



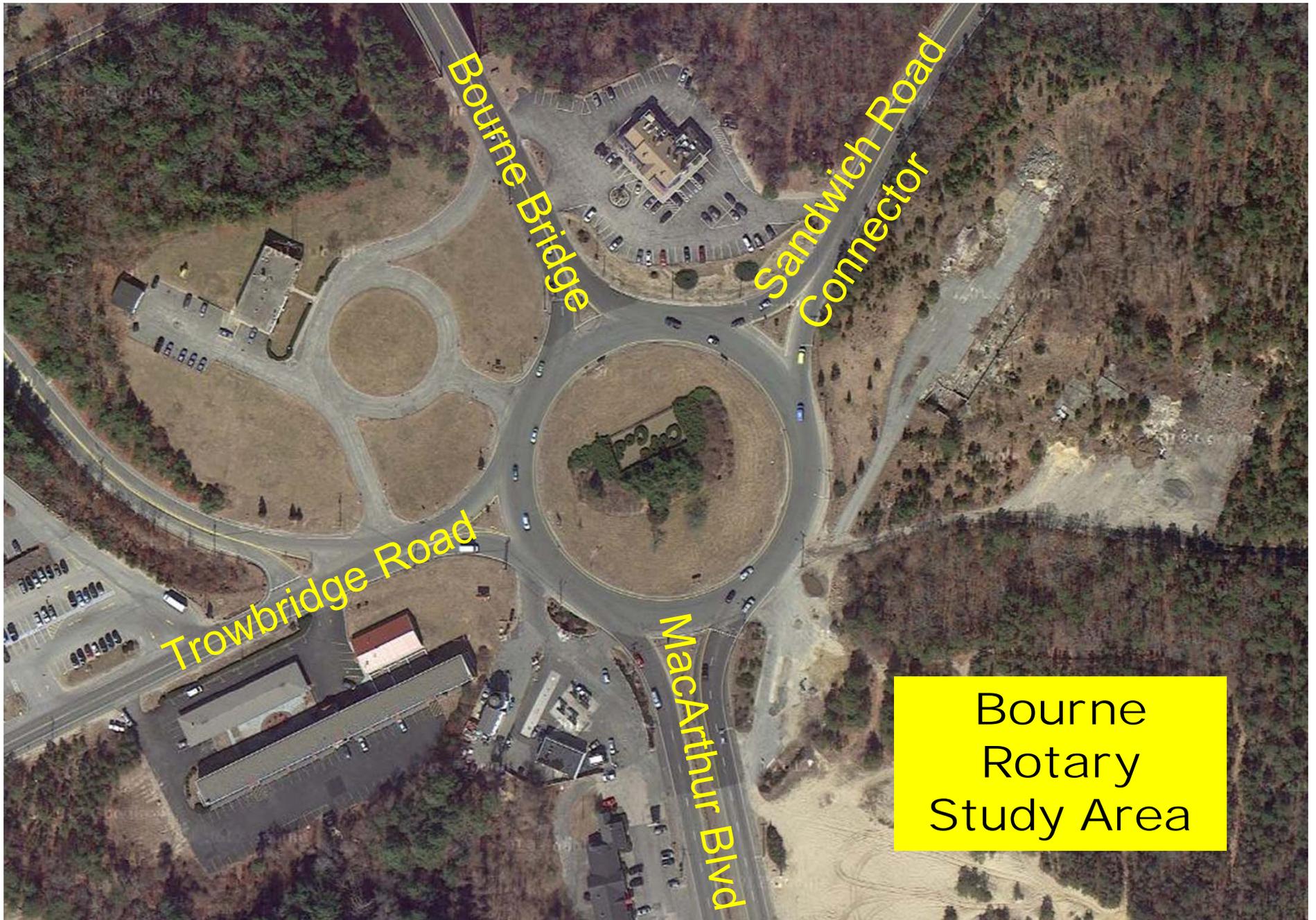
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COMMISSION

# Preliminary Planning for Replacement of the **Bourne Rotary**

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**Public Meeting**  
**August 21, 2013**





Bourne  
Rotary  
Study Area

# Context

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- **Unified Planning Work Program (UPWP) task under MassDOT planning contract**
- **Congestion and Safety Issues**
- **“Task Force” established by Board of Selectmen: Transportation Advisory Committee**

# Bourne Selectmen's Transportation Advisory Committee

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## Committee Members

- Wesley Ewell, Chairman
- Robert Parady, Vice-Chairman
- Sallie Riggs, Secretary
- Daniel L. Doucette
- Michael A. Blanton
- Cindy Parola
- John Carroll
- Dennis Woodside, Chief of Police
- George Sala, Highway Superintendent

## Ex-Officio

- Thomas Guerino, Town Administrator
- Jon Nelson, Facilities Manager

# Study Goals

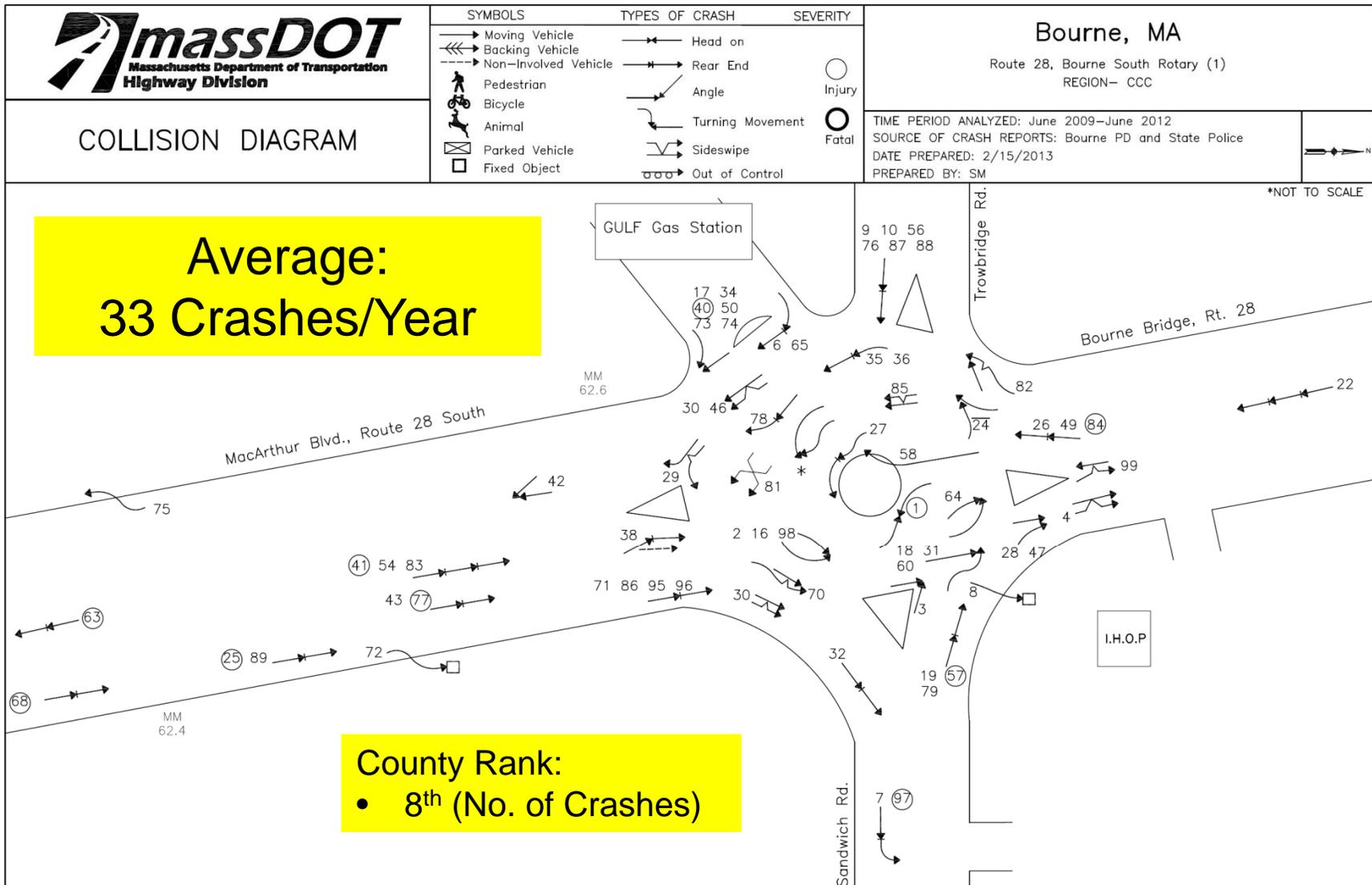
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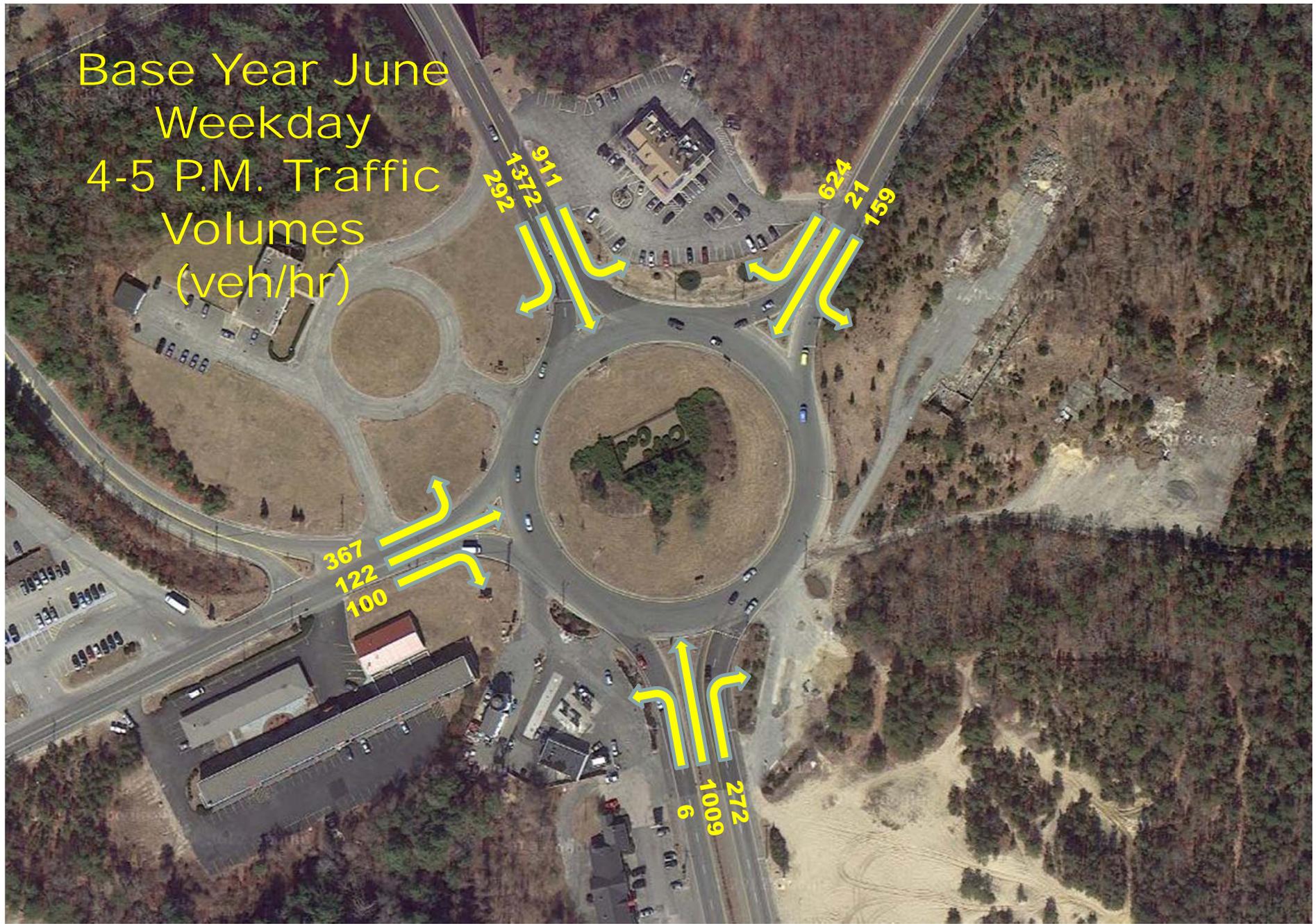
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- **Improve Safety for all users within the study area**
- **Improve Mobility within and access to the study area**
- **Improve economic opportunities**
- **Reduce impacts to residential neighborhoods**
- **Support land use, and cultural and scenic interests**
- **Reduce impacts to the natural environment**
- **Improve Transportation Choices within the study area**

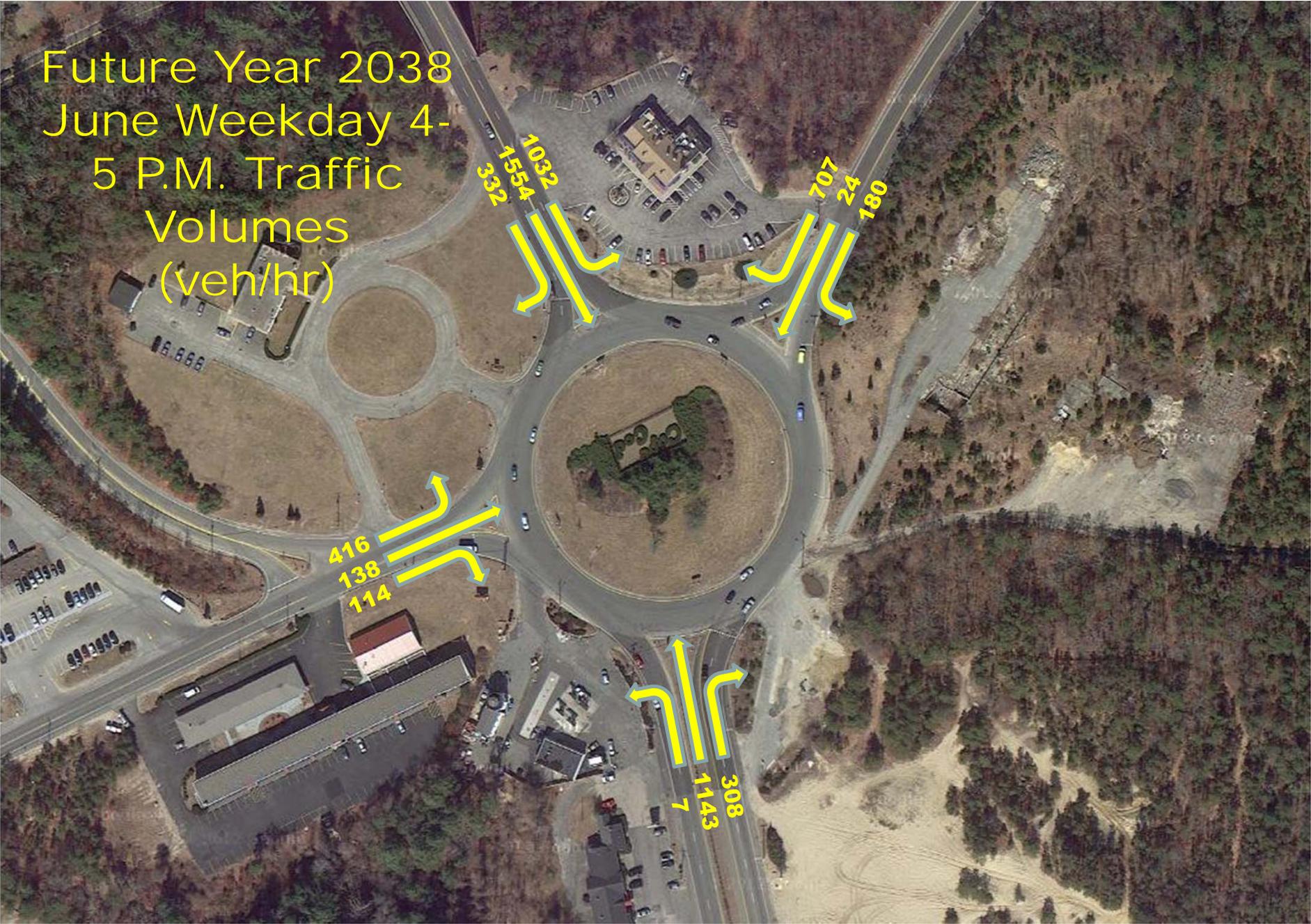
# Crash History



Base Year June  
Weekday  
4-5 P.M. Traffic  
Volumes  
(veh/hr)



Future Year 2038  
June Weekday 4-  
5 P.M. Traffic  
Volumes  
(veh/hr)



# Base Year Level of Service (LOS) & Queuing



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	Bourne Bridge left lane	Bourne Bridge right lane	Trowbridge Road	MacArthur Blvd left lane	MacArthur Blvd right lane	Sandwich Road Connector
v/c Ratio	1.62	1.58	4.71	2.33	2.12	2.59
Delay (s/veh)	298.6	280.4	1730.1	633.9	540.3	747.9
95% Queue (ft)	1998	1906	1819	1471	1370	1894
LOS	F	F	F	F	F	F

# Future Year 2038 Level of Service (LOS) & Queuing



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	Bourne Bridge left lane	Bourne Bridge right lane	Trowbridge Road	MacArthur Blvd left lane	MacArthur Blvd right lane	Sandwich Road Connector
v/c ratio	1.88	1.83	6.98	3.12	2.70	3.34
Delay (s/veh)	416.0	392.3	2766.7	990.7	799.7	1087.8
95% Queue (ft)	2674	2563	2215	1923	1714	2399
LOS	F	F	F	F	F	F



Interim Improvement Detail



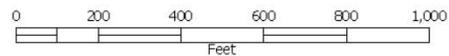
# Potential Bike Route: Bourne Bridge to Shore Road



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## Bike Route Bourne Rotary

-  Alternate (Multi Use Path)
-  Bike Route (Bridge - Shore Road)



The information depicted on these maps is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel level analysis. It should not substitute for actual on-site survey, or supersede deed research.

User: BWhiteley

Date: 6/9/2013



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# Ideas Discussed in the Past

# Concept A

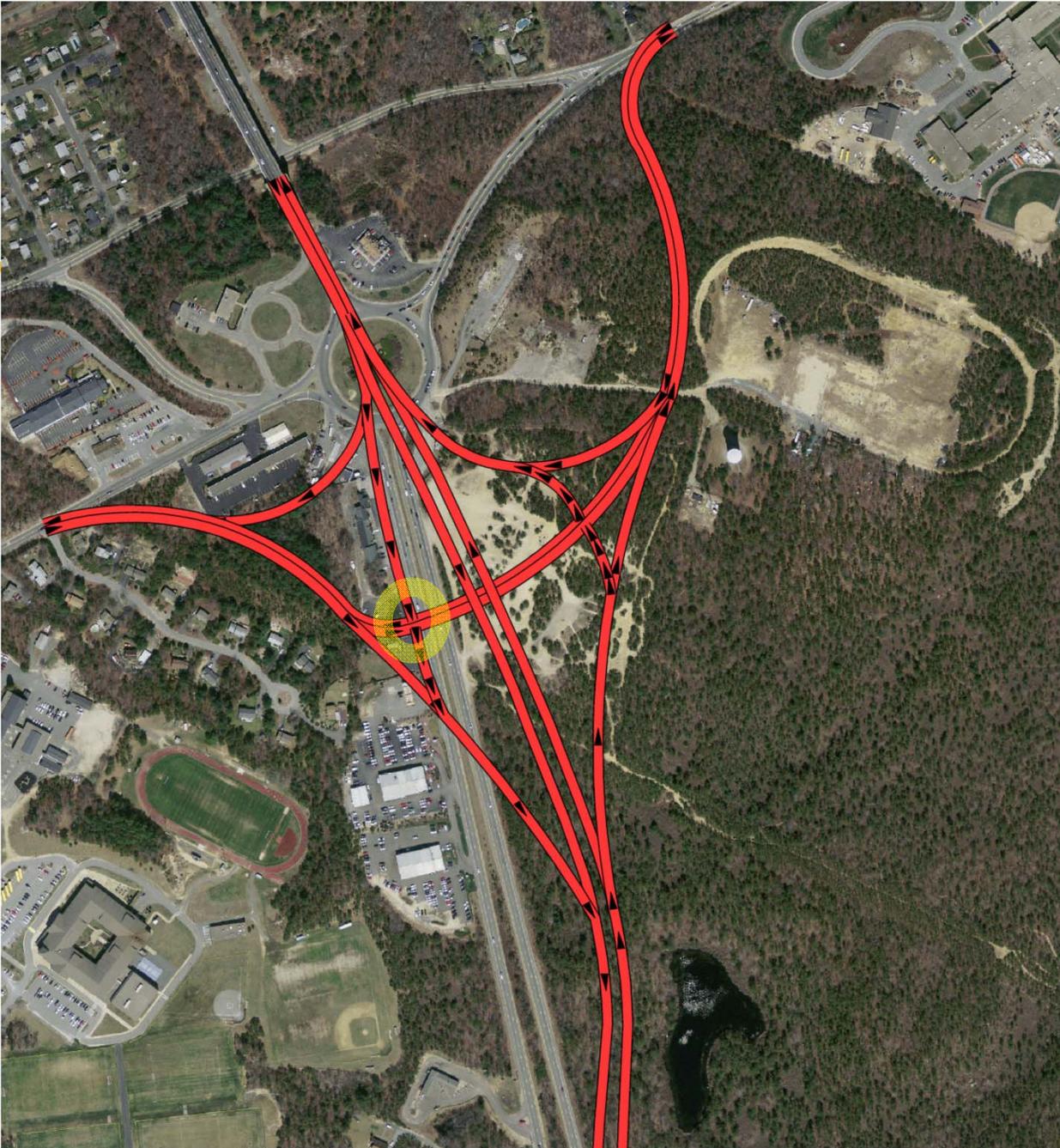
## Simple Diamond Interchange

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- **Potential Benefits**
  - Best for suburban or rural areas
  - Can be expanded in future with loops
  - Lower construction cost
- **Potential Liabilities**
  - Very large area of land required



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Concept A

# Intersection Analysis: Diamond southbound ramps at Trowbridge Road

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- Signalized intersection with 2 approach lanes on all approaches
- Overall Level of Service (LOS): **LOS B**
- Critical Approach - westbound from Sandwich Road turning left onto southbound ramp: **LOS D**

# Concept B

## Full Cloverleaf Interchange

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- **Potential Benefits**
  - Eliminates all left turn movements by using loops
- **Potential Liabilities**
  - Creates weaving area between loops
  - Very large area of land required
  - Conflicts with pedestrians and bicyclists if free flowing loops are used



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## Concept B



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## CANAL AREA TRAFFIC STUDY

Bourne, Massachusetts

August 2005

Massachusetts Highway Department

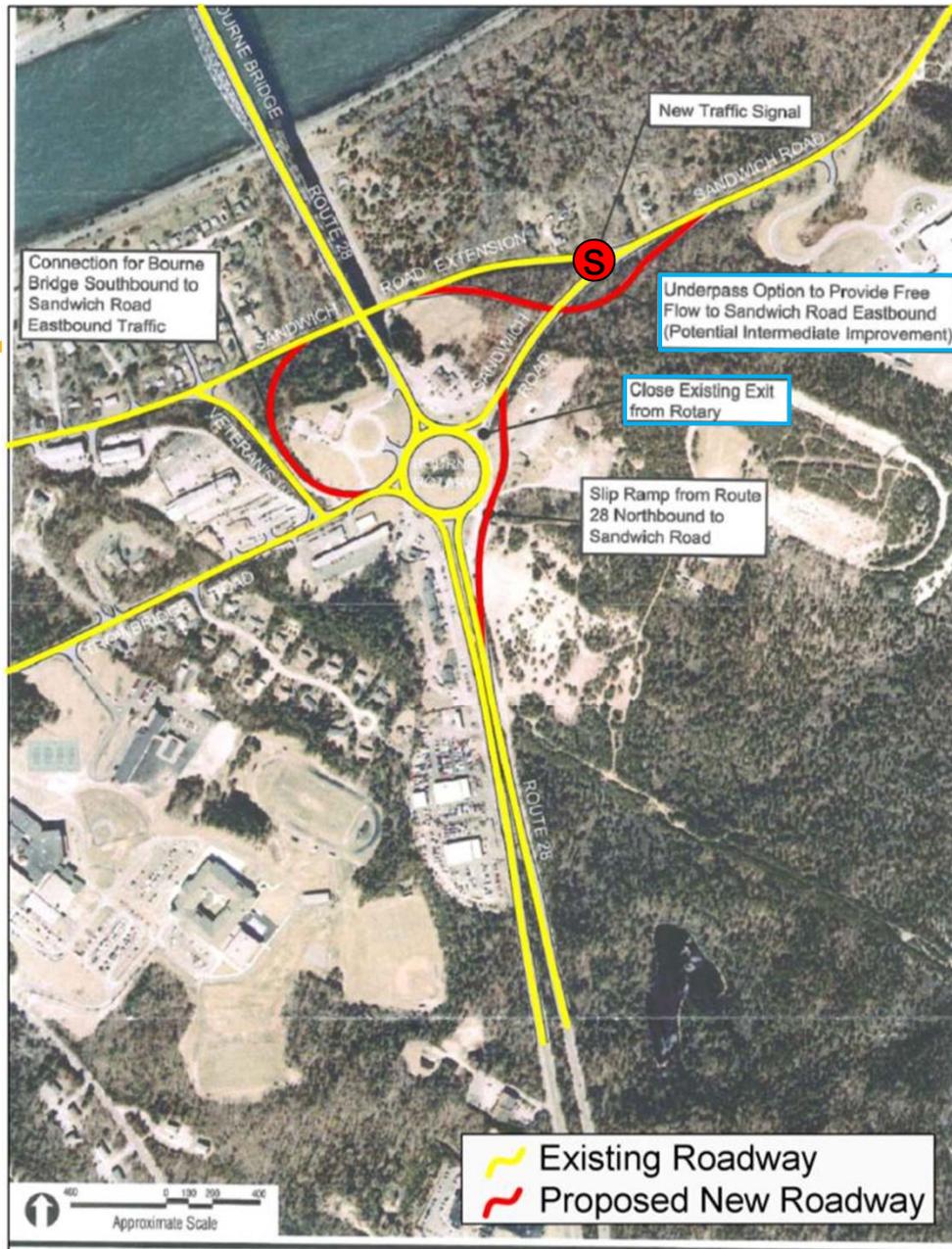


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# MassHighway 2005 *Canal Area Traffic Study* Concepts



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MassDOT  
Preferred  
Alternative

Concept C





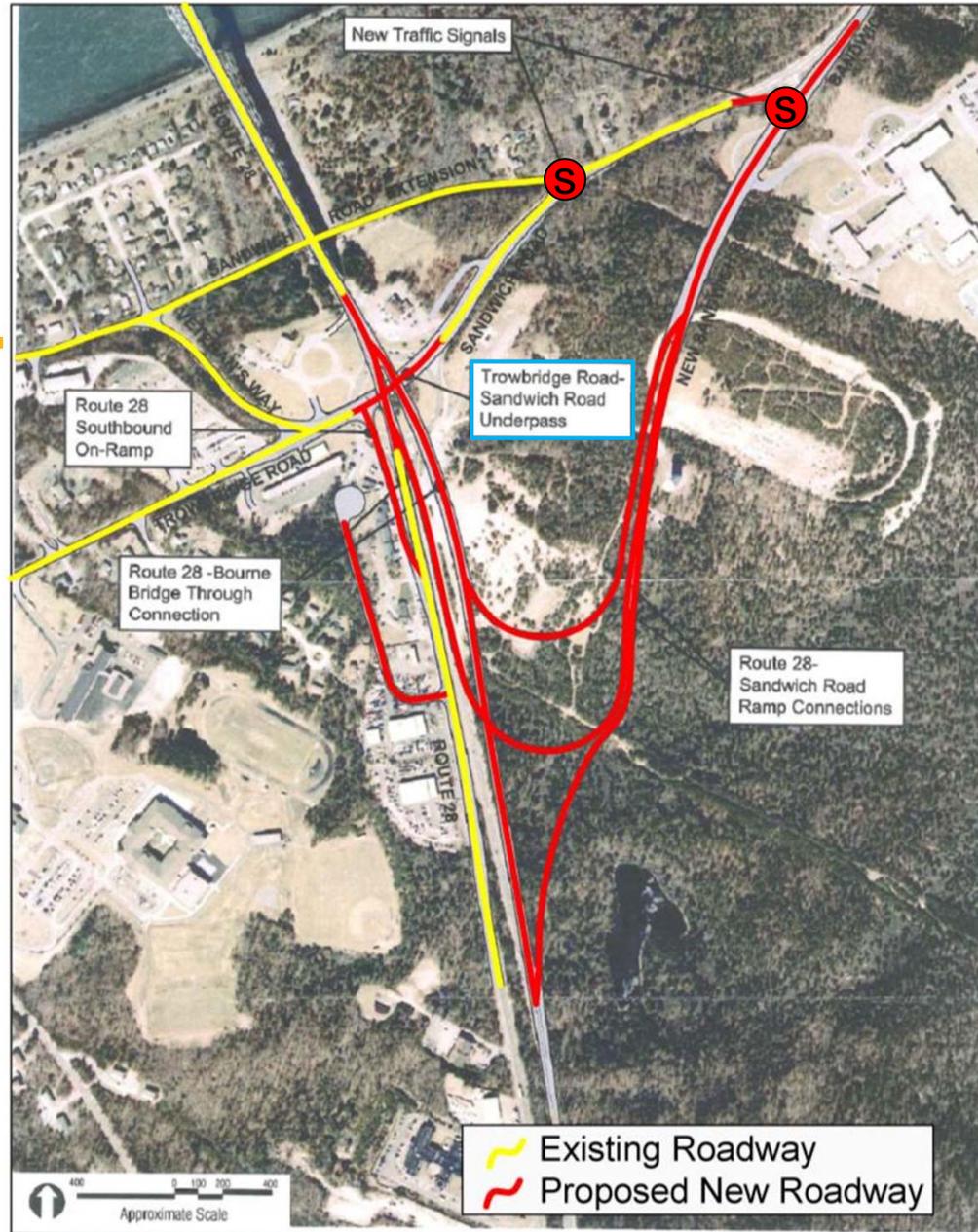
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# Concept D

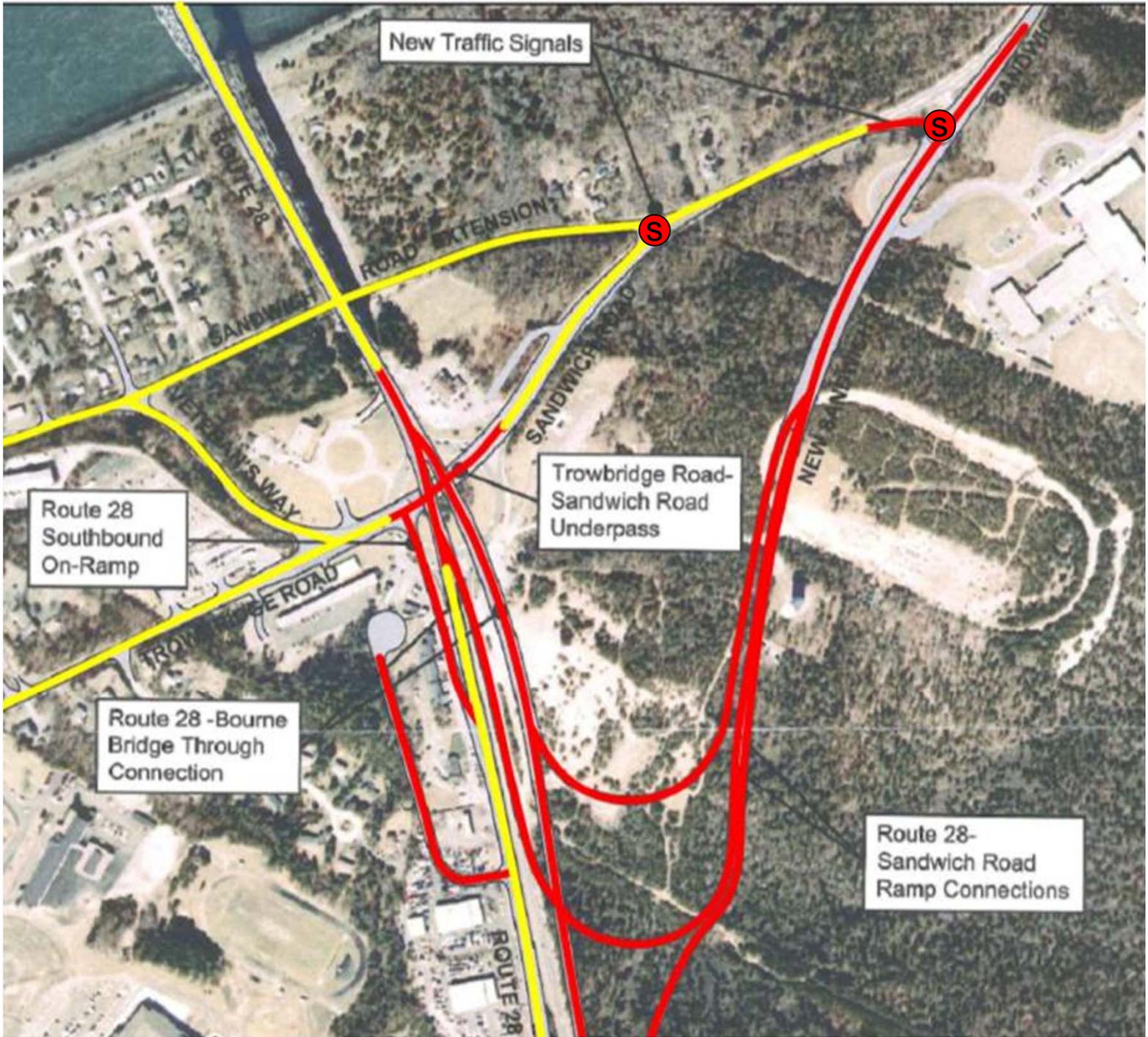




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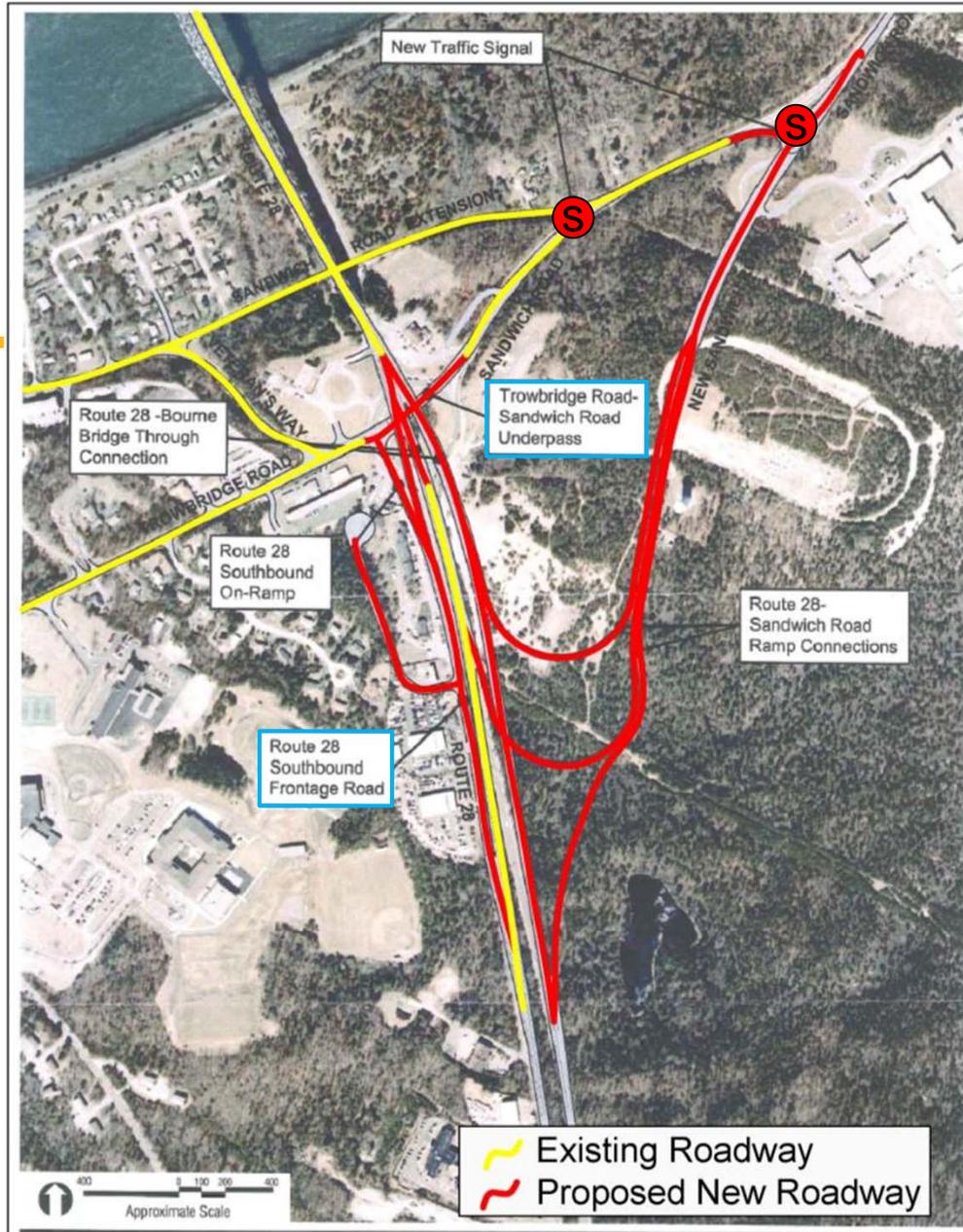
# Concept E



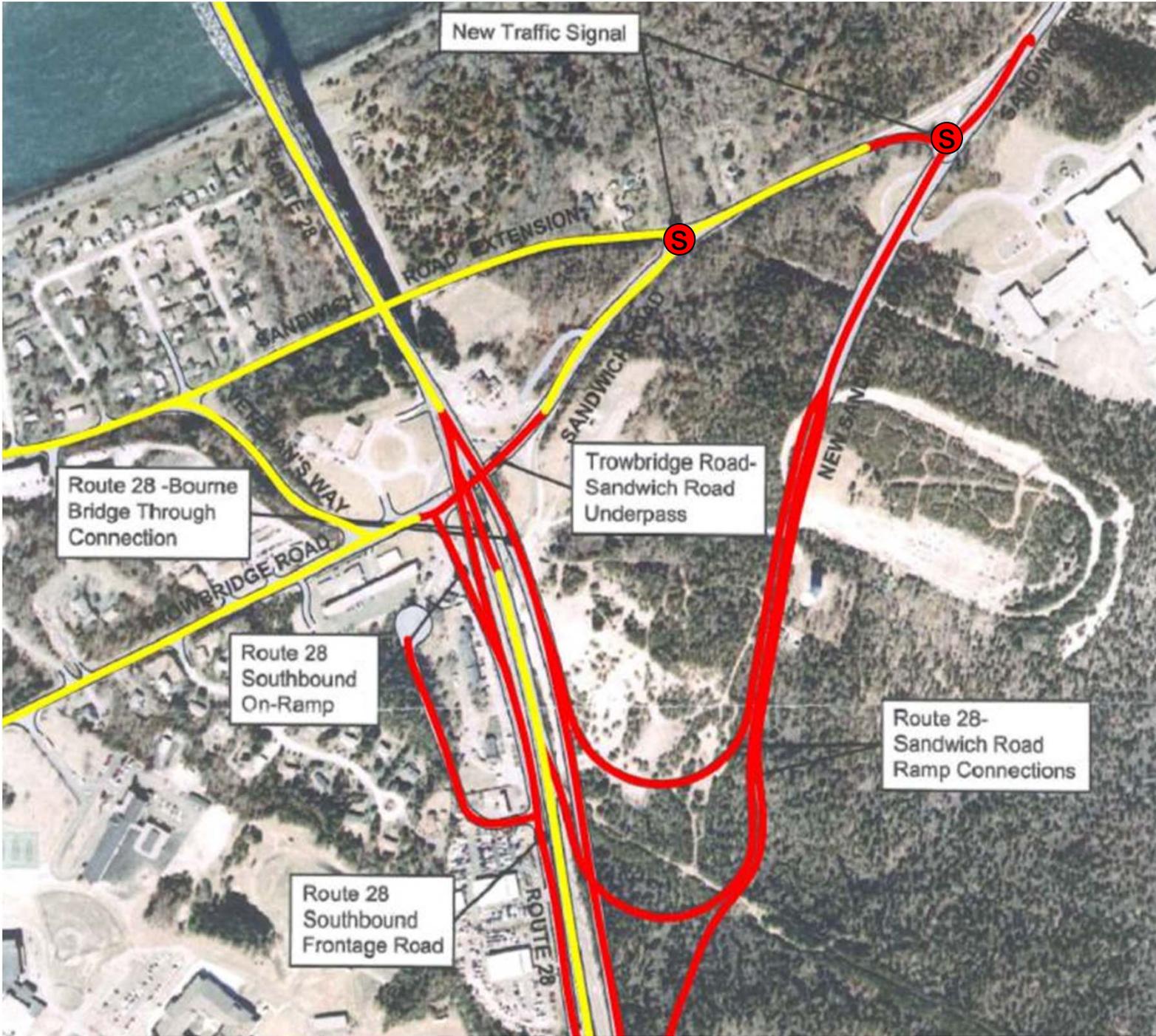
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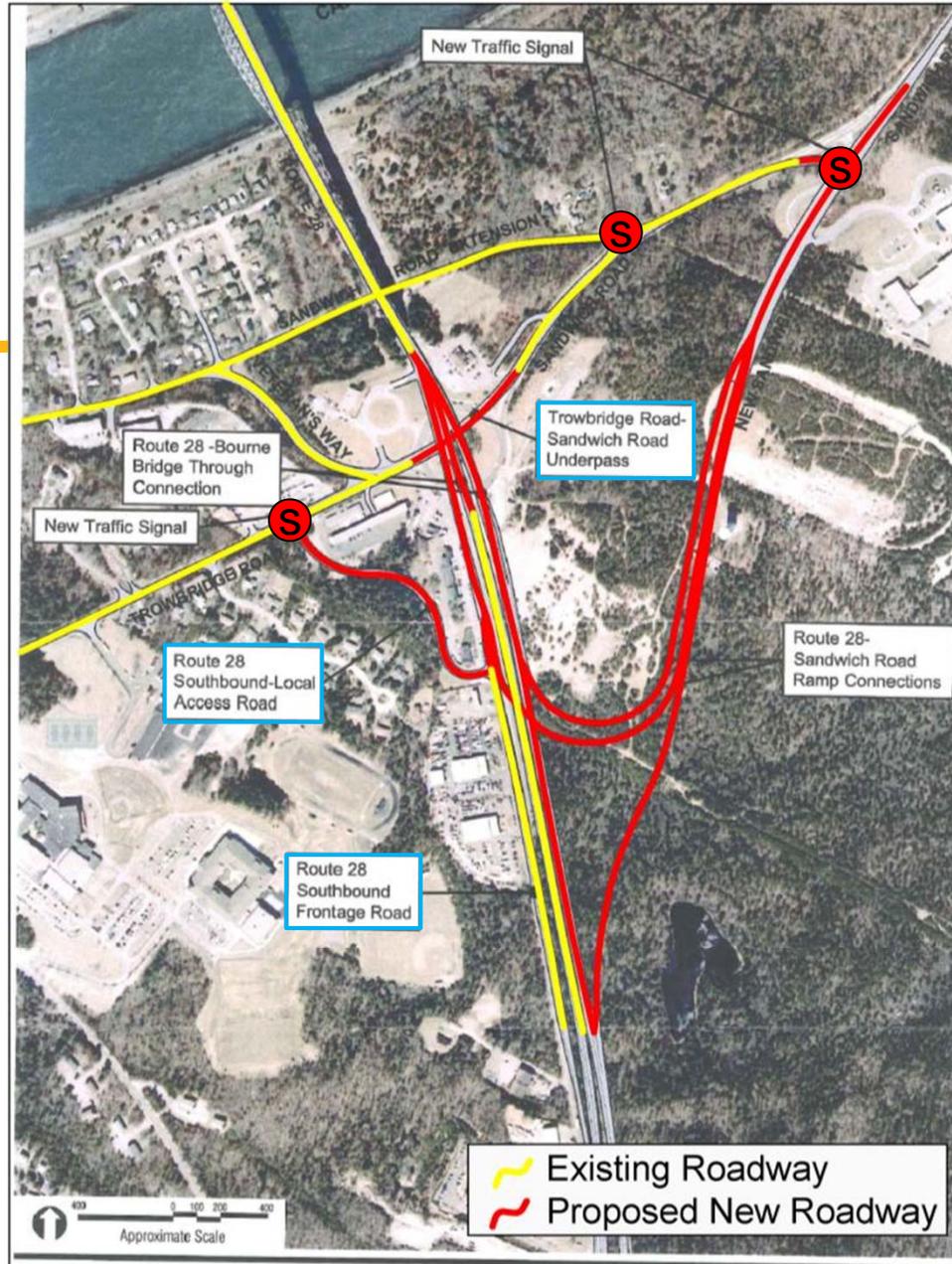
# Concept F



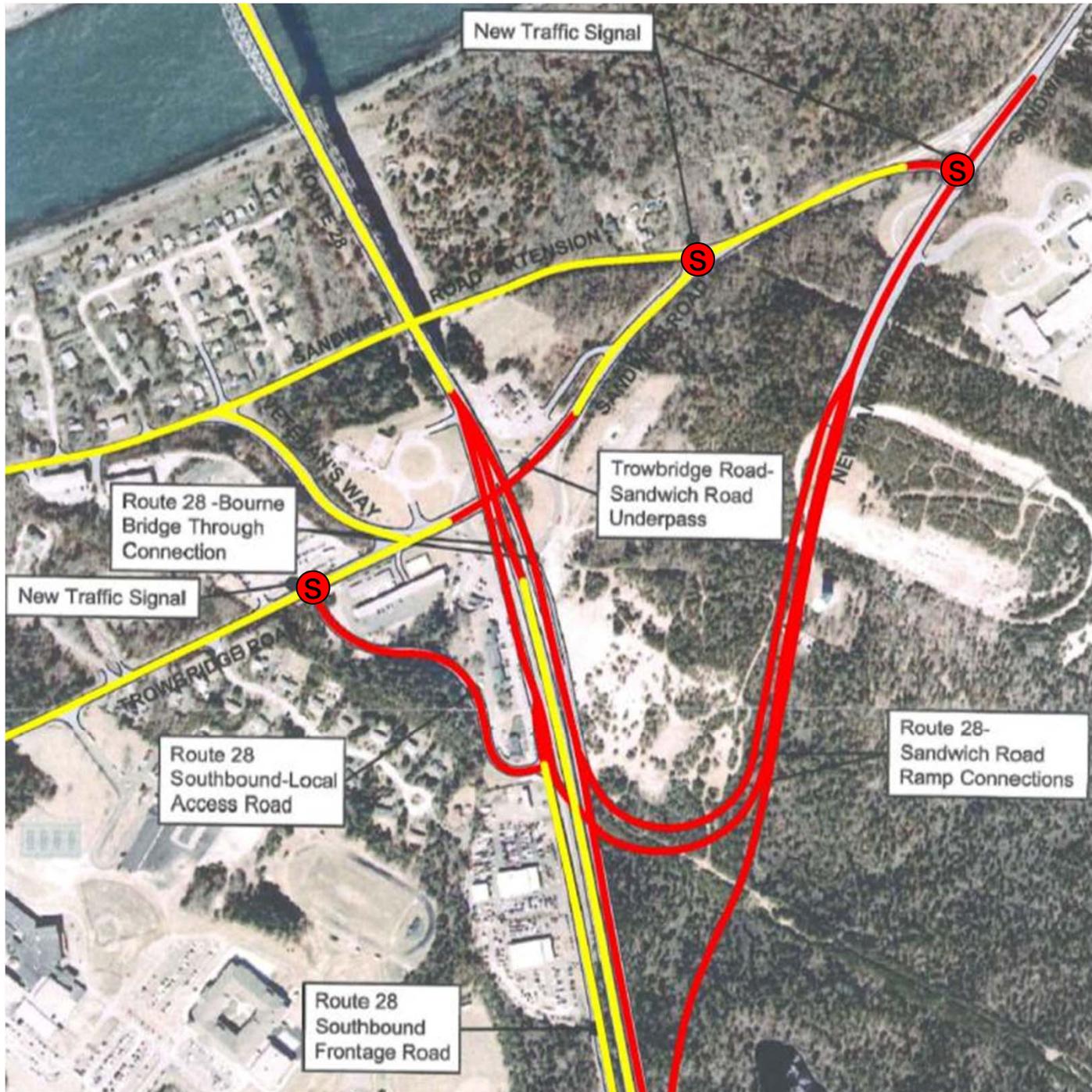
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# Concept G



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# Bourne Rotary Replacement

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## Comments? Questions?

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