

Intersection Improvements at CR 8A (Valley Drive / Locust Avenue), CR 8B (Navesink Avenue) and Monmouth Avenue

In the Township of Middletown

Township Committee Meeting

August 17, 2015

Prior Township Committee presentations: April 25, 2007 • July 7, 2010

Presented by:

T&M Associates

Ralph Squillante, P.E.

Donato DiZuzio

for:

the Monmouth County Engineering Department

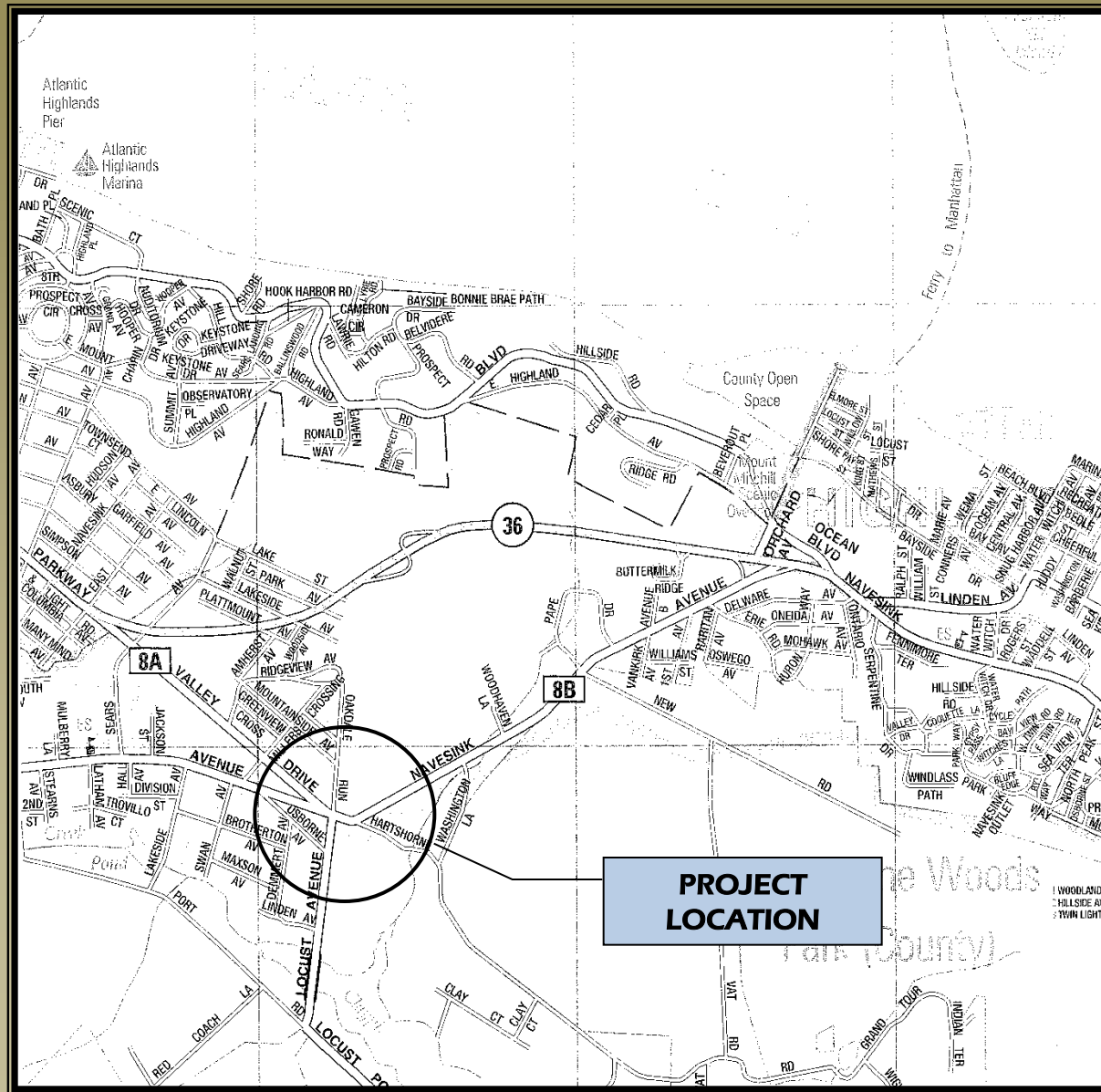
Joseph M. Ettore, P.E. – County Engineer

Kevin J. Nugent, P.E. – Principal Engineer, Highways

Vincent J. Cardone, P.E. – Principal Engineer, Traffic



Location Map



Location Map



Existing Conditions & Problem Statement

Existing Conditions

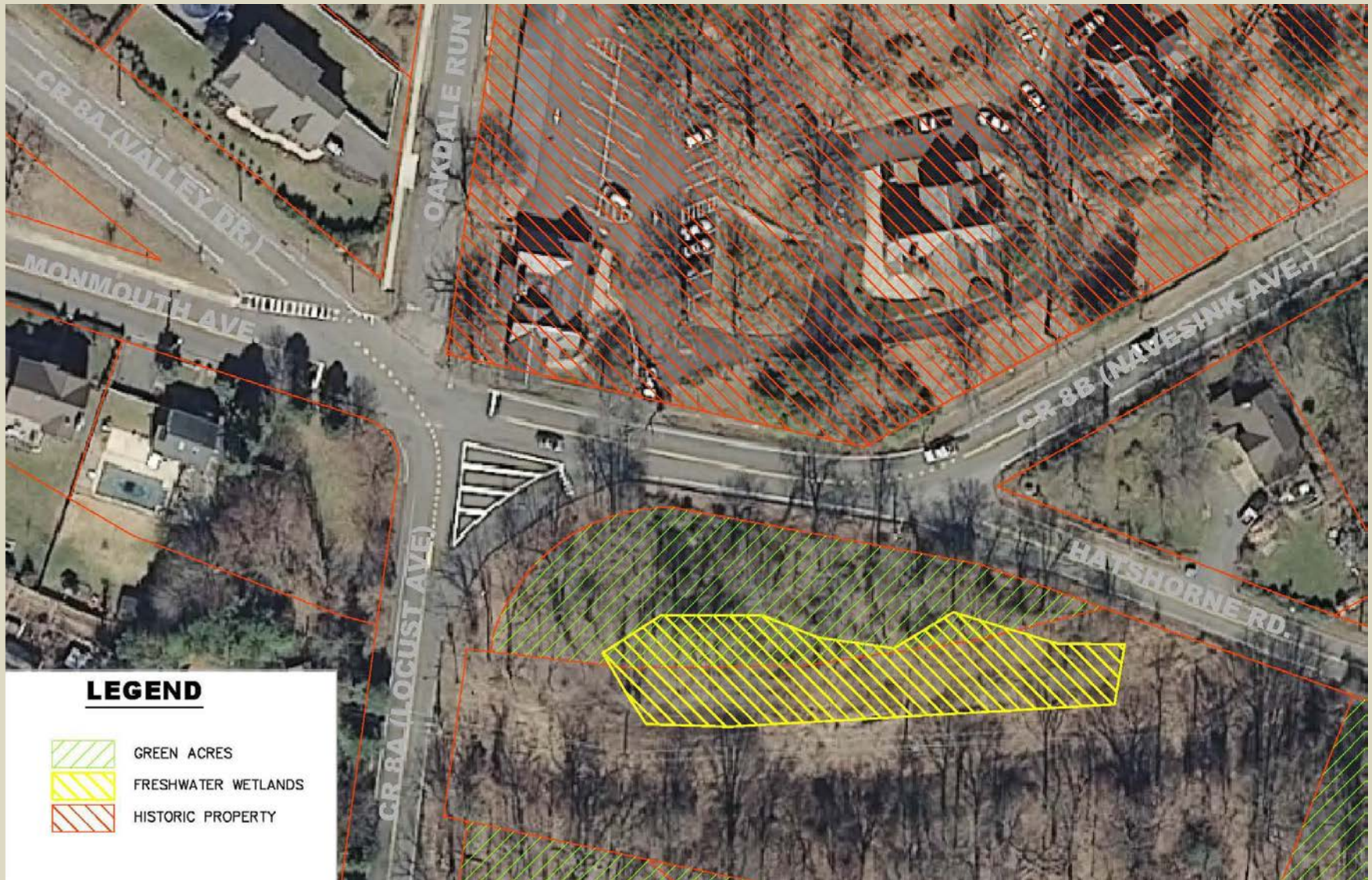
The roadways traversing the intersection serve as connections between State Route 36 to the north, the Oceanic Bridge and County Route 12A (Navesink River Road) to the south, and State Route 35 to the west.

Problem Statement

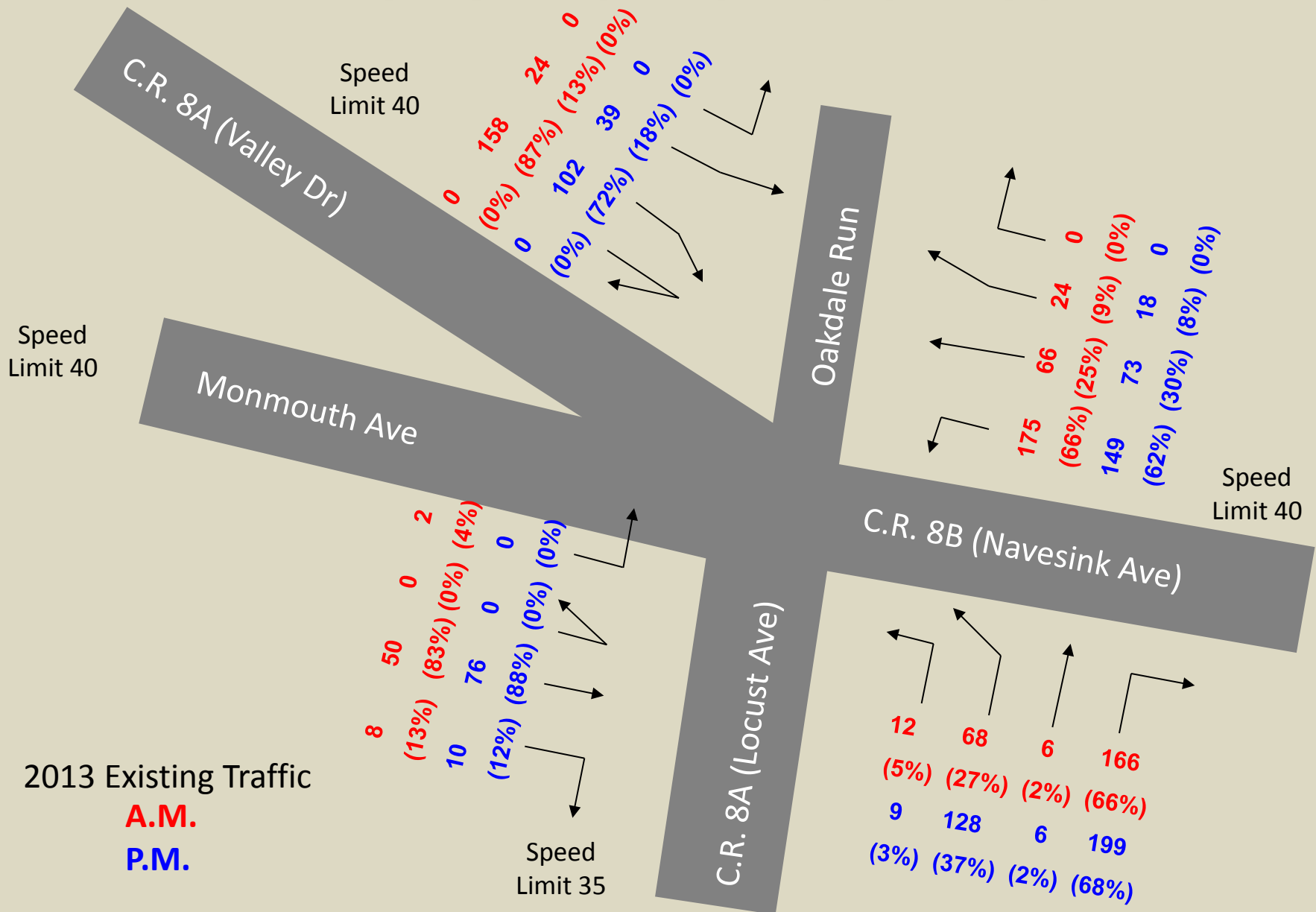
The Intersection's primary movement (using 2013 traffic data) are the northbound to eastbound and conversely the westbound to southbound turning movements. The secondary major movement is the north/south through move. The unconventional geometry of the existing intersection contributes to the following:

- 5 Legged Intersection
- Confusion regarding which movement has the right of way
- The legs with the largest movements are stop- and yield-controlled
- Odd angles & sight distance issues
- Perceived speeding issues
- 20 reported crashes between 2011 and 2014.
 - The Locust Avenue - Valley Drive intersection was above the statewide average for County roadways in angle crashes and fixed-object crashes.
 - The Navesink Avenue - Hartshorne Road intersection was above the statewide average for County roadways in fixed-object crashes, particularly under slippery conditions, and in head-on collisions.

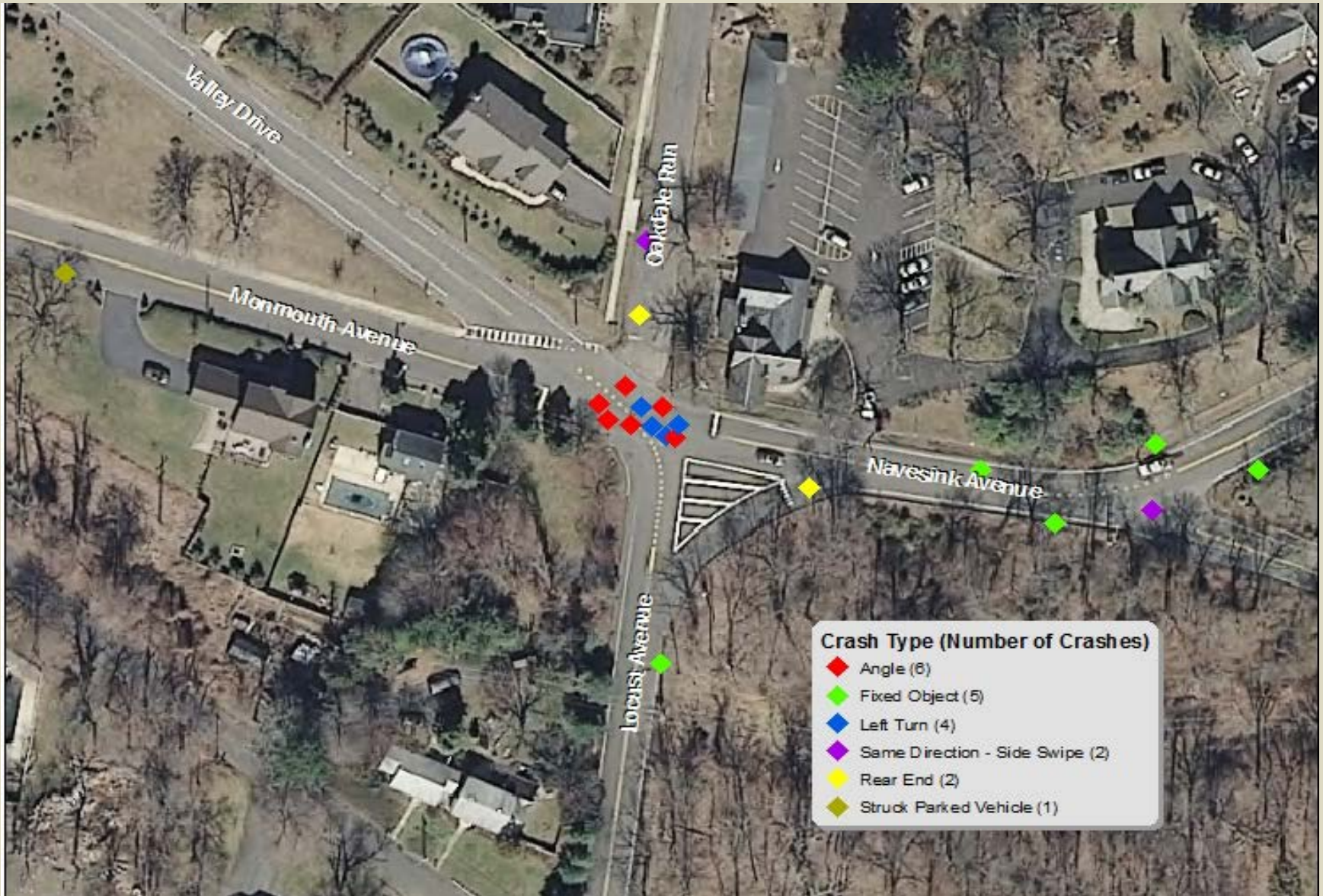
Existing Intersection Conditions



2013 Traffic Volumes



Crashes 2011-2014



Studied Intersection Improvements

MCED developed various options for intersection improvements.

- Traffic Signal – did not meet warrants
- Roadway Realignments – 4 combinations of T-type intersections
- Roundabout options – 3 sizes and locations evaluated
- 2013: Middletown Township supports the roundabout alternative based on previous public meetings
- July 24, 2014: The Board of Chosen Freeholders awards a contract for professional engineering services to prepare final contract documents
- March 31, 2015: Monmouth County Engineering Department hosts a Public Information Center in which the Roundabout options are presented to residents and interested parties

Proposed Roundabout Improvement

- Roundabouts offer many benefits over traditional intersections, such as:
 - Significantly reduced number of conflict points
 - Slows traffic on all approaches
 - Each approach controlled by Yield sign
 - Improved geometry & sight distance
 - Efficiently handles turns & heavy volumes from multiple approaches
- 3 Roundabout alternatives were developed.
 - All alternatives meet current design standards and address the project need, but have differing impacts.
 - The alternatives were presented at a Public Information Center at the Navesink Hook & Ladder Co. on March 31, 2015.
 - Comments and concerns received following the P.I.C. were considered in formulating the preferred alternative.
 - Met with Township representatives to review public comments and design development of the initially preferred alternative on June 23, 2015.

14 comments were received following the Public Information Center.

Comments generally concerned appearance, safety, vehicle speed, and cut-through traffic.

<u>Comment</u>	<u>Response</u>
<ul style="list-style-type: none">• <i>A roundabout is not appropriate for the area.</i>	<ul style="list-style-type: none">• Appropriate paver surfaces, lighting, and landscaping will be used.
<ul style="list-style-type: none">• <i>Through vehicles drive too fast.</i>	<ul style="list-style-type: none">• Roundabout geometry controls travel speed on all approaches.
<ul style="list-style-type: none">• <i>Drivers will use local streets for cut-through routes.</i>	<ul style="list-style-type: none">• Traffic will be monitored before and after construction.
<ul style="list-style-type: none">• <i>Left turns from Hartshorne Drive can be difficult.</i>	<ul style="list-style-type: none">• Sight lines for all roadways will be improved.
<ul style="list-style-type: none">• <i>Some residents have trailers or large vehicles.</i>	<ul style="list-style-type: none">• All intersections will accommodate a pickup with a 30' trailer.

Initially Preferred Alternative



Alignment and Access Considerations

- *Hartshorne Road* – will be re-aligned to meet Navesink Avenue at right angles, to improve sight distance.
- *Monmouth Avenue* – will be re-aligned to meet Valley Drive, to remove the movement from the roundabout.
- *Valley Drive* – an extended splitter island encourages drivers to slow down further before entering the roundabout.
- *Oakdale Run* – right-in / right-out turns only.
- *Osborne Avenue* – Traffic volume will be monitored before and after construction. Traffic control measures will be implemented if needed.
- *Church Driveway* – to be extended to connect directly to the roundabout. Entry driveway may be widened by 3'-5'.
- *Private Driveways* – #104 and 108 Monmouth Avenue will be combined into a shared driveway on Monmouth Avenue.
- *Millers Crossing* – Traffic will be monitored to determine if trucks are using the re-aligned Monmouth Avenue.

Design Constraints

- ***Environmental***

- Freshwater wetlands are located between Locust Ave and Hartshorne Road. A General Permit no. 10 will be obtained from NJDEP Division of Land Use Regulation.
- Threatened or Endangered species: the project site is a potentially suitable foraging habitat for the Black Crowned Night Heron but not a suitable nesting habitat. Disruption of foraging habitat is considered a temporary disturbance.
- Stormwater management measures will be incorporated to comply with NJDEP's Phase II Surface Water Quality Rules. The design anticipates no increase in runoff.

- ***Green Acres***

- The project will disturb less than ½ acre of Hartshorne Woods Park. The County will work with NJDEP's Green Acres Program to find an acceptable mitigation strategy.

- ***Historic Properties***

- The project does not require acquisition or disturbance of any property at the Stone Church. The roundabout is further away from the Church than the existing roadway.
- Cultural Resources studies are underway to determine if the project footprint extends to the historic limits of the Randall House tract.

- ***Private Property***

- Some private property will be purchased to accommodate the road widening and realignments.

- ***Utilities***

- Aerial and underground utilities will require relocation for the road widening and realignments.

Roundabout Alternative

Benefits:

- Increases safety by slowing traffic, reducing the number of conflicts among vehicles, and controlling each approach with a Yield sign.
- Improves geometry & sight distance.
- Efficiently handles the major movements.
- Provides upgraded and ADA-compliant pedestrian facilities.

Impacts:

- Freshwater Wetlands disturbance.
- Green Acres acquisition & mitigation.
- Acquisition of property anticipated from six different parcels.

Next Steps

- Plan endorsement / resolution of support from Middletown Township – September 2015
- Finalize the Initially Preferred Alternate – Fall 2015
- Right-of-Way acquisition process – Fall 2015
- Securing necessary State approvals –Spring / Summer 2016
- Bid and award project for construction – Summer 2016

An aerial photograph of a suburban neighborhood. The image shows several houses with dark roofs, some with swimming pools, and many bare trees, suggesting a late autumn or winter setting. A road with a crosswalk and a parking lot are visible in the center. The text "Questions?" is overlaid in a large, bold, black font with a white outline and a black underline.

Questions?

Thank You!