

# Welcome to the Southern New Castle County Master Plan Transportation Element! Virtual Public Workshop

**August 26, 2020**  
**The Workshop will begin at  
6pm!**



# Virtual Workshop Logistics

## What do I do if I can't hear?

You can listen via your computer speakers or by calling in on your phone. To listen to the audio via your phone, please call:

**Phone number - 1 (408) 418-9388**

**Access code - 129 318 0994**

## How do I ask a question?

Please use the chat function during the workshop to ask questions. Presenters will do their best to answer your questions during the Q & A portion of the event. If you are unable to use the chat function, please email your question to Randi Novakoff at [rnovakoff@wilmapco.org](mailto:rnovakoff@wilmapco.org).

## Can I view and comment on virtual workshop materials after the event?

The draft transportation element of the master plan is currently available on the project webpage. You will have the opportunity to view and comment on all Virtual Workshop materials by visiting. [www.wilmapco.org/snccmp](http://www.wilmapco.org/snccmp).



**For technical issues accessing web meeting, please text/call Jennifer Cinelli at 302-760-2549**



# Workshop Agenda

- 5:45** Login period begins
- 6:00** Welcome/introductions and presentation
- 6:45** Moderated question and answer period  
(enter your questions in the Q&A box at any time)
- 7:30** Wrap up



For technical issues accessing web meeting, please text/call Jennifer Cinelli at 302-760-2549



# Welcome and Introductions



**Jeff Riegner,  
WRA**



**Adrienne Eiss,  
WRA**



**Dave Gula,  
WILMAPCO**



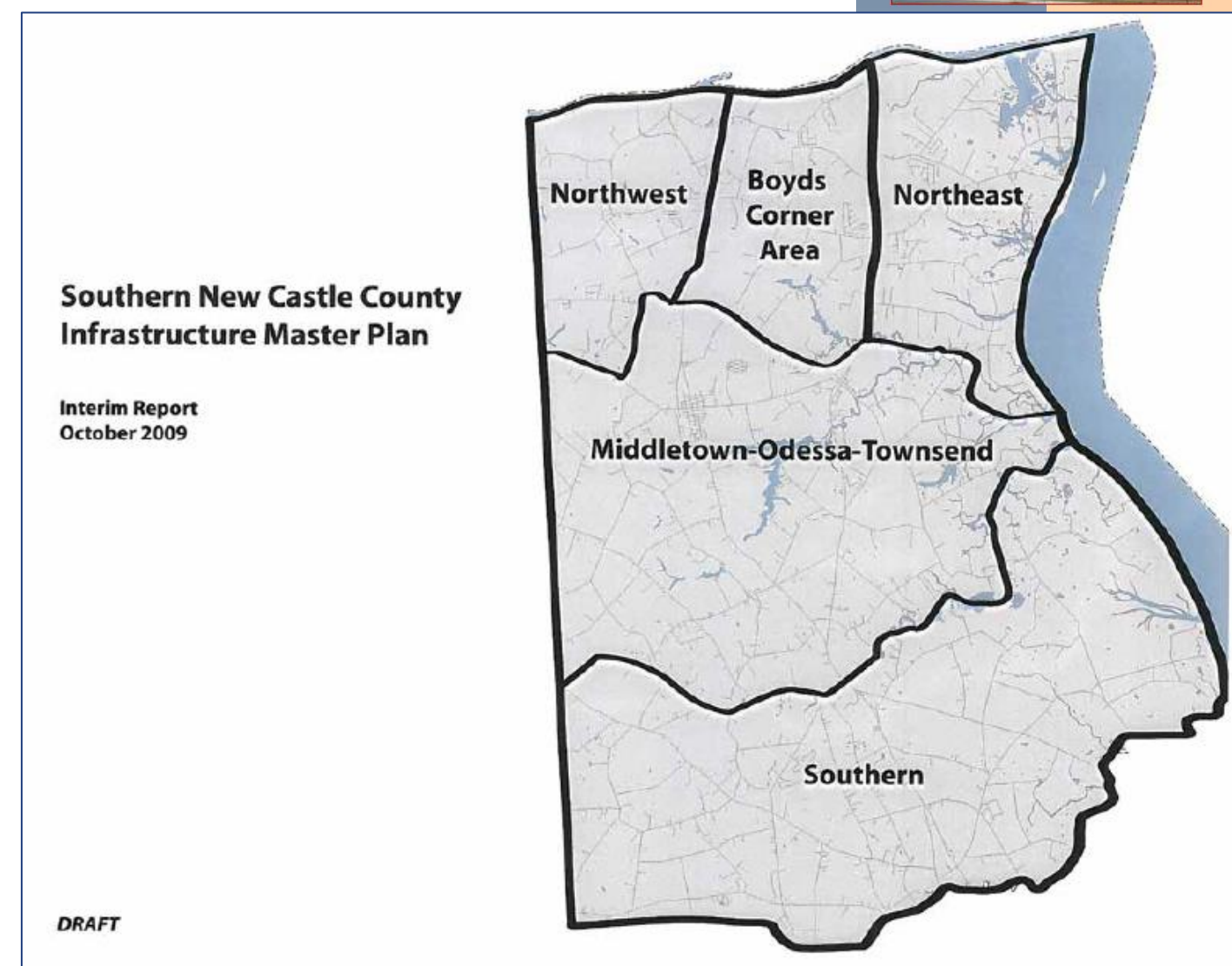
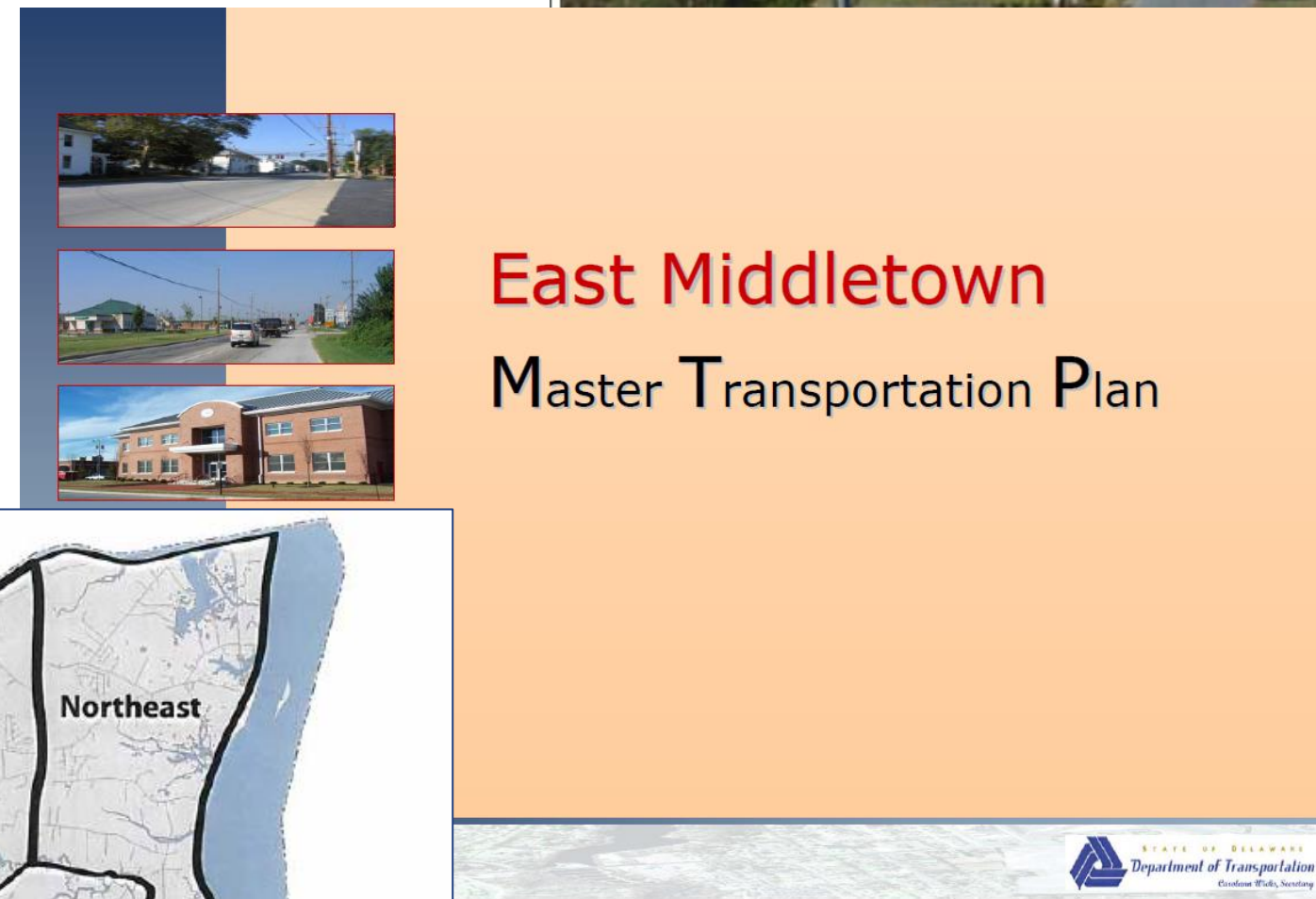
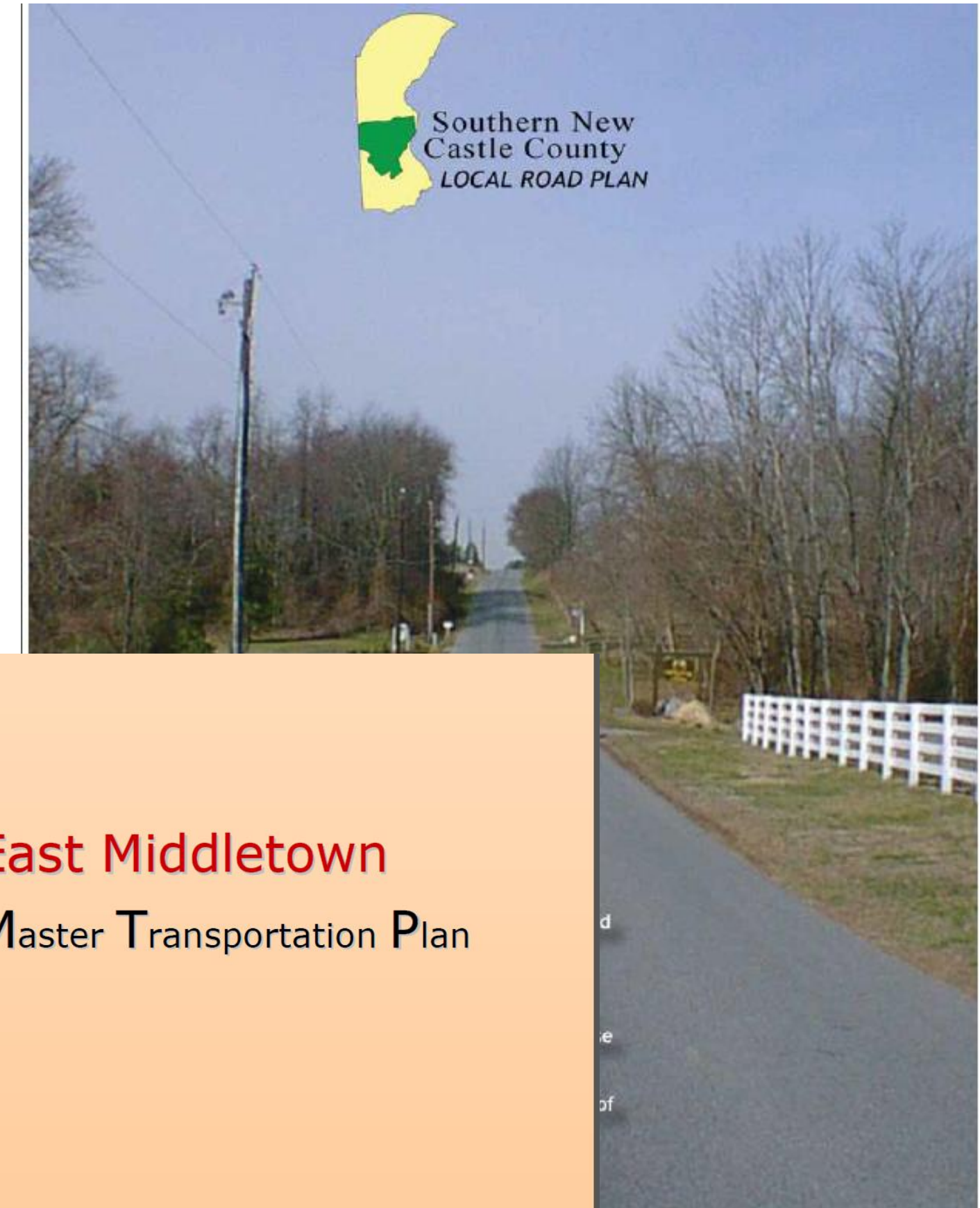


# Poll Questions



# Master Plan Purpose

- Establish a long-term, publicly-supported, vision for land use and infrastructure in southern New Castle County
- Provide recommendations to update key planning documents:
  - RTP
  - TIP
  - NCC Comp Plan
- Capture key points of previous efforts





# Master Plan Purpose

## What have we accomplished?

October 2018 -----Spring / Summer 2019-----Fall / Winter 2020





# Public Meetings

- **Public Information Session:** October 17, 2018, Odessa Fire Hall, 50 attendees
- **Community Visioning Session #1:** January 31, 2019, Odessa Fire Hall, 100+ attendees
- **Community Visioning Session #2:** March 13, 2019, Middletown Fire Hall, 70 attendees
- **Public Workshop for NCC LU Scenario Development:** June 24, 2019,
- **Public Workshop:** October 7, 2019, 80 attendees





# Community Transportation Concerns

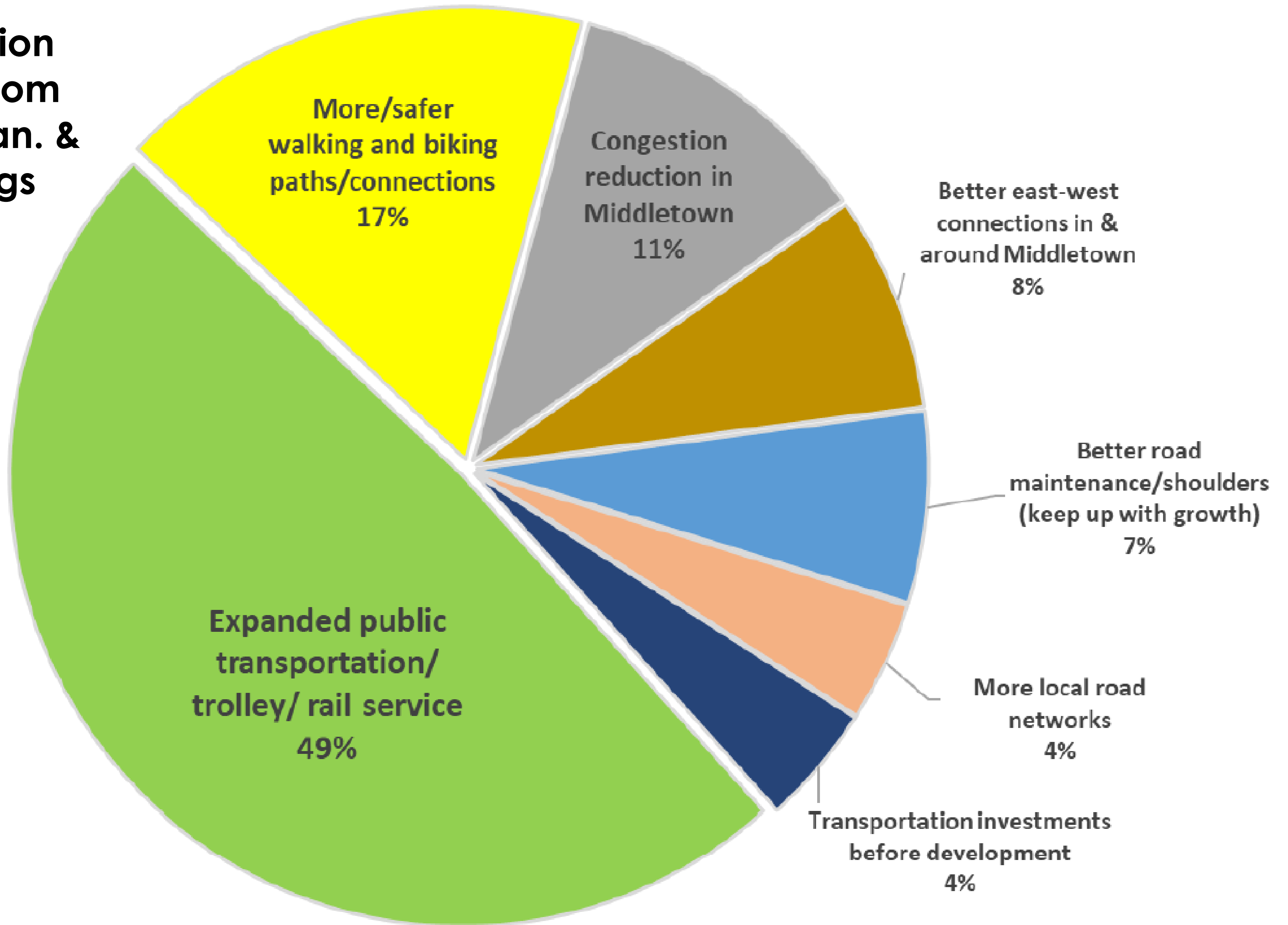
- Alternative truck routes
- Better east-west connections in & around Middletown
- Better road maintenance/shoulders (keep up with growth)
- Congestion reduction in Middletown
- Equitable funding of transportation (tolls on US 301)
- Expanded public transportation/trolley/rail service
- Improved commuting to Wilmington for jobs
- More/safer walking and biking paths/connections
- More local road networks
- Redundant transportation options across the canal
- Transportation investments before development
- Transportation options for aging population

## Ways to Address Those Concerns:

- Advance projects already in long-range plans, which include new roadway links and improvements to existing roads and intersections
  - DeIDOT's Capital Transportation Program
  - Transportation Improvement Districts
  - WILMAPCO's Regional Transportation Plan
- Determine necessary improvements to roads and intersections that are not yet included in long-range plans
- Monitor changes in transit ridership and land use, moving forward with service changes to continually provide better service
- Implement recommendations in the New Castle County Bike Plan
- Do a better job in tying transportation improvements to new development projects

# Public Outreach

## Top Transportation Needs Results from Table Exercise Jan. & March Meetings



\*88 total responses from Odessa participants

\*25 total responses from Middletown participants





# Public Outreach

## Other Comments

**“301 toll too expensive for daily Commute”**

**“Need to seriously review and provide public transportation to 55 and older communities”**

**“There are many seniors living in Southern New Castle Country and we will need more public transportation as we age and are no longer able to drive”**

**“Fieldsboro Road too narrow at 13 for bike path. 50 mph on Fieldsboro – CURVE. Older people & children biking. Speed too fast”**

**“Traffic studies do not reflect current patterns around Townsend, SR 15, Level and Railroad Avenue”**

**“Better connectivity between populations and attractions”**

**“It makes no sense that sidewalks go for a while then suddenly stop”**

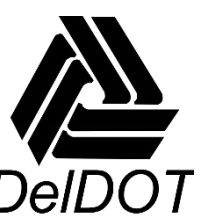
**“We cannot continue to expand without addressing the transportation problem in and immediately around the town limits”.**

**“Middletown is a mess, and fixing it won't be easy. (But it most certainly will be a worthwhile investment of both effort and resources.)”**

**“Would be nice to have bike access to road on southern side of canal on improvement on south side road”**



# Poll Question





# Transportation Scenario Development & Analysis



# Scenario development

## Land use and transportation scenarios:

- Informed by issues/constraints data
- Built on the community vision
- Developed and reviewed by the Staff Committee and Advisory Committee

## Designed to answer questions such as:

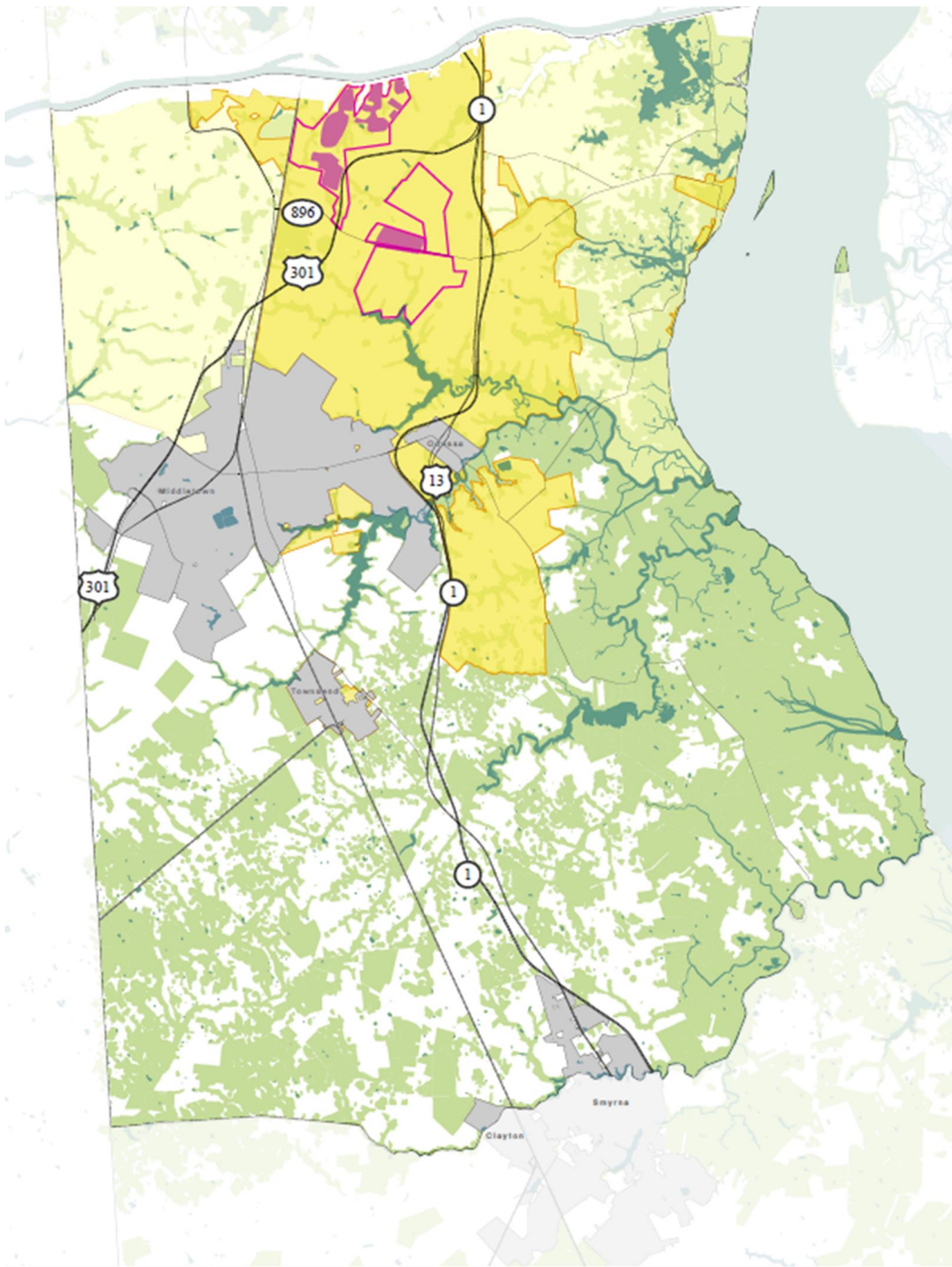
- Can the towns take more growth?
- What potential exists for employment growth in southern portion of the study area?
- What impacts will there be to the capacity of existing infrastructure (water, sewer, roads, etc.)?
- Is there a significant difference between the land use scenarios in future traffic volumes and roadways with deficient levels of service?
- What transportation improvements are expected to be needed that are not already planned?



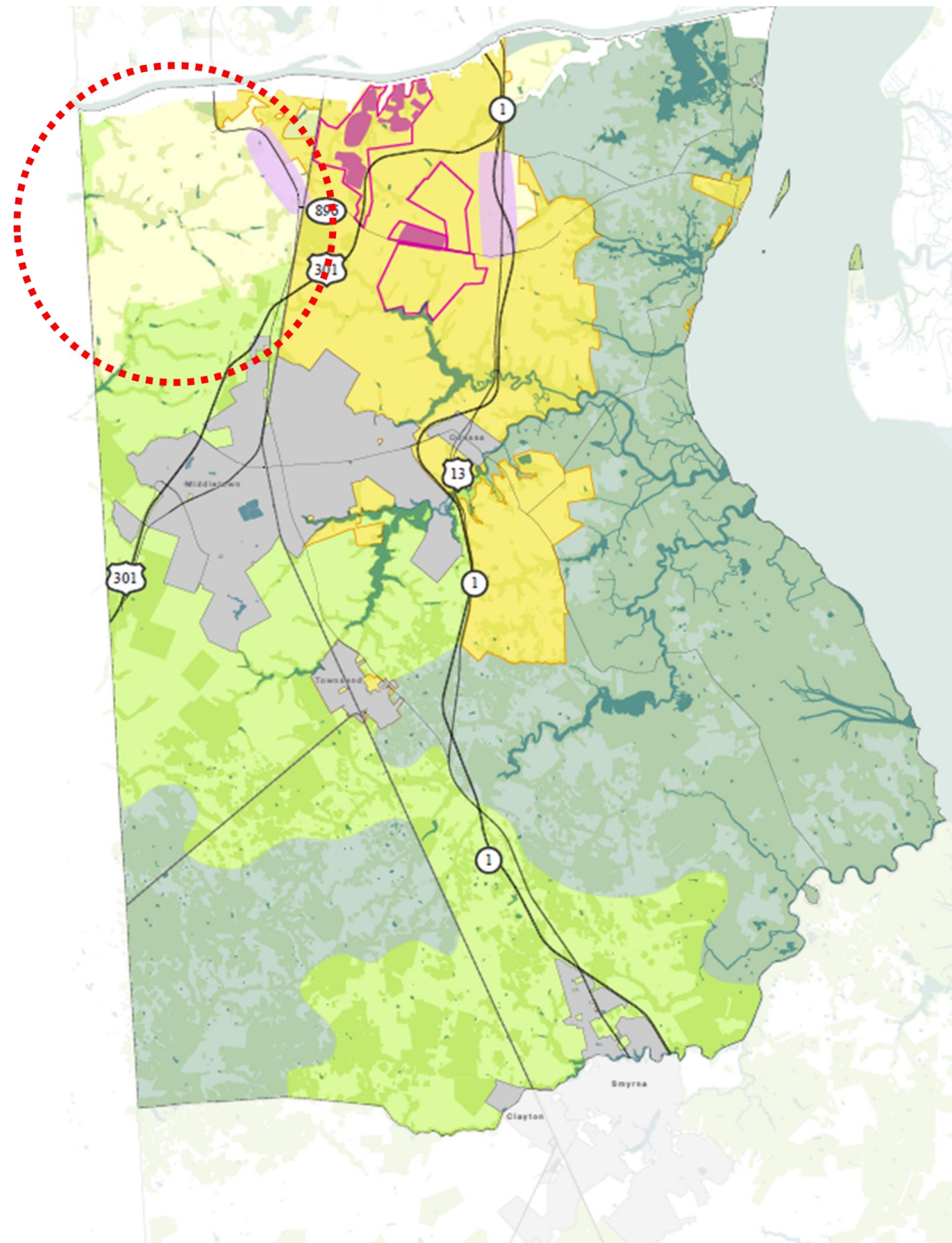
# Scenario Analysis

- Each of the three land use scenarios were analyzed through the DelDOT travel demand model.
- Traffic analysis zone (TAZ)-level households, population and employment were adjusted to simulate the changes made by the desired scenario outcomes.
- The model included all transportation improvements currently in the TIP/CTP and in the WILMAPCO RTP constrained project list.

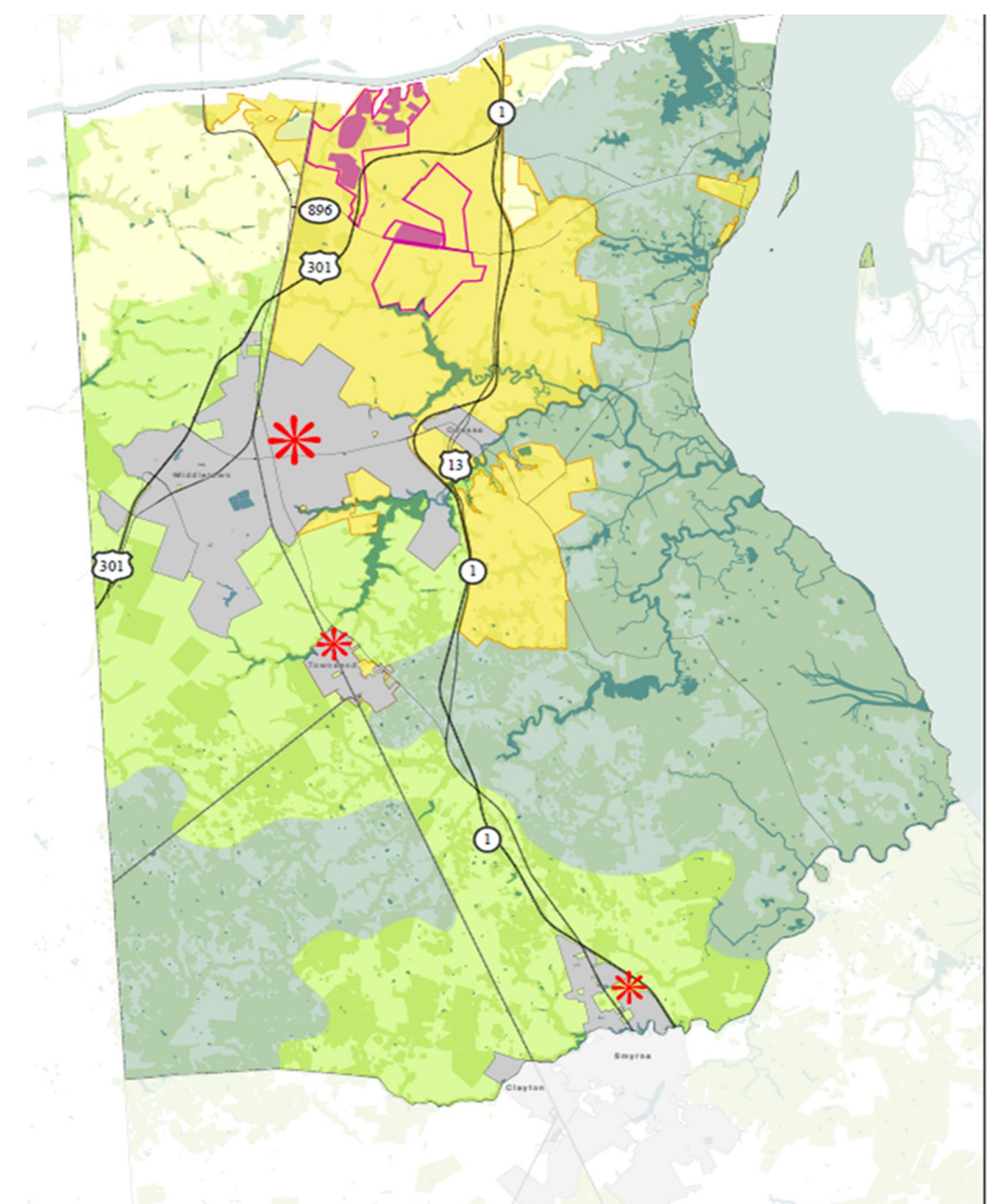
## Scenario 1: Business as Usual



## Scenario 2: Planned Growth and Preservation



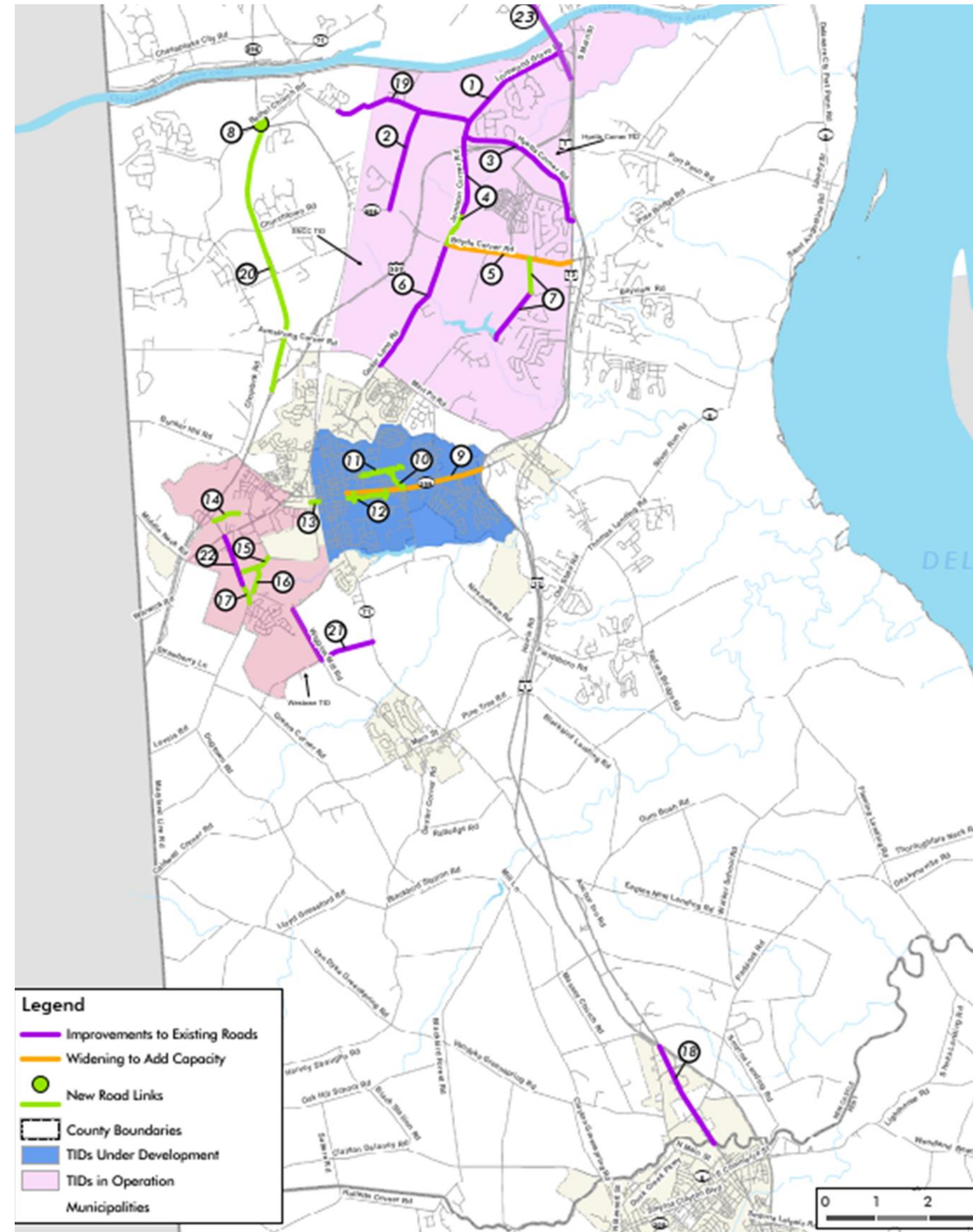
## Scenario 3: Town Infill and Preservation





# Scenario Analysis

- 23 projects already in the pipeline were assumed to be completed by 2050
- The full project list can be found in Appendix B of the report



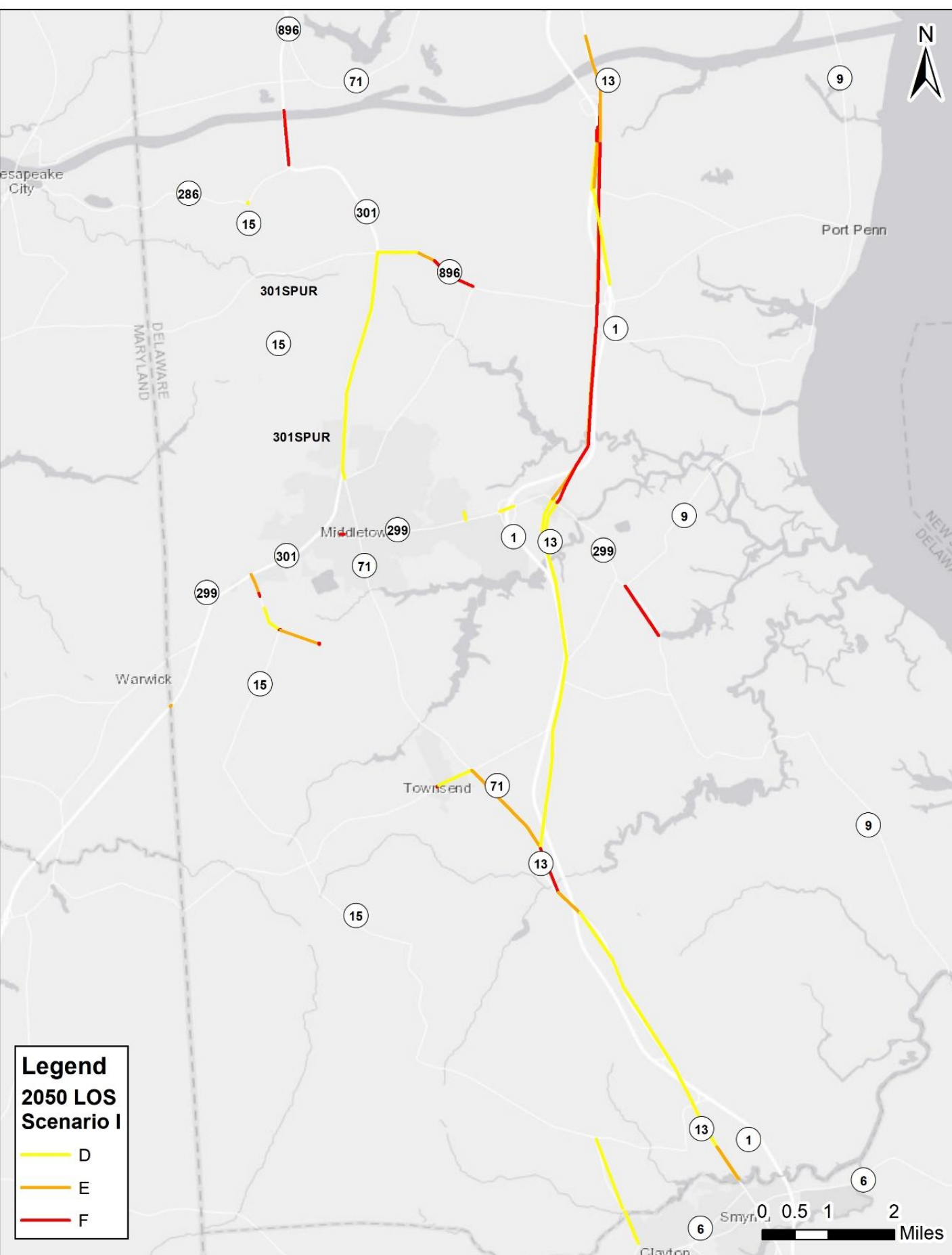


# Scenario Analysis

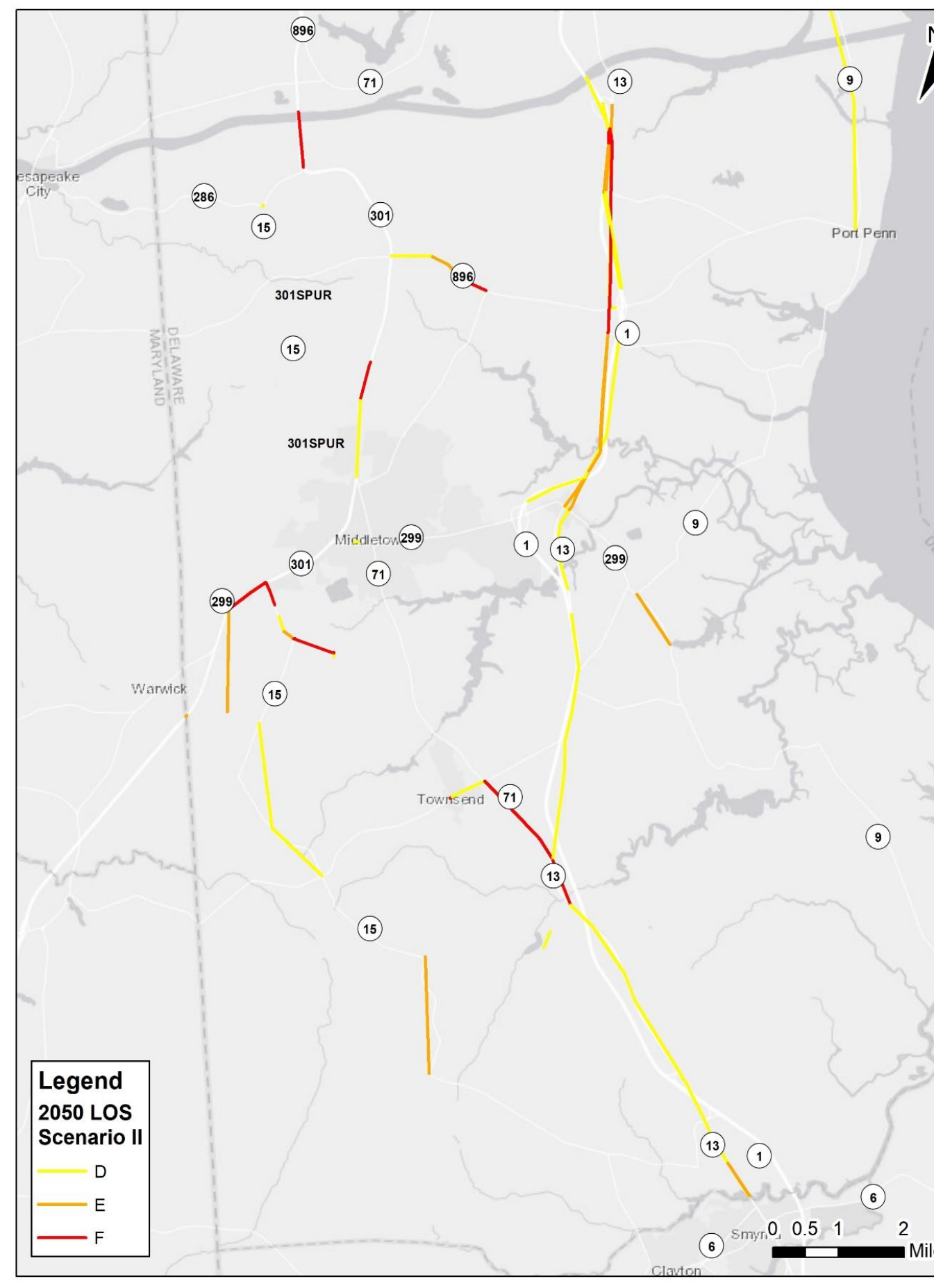
In this initial Phase 1 analysis, the scenarios were found to be fairly similar in terms of their anticipated traffic impacts.

Level of Service Thresholds	
LOS D	81-90% Capacity
LOS E	90-99% Capacity
LOS F	Over 100% Capacity

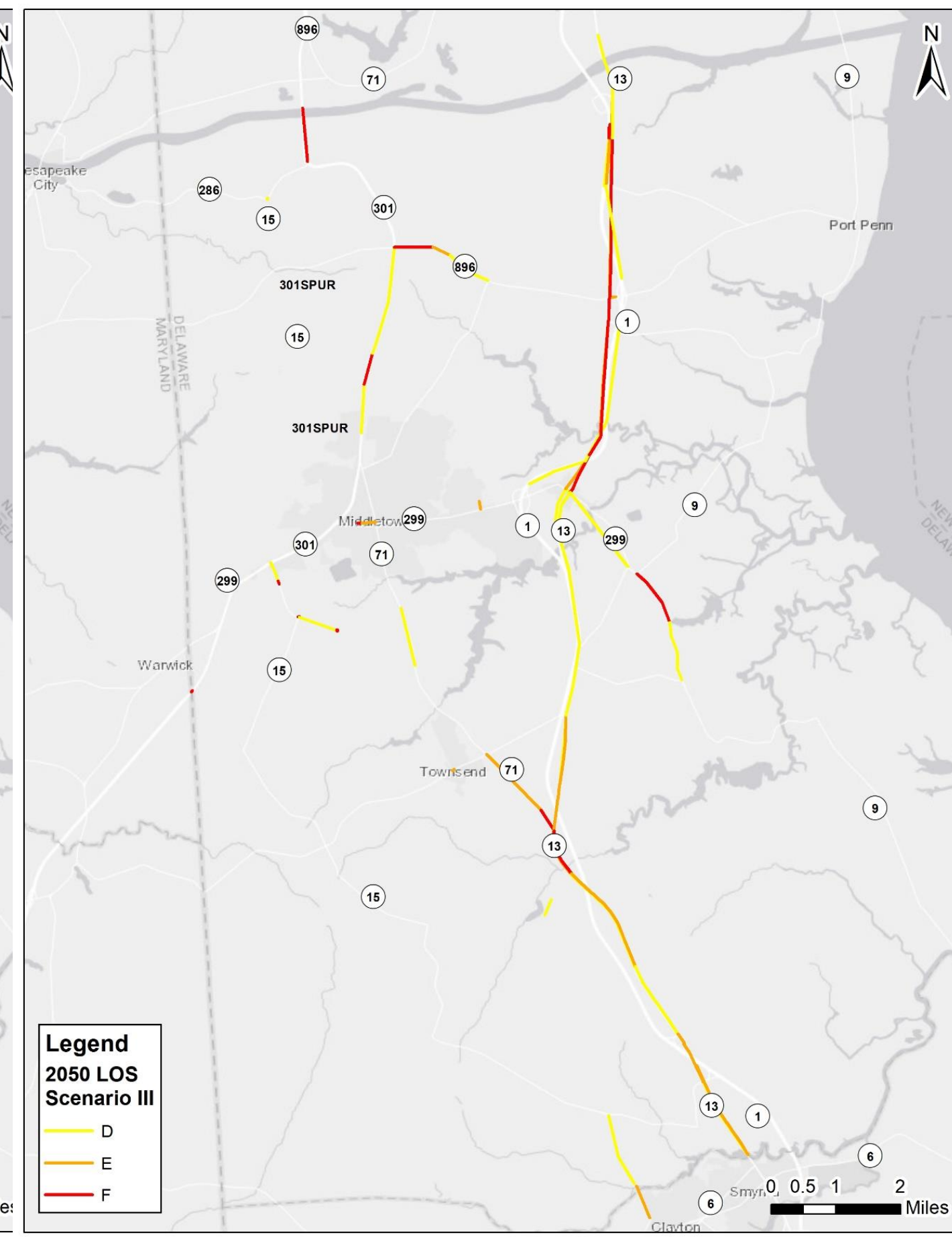
## Scenario 1: Business as Usual



## Scenario 2: Planned Growth and Preservation



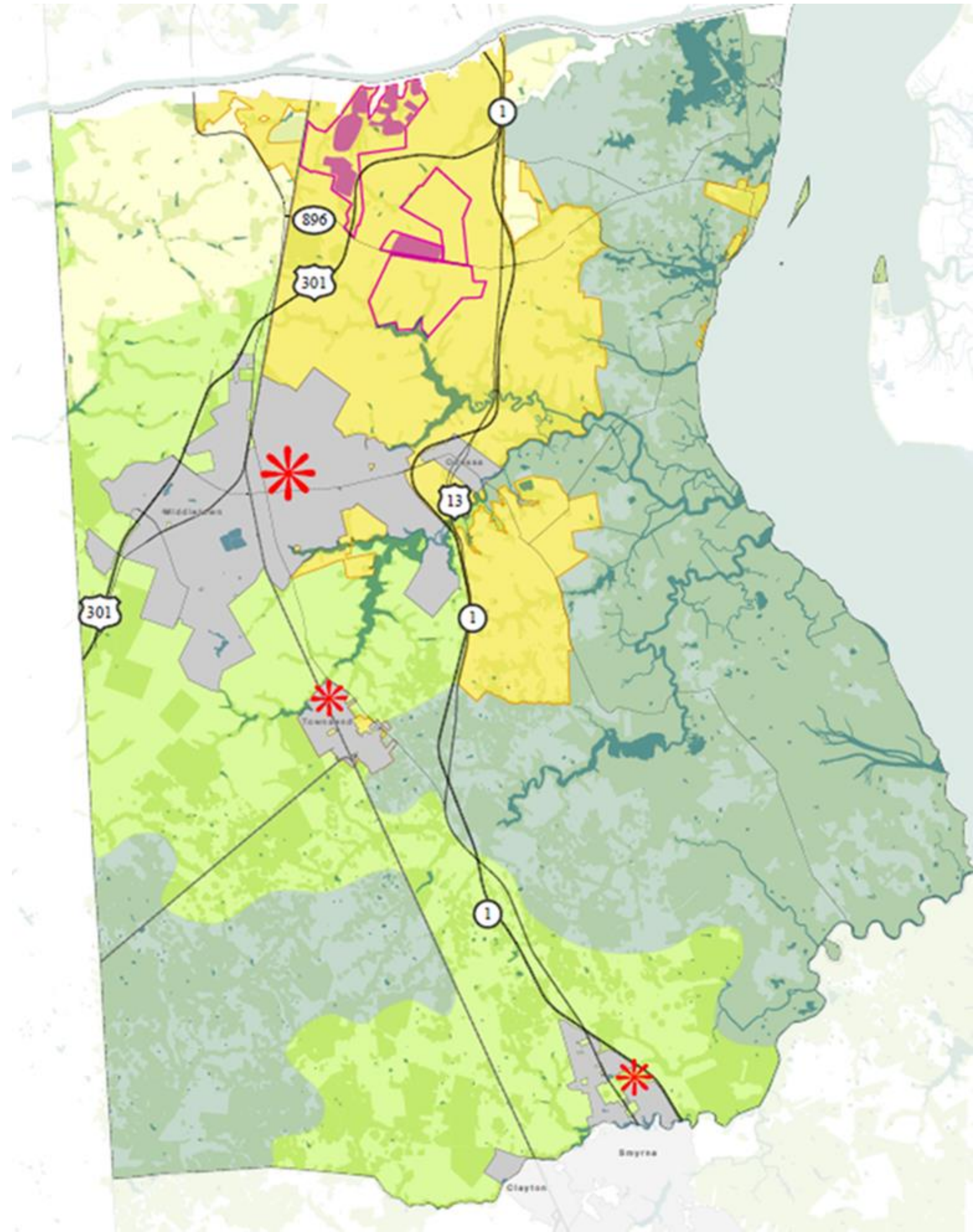
## Scenario 3: Town Infill and Preservation





# Scenario Analysis

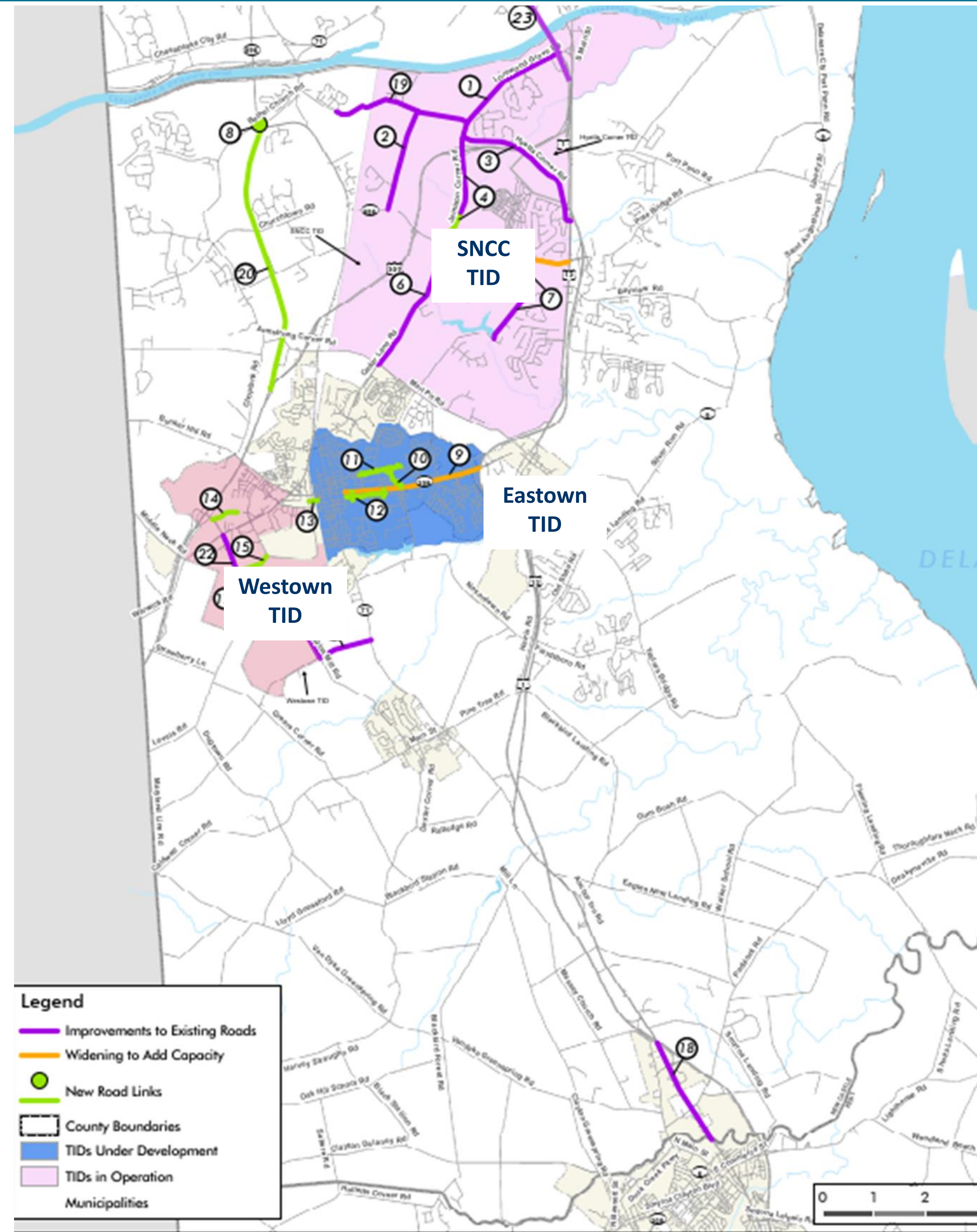
- Based on the initial Phase 1 analysis, the New Castle County Department of Land Use developed a preferred scenario:
  - A hybrid of Scenarios 2 and 3, plus...
  - Additional employment and housing in the Townsend area as requested by the Town
- We then moved to Phase 2, which included detailed traffic analysis of the County's preferred scenario.





# Phase 2: Detailed Traffic Analysis

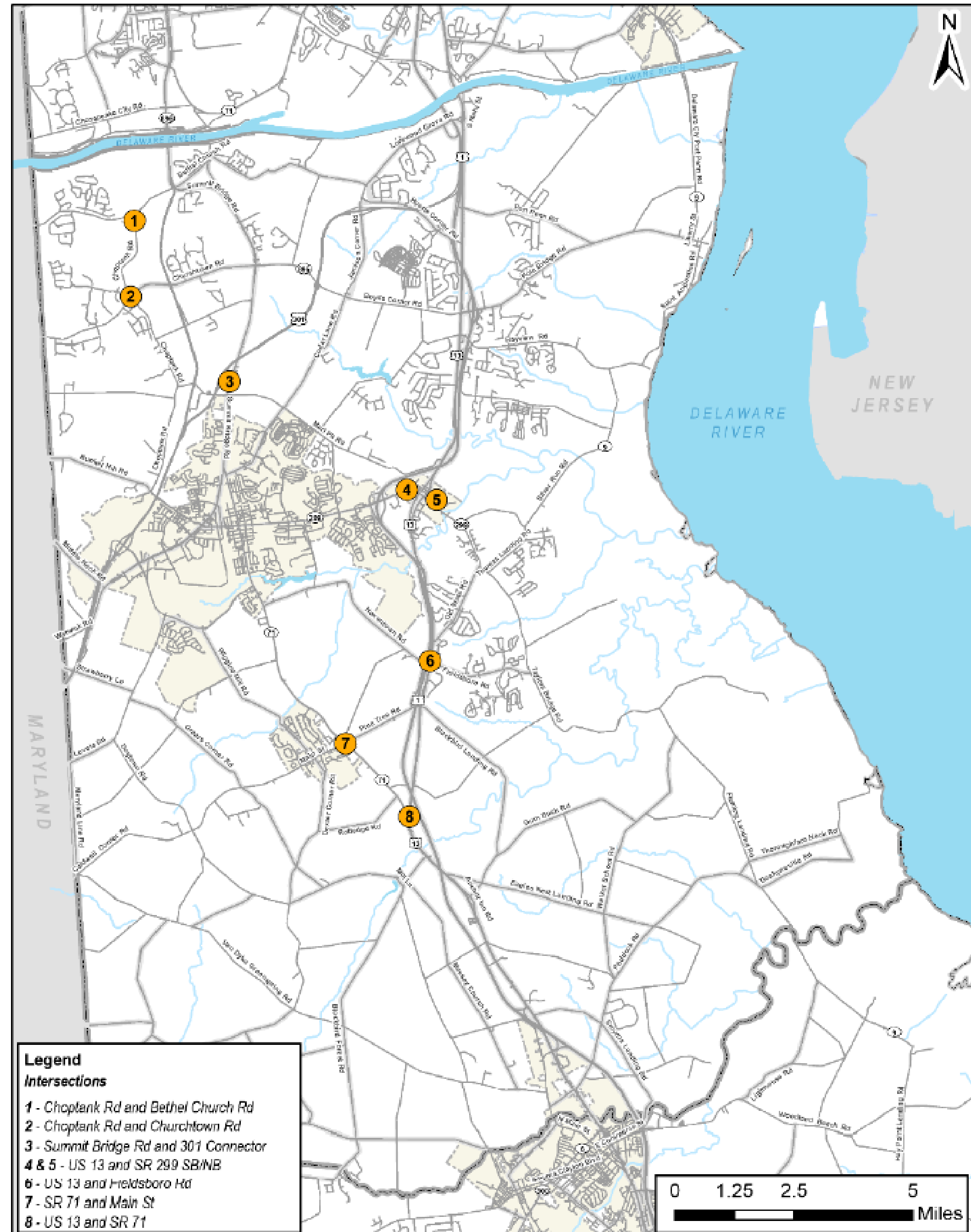
- Purpose: to identify the need for road or intersection improvements that are not already included in DeIDOT's Capital Transportation Program (CTP), WILMAPCO's Long Range Plan, or an existing Transportation Improvement District (TID) agreement.
- 23 projects already in the pipeline
- 27 additional intersections currently being studied by a TID
- **Eight other intersections selected for detailed traffic analysis in Phase 2**





# Phase 2: Detailed Traffic Analysis

- Demographic information for year 2020 and year 2050 demographic forecasts for the preferred scenario were provided by WILMAPCO.
- Peak hour intersection level of service (LOS) analysis was performed for:
  - Existing conditions (2020)
  - Year 2050 using the County's preferred land use scenario **WITHOUT** transportation improvements
  - Year 2050 using the County's preferred land use scenario **WITH** transportation improvements





# Phase 2: Detailed Traffic Analysis

AM

**2020**                      **2050 WITHOUT improvements**                      **2050 WITH improvements**

ID	Street 1	Street 2	Existing Control	AM - Peak Hour Existing		AM - Peak Hour 2050 - No Improvements		Potential additional improvement	AM - Peak Hour 2050 - Additional improvements <sup>2</sup>	
				LOS	Delay (sec/vehicle)	LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)
				1	Choptank Rd	Bethel Church Rd	Roundabout		A	9
2	Choptank Rd	Churchtown Rd	Roundabout	A	8	B	11		B	11
3	Summit Bridge Rd (US 301, SR 71)	Connector to US 301 bypass	Signal	C	21	C	25		C	25
4	US 13 southbound	SR 299	Signal	C	23	C	27	Add third lane to EB SR 299; T-T-R	C	25
5	US 13 northbound	SR 299	Signal	C	28	E	73	Improvement at intersection 4	D	42
6	US 13	Fieldsboro Road	Signal	B	18	C	21		C	21
7	SR 71	Main St/ Pine Tree Rd	Signal	B	14	E	75	Alternative 1 - Add N-S Left turn lanes Alternative 2 - Roundabout	C	29 25
8	US 13	SR 71	TWSC **	B	12	E	50 (NB US13 left turn)	Add US 13 double NB left turn	B	12

Table 3: PM Peak Hour LOS

PM

ID	Street 1	Street 2	Existing Control	PM - Peak Hour Existing		PM - Peak Hour 2050 - No Improvements		Potential additional improvement	PM - Peak Hour 2050 - Additional improvements <sup>2</sup>	
				LOS	Delay (sec/vehicle)	LOS	Delay (sec/vehicle)		LOS	Delay (sec/vehicle)
				1	Choptank Rd	Bethel Church Rd	Roundabout		A	10
2	Choptank Rd	Churchtown Rd	Roundabout	A	9	C	17		C	17
3	Summit Bridge Rd (US 301, SR 71)	Connector to US 301 bypass	Signal	C	21	C	24		C	24
4	US 13 southbound	SR 299	Signal	C	29	E	69	Add third lane to EB SR 299; T-T-R	D	40
5	US 13 northbound	SR 299	Signal	C	28	D	36	Improvement at intersection 4	C	24
6	US 13	Fieldsboro Road	Signal	B	16	B	20		B	20
7	SR 71	Main St/ Pine Tree Rd	Signal	B	14	F	197	Alternative 1 - Add N-S Left turn lanes Alternative 2 - Roundabout	C D	28 30
8	US 13	SR 71	TWSC **	D	29 (SB SR71 right turn)	F	196 (NB US13 left turn)	Add US 13 double NB left turn	B	16

Full results can be found in Appendix A of the report



# Transportation Recommendations

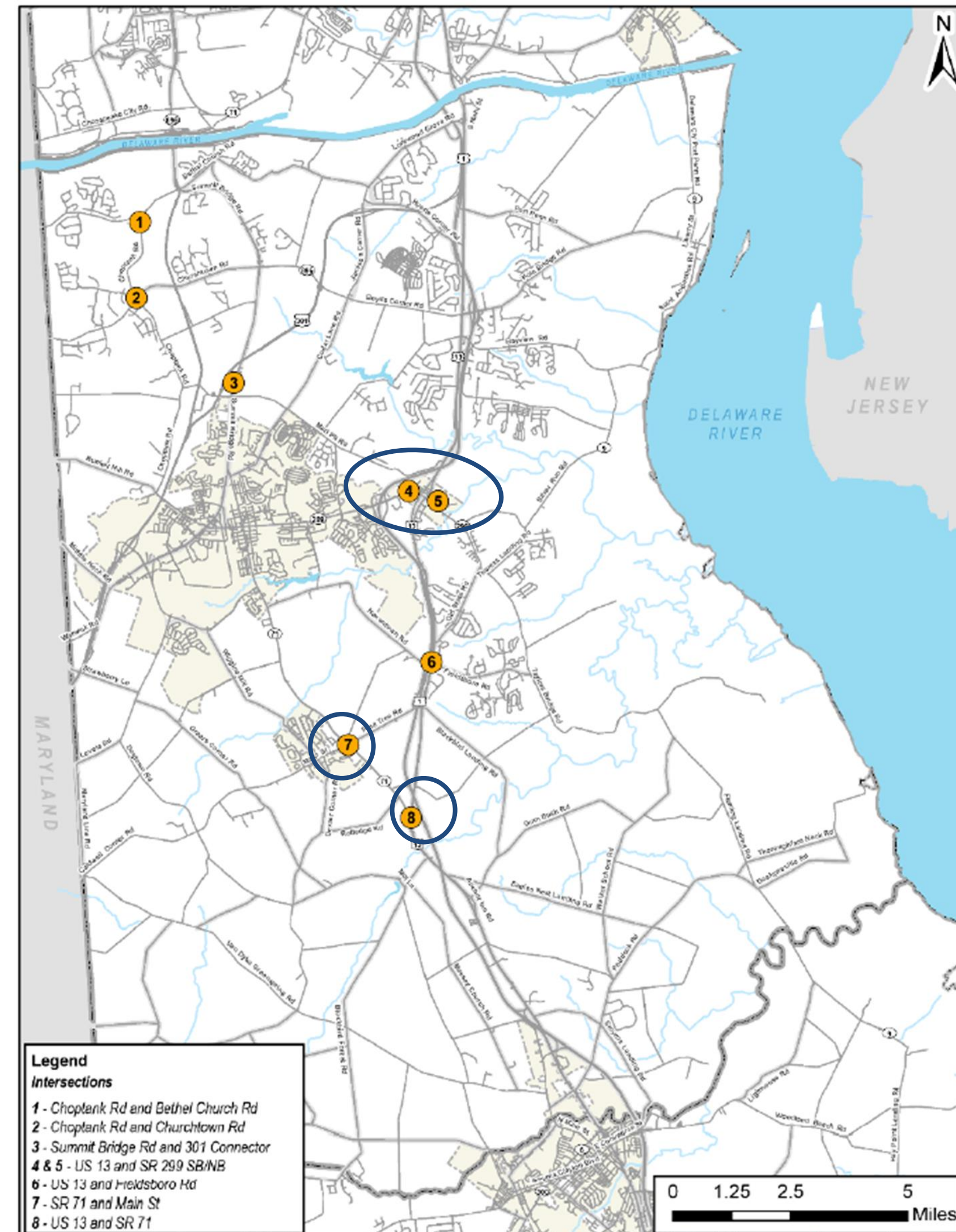




# Recommendations from Traffic Analysis

## Additional improvements suggested at:

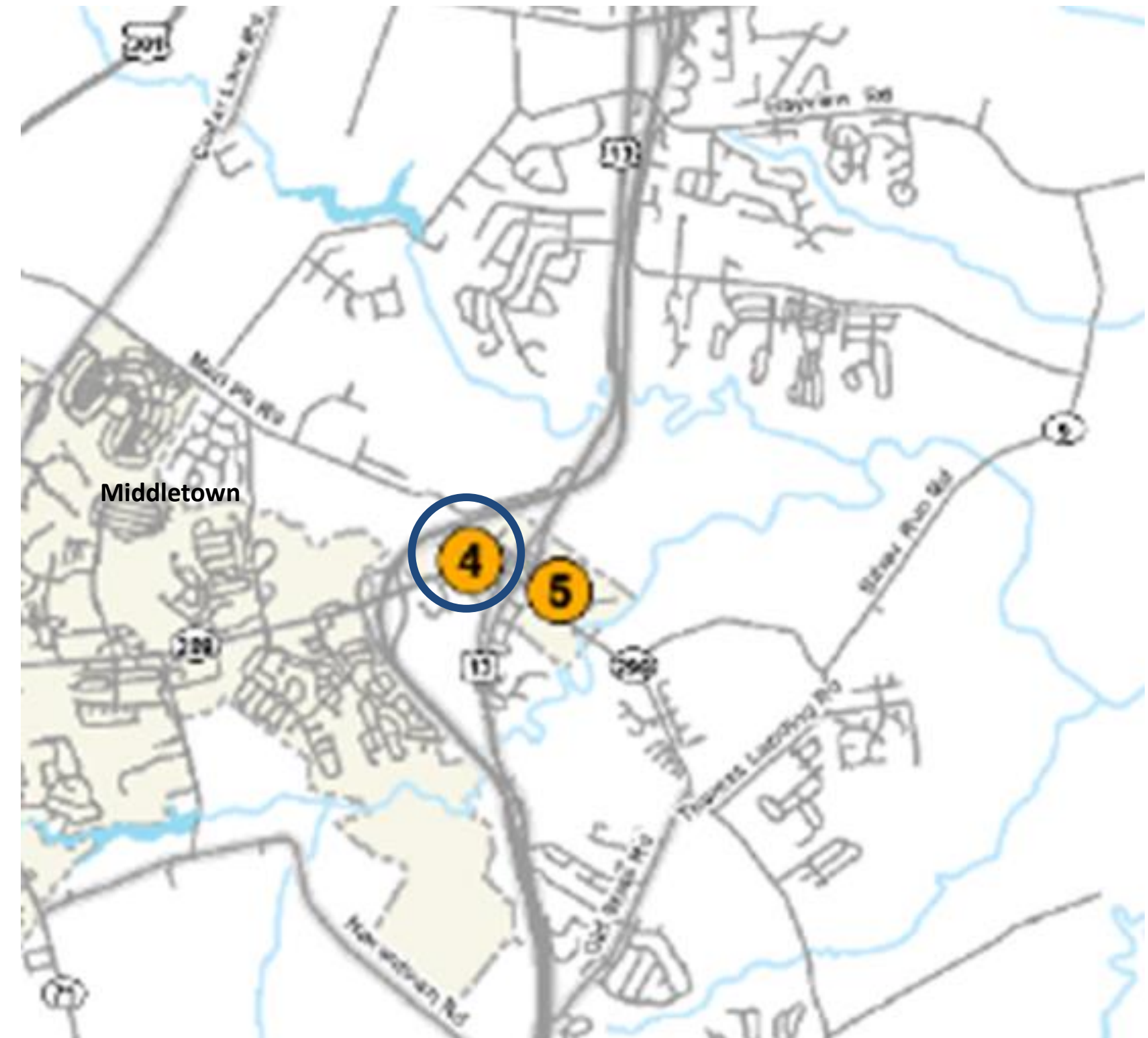
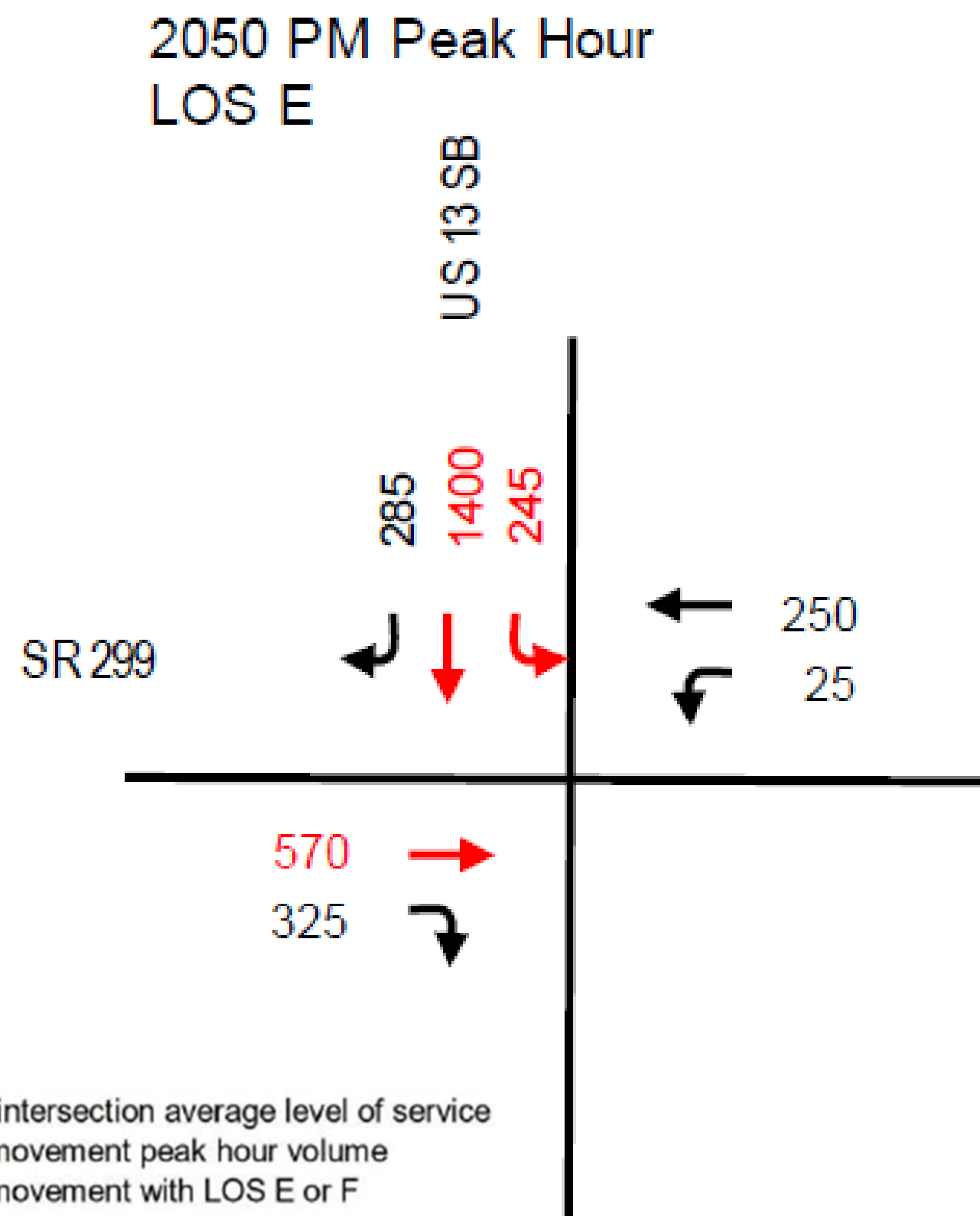
- US 13 SB and SR 299
- US 13 NB and SR 299
- SR 71 and Main Street/Pine Tree Road
- US 13 and SR 71





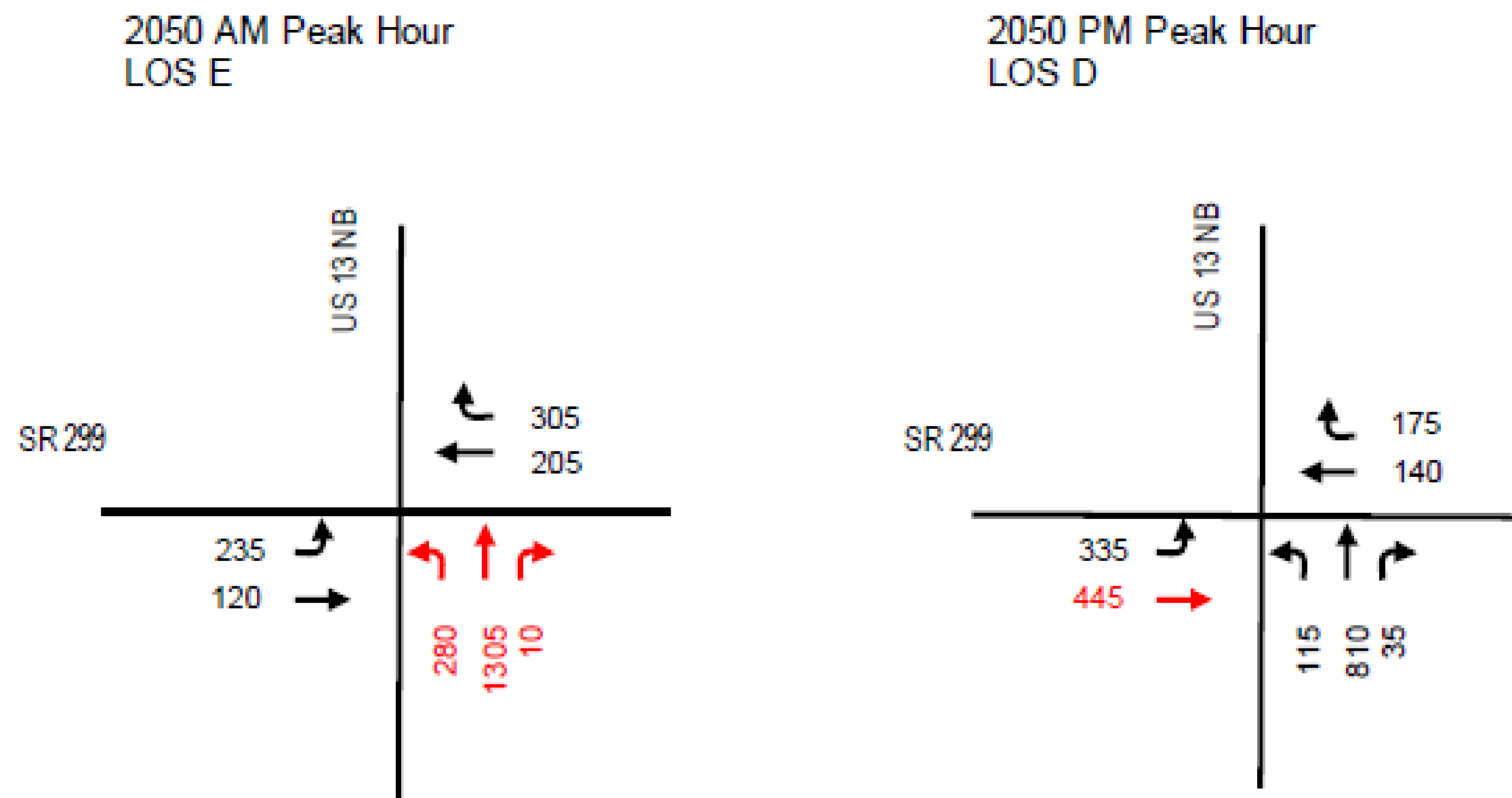
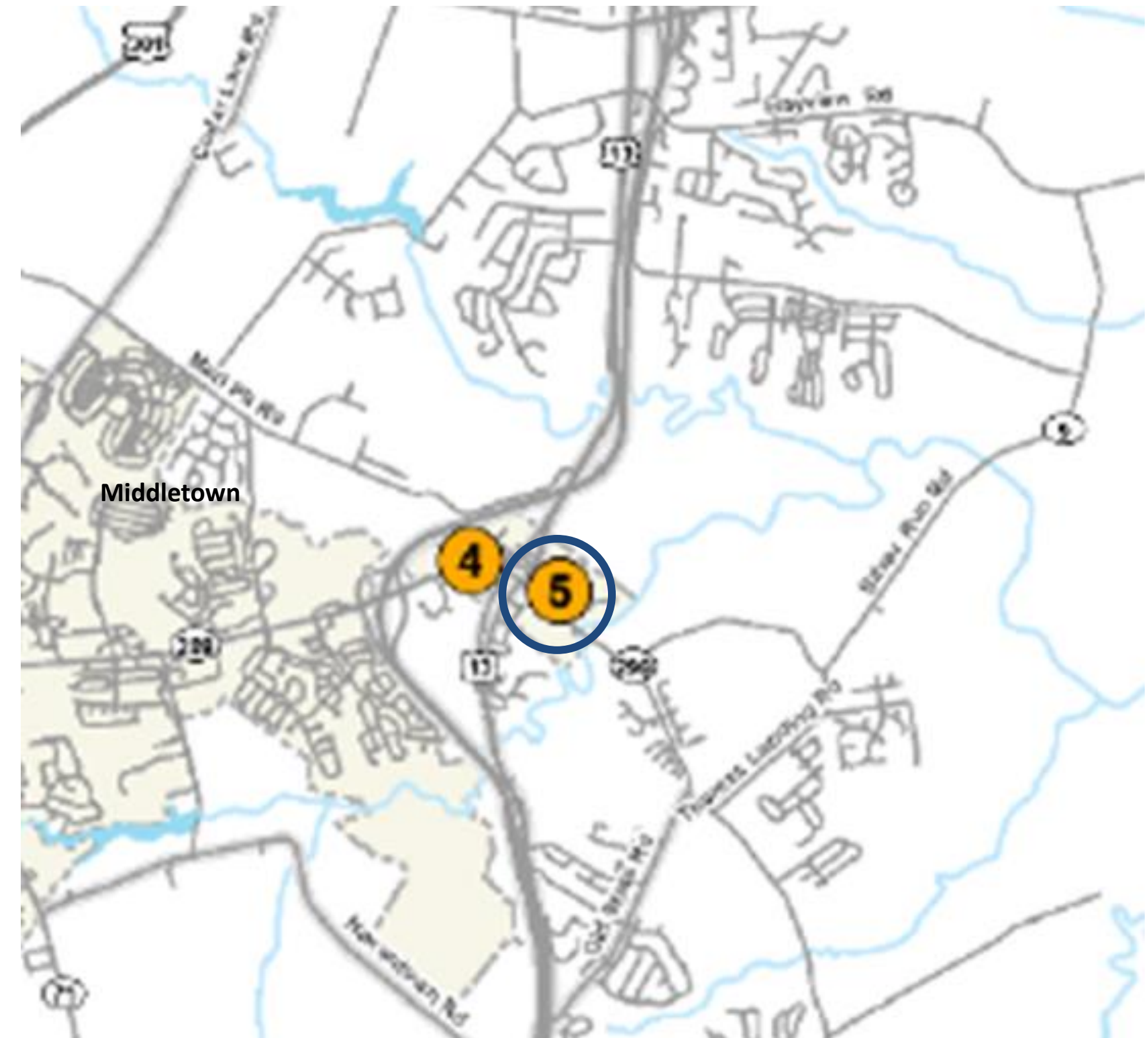
# Recommendations from Traffic Analysis

- US 13 SB and SR 299
  - Provide a second through lane on EB 299
  - Provide bike lanes (multiple options proposed to account for curb parking)



# Recommendations from Traffic Analysis

- US 13 NB and SR 299
- Restripe EB SR 299 for double left turn
- Add second EB through lane on SR 299 at US 13 SB
- Provide bike lanes (multiple options proposed to account for curb parking)



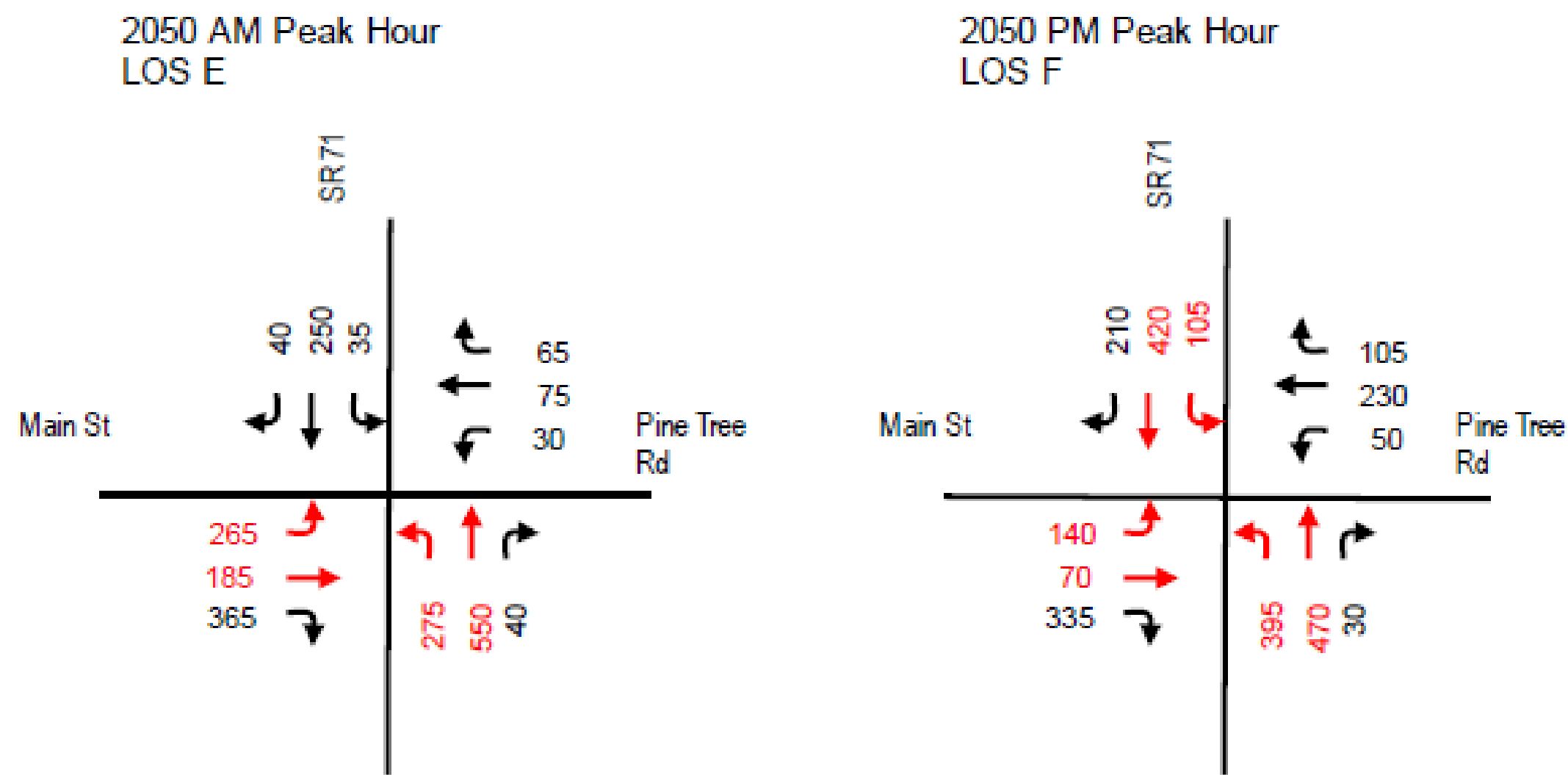
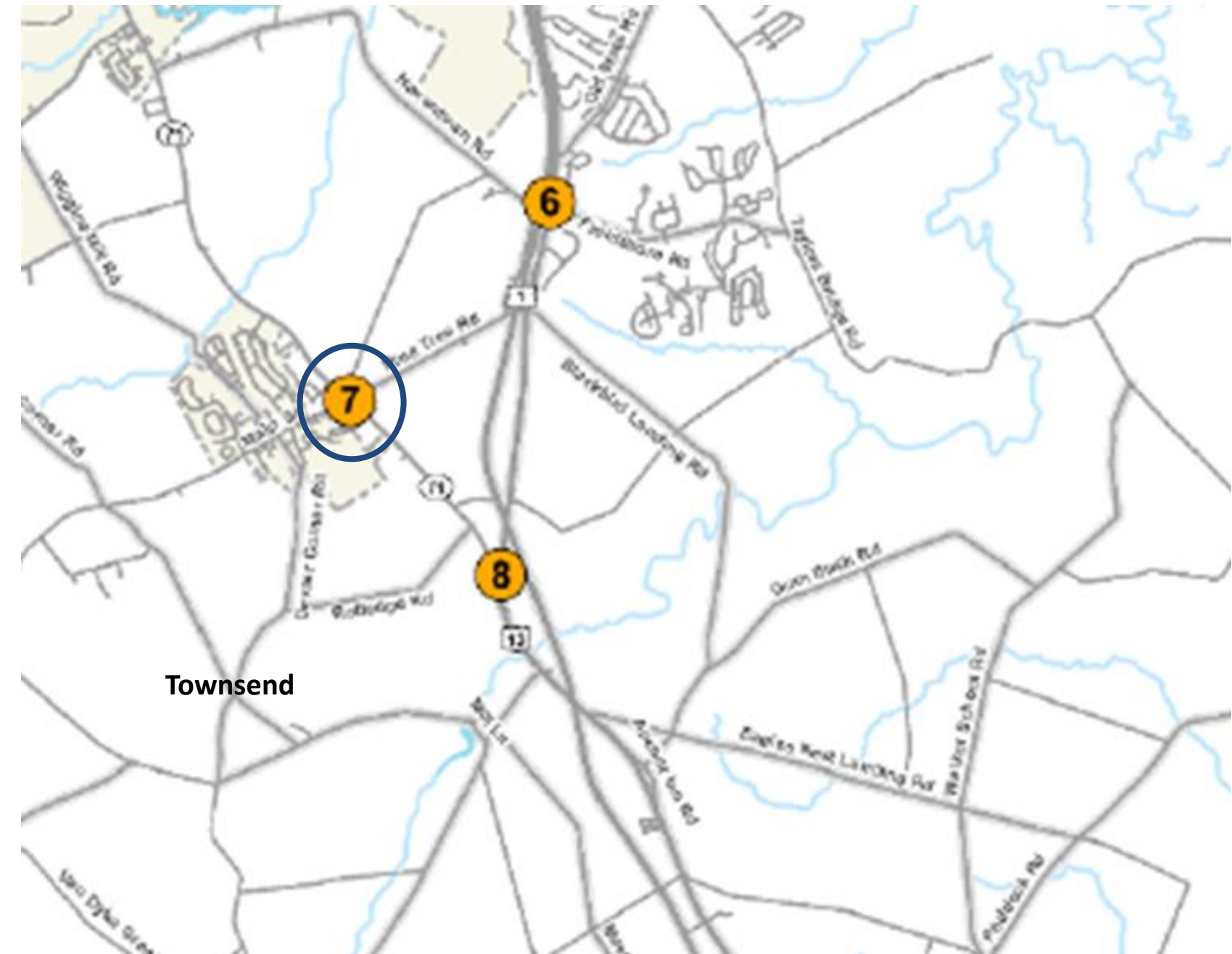
## LEGEND

- LOS C Overall intersection average level of service
- 532 → Traffic movement peak hour volume
- 532 → Traffic movement with LOS E or F



# Recommendations from Traffic Analysis

- **SR 71 and Main Street/PineTree Road**
  - **Option #1: Add dedicated left turn lanes to NB and SB SR 71.**
  - **Option #2: Convert the existing signalized intersection to a roundabout**



## LEGEND

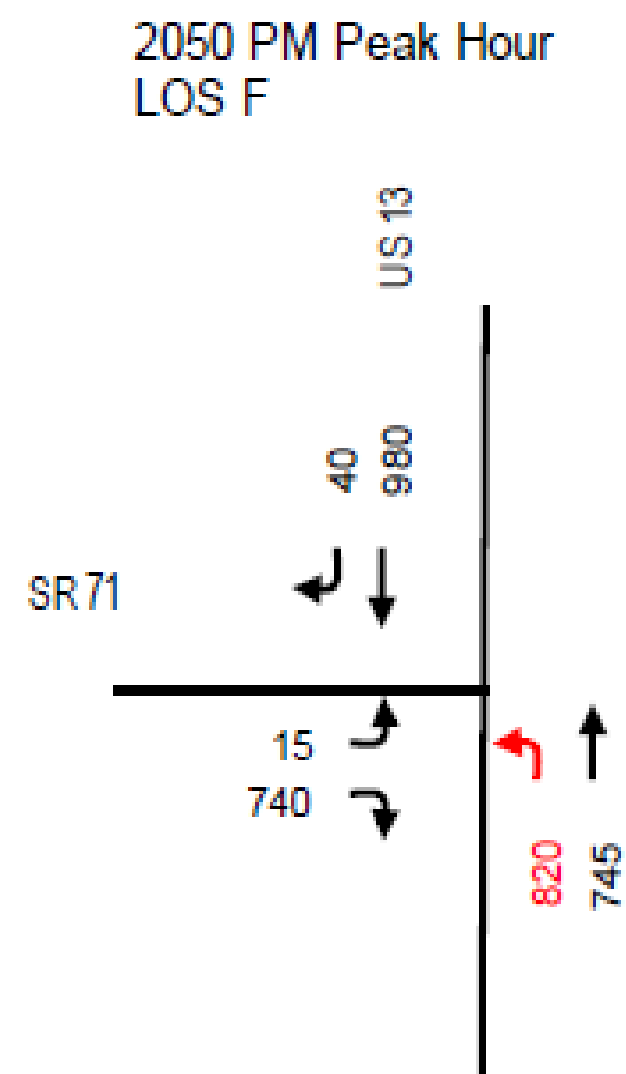
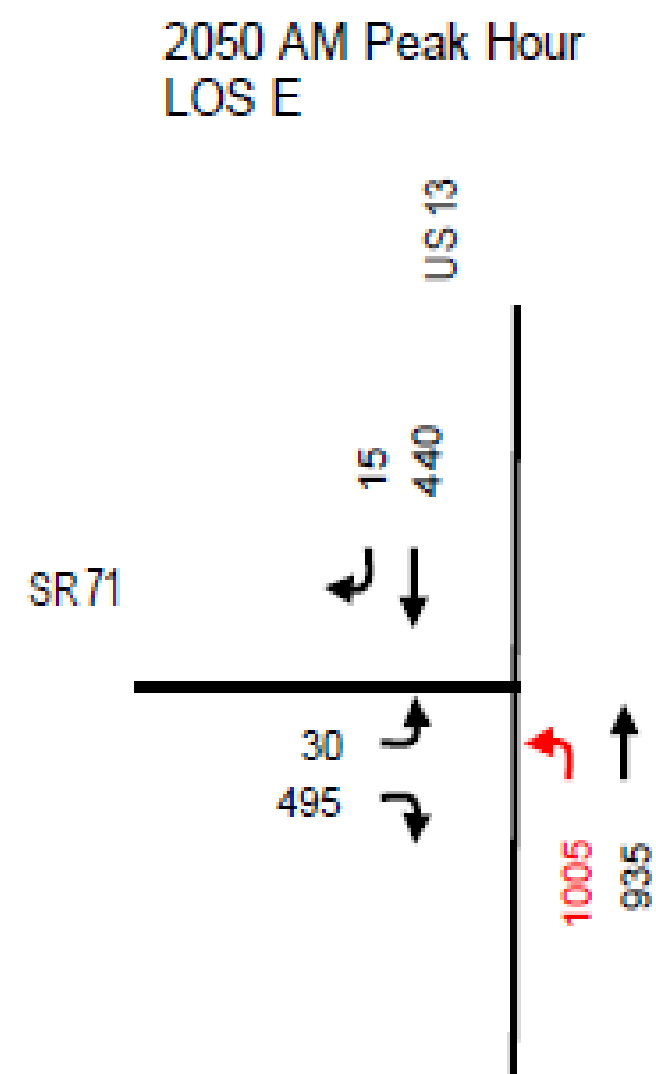
- LOS C Overall intersection average level of service
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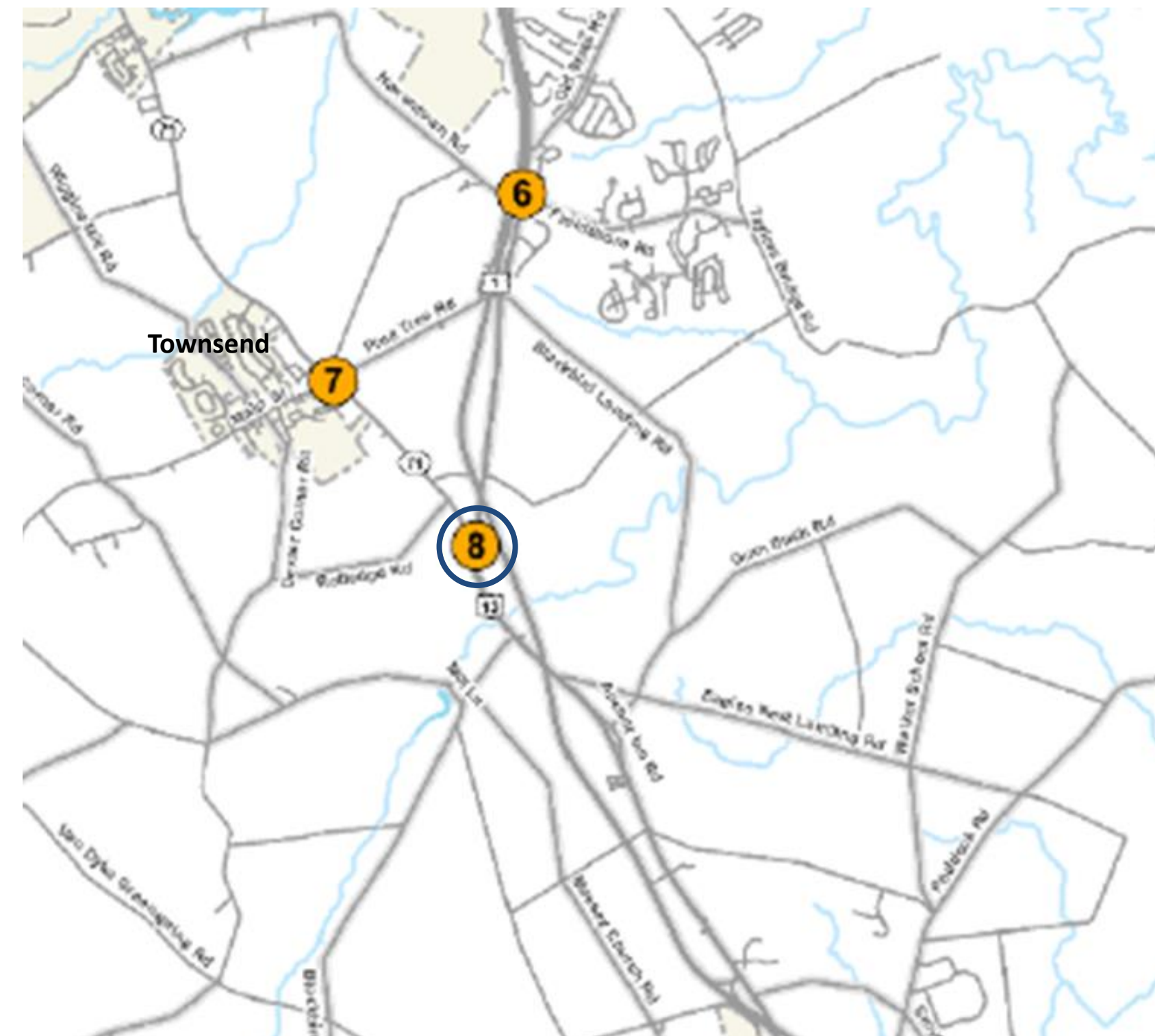
# Recommendations from Traffic Analysis

- US 13 and SR 71
  - Add 2<sup>nd</sup> NB left turn lane on US 13 (and 2<sup>nd</sup> receiving lane on NB SR 71)
  - For safety, close direct left turn from SR 71 to NB US 13. Movement made by turning right, then U-turn.



## LEGEND

- LOS C Overall intersection average level of service
- 532 → Traffic movement peak hour volume
- 532 → Traffic movement with LOS E or F

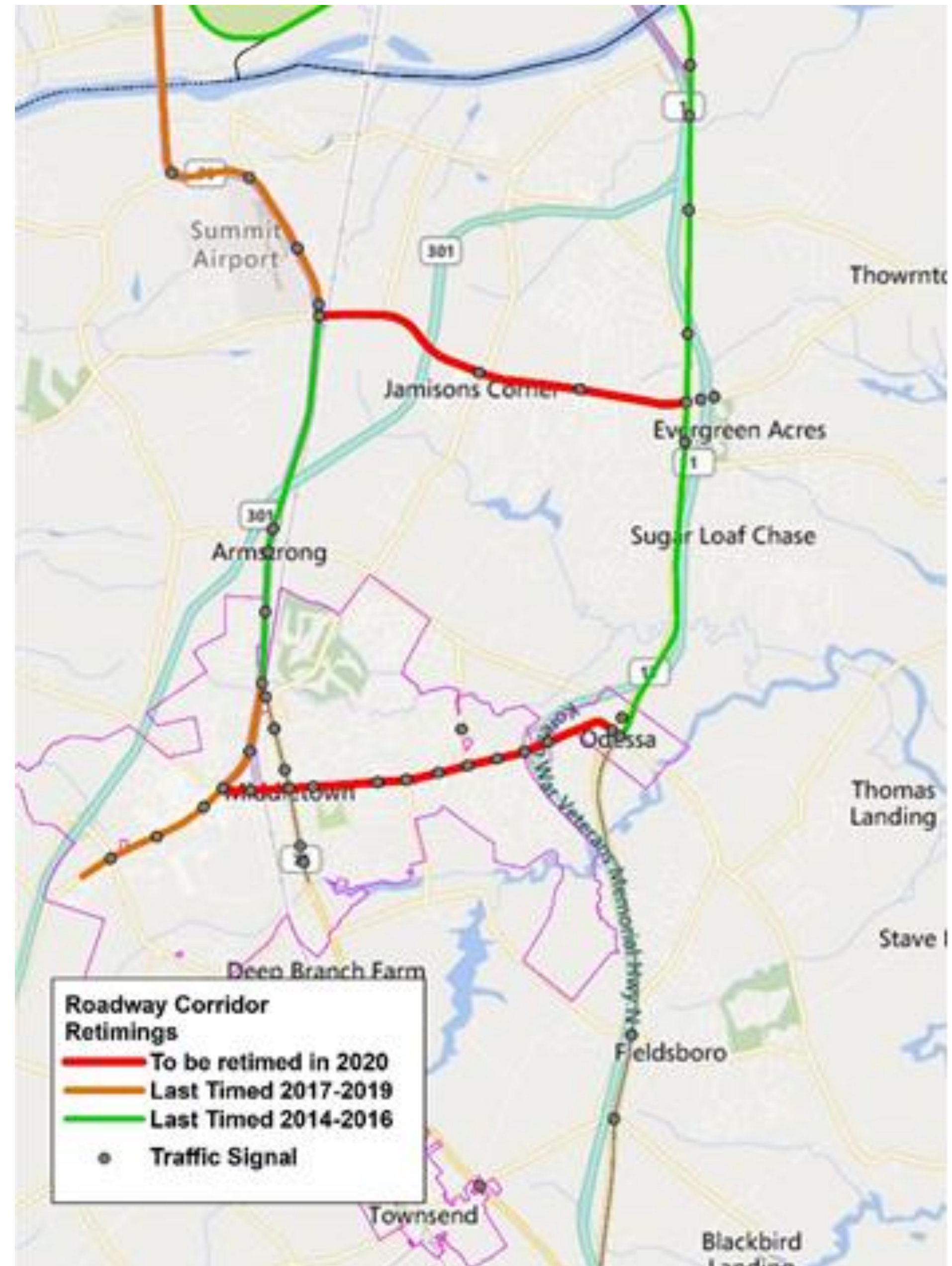




# Other Recommendations - Traffic

## Recommendation: Regular Traffic Signal Coordination/Optimization

- Traffic signal optimization is the coordination of the timing of a series of traffic lights.
- The main East/West corridors of SR 299 (between Middletown and Odessa) and Boyd's Corner Road (between US 13 and Summit Bridge Road) should be periodically reviewed
- Close coordination with the DeIDOT's Traffic Management Center (TMC) is required to review travel time data and any trends that may occur over time.






# Other Recommendations - Traffic

## Recommendation : Monitoring of Traffic in the Townsend Area

- Establish periodic data collection efforts to monitor the changes in traffic conditions over the next several years, particularly around the SR 71 and Pine Tree Road intersection.
- Regular monitoring will aid in the timing for suggested future improvements have been identified in the Traffic Analysis.



**CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**

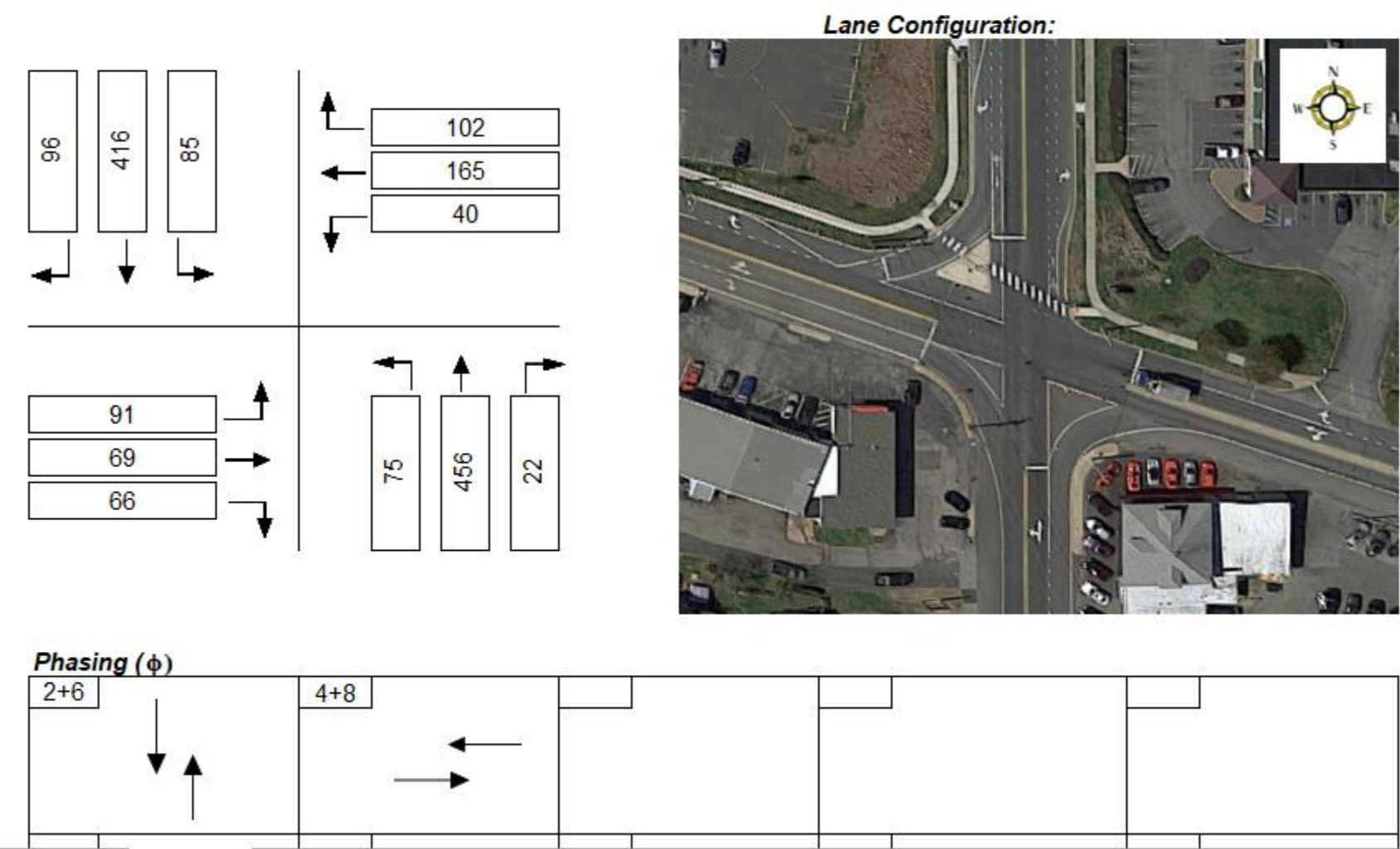
Location: SR 71 & Pine Tree Rd.

Count Date: 11/08/2017      Permit # N243

Scenario: AM Peak      Peak Hour: 5:00-6:00

Computed By: AGW      Date: 12/21/2017

Checked By: \_\_\_\_\_      Date: \_\_\_\_\_



### Volume Trends:

All Days	2001 Volume	2001 Pct.	2005 Volume	2005 Pct.	2010 Volume	2010 Pct.
Total Auto (Class 1-4)	6,971	95.1%	7,405	95.5%	6,789	96.4%
Total Unit TRK (Class 5-7)	211	2.9%	287	3.7%	232	3.3%
Total Trailer TRK(Class 8-13)	151	2.1%	60	0.8%	23	0.3%
Total ALL TRKS	361	4.9%	346	4.5%	255	3.6%
<b>Total AADT (All Classes)</b>	<b>7,332</b>		<b>7,752</b>		<b>7,044</b>	



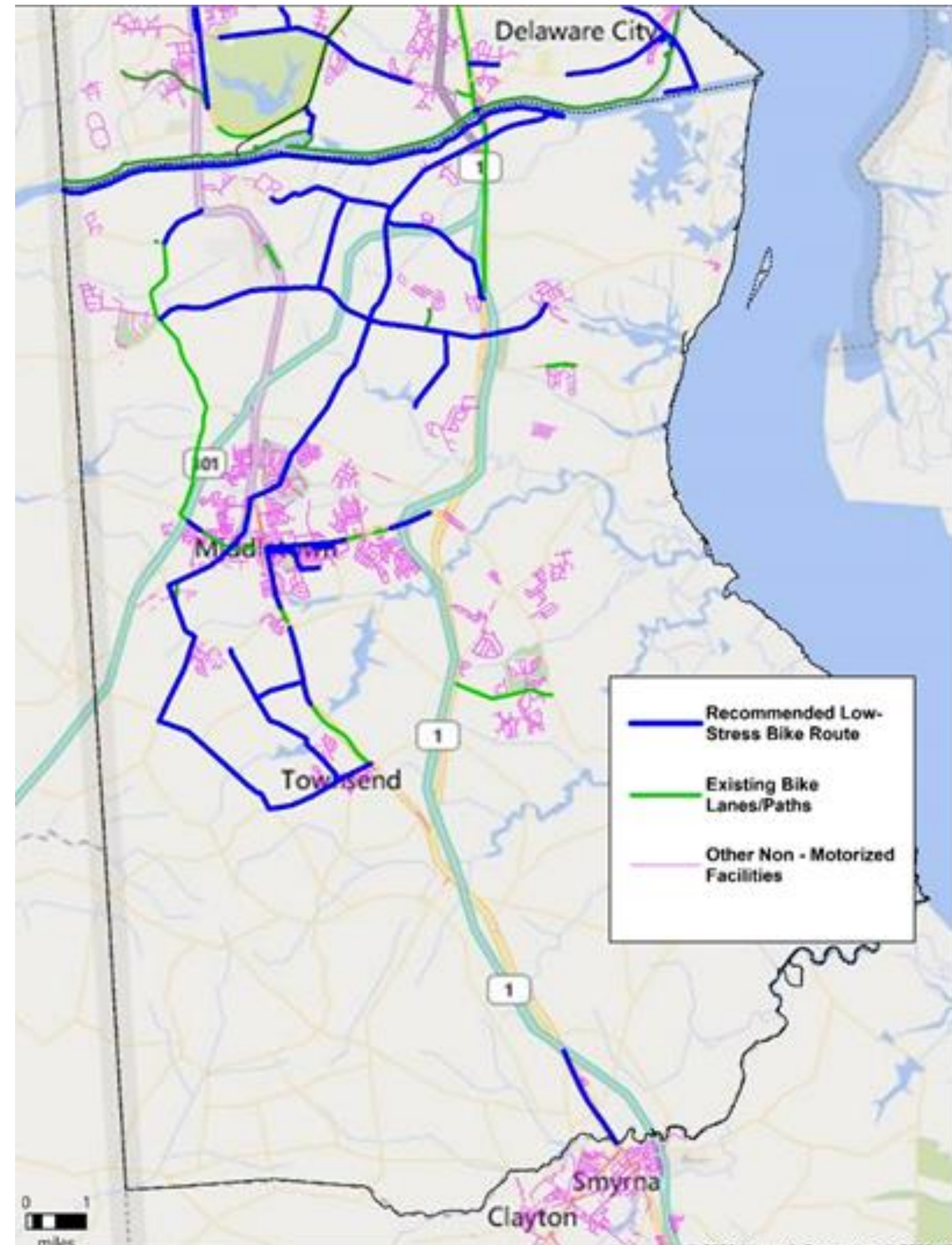
# Poll Question



# Other Recommendations - Bike/Ped

## Recommendation: Work to Implement NCC bike plan recommendations for the study area

- Envisions SNCC residents will be able to leave their neighborhoods and walk or bike to municipalities, and lead them to C&D Canal area

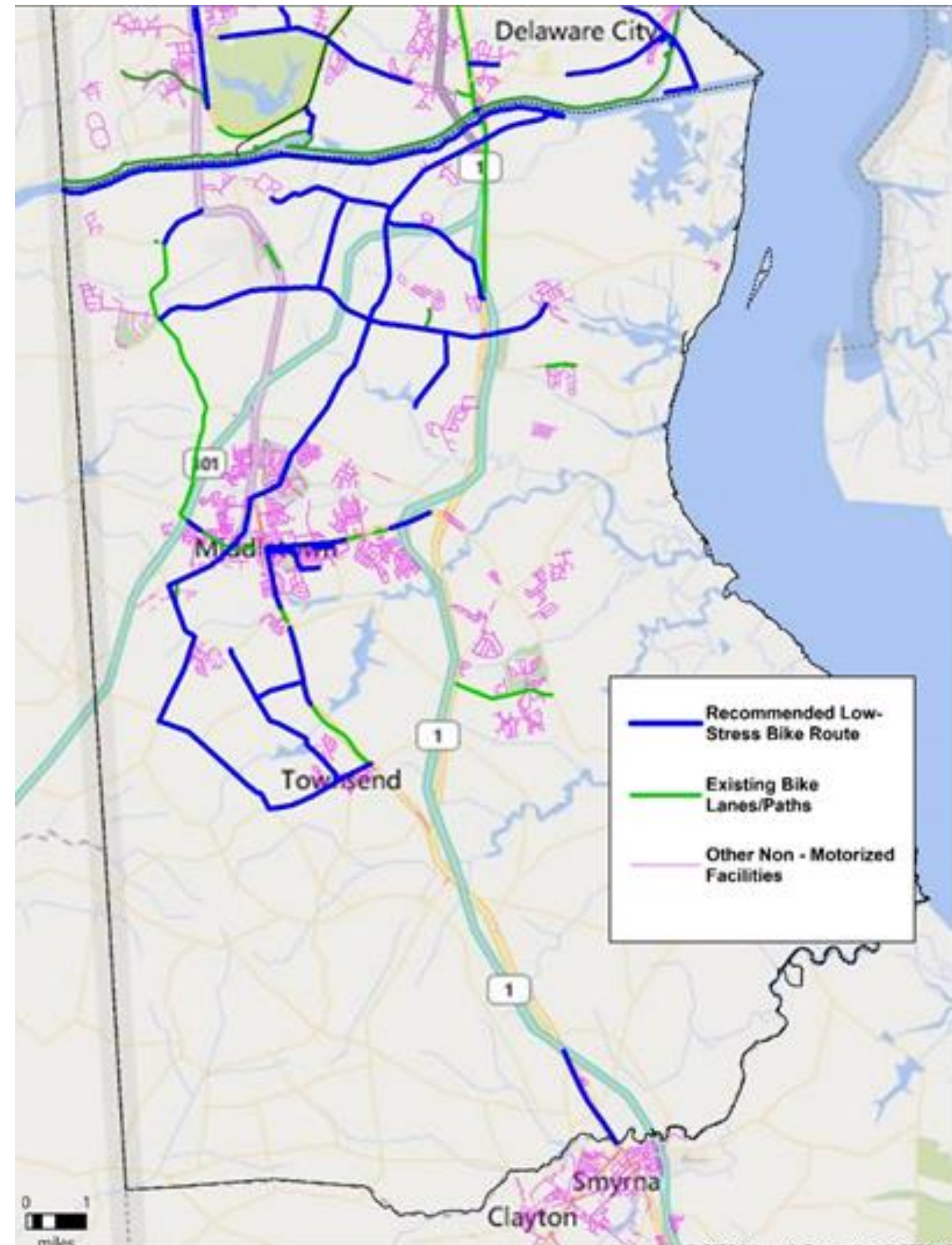
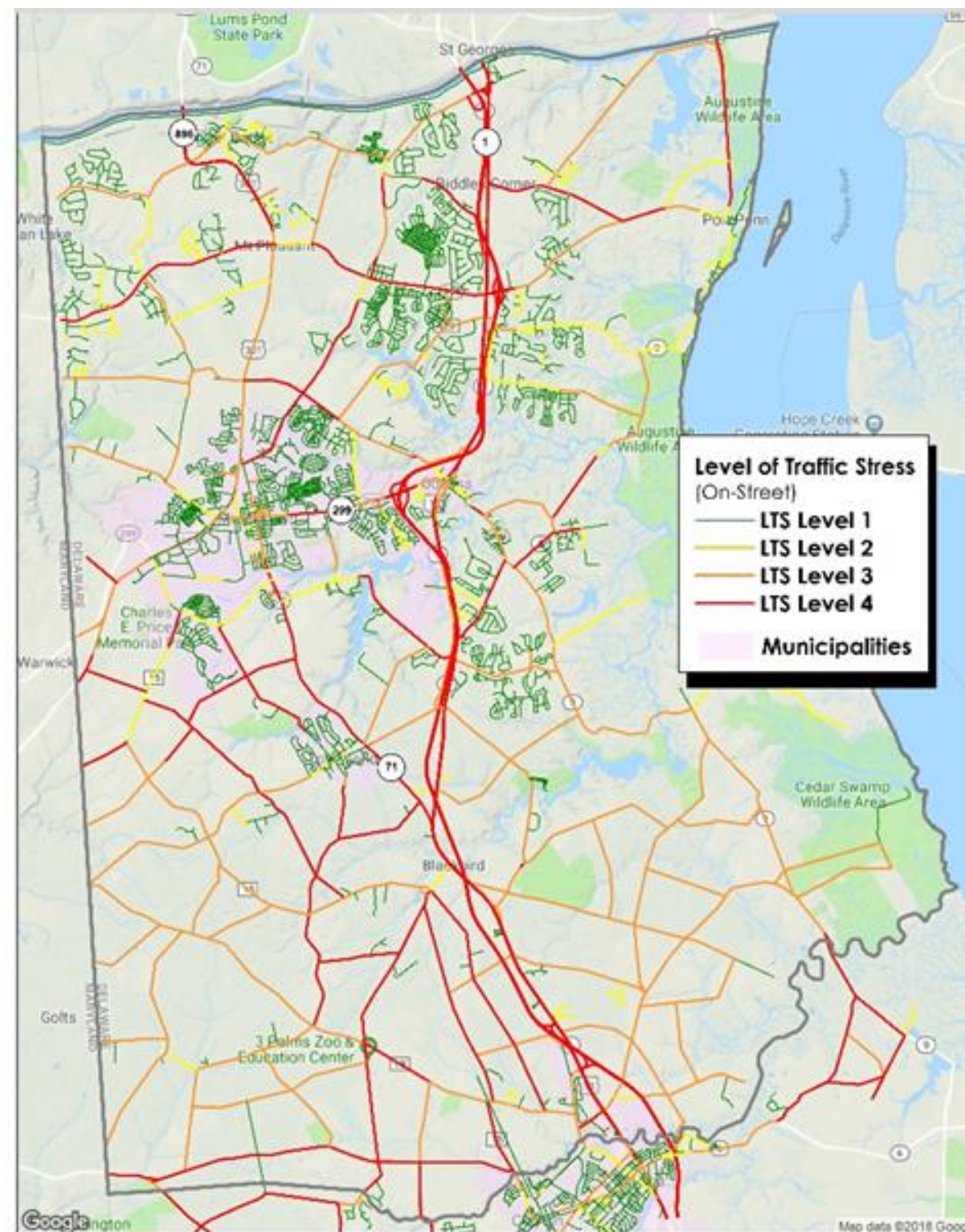




# Other Recommendations - Bike/Ped

## Recommendation: Work to Implement NCC bike plan recommendations for the study area

- Envisions SNCC residents will be able to leave their neighborhoods and walk or bike to municipalities, and lead them to C&D Canal area
- Design bicycle routes to focus on safer, lower-stress facilities (Bike LTS Level 1 and 2)





# Other Recommendations - Bike/Ped

## Recommendation: Perform a gap analysis of broken links within existing walking / biking paths

- Examine the existing non-motorized network, particularly within close proximity of destinations such as schools, grocery stores, pharmacies, libraries, parks, transit stops, and park and ride facilities for missing segments that hinder safe connections to those destinations.
- Once identified, these improvements can be included for consideration within several DeIDOT programs to address smaller projects generally too small to be considered a capital project.





# Poll Question





# Other Recommendations - Transit

## Transit Analysis

- An assessment was performed based on population and employment forecasts.
- The analysis developed an appropriateness scale of various transit services that could potentially be supported.

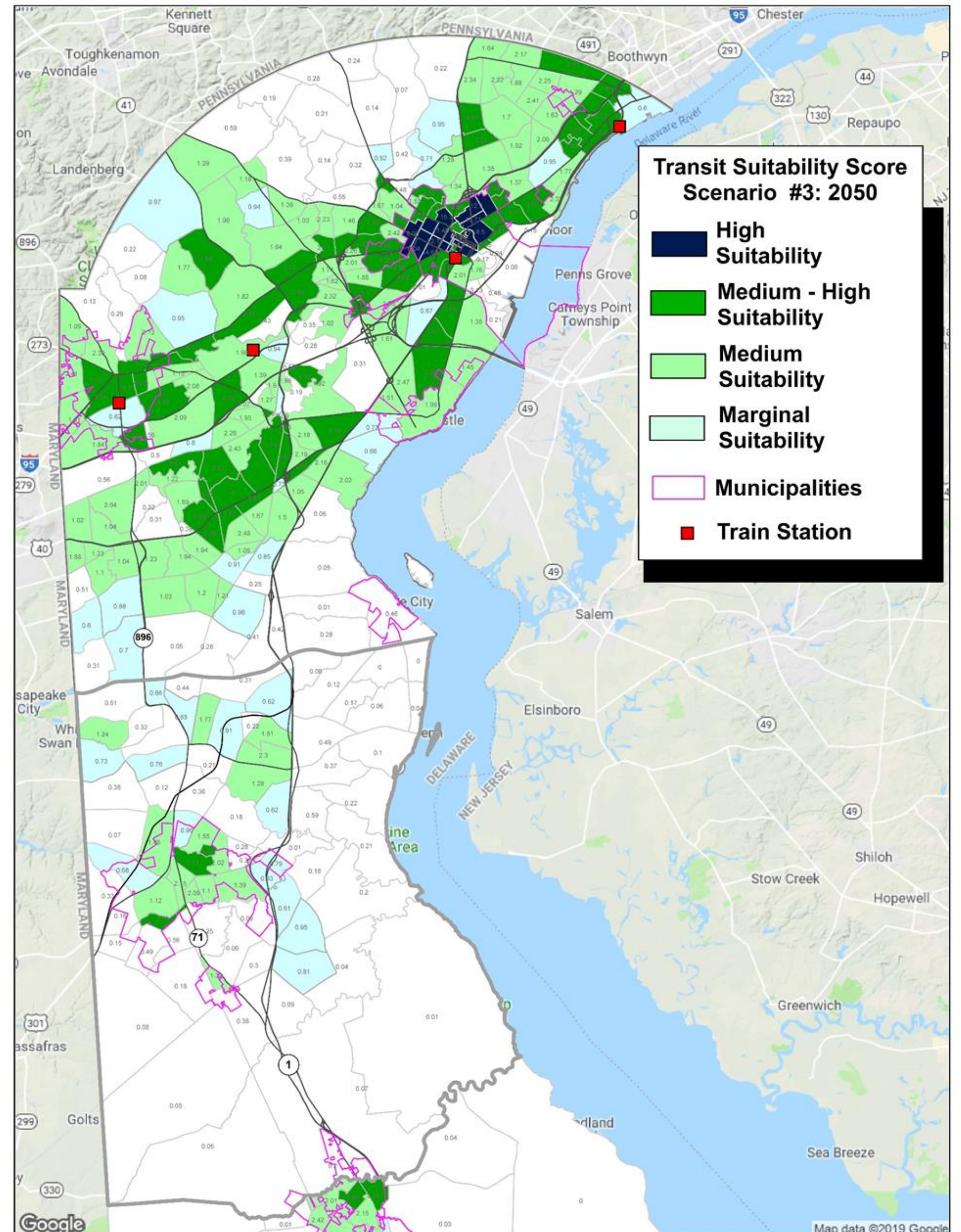
**Appropriateness of Transit Service Intensity/Investment by Score Category**

Transit modal investment	High Suitability	Medium-High Suitability	Medium Suitability	Marginal Suitability	Low Suitability
Heavy Urban Rail	A	N	N	N	N
Light Rail Transit (LRT)	A	A	C	N	N
Commuter Rail	A	A	C	C	N
Bus Rapid Transit (BRT)	A	A	C	N	N
Bus Lanes	A	A	N	N	N
Bus Priority Treatment	A	A	C	N	N
Fixed Route/Line Haul Bus Service	A	A	A	C	N
Express Bus	A	A	C	C	C
Local Circulator Bus/ Shuttle/Paratransit	A	A	A	A	A

A = Appropriate

C = May be appropriate depending on conditions

N = Not Appropriate



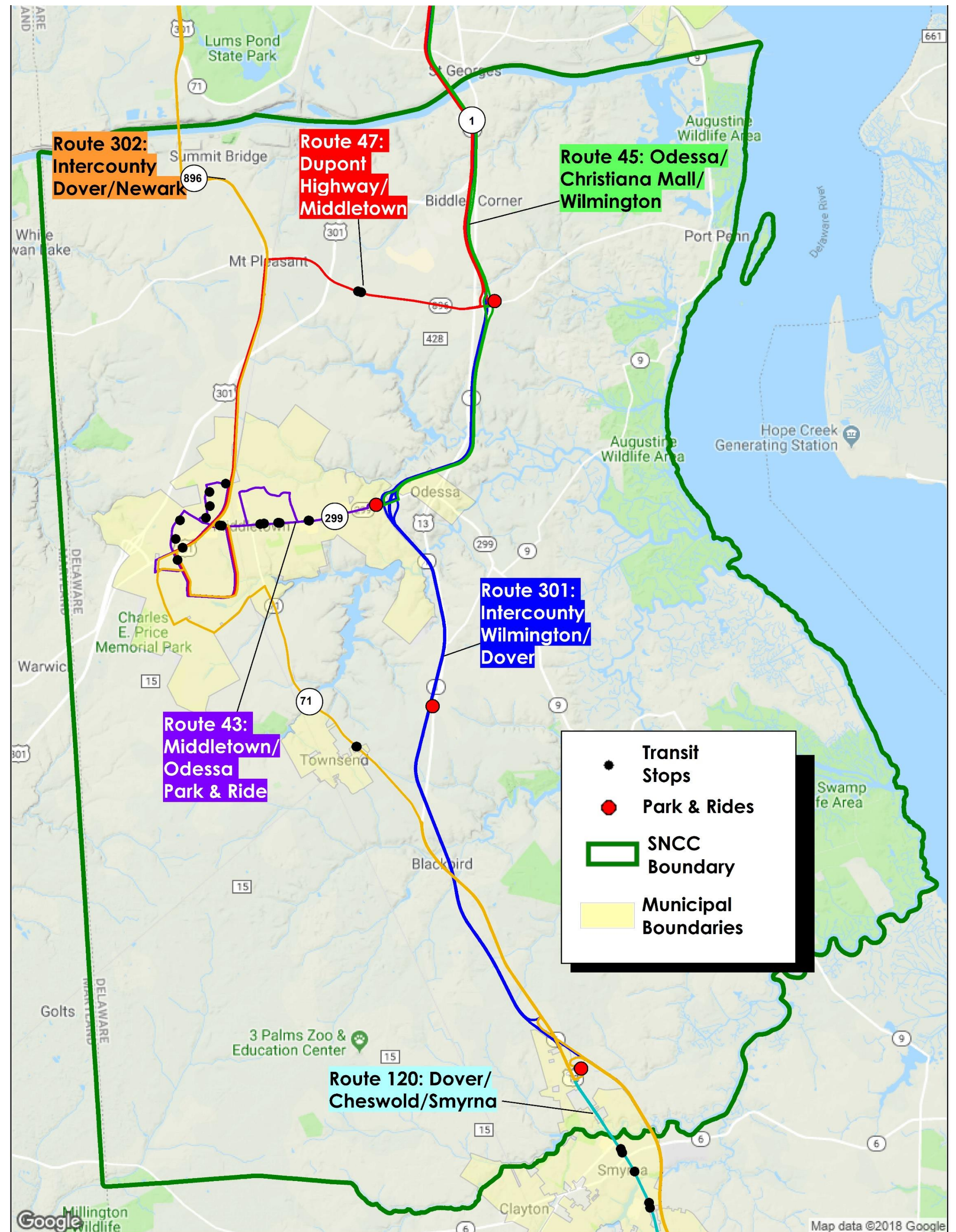


# Other Recommendations - Transit

## Transit Vision

### DART's Overall Vision of The Future for SNCC

- Create Additional Routes Increasing Coverage for Greater Middletown Area
- Serve More Residents and Businesses
- Improve Frequency of Service
- Expand Hours of Service (Span of Service)
- Schedule Saturday Service
- Offer Better Connectivity with Other DART Routes, along with Amtrak and SEPTA Train Services

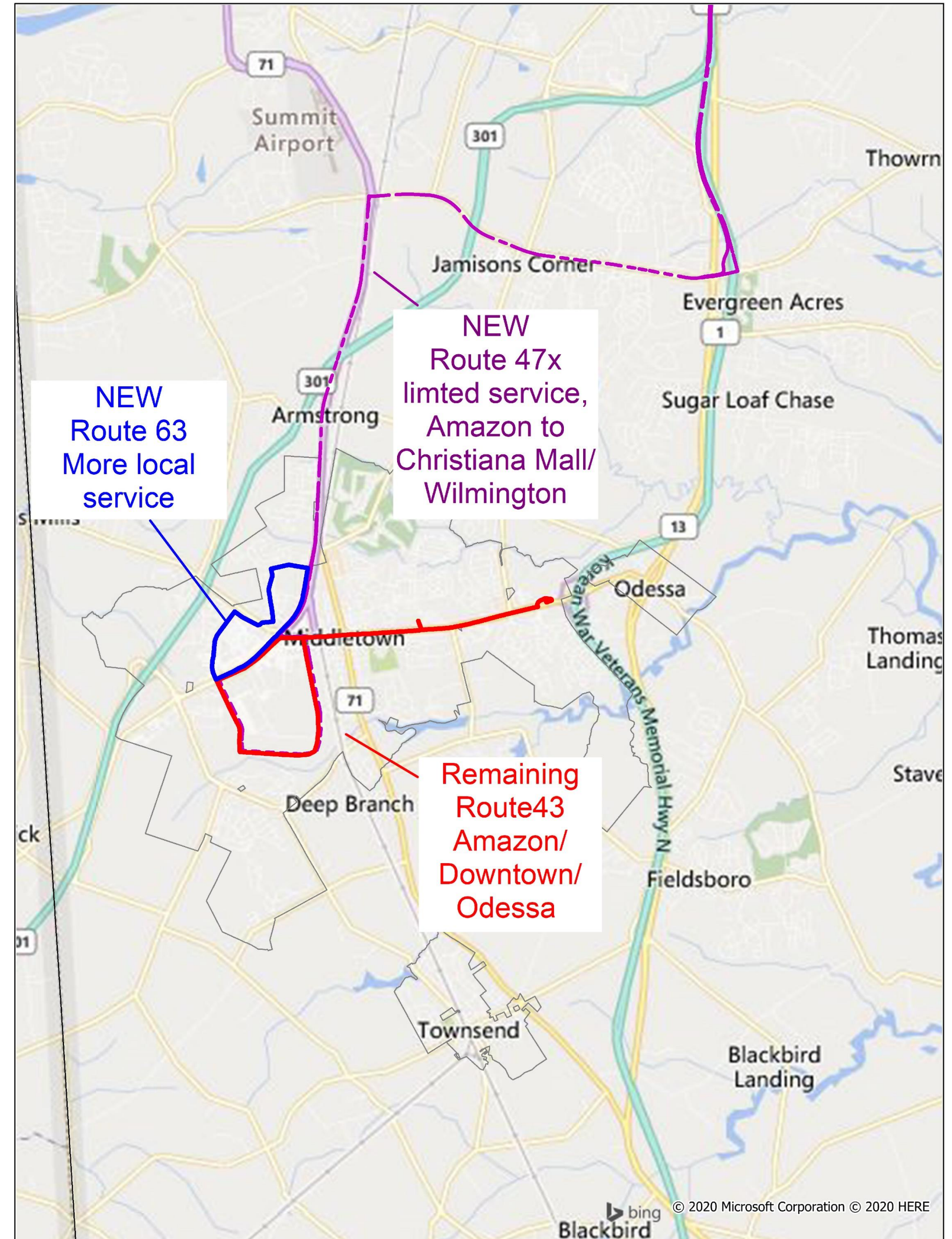




# Other Recommendations - Transit

## Transit Recommendations: Short Term

- Split Route 43 has been split into two separate routes (43 and 63).
- Route 43 continues to connect Amazon and downtown Middletown with Odessa Park & Ride
- Route 63 now provides better coverage in Middletown to residential and commercial developments.
- 47x–NEW limited-service route (47X) was created connecting Middletown, Christiana Mall and downtown Wilmington.
- Will serve the future North Middletown Park & Ride when the facility opens in late-2021.



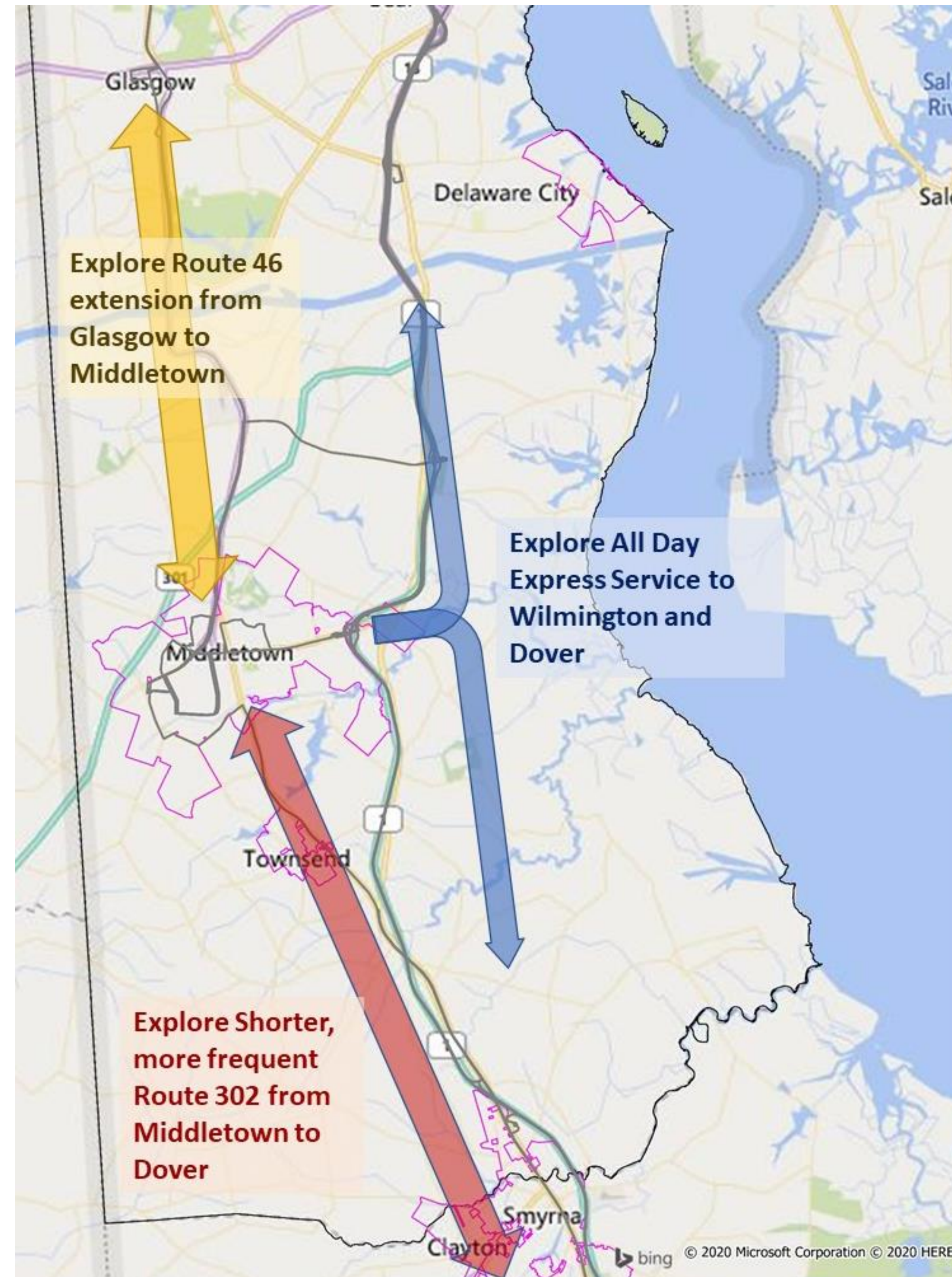


# Other Recommendations - Transit

## Recommendation: Examine Future Route Concepts

### Initiatives which require further study

- 45 and 301 – Create a New Service Initiative That Would Offer All-Day Express Service from Kent County to Wilmington; Improve Local Service from Wilmington to Dover.
- 46 – Extend to Middletown from Glasgow.
- 302 – Shorten Route and Schedule More Service between Middletown and Dover.





# Other Recommendations - Air

**Strategy 1:** Review and refine, as necessary, the New Castle County Unified Development Code (UDC) as it relates to Airport uses, to promote development that is compatible with aviation and design that mitigates risk to airport operations and the flying public.

This could include limiting new residential development in the approaches of Summit Airport for the benefit of the quality of life of future residents of southern New Castle County and continued operation of the airport.

**Strategy 2:** Continue coordination with the DeIDOT Office of Aeronautics, including promotion of information on Summit Airport's Economic Impact

Coordinate on Part 77 Airspace reviews; enforcement of Sec. 40.03.432 of the UDC and maintain the section's reference to 2 Delaware Code § 601-603 (Obstructions in Airport Approach Areas).

Share The **Office of Aeronautics** report, "Economic Impact of Delaware Airports," which details the economic impact of the State Aviation System, with the County Executive, County Council Members, the Delaware Prosperity Partnership, Economic Development Department, and Department of Land Use staff.

**Strategy 3:** Work with Summit Airport to understand its future business plans as it continues to expand in southern NCC. **Consider a public-private partnership with Summit**



# Next Steps

- ***Southern New Castle County Transportation Element Report*** endorsement by WILMAPCO Council
  - August 26 (today): Present at final public workshop
  - September: Council endorsement of SNCC transportation element
- Coordinate with New Castle County as the ***Land Use Element Report*** moves through the County Council approval process





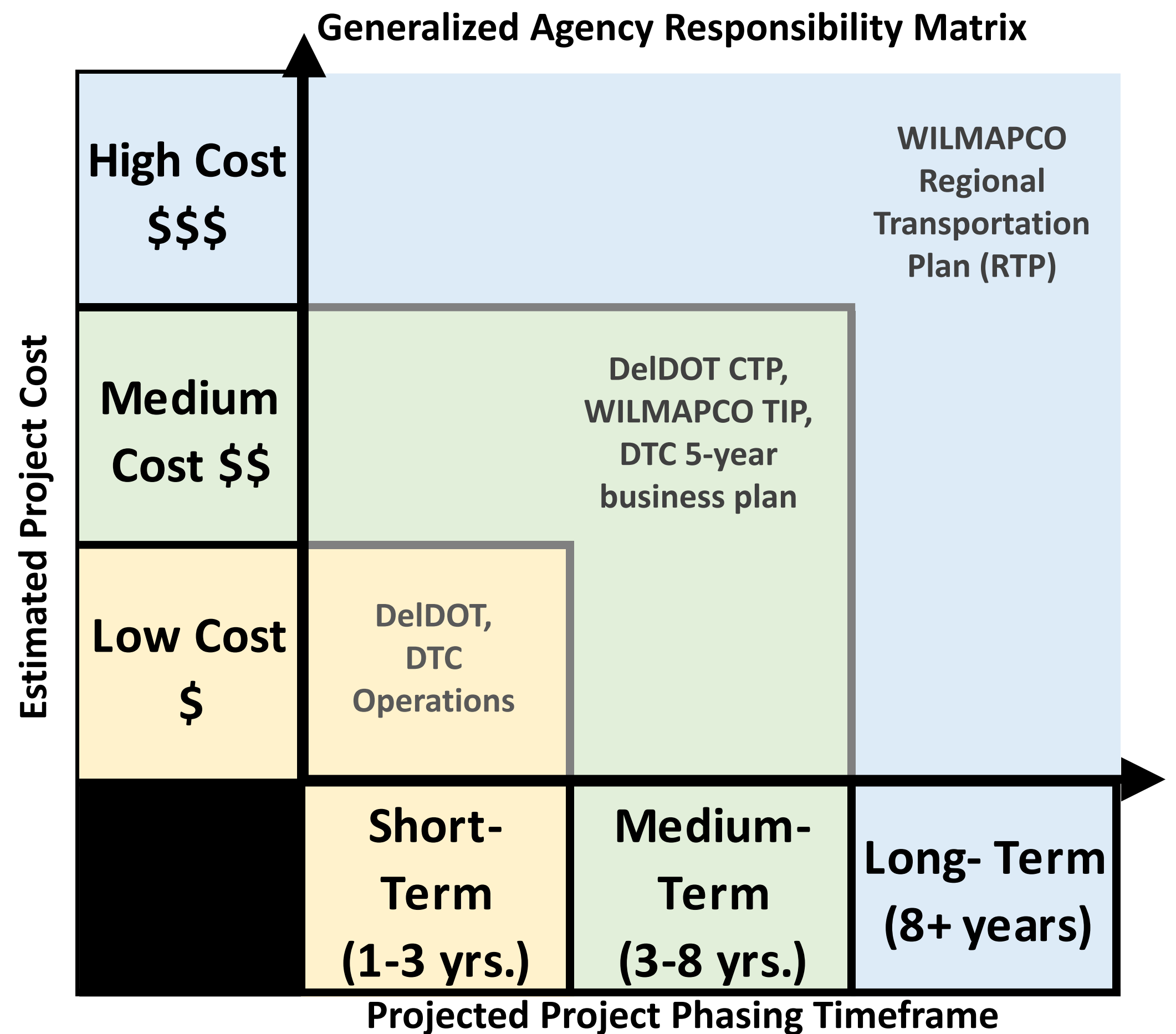
# How will these project get implemented?

Upon adoption by WILMAPCO, the plan will be added into the Regional Transportation Plan (RTP). Projects within the plan can then be implemented using several mechanisms.

## Implementation Mechanisms:

Projects will be implemented through various agencies throughout DeIDOT and DTC. Based on the overall project size, they will be handled differently.

- **Larger, long-term projects:** Added to WILMAPCO Regional Transportation Plan (RTP)
- **Moderate-sized Projects:** A project page for the plan will be added to the DeIDOT CTP. WILMAPCO TIP
- **Smaller projects:** Projects that can be included as part of regular DOT/DTC and TMC budgets
- **TIS/TID recommendations:** Include improvements as part of development plans through the TIS process or as specified in the current or future Transportation Improvement Districts (TIDs)





# How will these project get implemented?

## Smaller Projects

Several programs are available to address smaller projects (generally too small for a capital project).

- Programs have their own annual budgets for specific types of projects
- Each program generally has its own prioritization process

### Traffic Operations

Minor intersection improvement during regular maintenance

### Bicycle and Pedestrian Improvements

Funds pedestrian and bicycle facilities, transit access, park and ride facilities, traffic calming, and other non-motorized projects

### Recreational Trails

Federal funding administered by DNREC to develop / maintain recreational trails and related facilities

### Transportation Alternatives Program (TAP)

Federal transportation funding for pedestrian and bicycle, safe routes to school, and community enhancements

### Community Transportation Fund

State funding designated by individual Legislators for transportation-related projects

### Pedestrian Access Routes (PAR) Program

Funds the creation of accessible pedestrian circulation paths or converts existing non-compliant pedestrian circulation paths to acceptable standards. Excluding residential subdivisions

- Once the plan is completed, proposed projects can be considered for prioritization
- Community members can be involved through regular corridor monitoring efforts



**Good tools for gap analysis results!**

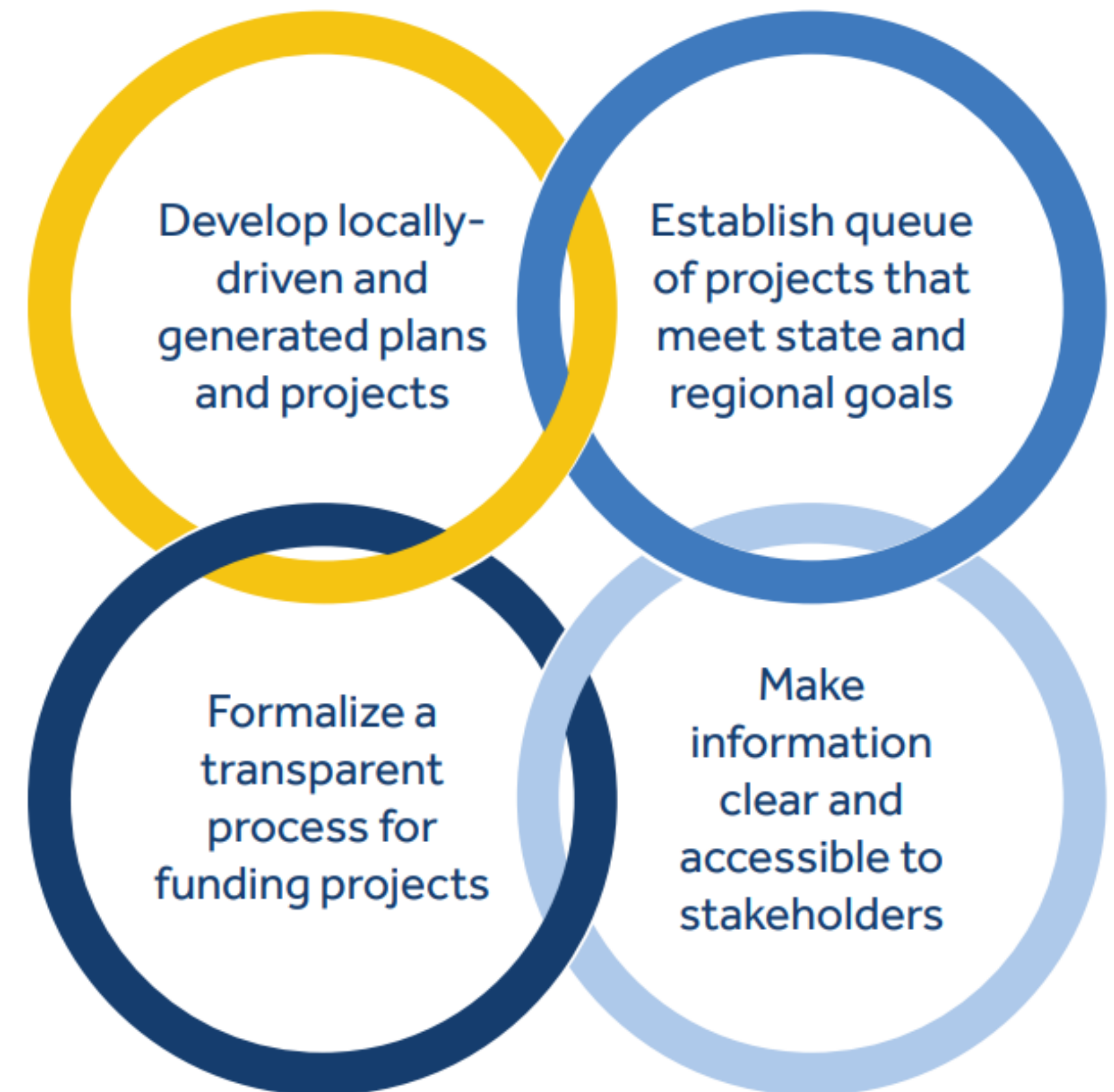


# How will these project get implemented?

## Bike/Ped Improvements

- Utilize DeIDOT's Bicycle Mobility Tool outlined in the *2018 Blueprint for a Bicycle Friendly Delaware*
- Evaluate proposed pathway and bikeway projects based on which projects provide the best connections from households to parks, employment centers, community centers, schools, and transit.
- Seeks projects that
  1. Connects people to destinations,
  2. Provides separation from traffic,
  3. Turns a stressful route into a comfortable one.

## Prioritization Process



Key step: Develop locally driven and generated plans and projects!



## How to comment?

Public Comment will be accepted through September 9, 2020.

**[www.wilmapco.org/sncc](http://www.wilmapco.org/sncc)**

We welcome your thoughts! Please feel free to contact WILMAPCO's project manager, Dave Gula, at [dgula@wilmapco.org](mailto:dgula@wilmapco.org).





**Please type your questions via the chat box. Our presenters will do their best to answer all questions as time allows.**

You are also welcome to share any thoughts, comments or questions with the project manager, Dave Gula via email at [dgula@wilmapco.org](mailto:dgula@wilmapco.org).

**Thank you for participating in this event!**

**[www.wilmapco.org/snccmp](http://www.wilmapco.org/snccmp)**

