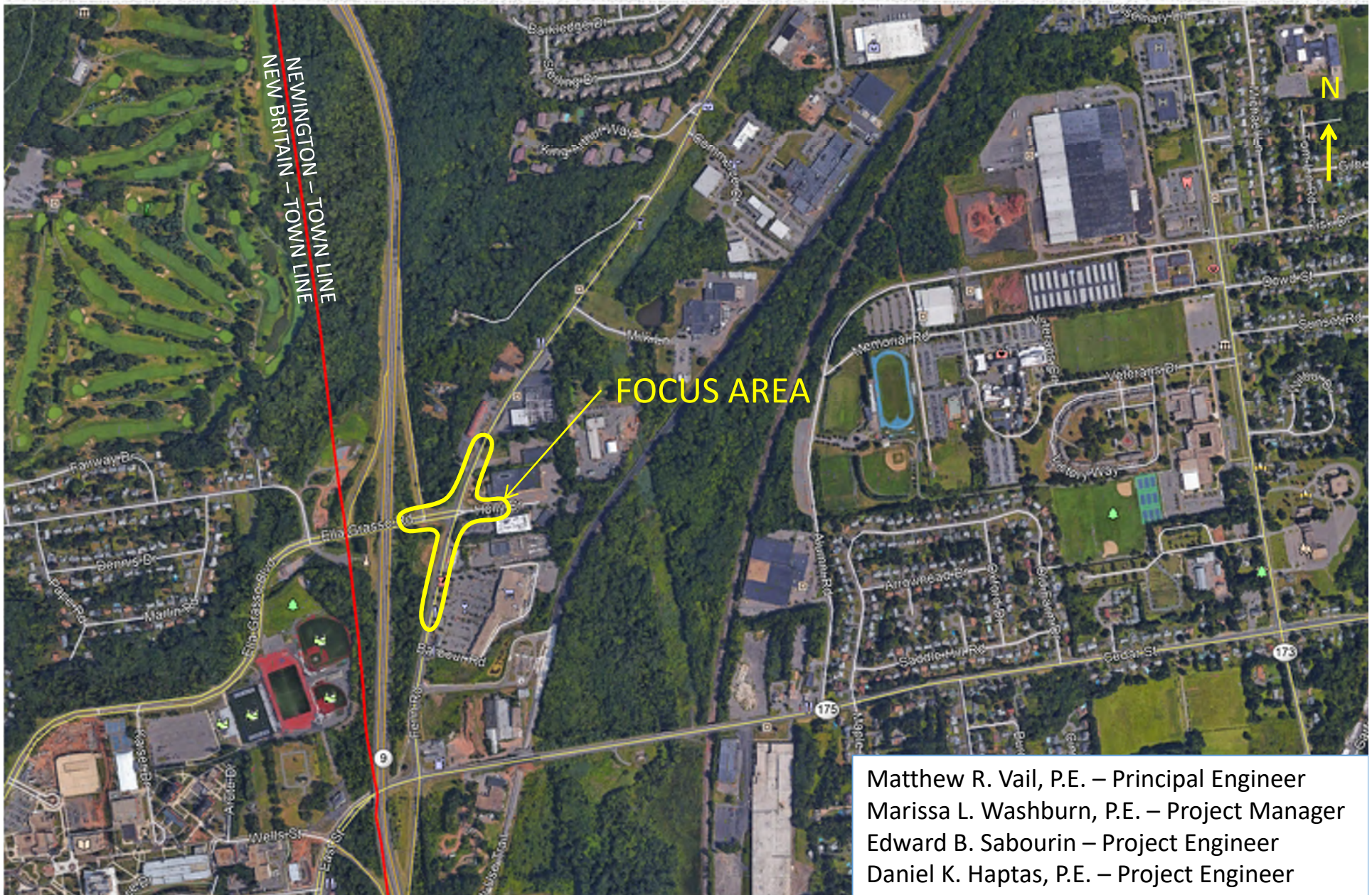


PROPOSED INTERSECTION IMPROVEMENTS ON FENN ROAD & ELLA GRASSO BLVD TOWN OF NEWINGTON



PURPOSE OF PUBLIC INFORMATIONAL MEETING

- Inform the public of proposed improvements
- Seek input
- Seek comments
- Answer questions & concerns
- Gauge public support/acceptance

MEETING OVERVIEW

- **PROJECT OVERVIEW**

- Project Process
- Purpose & Need of Proposed Improvements
- Existing conditions
- Proposed improvements
- Project impacts

- **PUBLIC COMMENTS & QUESTIONS**

PROJECT PROCESS

CONCEPT DEVELOPMENT

- Gather background data
- Develop preferred design
- Determine the Level of Support
- Initiate Project

DESIGN

- Preliminary Design
- Semi-final Design
- Right of Way
- Final Design
- Approximately 2-3 years duration

CONSTRUCTION

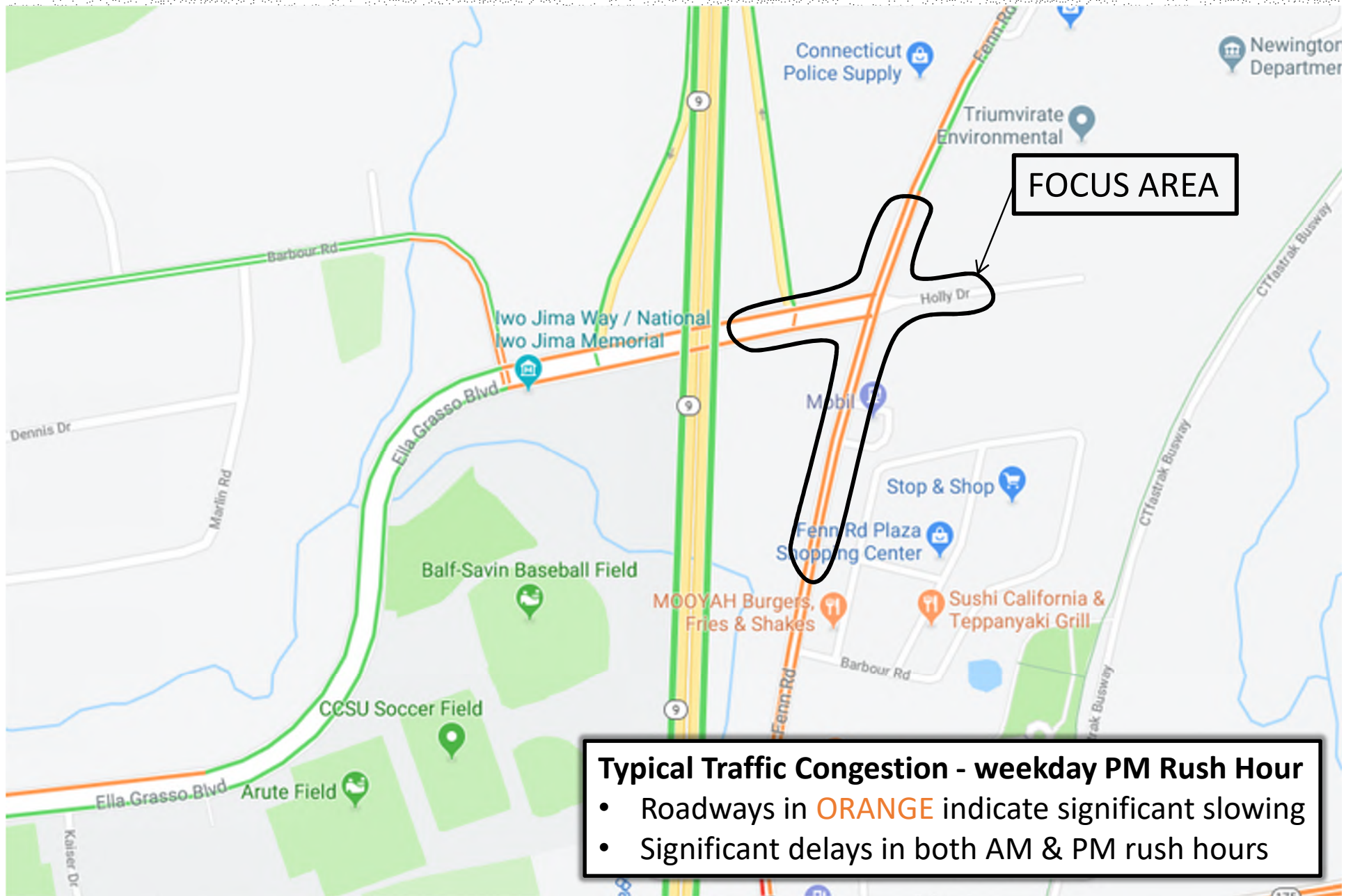
- Maintenance and Protection of Traffic
- 1-2 years construction duration



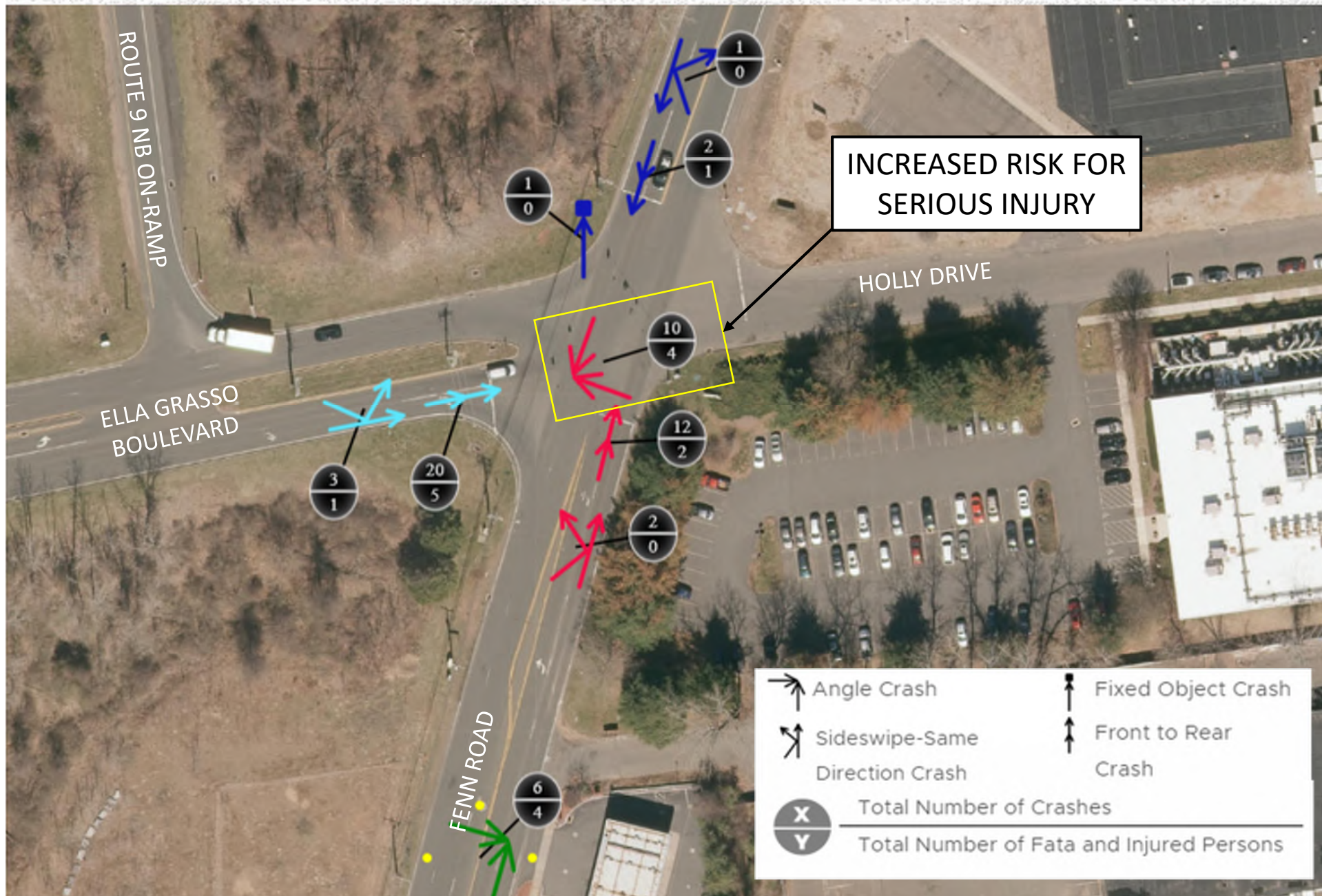
PURPOSE & NEED

- The purpose of this project is to improve the existing traffic congestion and reduce the prevalence of angle and turning crashes at the intersection of S.R. 505, Fenn Road and Ella Grasso Boulevard.
- A goal of this project will also be to address pedestrian safety and mobility needs within the project's limits.

TRAFFIC CONGESTION



CRASH DIAGRAM (2016-2018)



CRASH SUMMARY (2016-2018)

Crashes
58

Top 2 Crash Types

Front to Rear



35

Angle



16

Crash Severity

K

0

A

1

B

5

C

7

INJURIES

O

45

PROPERTY
DAMAGE ONLY

A – Serious Injuries

B – Moderate Injuries

C – Suspected Minor Injuries

Motorcycles



1

Aggressive Driving Related



40

Emphasis Areas

Distracted Driving Related



8

Young Driver



34

Adverse Weather Conditions



9

Wet Road Surface



16

Roadway Departure



1

Qualifying Commercial Vehicle



2

A SEPARATE CTDOT PROJECT IN THE AREA

Project #93-218 – Signal and Communication System Upgrade

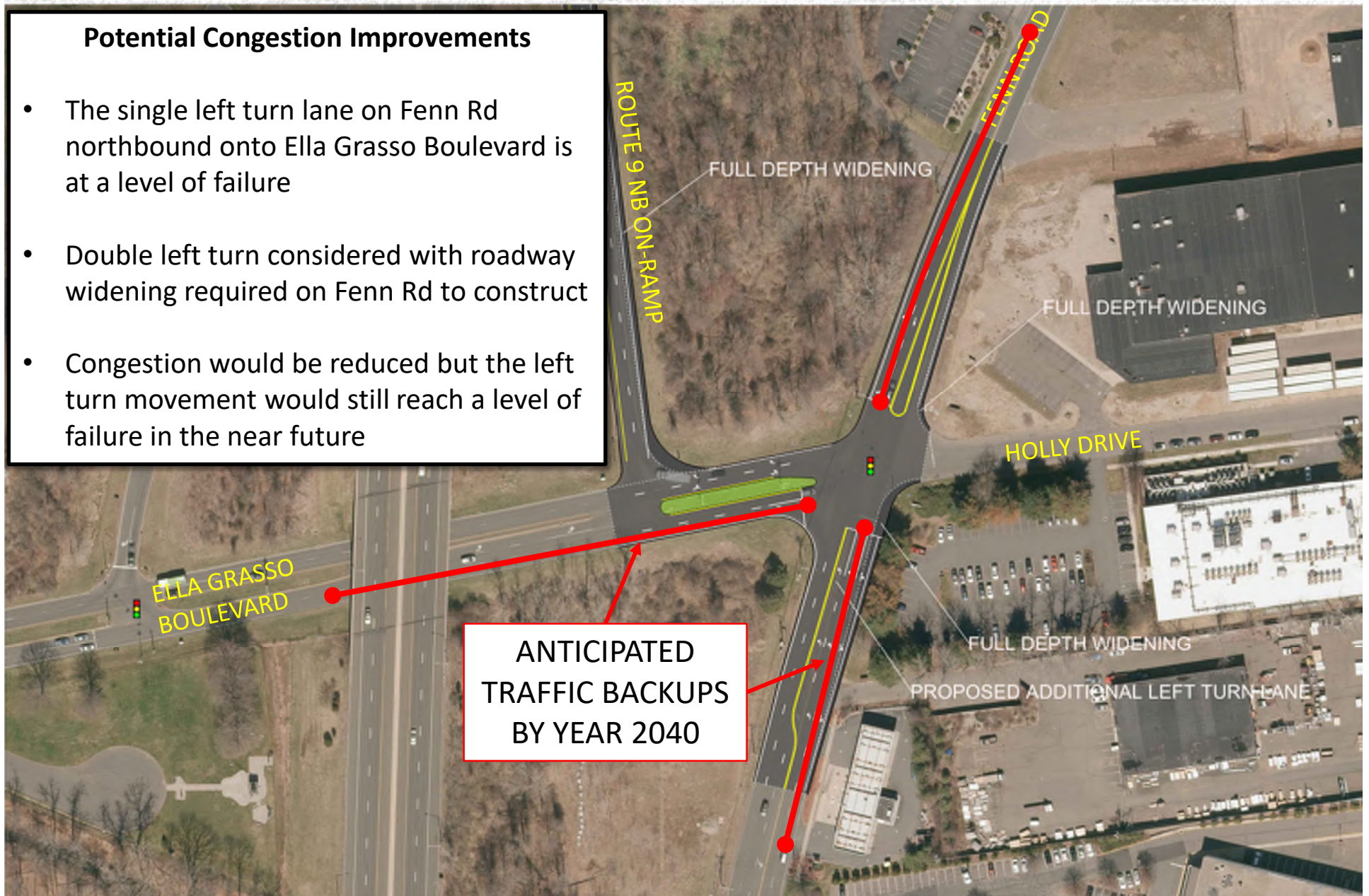
- Includes design and replacement of 15 traffic signals
- All signals included in a Computerized Traffic Signal System
- Existing cabinets, span poles & signal head are 20-30 years old and have surpassed their life expectancy



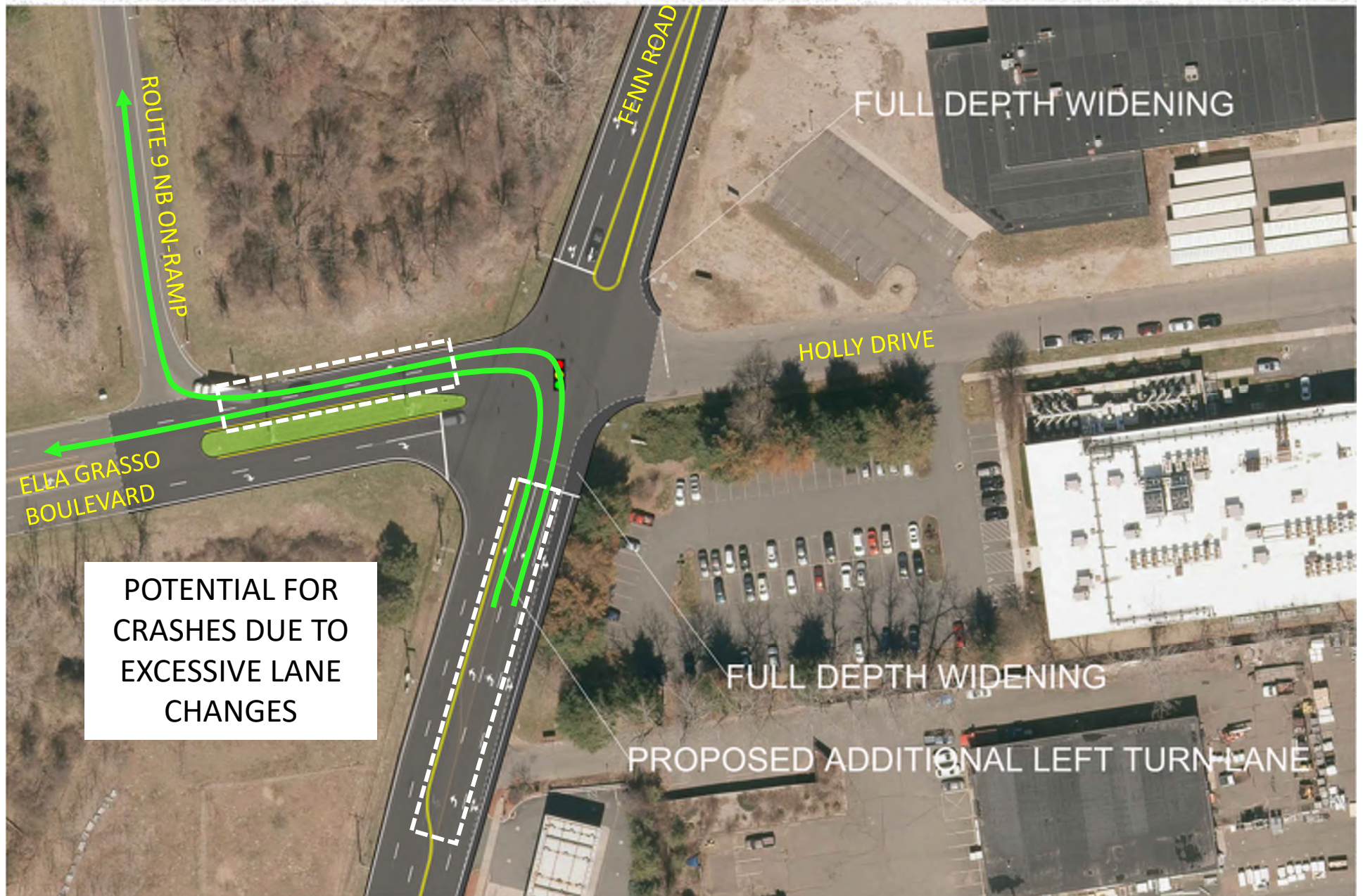
CONSIDERATION OF A DOUBLE LEFT

Potential Congestion Improvements

- The single left turn lane on Fenn Rd northbound onto Ella Grasso Boulevard is at a level of failure
- Double left turn considered with roadway widening required on Fenn Rd to construct
- Congestion would be reduced but the left turn movement would still reach a level of failure in the near future



SAFETY CONCERNS WITH A DOUBLE LEFT



SAFETY CONCERNS WITH A DOUBLE LEFT



REALIGNMENT DESIGN OPTIONS



MORE SIGNIFICANT CONGESTION RELIEF AND
SAFETY IMPROVEMENTS ARE NEEDED
THAN WHAT THE DOUBLE LEFT TURN COULD
ACCOMPLISH



MORE SIGNIFICANT DESIGN OPTIONS WERE
DEVELOPED AND EVALUATED



OPTIONS CONSIDERED INVOLVED REALIGNING
FENN ROAD AND ELLA GRASSO BOULEVARD

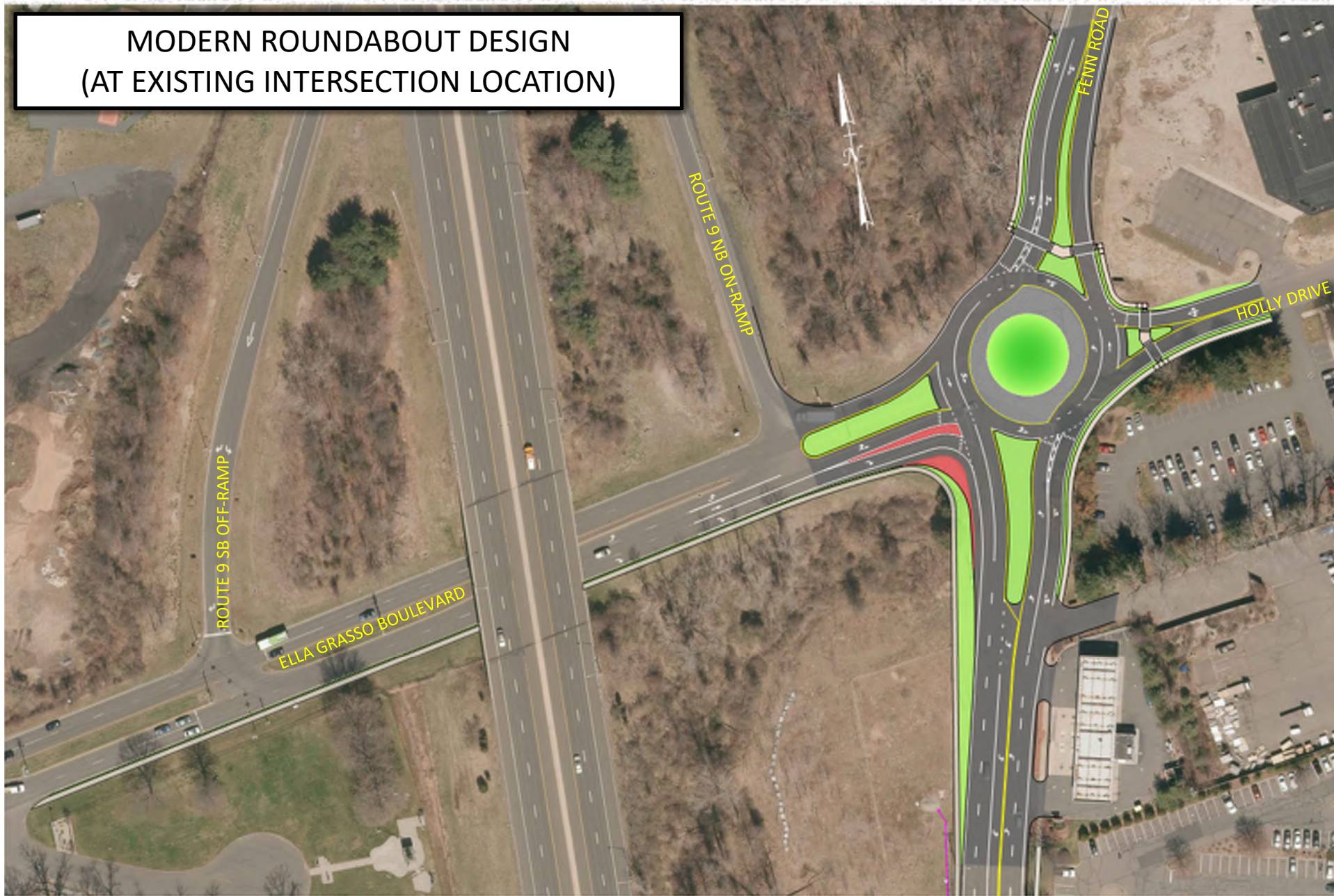
- With traffic signals
- With roundabouts
- With traffic signals and roundabouts
- LOTS OF VARIATIONS EVALUATED



REALIGNMENT OPTIONS WERE TOO COSTLY AND
DID NOT IMPROVE TRAFFIC OPERATIONS TO THE
LEVEL THAT IS NEEDED

PROPOSEED DESIGN

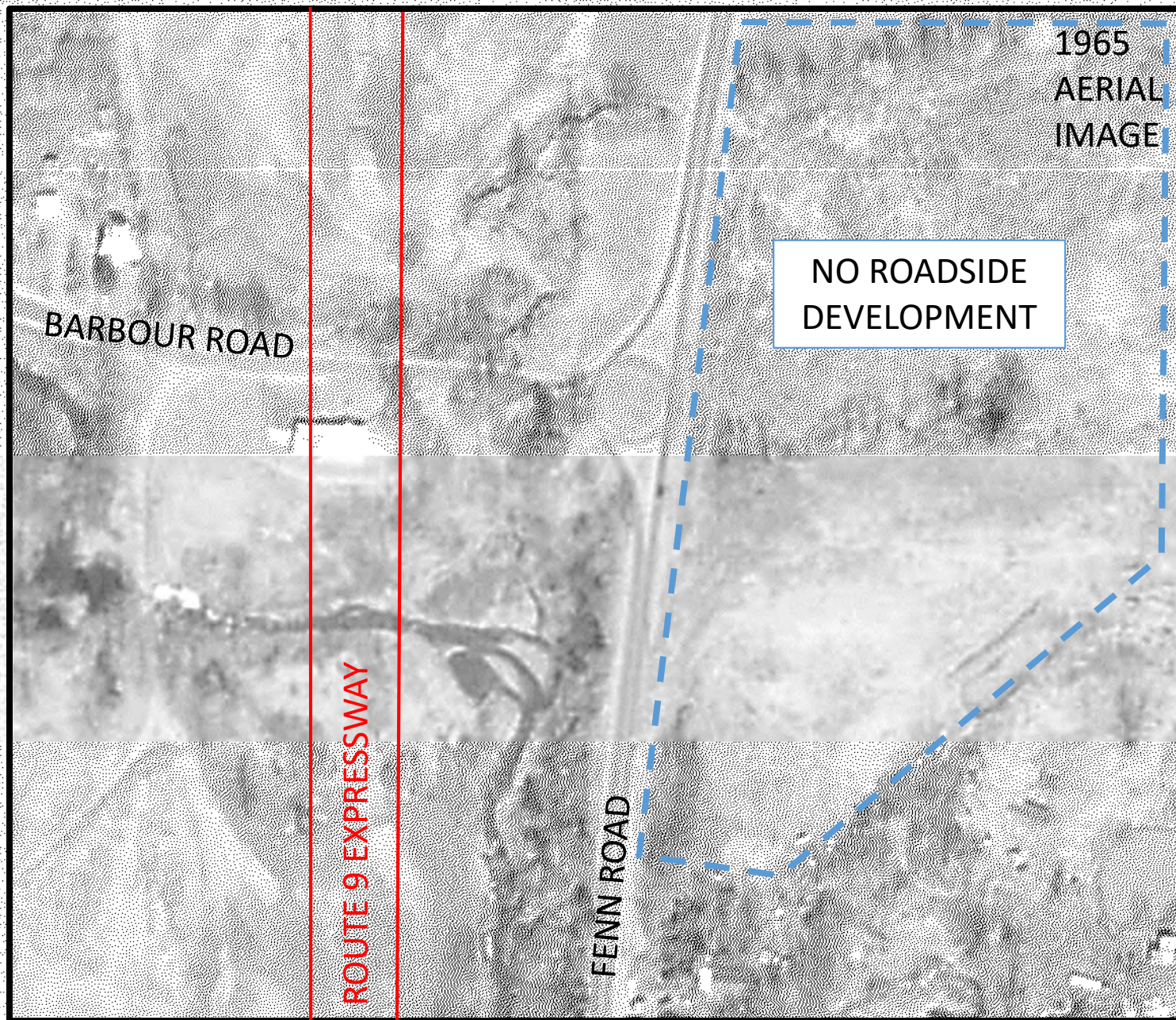
MODERN ROUNDABOUT DESIGN
(AT EXISTING INTERSECTION LOCATION)



BACK TO THE FUTURE - 1965



BACK TO THE FUTURE - 1965



WHAT IS A MODERN ROUNDABOUT

- Circular intersection often confused with old “traffic circles” or rotary
- Used in Europe and Australia for many years
- Becoming more popular in U.S. due to reductions in crashes and congestion – Approximately 5,000 nationwide

COMPARISON OF A ROTARY TO ROUNDABOUT KINGSTON, NEW YORK



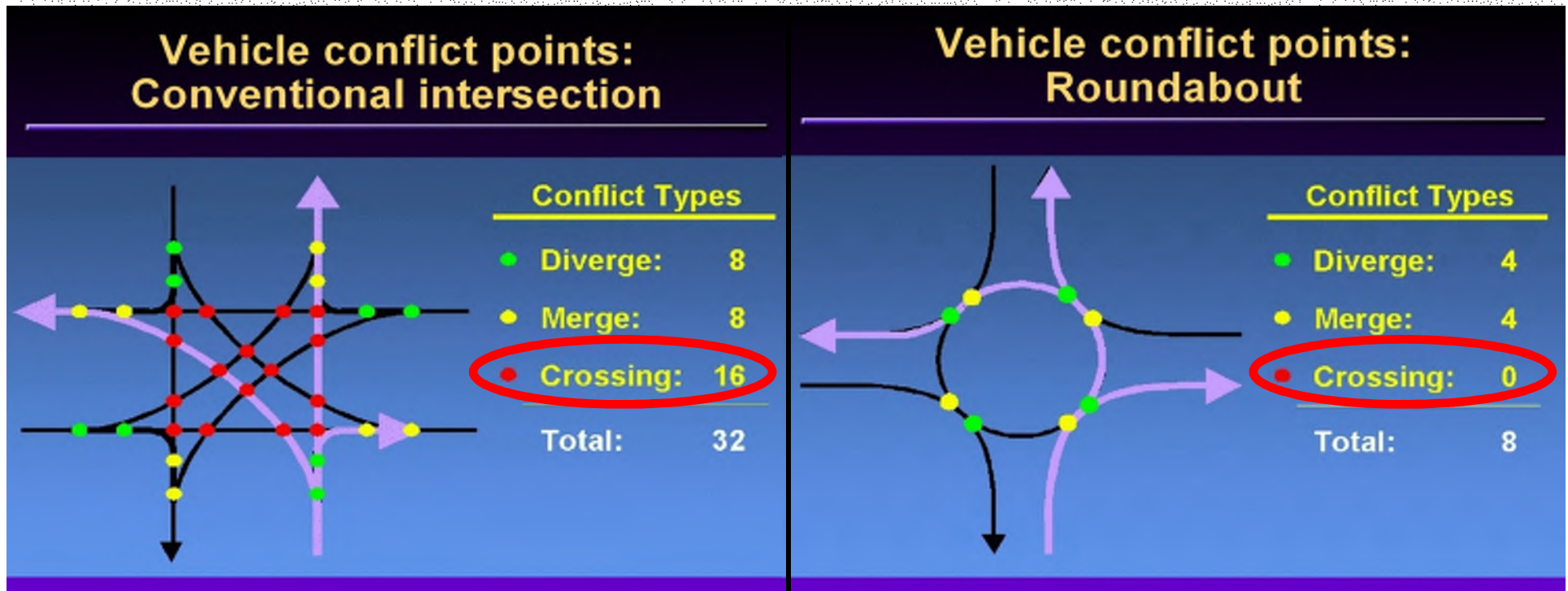
Photo: New York State DOT

BENEFITS OF A ROUNDABOUT

- Lower speeds – physical constraints
- No left turns across opposing traffic
- Fewer decisions to make / less information to process
- Reduced number of conflict points

BENEFITS OF A ROUNDABOUT

- Conflict point – is a point where possible vehicle paths at an intersection can come into conflict with each other
- Consider every possible vehicle movement for a signalized intersection
 - Crossing conflicts – highest chance for injury



CRASH REDUCTION

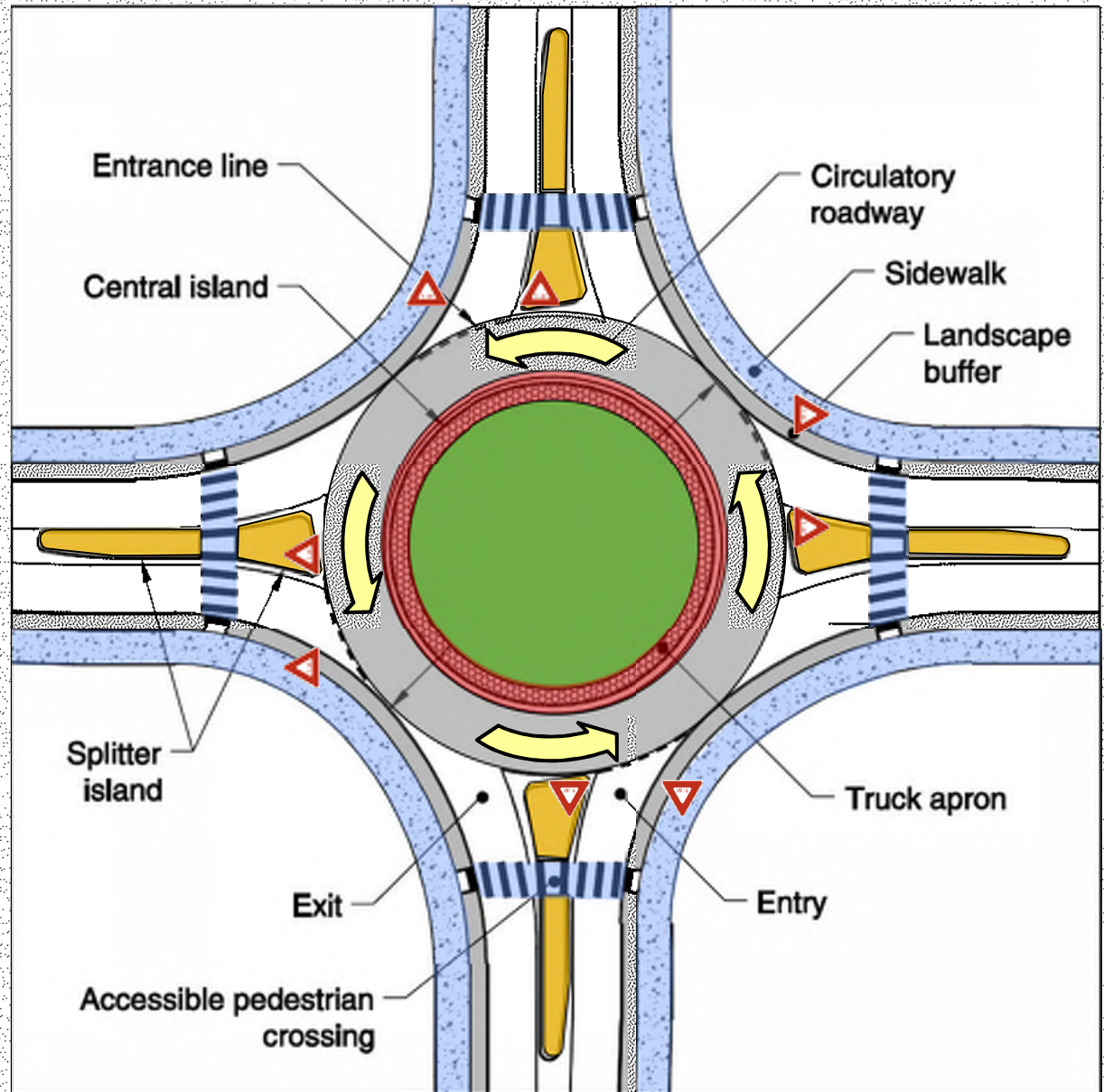
Transportation Research Board

Compared 23 roundabouts to former signalized or stop-controlled intersection...

- Total crashes: 40% ↓
- Injury crashes: 80% ↓
- Fatal/incapacitating crashes: 90% ↓

ELEMENTS OF A ROUNDABOUT

- Central Island
- Truck Apron
- Circular Roadway
- Splitter Islands
- Sidewalks/Crosswalks
- All traffic moves right, counter-clockwise
- Yield on Entry



DRIVING A ROUNDABOUT



New London, CT

CT ROUNDABOUT - ELLINGTON (BEFORE)



CT ROUNDABOUT - ELLINGTON (BEFORE)



CT ROUNDABOUT - ELLINGTON (BUILT 2011)



- Went into roundabout operation on July 4th weekend, 2011
- Delays virtually eliminated, even while in Construction

CT ROUNDABOUT - ELLINGTON (BUILT 2011)

Sent: Sunday, January 08, 2012 3:37 PM
To: Norman, James H
Cc: mblanchette@ellington-ct.gov
Subject: Great Job to ALL -Project # 47-116

Just to pass this on, to you and your department, along with the Town of Ellington and all those involved,

The new Round About at the 5-corners Is "the greatest thing since sliced bread" as they would say. I've been traveling through there daily since 1968 and traffic has never flowed more smoothly as it does now.

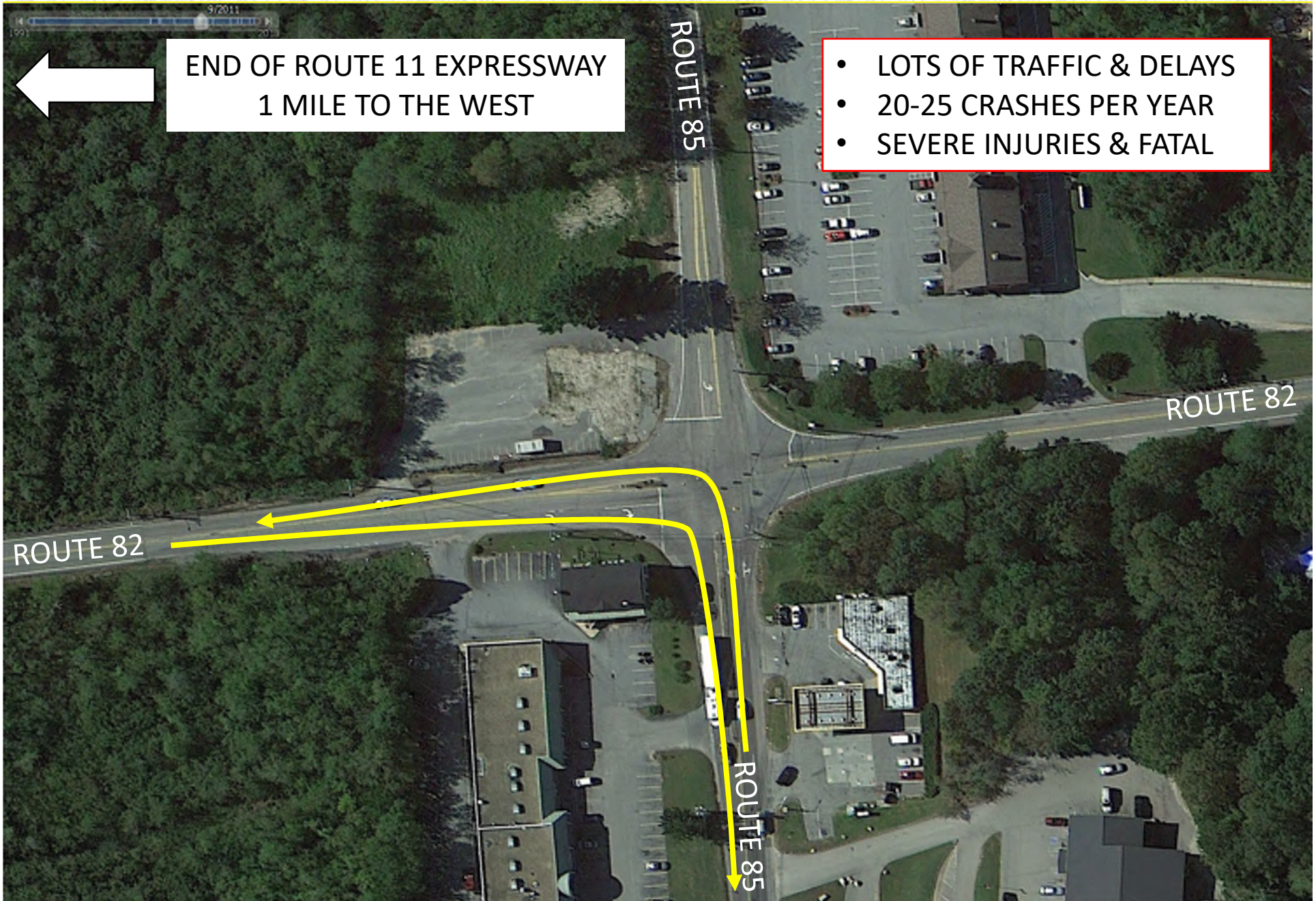
The time and studies put into the project was well worth it. It works so slick. I have never seen a back-up since the day they put the barrels up during construction.

I'm sure we will see more of these in the future around the state even for four corner intersections.

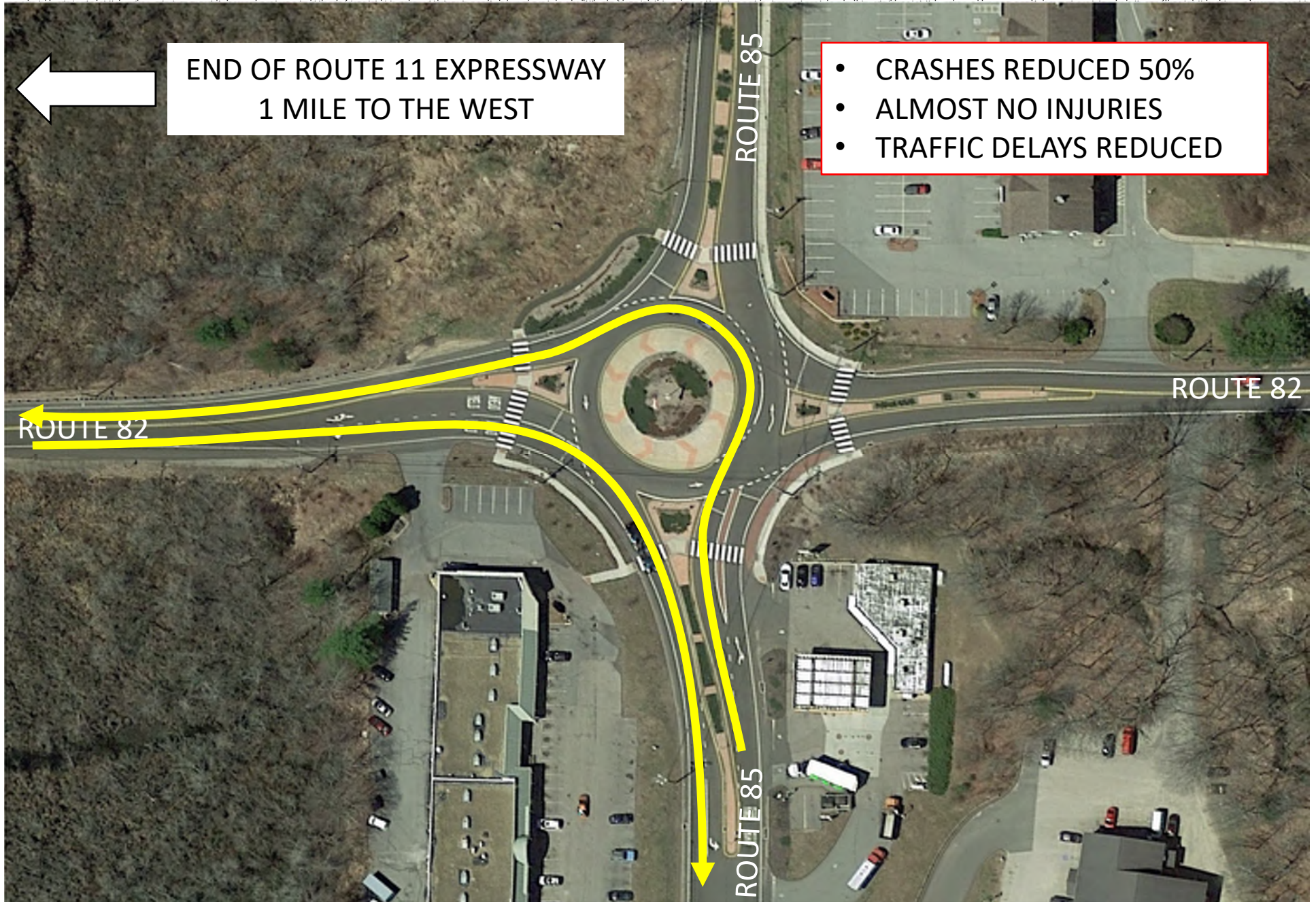
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CT ROUNDABOUTS - SALEM (BEFORE 2011)



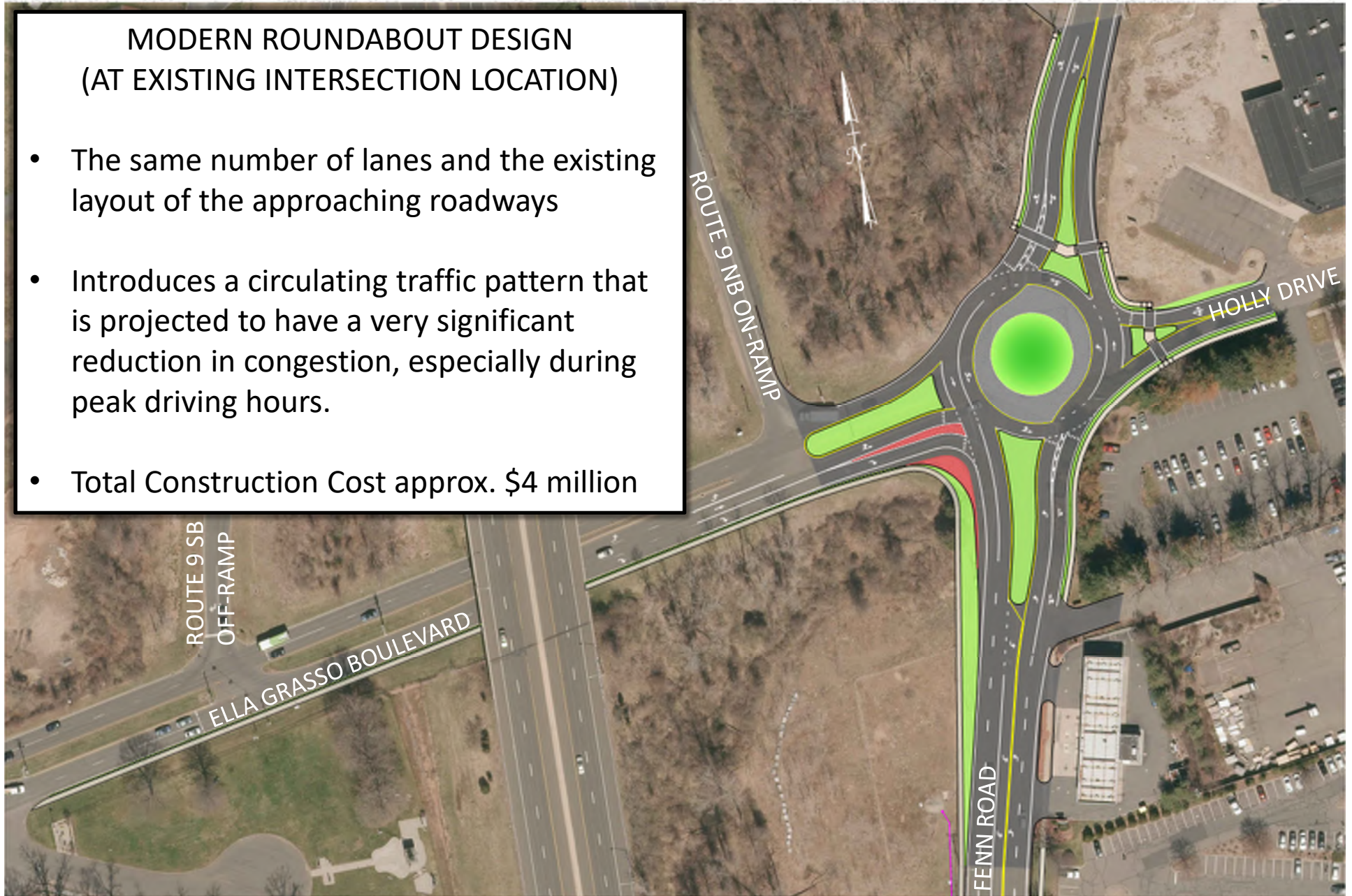
CT ROUNDABOUTS - SALEM (2012)



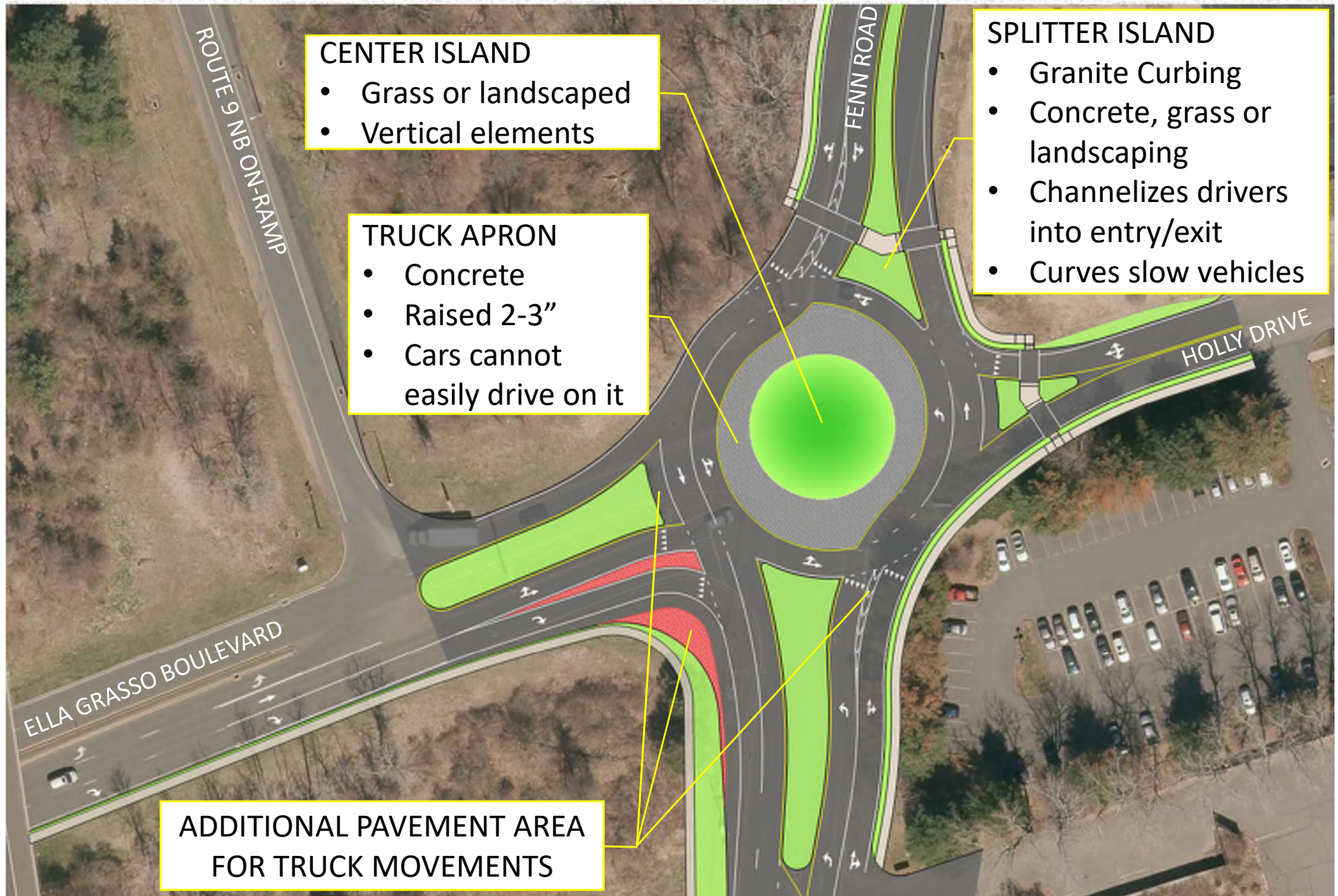
PROPOSED DESIGN

MODERN ROUNDABOUT DESIGN (AT EXISTING INTERSECTION LOCATION)

- The same number of lanes and the existing layout of the approaching roadways
- Introduces a circulating traffic pattern that is projected to have a very significant reduction in congestion, especially during peak driving hours.
- Total Construction Cost approx. \$4 million



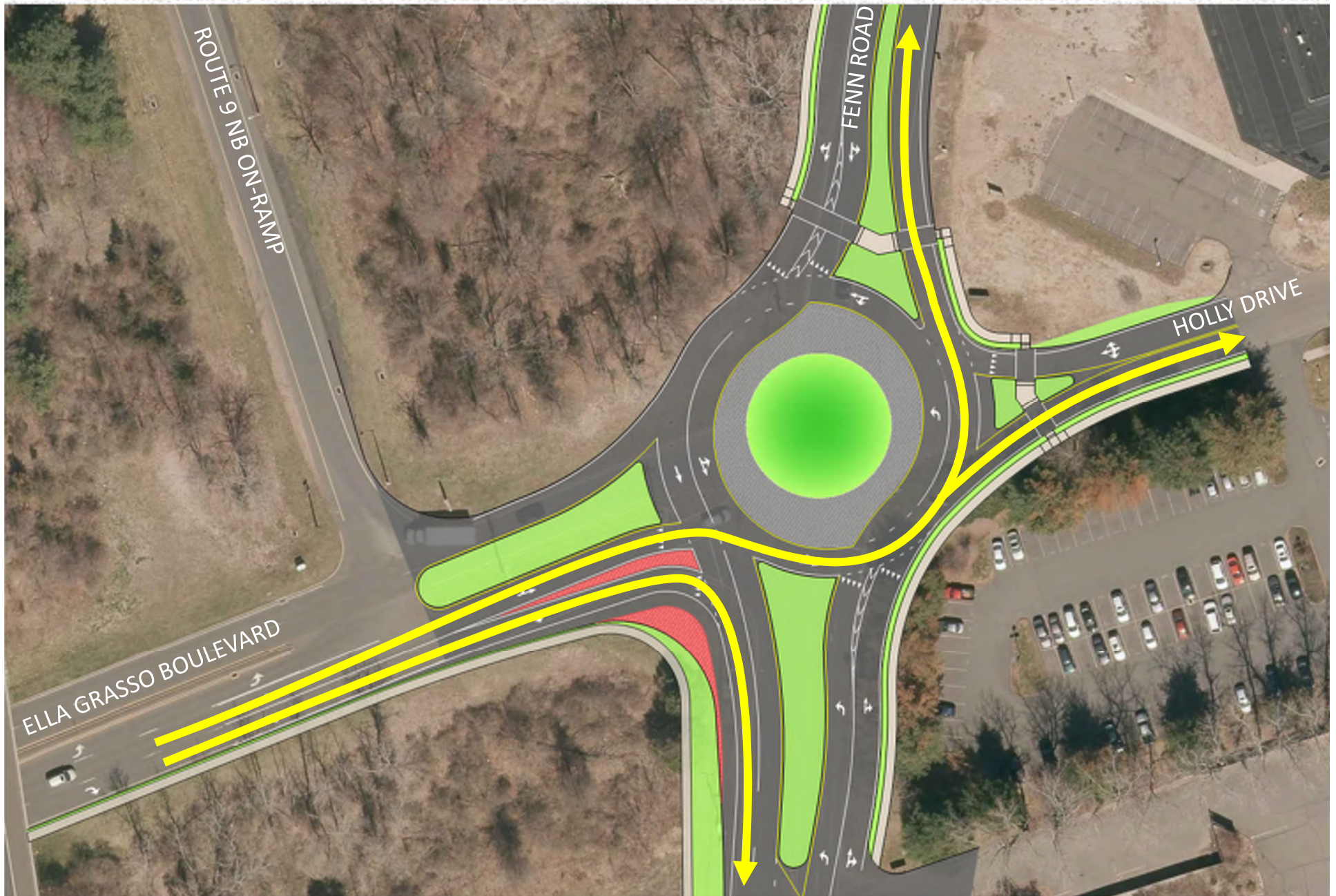
PROPOSED ROUNDABOUT



ROUNDAABOUT OPERATION – FENN RD NB



ROUNDAABOUT OPERATION – ELLA GRASSO BLVD



ROUNDBABOUT OPERATION – FENN RD SB



ROUNDAABOUT OPERATION – HOLLY DRIVE



ROUNDBABOUT SIMULATION – YEAR 2045

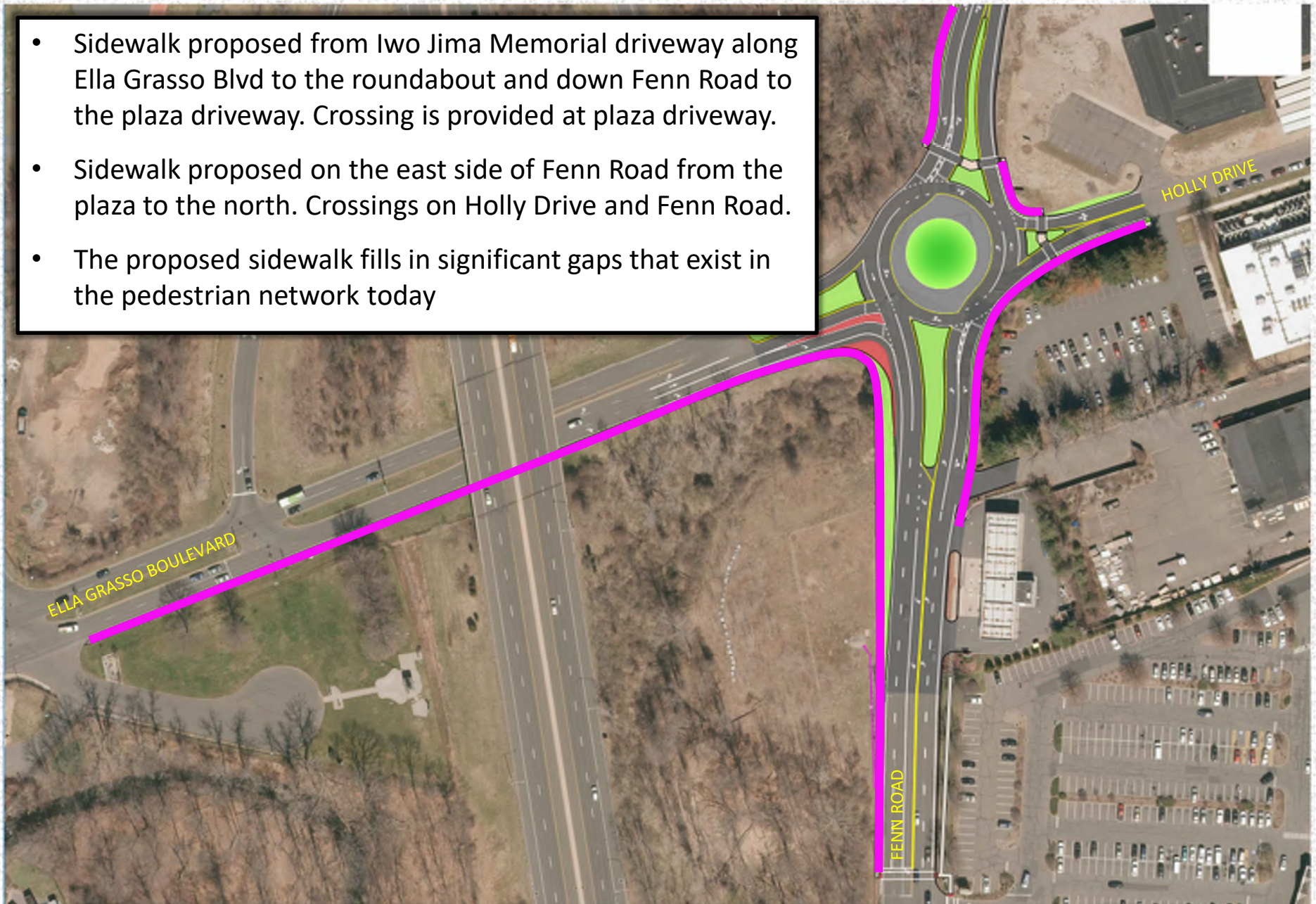


ROUNDBOUT SIMULATION – YEAR 2045



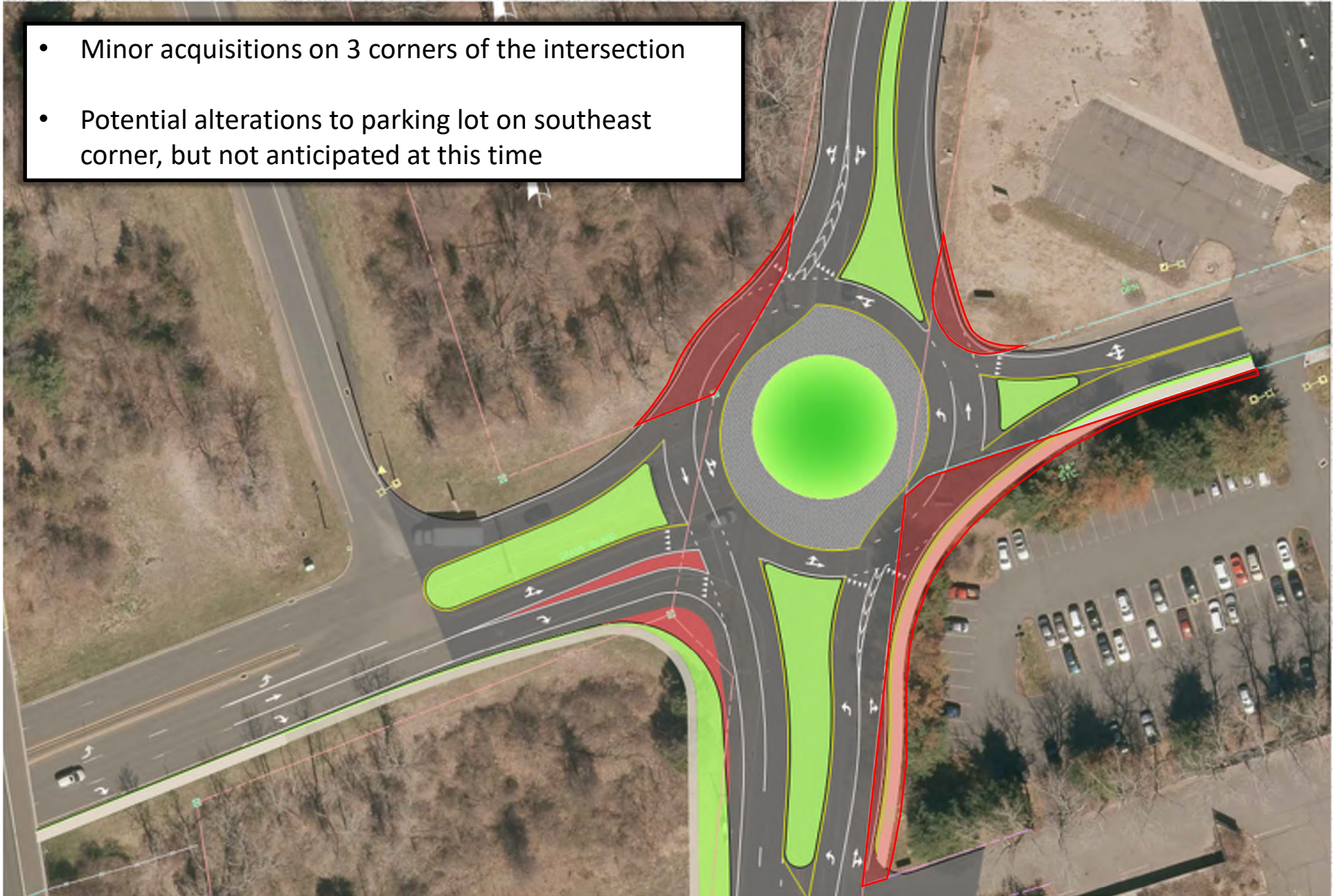
PEDESTRIAN NETWORK CONNECTIONS

- Sidewalk proposed from Iwo Jima Memorial driveway along Ella Grasso Blvd to the roundabout and down Fenn Road to the plaza driveway. Crossing is provided at plaza driveway.
- Sidewalk proposed on the east side of Fenn Road from the plaza to the north. Crossings on Holly Drive and Fenn Road.
- The proposed sidewalk fills in significant gaps that exist in the pedestrian network today



ROW – PARTIAL CORNER ACQUISITIONS

- Minor acquisitions on 3 corners of the intersection
- Potential alterations to parking lot on southeast corner, but not anticipated at this time



PROJECT PROCESS

CONCEPT DEVELOPMENT

- Gather background data
- Develop preferred design
- Determine Level of Support
- Initiate Project

DESIGN

- Preliminary Design
- Semi-final Design
- Right of Way
- Final Design
- Approximately 2-3 years duration

ANOTHER PUBLIC
INFORMATIONAL MEETING
WITH DESIGN TEAM

CONSTRUCTION

- Maintenance and Protection of Traffic
- 1-2 years construction duration



QUESTIONS?



GLASTONBURY BEFORE & AFTER



NEWINGTON BEFORE & AFTER

