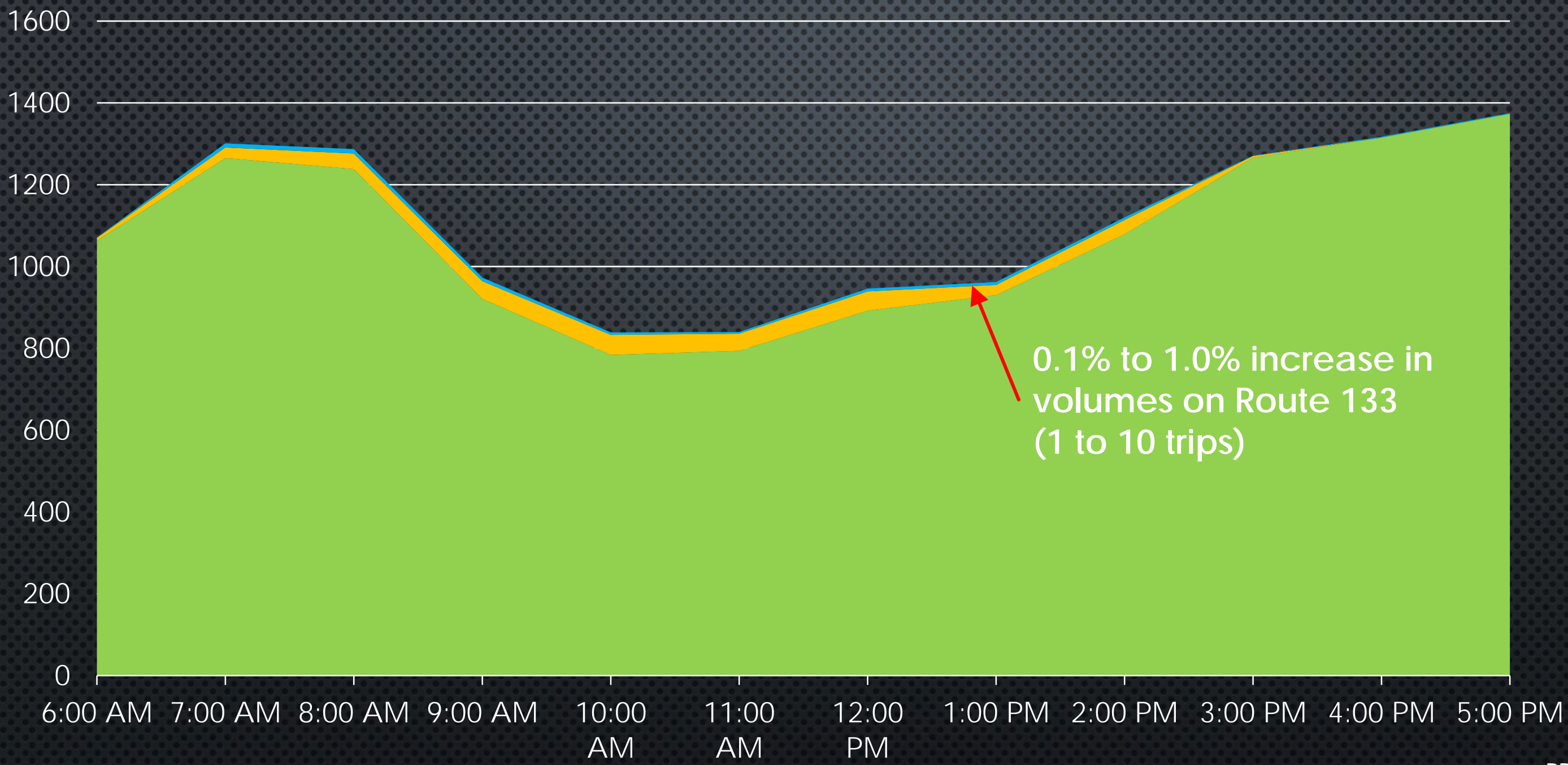


■ Existing (Non-Transfer Station) Trips ■ Existing Transfer Station Trips ■ Proposed New Trips

PROPOSED SOLID WASTE
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Route 133 west of Existing Driveway Weekday Daily

DAILY TRAFFIC
VOLUME DISTRIBUTION



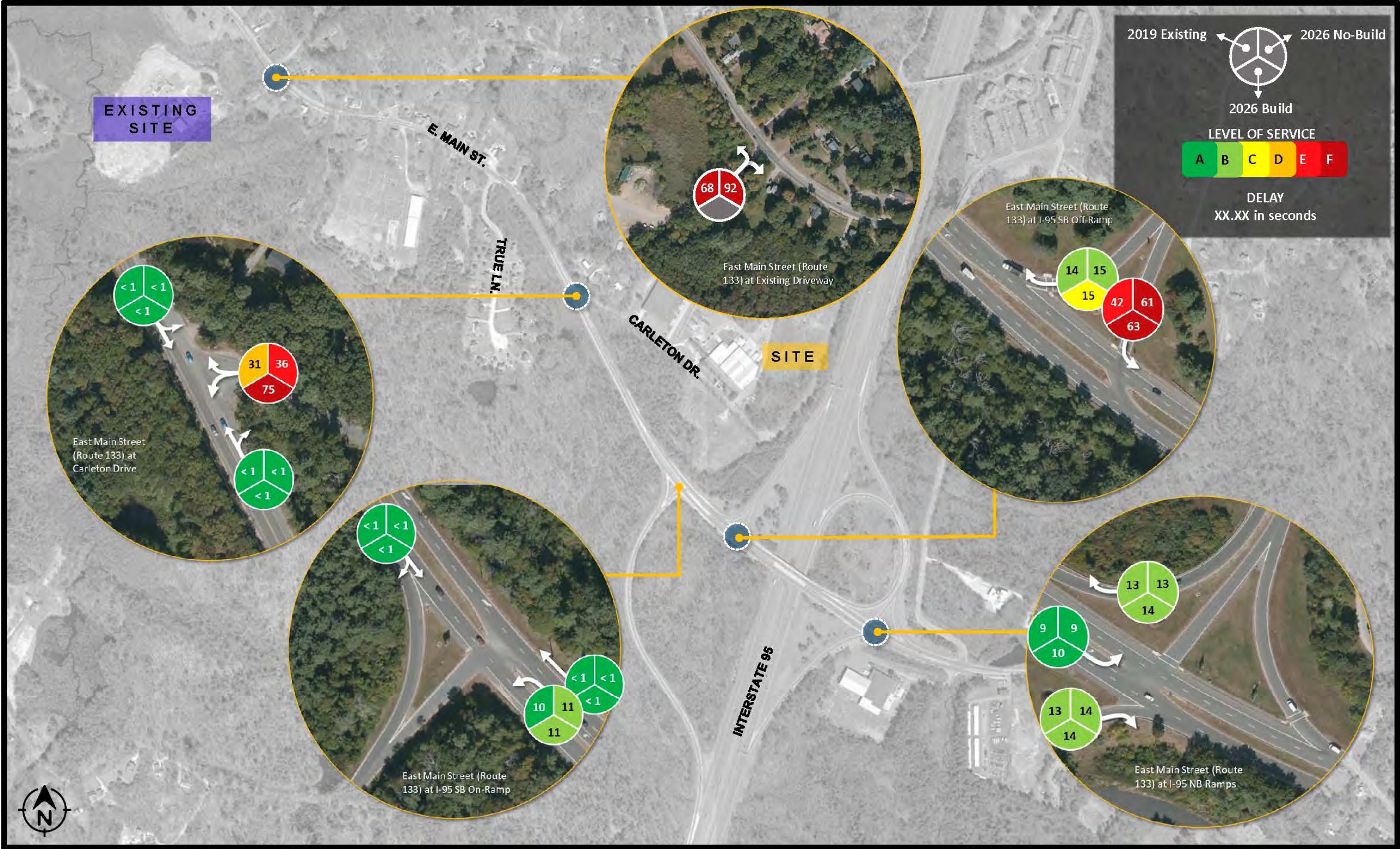
0.1% to 1.0% increase in
volumes on Route 133
(1 to 10 trips)

■ Existing (Non-Transfer Station) Trips ■ Existing Transfer Station Trips ■ Proposed New Trips



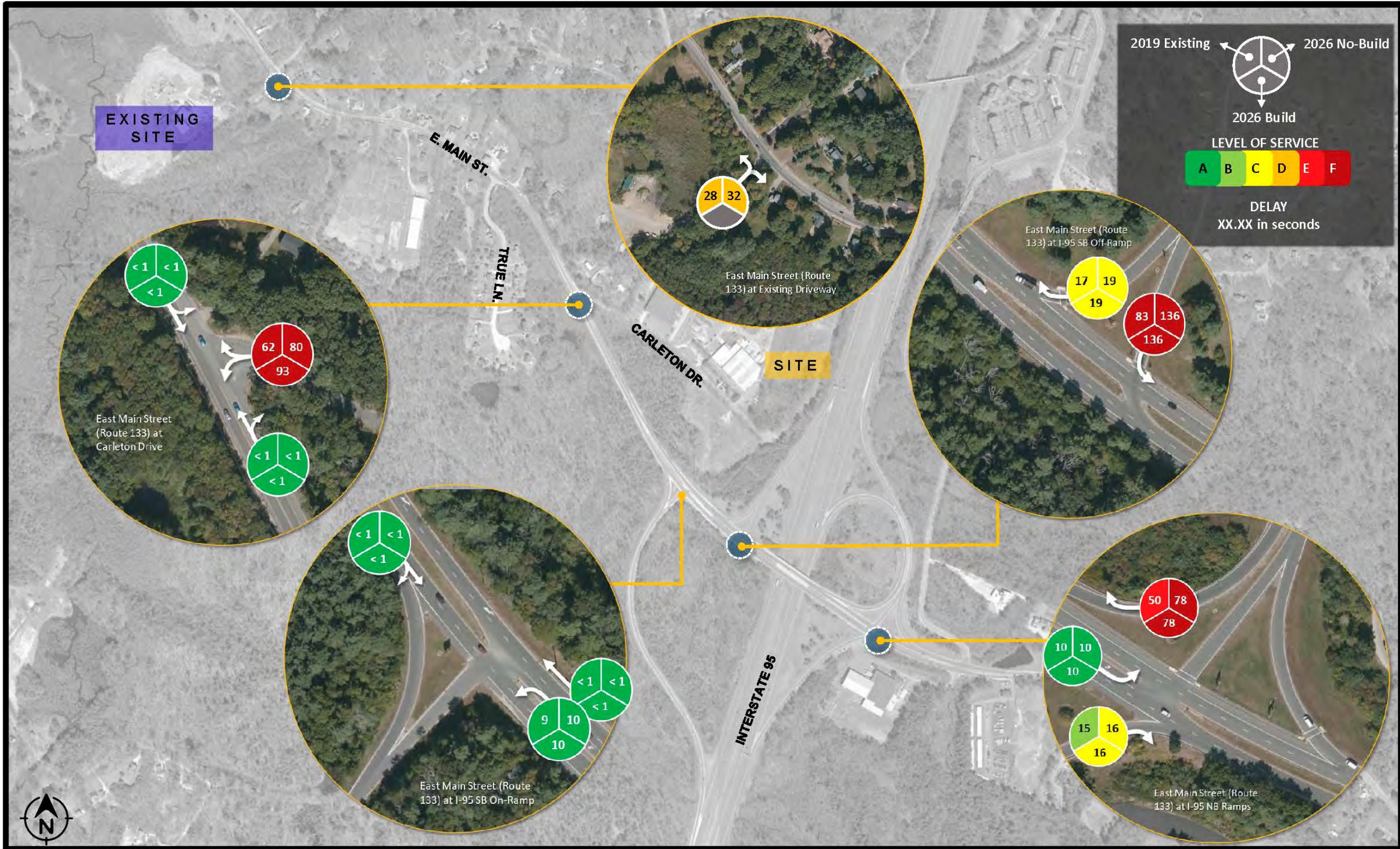
PROPOSED SOLID WASTE
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CARLETON DRIVE
GEORGETOWN, MA

DELAY & LOS
SUMMARY



PROPOSED SOLID WASTE
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CARLETON DRIVE
GEORGETOWN, MA

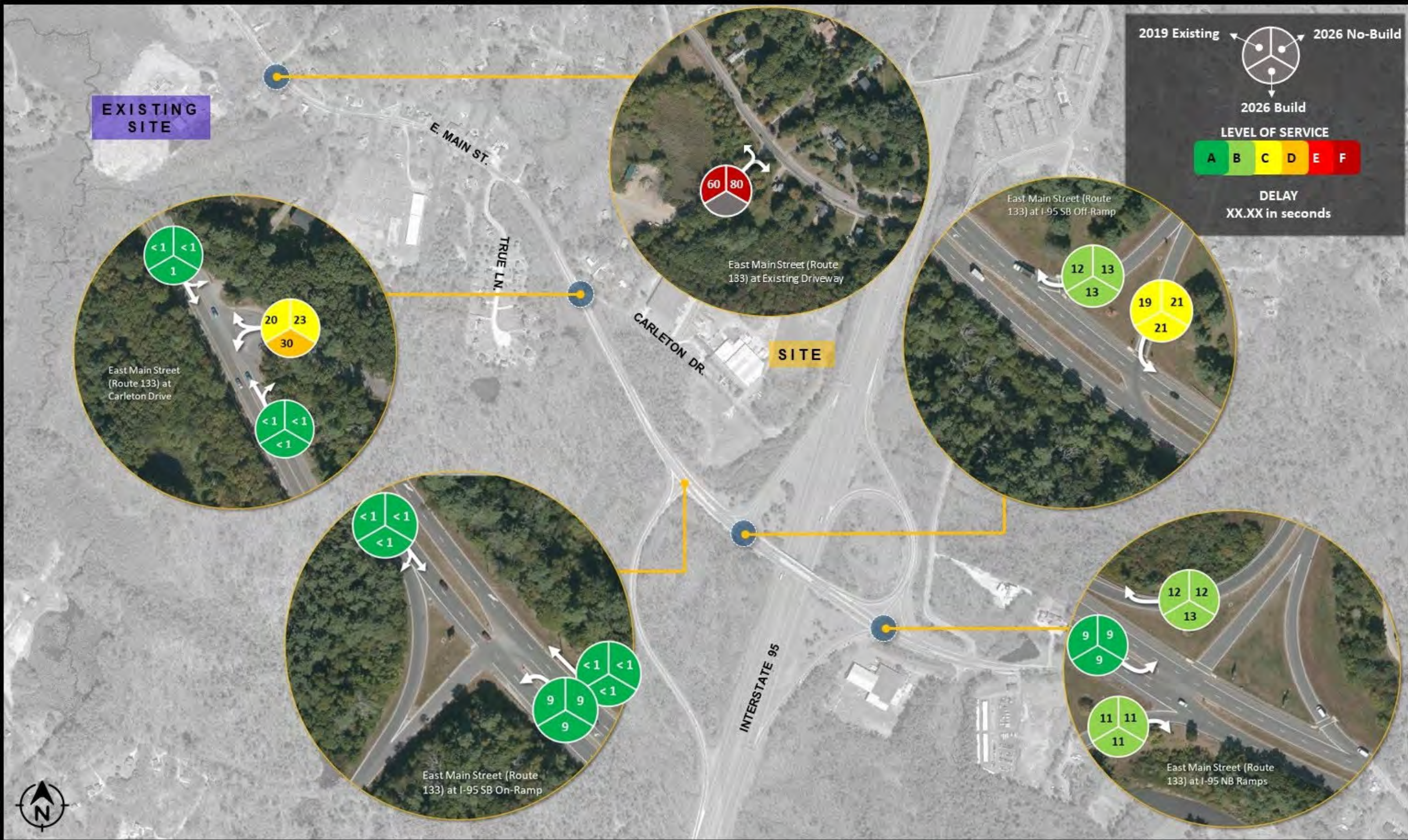
DELAY & LOS
SUMMARY



PROPOSED SOLID WASTE
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WEEKDAY PM | LEVEL OF SERVICE + DELAY

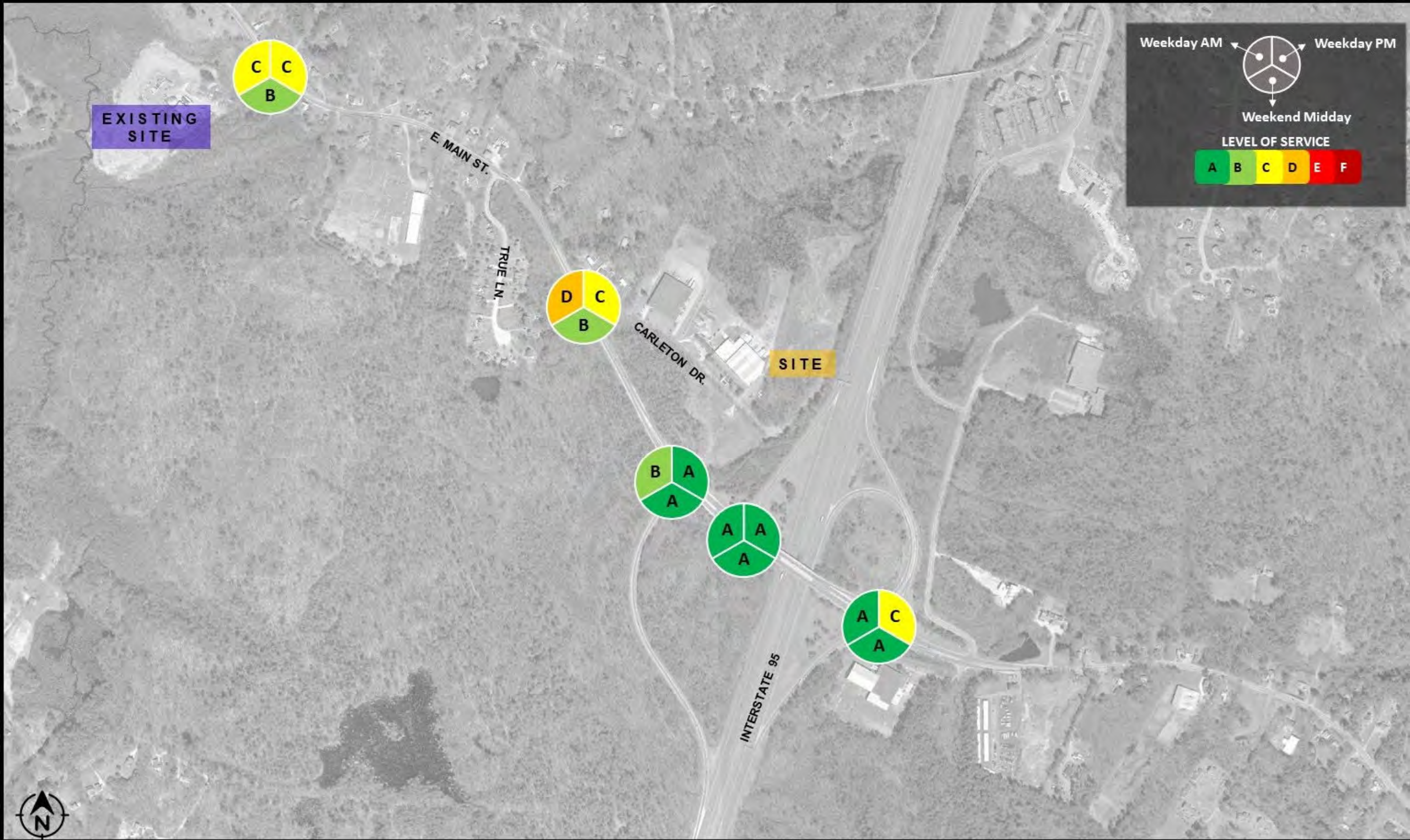
DELAY & LOS
SUMMARY



WEEKEND MIDDAY | LEVEL OF SERVICE + DELAY

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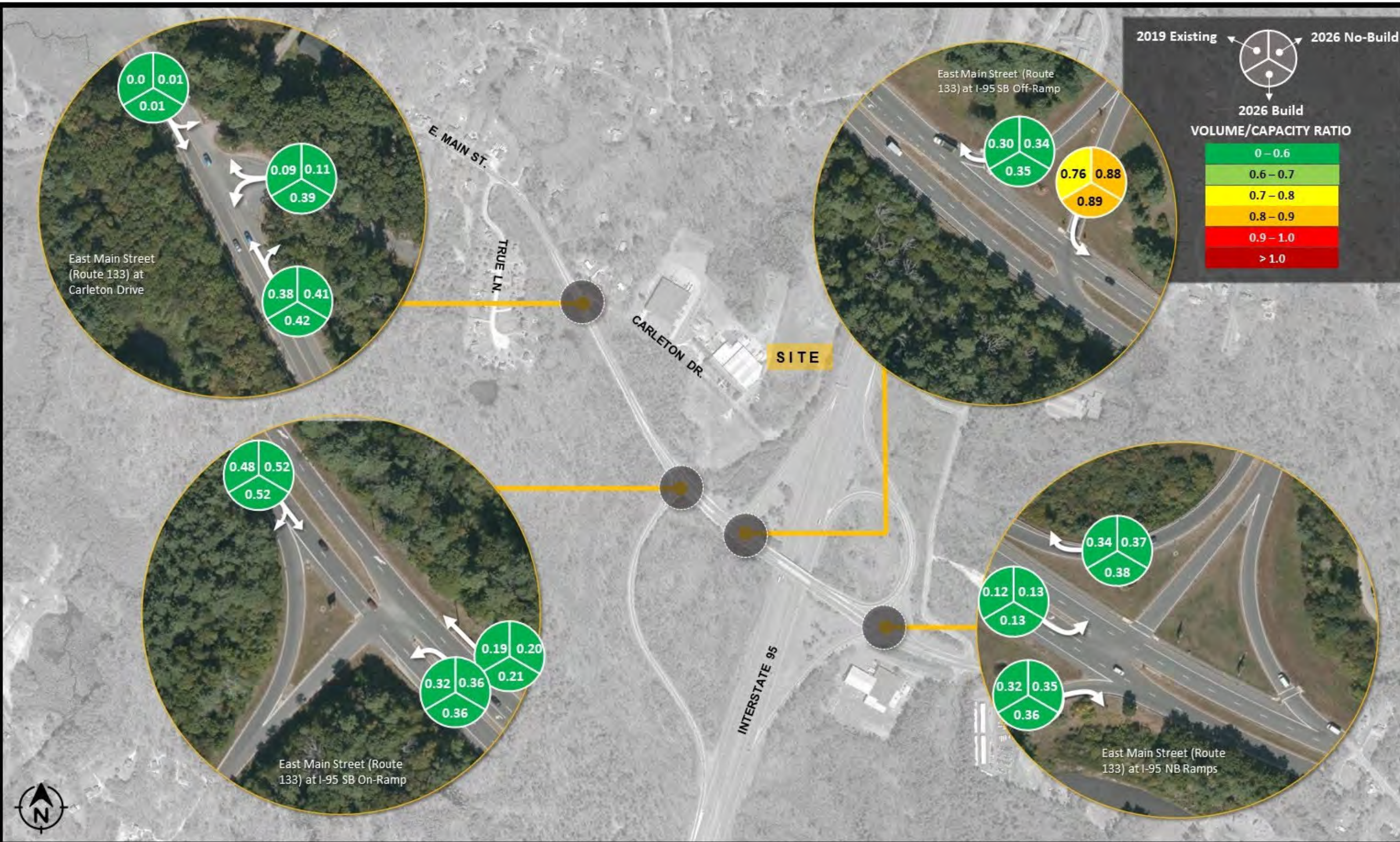
DELAY & LOS
SUMMARY



INTERSECTION LEVEL OF SERVICE — 2026 BUILD CONDITION

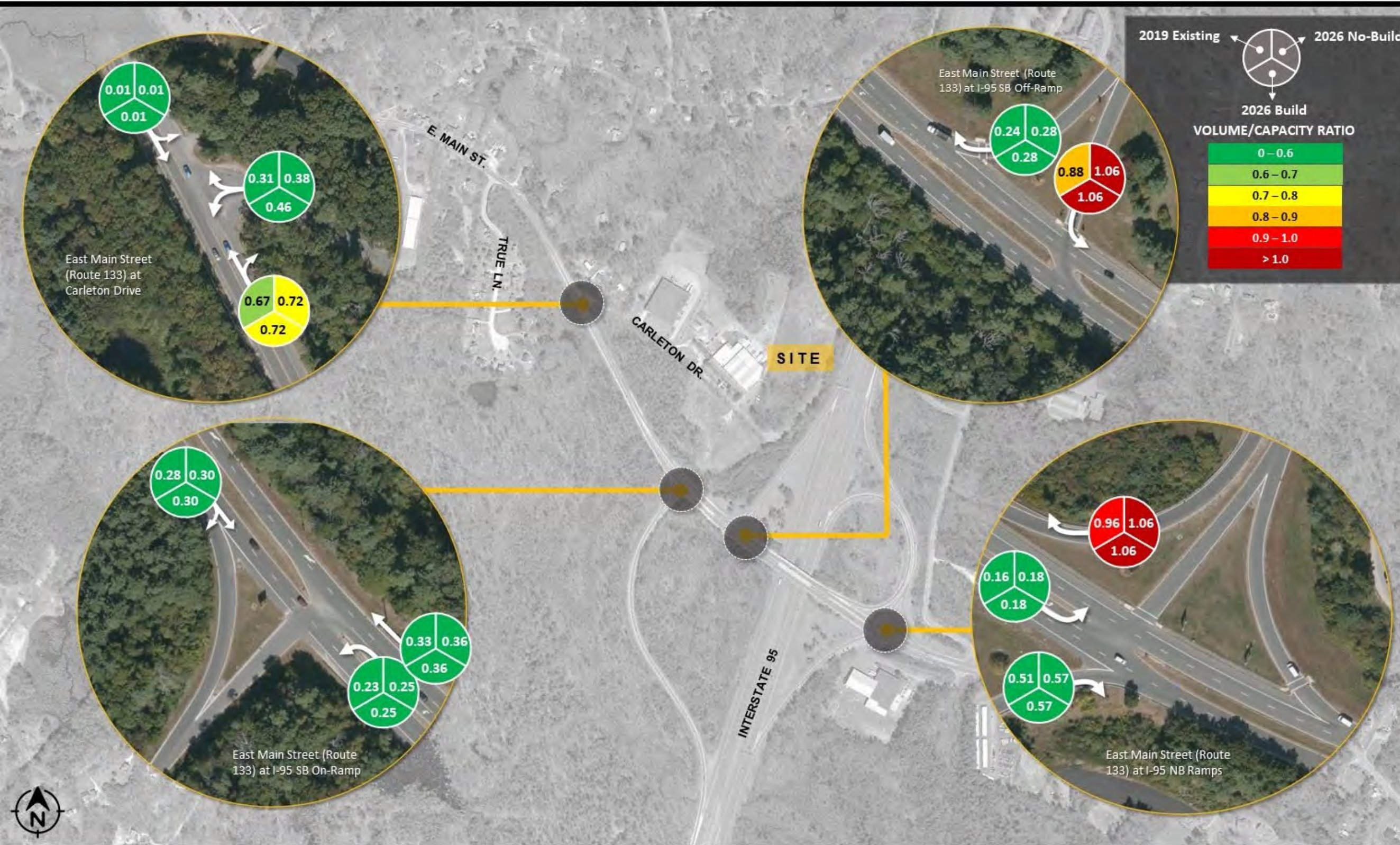
PROPOSED SOLID WASTE
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GEORGETOWN, MA

V/C RATIO

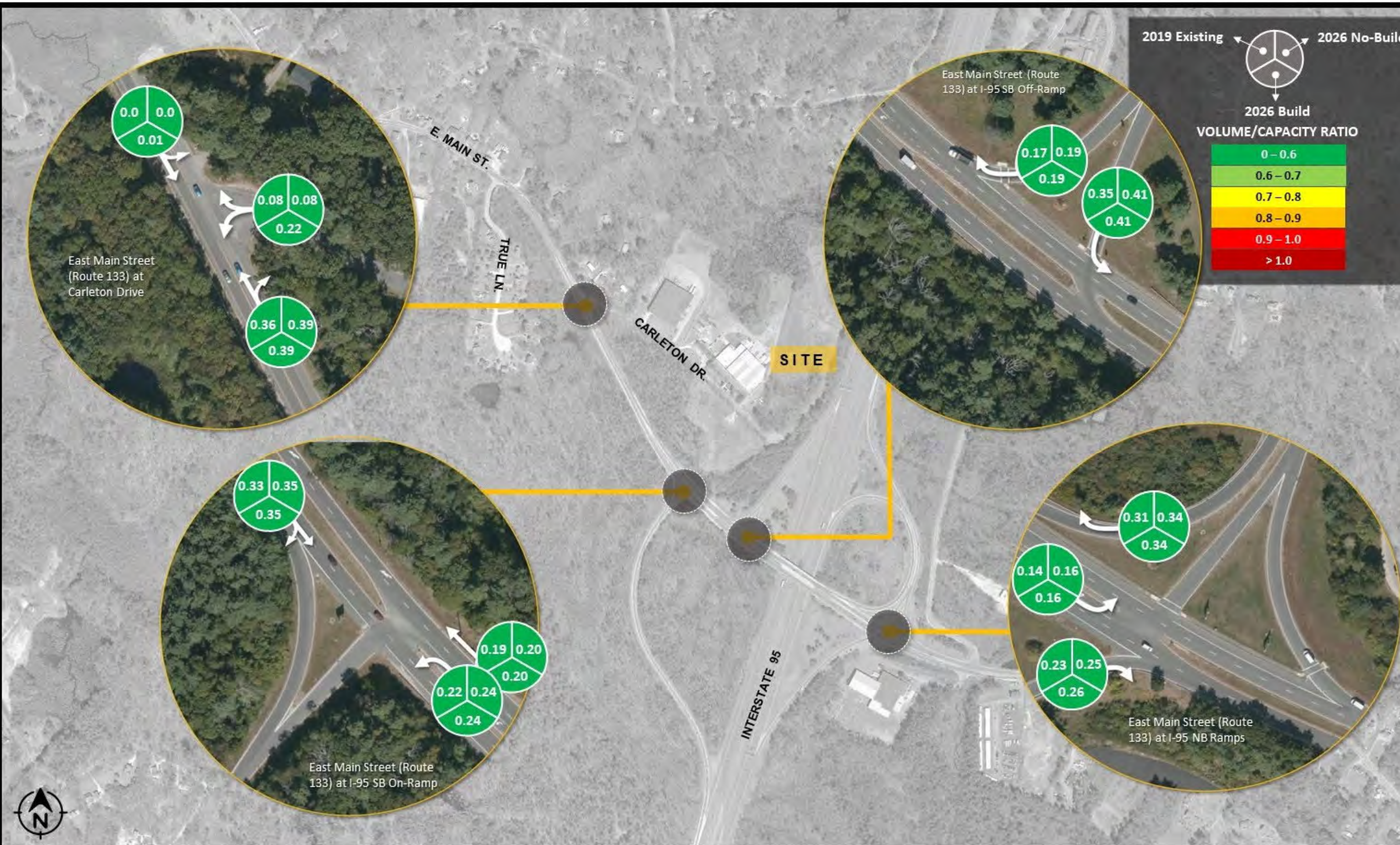


PROPOSED SOLID WASTE
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CARLETON DRIVE
GEORGETOWN, MA

V/C RATIO



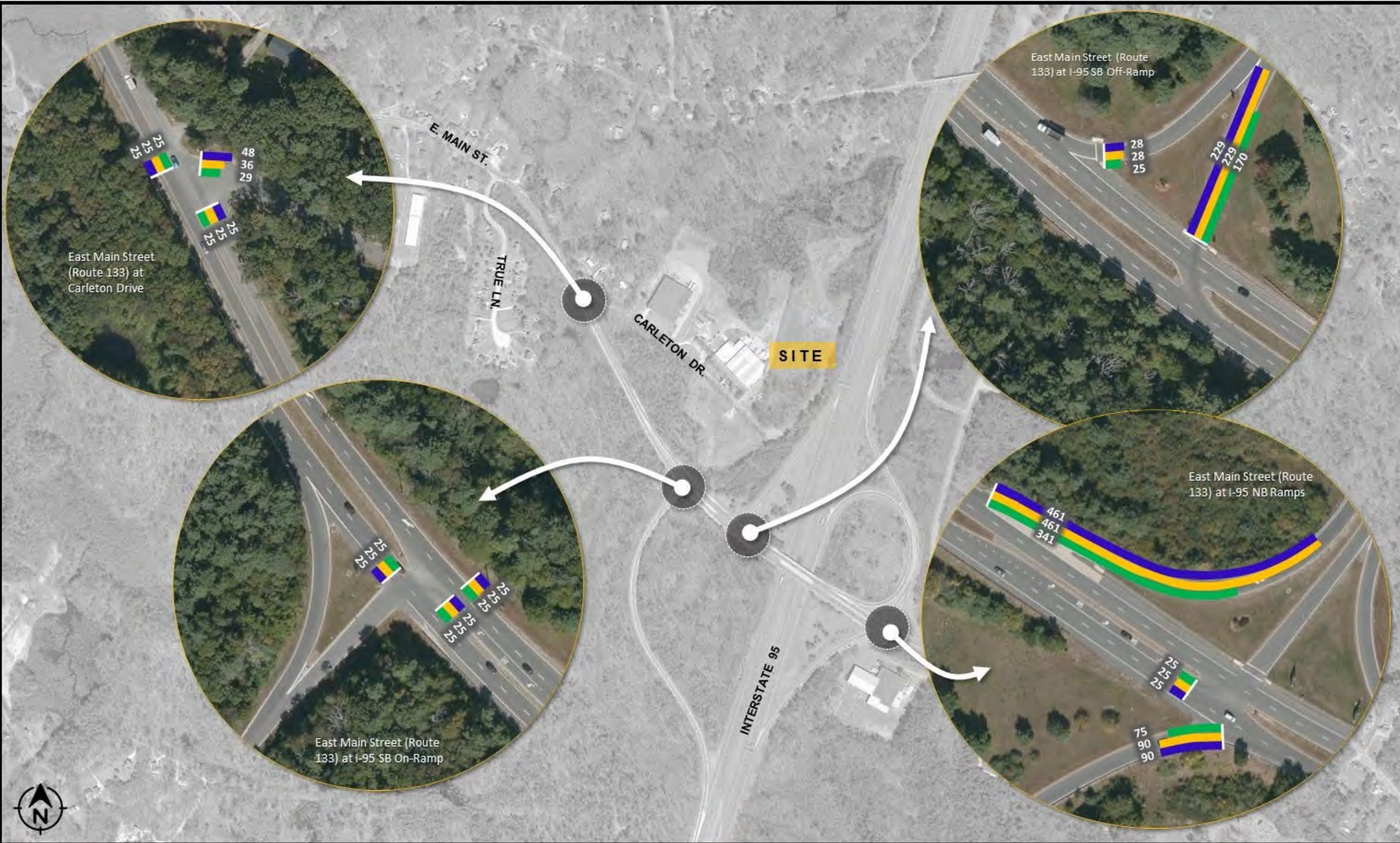
V/C RATIO



**PROPOSED SOLID WASTE
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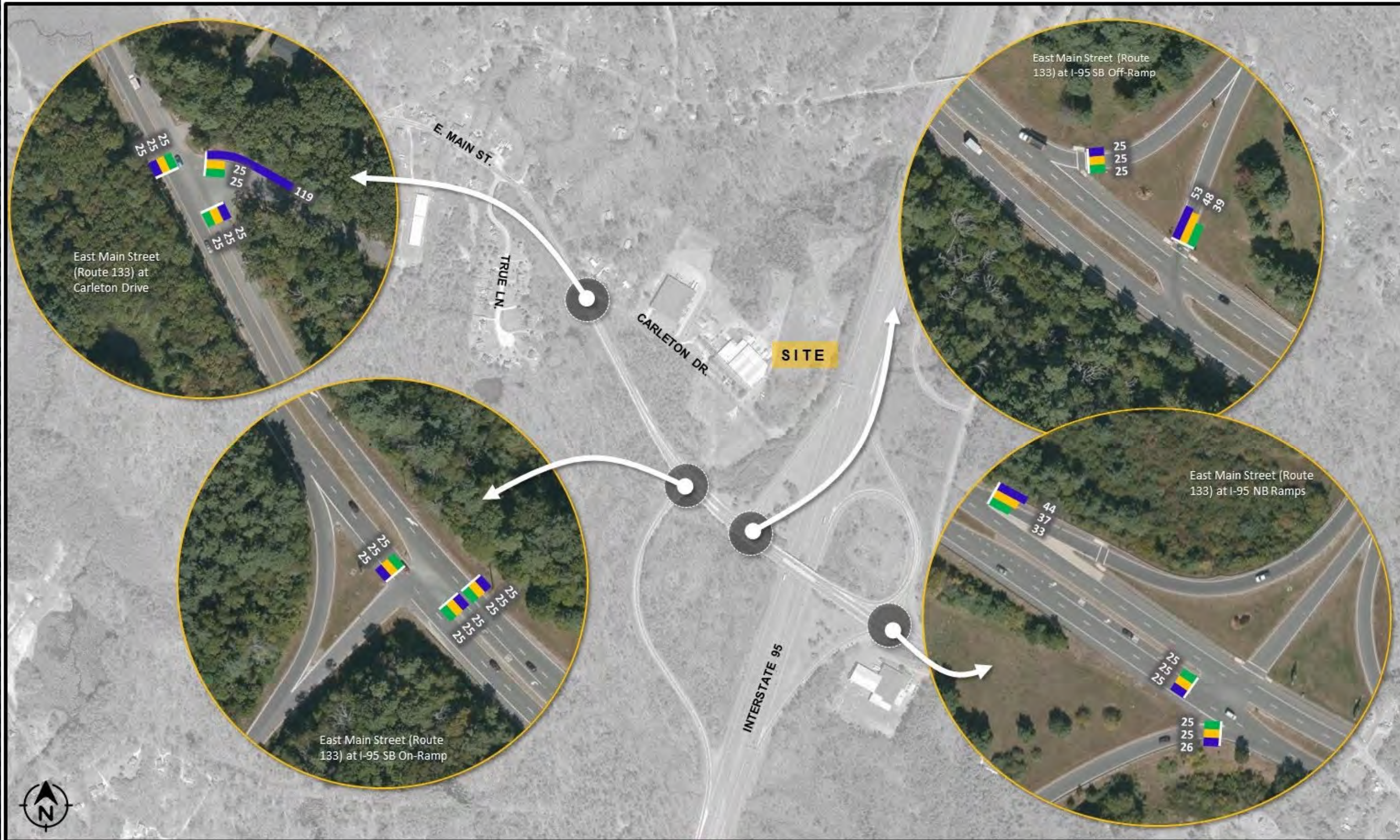


PROPOSED SOLID WASTE
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WEEKDAY PM | QUEUES

PROPOSED SOLID WASTE
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EXISTING SITE

Residents must stop in separate area for recyclables

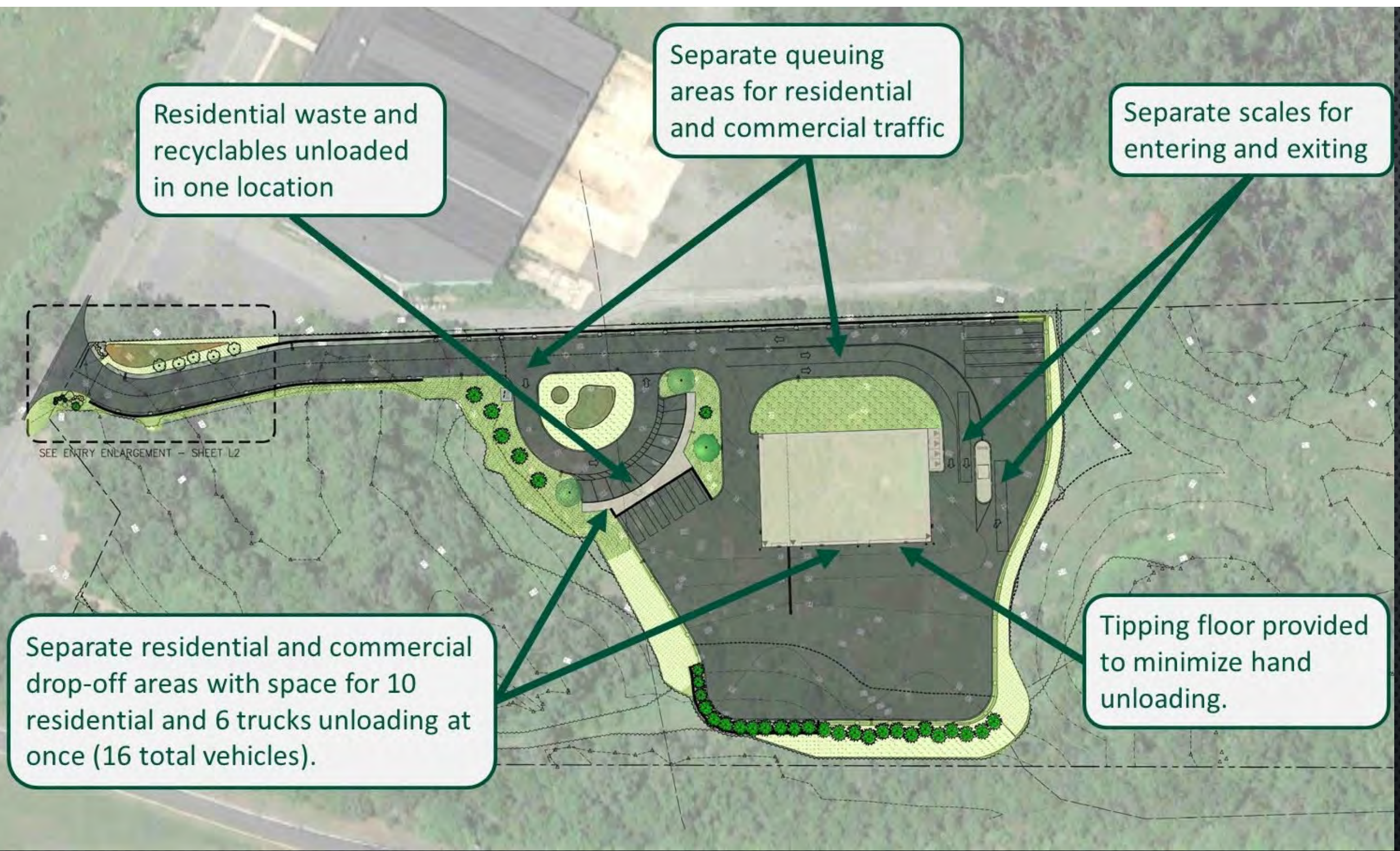
One scale for entering and exiting

All vehicles wait in a single line for access to scales

All traffic uses one drop-off area with room for 6 vehicles

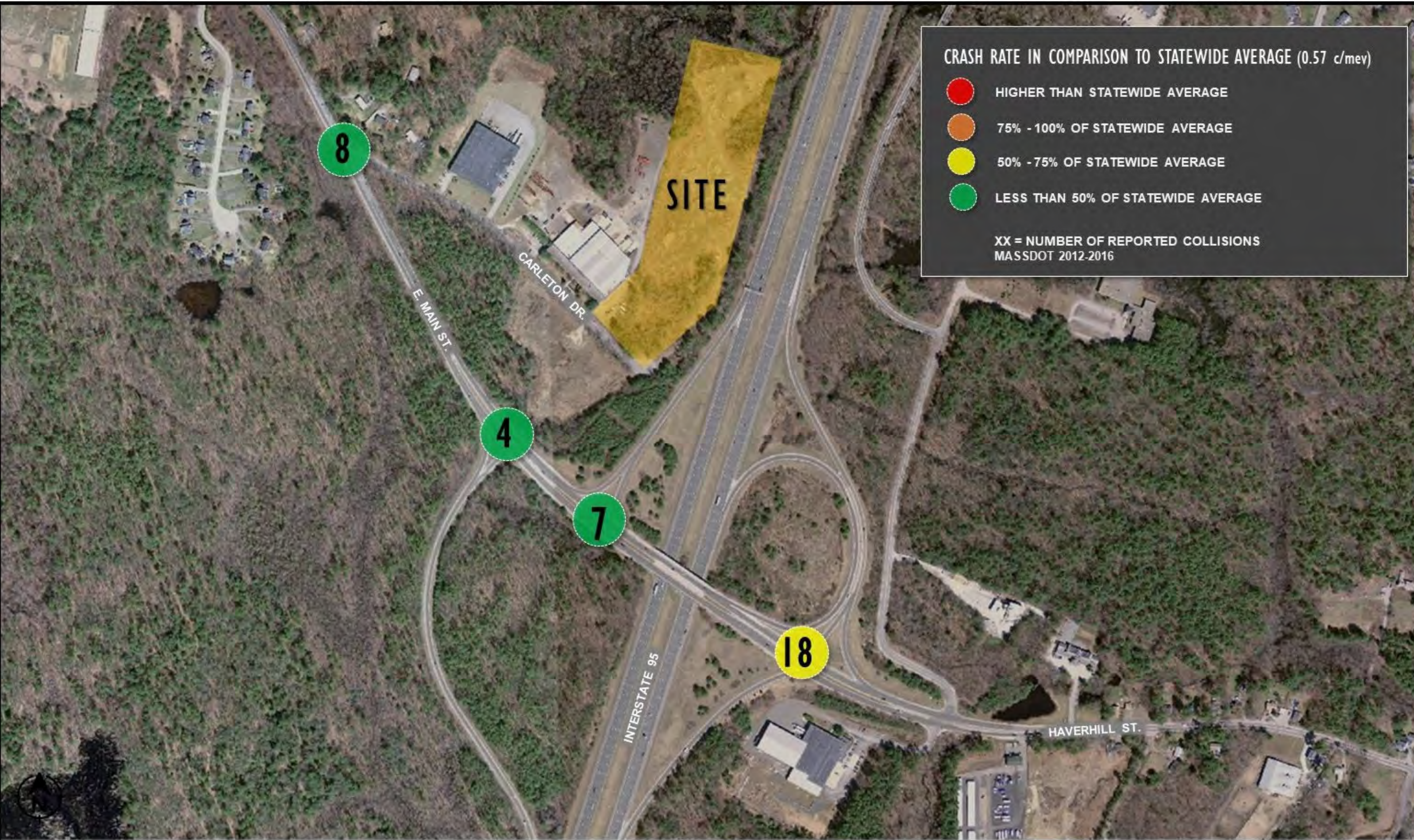
No tipping floor provided. Material unloaded by hand.

PROPOSED SITE



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COLLISION SUMMARY



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SIGHT DISTANCE

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SIGHT DISTANCE

TURNING PATHS

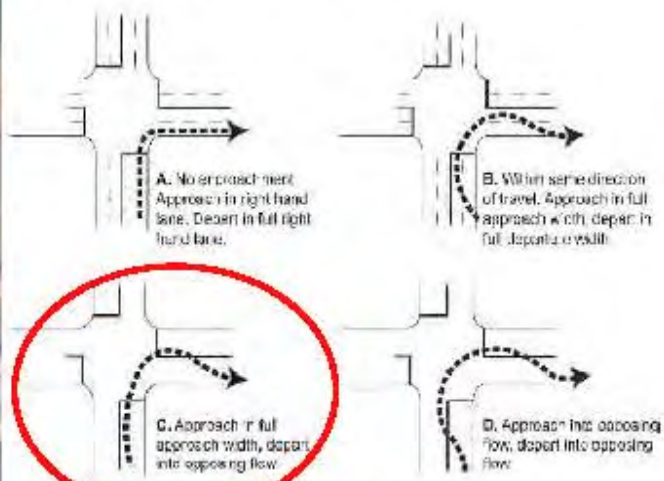
TURNING
DEMONSTRATIONS
WERE PERFORMED
EARLY FEBRUARY 2020
AT THE SITE TO ENSURE
CLEARANCES.

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Exhibit 6-15
Typical Encroachment by Design Vehicle



	For Tractor/Trailer (WB 55)			To (Departure Street)			For Passenger Car (P)		
	Arterial	Collector	Local	Arterial	Collector	Local	Arterial	Collector	Local
From Approach Street (Arterial)	A	D	C	A	D	C	A	A	A
From Approach Street (Collector)	D	D	C	D	D	C	A	A	A
From Approach Street (Local)	D	D	D	D	D	D	A	A	A

A, B, C, D defined in vehicle diagram.
Note: Cases C and D are generally not desirable at approach intersections because they require a stopped driver to cross into opposing traffic.
Source: Adapted from ITE Roadway Design Guidelines.

TURNING PATHS

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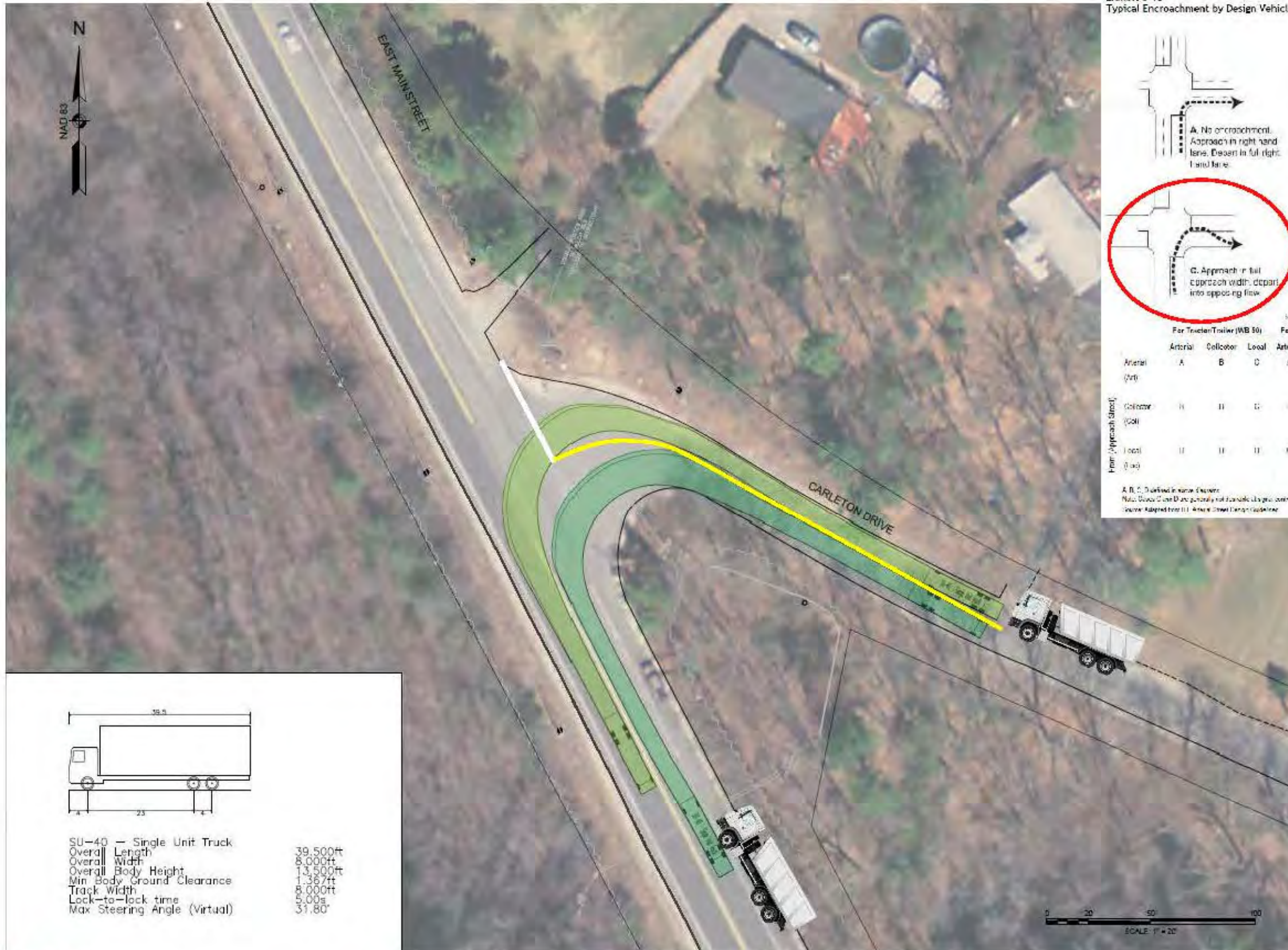
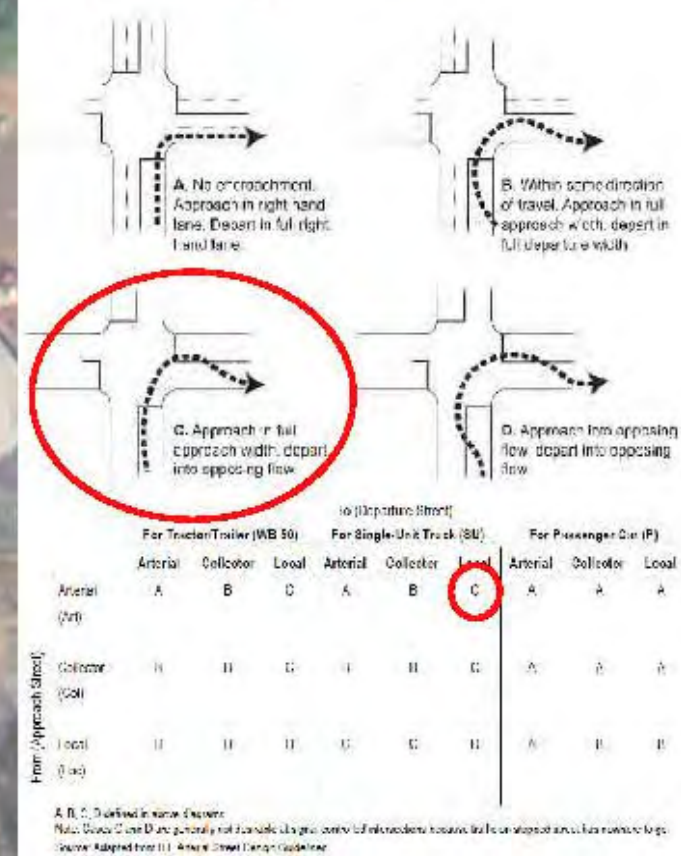


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Typical Encroachment by Design Vehicle



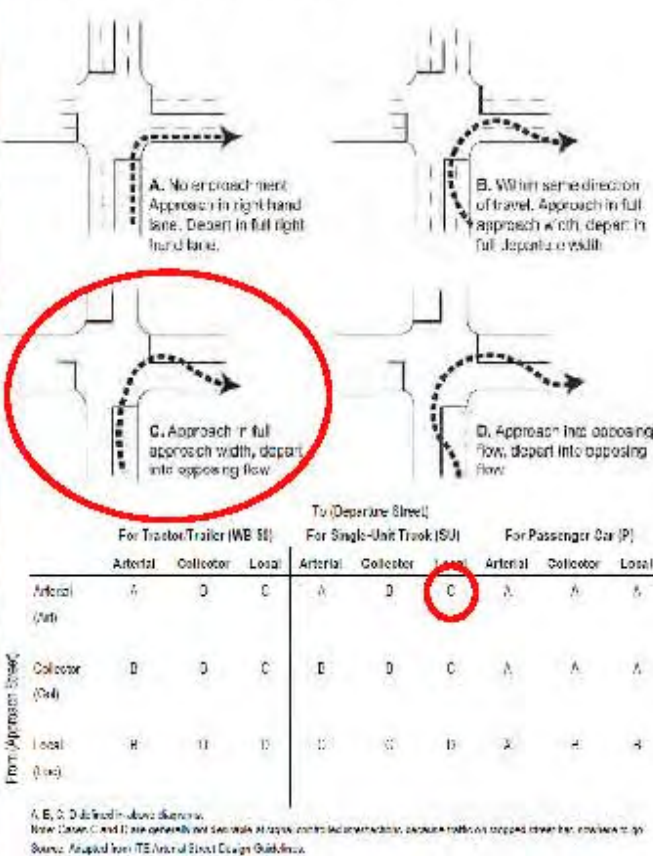
TURNING PATHS

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VEHICLE TURNING PATH DIAGRAMS | SU-40 IN, SU-40 OUT



Exhibit 6-15
Typical Encroachment by Design Vehicle



TURNING PATHS

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SAFETY:

- All study area intersections below statewide and district-wide average crash rate.
- Sight distances all exceed AASHTO recommendations.
- Turning movements onto and off of Carleton Drive meet MassDOT design standards
- Only Transfer Trailer requires use of both lanes on Carleton Drive
 - 100% within Mello control
 - Agreed not arrive during AM peak hour
 - Will not come to site on Saturday

TRAFFIC OPERATIONS:

- V/C ratios exiting Carleton Drive less than 1.00 and queues less than 5 vehicles.
- No measurable increases to delay or queues on any other study area intersections.

DAILY VEHICLES BY TYPE:

	300 (similar to existing)
	50 (increase of 10)
	60 (increase of 59)
	10 (increase of 10)
	20 (increase of 14)
TOTAL = 440 (increase of 93 over existing)	

TRAFFIC INCREASES:

- Project is a relocation of existing use
- No measurable increase in residential trips
- Volume decreases between existing and new site
- Volume increases of 1.0% west of existing site and 2.2% east of Carleton Drive

SUMMARY & CONCLUSIONS



PROPOSED SOLID WASTE & RECYCLING TRANSFER STATION

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Georgetown Planning Board
Public Hearing

January 13, 2021