



Coastal Corridors Study: US 9 and SR 16

FINAL REPORT

June 2024



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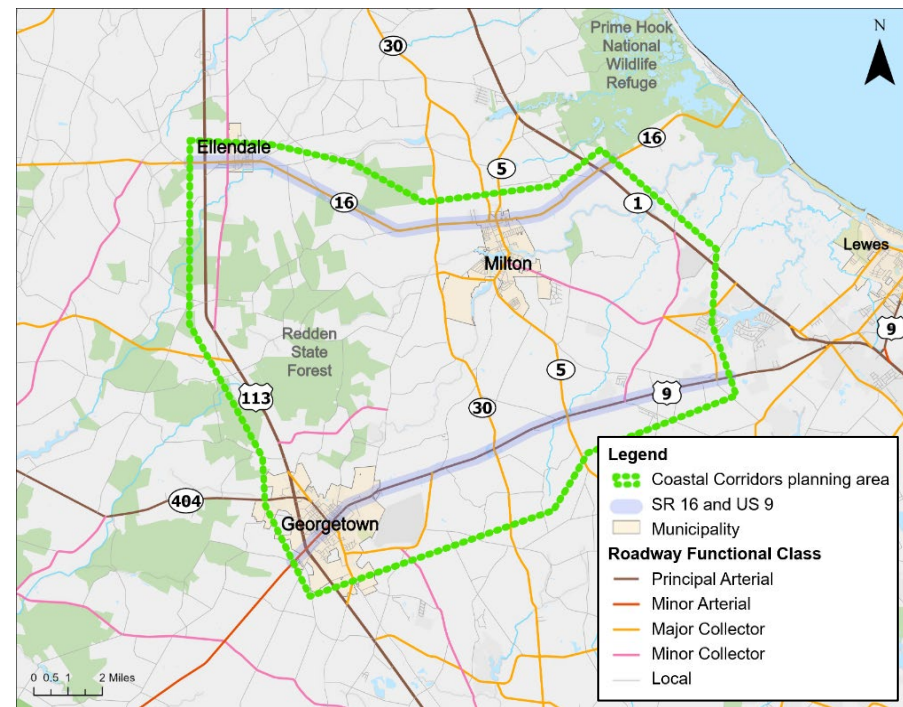
Executive Summary

Investment in public infrastructure is necessary to support community quality of life and economic development and ensure that public facilities meet the needs of residents and other travelers throughout the state. This is accomplished by collaboration between the state and local governments. In Delaware, about 90 percent of the roads are owned by the state and maintained by DeIDOT, while land use decisions are in the purview of the municipality or county, in unincorporated areas. Coordination of transportation and land use planning is accomplished in two main ways – via planning studies like this one and development coordination.¹

DeIDOT and its partners initiated the [Coastal Corridors Study](#) in 2019. The purpose of this areawide transportation study is to:

- Assess the current and anticipated transportation conditions along east-west routes in the northern part of Sussex County between the Maryland state line and SR 1 with a focus on SR 16 and SR 404 / US 9
- Identify needs and opportunities to continue providing a safe, multi-modal transportation system that meets the travel demands of today and is positioned to meet those of the future

After substantial analysis of current, planned, and forecasted conditions and robust stakeholder engagement, it was determined that the east-west corridors that are currently congested or at risk of congestion based on anticipated growth are SR 16 and SR 404 / US 9 east of US 113. The *Coastal Corridors Study: US 9 and SR 16* identifies transportation recommendations for SR 16 and SR 404 / US 9 between US 113 and SR 1 (outlined in green on the map).



¹ This study does not examine the impacts of specific land development proposals on the transportation network. The transportation impacts of individual land development projects in Sussex County are addressed through the development coordination process following the [Sussex County/ DeIDOT Memorandum of Understanding for Land Development Coordination](#) (2020) and the [DeIDOT Development Coordination Manual](#). For developments that meet certain thresholds for size/impact, DeIDOT requires private developers to complete a Traffic Impact Study (TIS) to determine the traffic impacts of the proposed development on the surrounding street network and mitigation that may be needed.

The project team used DelDOT's Peninsula Travel Demand Model, per standard practice, to arrive at a traffic growth rate of 0.6% (annual).² This rate is based on the Delaware Population Consortium's (DPC's) official statewide and countywide population projections that were allocated to traffic analysis zones (TAZs). The allocation generally follows growth patterns presented in the Sussex County Comprehensive Plan but is not tied to any specific development location or proposal. The traffic growth rate was used for traffic analysis in the planning area and along the corridors. The results of the traffic analysis highlight areas of the transportation network that may need improvements to accommodate future traffic volumes.

Study recommendations were developed based on the results of the traffic analysis, a Roadway Sufficiency Assessment, development trends, and feedback from the Coastal Corridors Committee and members of the public. Recommendations range from site-specific project ideas intended to improve mobility and safety to policy recommendations intended to improve coordinated investment in public infrastructure and private development in the planning area. The recommendations are intended to foster continued monitoring and coordination that will support safe, multimodal mobility as land development continues and travel demand increases.

This study identifies three main initiatives that require further study and interagency coordination:

1. **Re-envisioning SR 16 in Milton (Recommendation 16-9 through 16-12)** – The Town of Milton has an interest in re-envisioning SR 16 through Milton as a mixed-use main street that serves all modes of traffic and supports local businesses. Although widening SR 16 through Milton is not necessary for accommodating the current and projected volumes of motor vehicle traffic, providing additional pedestrian/bicycle crossings to support multi-modal connectivity in this area may have an adverse impact on through traffic. A corridor planning study is needed to create a long-term vision for SR 16 in Milton and assess whether an alternate route is necessary for through traffic. This study will begin in 2024.
2. **Accommodating traffic growth on US 9 (Recommendations 9-5 through 9-6, Recommendations G-5 through G-8)** – The intersection of US 9 and SR 5 is the most congested in the planning area and is forecasted to be at or near capacity by 2050 without improvements. The US 9 corridor east of SR 5 has high traffic throughout the year, and 2050 traffic projections are at the threshold where dualization to two lanes in each direction should be considered. There are significant constraints at the SR 5 intersection, so any study exploring widening US 9 should first understand the feasibility of widening at this intersection. There are also significant development pressures along this corridor. Land development regulations should be addressed to ensure sufficient public right of way is set aside to accommodate future infrastructure needs. This corridor study will begin in 2024.

² The project team confirmed the assumptions for the growth rate through a detailed evaluation of a range of data sources, further explained in Section 4.6.1 of this document.

3. Exploring policies to achieve better transportation network interconnectivity (Recommendations G-1 through G-4) –

There are significant safety, operational, and economic benefits to better multimodal interconnectivity between land development. More interconnectivity allows for better distribution of traffic throughout the network, resulting in fewer capacity issues. Interconnected roads also serve the mobility needs of neighborhood residents and emergency responders. Although interconnectivity is currently encouraged by applicable development regulations, it is not required for residential developments. There are multiple steps identified in Section 5.6 of this report to help ensure that future development provides better interconnectivity to improve safety and manage volumes on roadways in the planning area.

Implementing the recommended strategies will require ongoing collaboration among DelDOT, the municipalities, Sussex County, and community members. New infrastructure takes time to plan, design, and build, and requires community feedback throughout the process to ensure that proposed projects meet community needs. DelDOT invites you to learn more and join the planning process by visiting the [Coastal Corridors website](#).

1 Purpose

This study is focused on identifying transportation solutions for east-west routes in Sussex County including SR 16 and SR 404 / US 9 between US 113 and SR 1. These roadways are the east-west corridors in the northern part of Sussex County that are currently congested or are at risk for congestion based on anticipated growth.

Why now?

- The State of Maryland has widened MD 404 to within a few miles of the Delaware state line.
- Maryland is also studying the addition of roadway capacity across the Chesapeake Bay.
- Development activity continues to increase traffic.
- The Delaware beaches are becoming a more popular vacation destination.

During preliminary outreach, the project team developed a better understanding of the **community's goals** for this study, which were:

- To maintain the high quality of life for which this part of Sussex County is known,
- To improve transportation safety and mobility, and
- To ensure continued economic competitiveness.

Based on these community goals, the **purpose of this areawide transportation study** is to:

- Assess the current and anticipated transportation conditions along east-west routes in the northern part of Sussex County between the Maryland state line and SR 1 with a focus on SR 16 and SR 404 / US 9
- Identify needs and opportunities to continue providing a safe, multi-modal transportation system that meets the travel demands of today and is positioned to meet those of the future

The study objectives are as follows:

1. To identify short-, medium-, and long-term traffic solutions for east-west corridors between US 113 and SR 1.
2. To educate and inform the local stakeholders on east-west traffic issues and seek feedback and preferences on proposed solutions.
3. To build support around the implementation of those solutions.

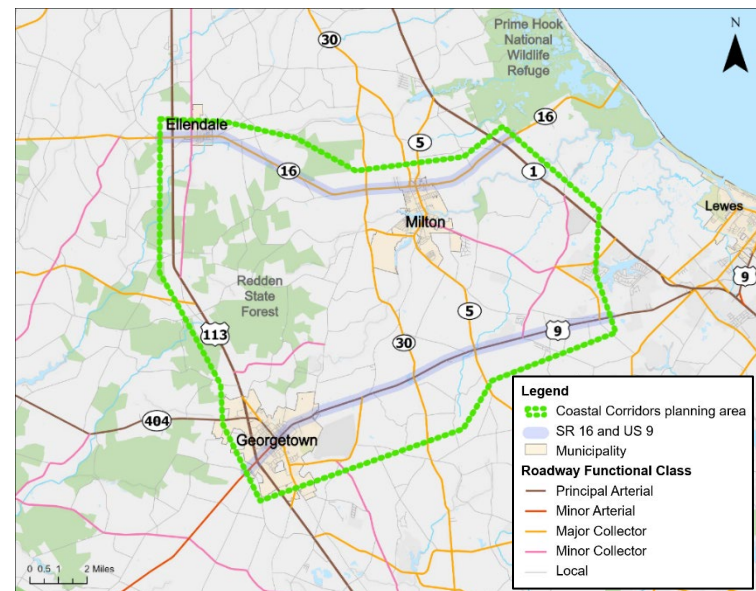


Figure 1. Coastal Corridors planning area and roadway functional class

2 Background

Land development and changing economic forces are affecting the Delmarva peninsula while new consumer patterns that emerged during the COVID-19 pandemic are changing freight and retail. In northern Sussex County, impacts from these changes have been felt in recent years with heavier periods of traffic occurring outside of the historical peak traffic periods of summer weekends and holidays. While these forces of change extend beyond county and even state borders, an integrated approach to land use and transportation planning can support adaptation in ways that support local community goals.

The Coastal Corridors planning effort is focused on the east-west roads between the Maryland state line and SR 1 including SR 16 and SR 404/US 9. The planning effort began with a focus on the broader study area outlined in purple in Figure 2. During late 2020 and early 2021, the study team collected roadway and traffic data for this area, including vehicle volumes, movement patterns, and crash data, and conducted a listening tour with residents, business owners, and elected officials. Findings pointed to more immediate attention needed in the eastern portion of the study area (east of US 113). The western portion (west of US 113) presented the opportunity to proceed with a longer-range transportation and community planning approach, including monitoring changes in population, jobs, freight, and related traffic both in Delaware and across the border in Maryland. In the autumn of 2022, the Coastal Corridors study separated into two planning areas, shown in Figure 2, to accommodate the different planning priorities and geographic areas. Recommendations for the planning area delineated in orange are included in the [Greenwood/ Bridgeville Transportation Plan](#).

DeIDOT's *Coastal Corridors Study: US 9 and SR 16* focuses on the area delineated in green. The study aims to identify transportation solutions for east-west routes in Sussex County including SR 16 and SR 404 / US 9 between US 113 and SR 1. These roadways are the east-west corridors in the northern part of Sussex County that are currently congested or are at risk for congestion based on anticipated growth.

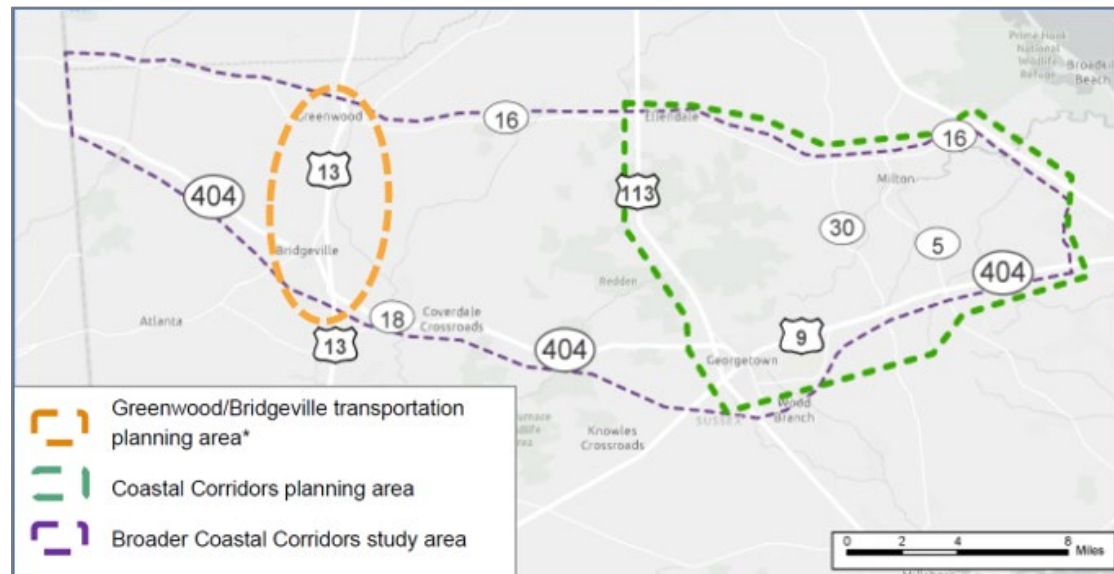


Figure 2. Study and planning areas

Moving forward, “Coastal Corridors” will serve as the umbrella under which these planning studies will progress, including future analysis highlighted in Section 5 of this report.

2.1 COORDINATING LAND USE AND TRANSPORTATION

Investment in public infrastructure such as transportation facilities is necessary to support community quality of life and economic development and ensure that public facilities meet the needs of residents and other travelers throughout the state. This is accomplished by collaboration between the state and local and county governments. In Delaware, about 90 percent of the roads are owned by the state and maintained by DelDOT, while land use decisions are in the purview of the municipality or county. However, coordination between transportation and land use planning is necessary to efficiently maintain a safe multi-modal transportation system. A lack of coordination often leads to sprawling car-centric development patterns, traffic congestion, development occurring in areas with insufficient infrastructure and services, and more costly and inefficient provision of public infrastructure and services. One of the fundamental ways that land use and transportation planning are coordinated is that counties and municipalities establish future land use maps in their comprehensive plans that are used by DelDOT to plan for future transportation infrastructure (see more information on the current Sussex County comprehensive plan in Section 2.2). Comprehensive plans in Delaware must be updated every 10 years and require holistic planning for land use and infrastructure, including transportation. Between updates, ongoing coordination happens in two main ways: via transportation planning studies like this one and development coordination (described in Section 2.4).

Transportation planning studies are an opportunity for project stakeholders to proactively collaborate on transportation solutions. They consider current and anticipated future conditions, usually looking at a 10-, 20-, or 30-year time horizon, and evaluate conditions and anticipated impacts at a system level. Subregional studies provide a range of recommended improvements, some of which may involve several more complicated, interrelated issues and solutions that require a phased approach to implementation.

This study builds on previous successful partnerships between DelDOT and Sussex County, such as the Five Points Transportation Study, that focus on coordinating transportation improvements to support a growing Sussex County.



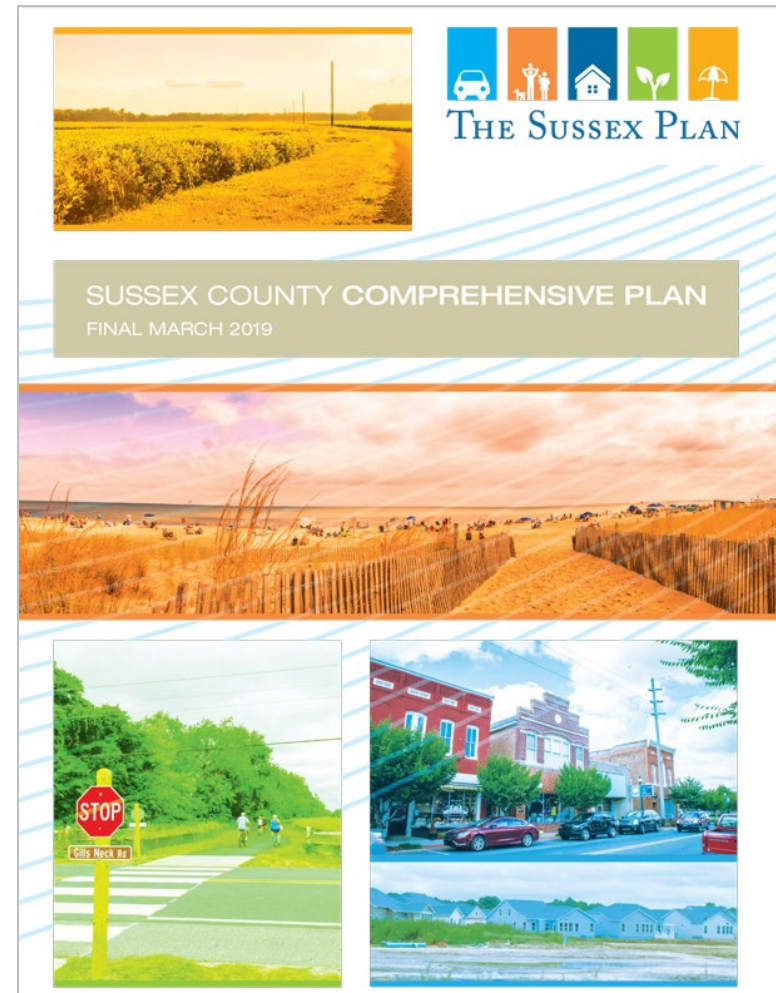
2.2 THE SUSSEX PLAN (2018)

[The Sussex Plan \(2018\)](#) is Sussex County's current comprehensive plan. It addresses a wide variety of planning elements including land use, recreation and open space, economic development, design and development characteristics, and mobility in the unincorporated county. Each chapter dedicated to a planning element describes existing conditions related to the planning topic, and a series of goals, objectives, and strategies that address existing and emerging needs, particularly in relation to the county's population growth.

Chapter 4 of the comprehensive plan includes the County's Future Land Use Vision: "to provide for balanced and well-planned future growth and development that supports the County's economic development goals while preserving the rural character of the County and its natural resources." The chapter also includes a future land use map (see Figure 12 of this report), which along with the future land use maps for Sussex County's municipalities, informs the longer-range land use planning that is the basis for transportation planning.

Chapter 12, Community Design, and Chapter 13, Mobility, are also particularly relevant to this study. In Chapter 12, Section 12.3.10 (Pedestrian and Bicycle Connectivity) states that land development projects should consider how to provide bicycle, and pedestrian connections between developments, such as between neighborhoods or between a neighborhood and a school. Objective 12.1.4 and its associated strategies call for encouraging connectivity (for pedestrians, bicycles, and automobiles) among developments and community facilities (e.g., schools, libraries, and parks).

Chapter 13, Mobility, identifies insufficient integration between transportation planning (which largely occurs at the state level) and land use planning (which largely occurs at the county and local level) as an impediment to making efficient transportation improvements at the right times and in the right places.



Chapter 13's objectives and strategies include the following:

- Objective 13.1.1 Encourage state, county, municipal, private, and non-profit entities to work toward common goals.
- Strategy 13.2.1.1 Support DelDOT in advancing intersection improvements, shoulder widening, alignment improvements, new roadway opportunities, and other local road network projects.
- Strategy 13.2.1.5 Work with DelDOT to evaluate and prioritize potential bypass roads, grade separated intersections, or alternate routes for areas affected by heavy tourist and/or freight traffic along existing corridors.
- Strategy 13.2.1.7 Implement methods to increase capacity and reduce development encroachment along key east/west corridors as identified in the "Corridor Visions," such as increasing frontage setback requirements, purchasing easements, access management, and promoting interconnectivity.
- Strategy 13.2.1.8 Explore the use of Strategic Working Groups to introduce and build early consensus on potential improvement concepts in partnership with DelDOT and the County.
- Objective 13.5.1 Support investments that increase the efficiency of freight movement, which is crucial to commerce in the County.
- Objective 13.6.2 Encourage non-motorized transportation planning along low-speed roadways
- Strategy 13.6.2.3 Partner with Delaware's Pedestrian Coordinator to complete sidewalk connectivity projects in conjunction with new development.

These strategies and objectives were incorporated in the development of this study's recommendations.

2.3 STRATEGIES FOR STATE POLICIES AND SPENDING INVESTMENT LEVELS

The planning area's land use context is also shaped in part by Delaware's [*Strategies for State Policies and Spending \(SSPS\)*](#), which is administered by the Cabinet Committee on State Planning Issues with support from the [*Office of State Planning Coordination \(OSPC\)*](#). As described in the 2020 SSPS document, the document:

"...contains the State's goals and policies for land use, infrastructure investment, and other priorities as developed by the Cabinet Committee on State Planning Issues. The map series identifies areas of the state as one of four "Investment Levels." The State and its agencies have different policies and priorities for infrastructure investment, regulatory programs, public services, and facilities in each of the Investment Levels."

Investment Levels 1–3 are the areas where state policies support growth, with Level 1 and 2 areas being where state agencies direct the most investment. Investment Level 1 areas are typically urbanized. By directing more investment towards more populated areas and areas planned for development, public resources can be used more efficiently. Level 4 areas are where state policies support “agriculture, protection of natural and cultural resources, and open-space activities...” Other than the protection of natural and cultural resources and investments that support agricultural uses, investment in Level 4 areas is discouraged. Along with the four Investment Levels, the state designates “Out-of-Play” areas that are not available for development or redevelopment. These include publicly owned lands and private conserved lands.

Figure 3 shows the 2020 Investment Levels in the planning area. Much of the planning area outside of the municipalities is designated Level 4 or Out-of-Play, including many parcels along SR 16 and US 9. The Level 4 areas are “rural in nature and are where the bulk of the state’s open space / natural areas and agricultural industry is located.” Therefore, the SSPS do not prioritize these areas for infrastructure investments. Note that the Level 4 designation does not prohibit development, so projects may still be proposed and approved in these areas.

In addition to informing decisions on investment, infrastructure, and development, the SSPS levels, the Sussex County Comprehensive Plan, and municipal comprehensive plans are critical inputs for forecasting population and traffic growth.

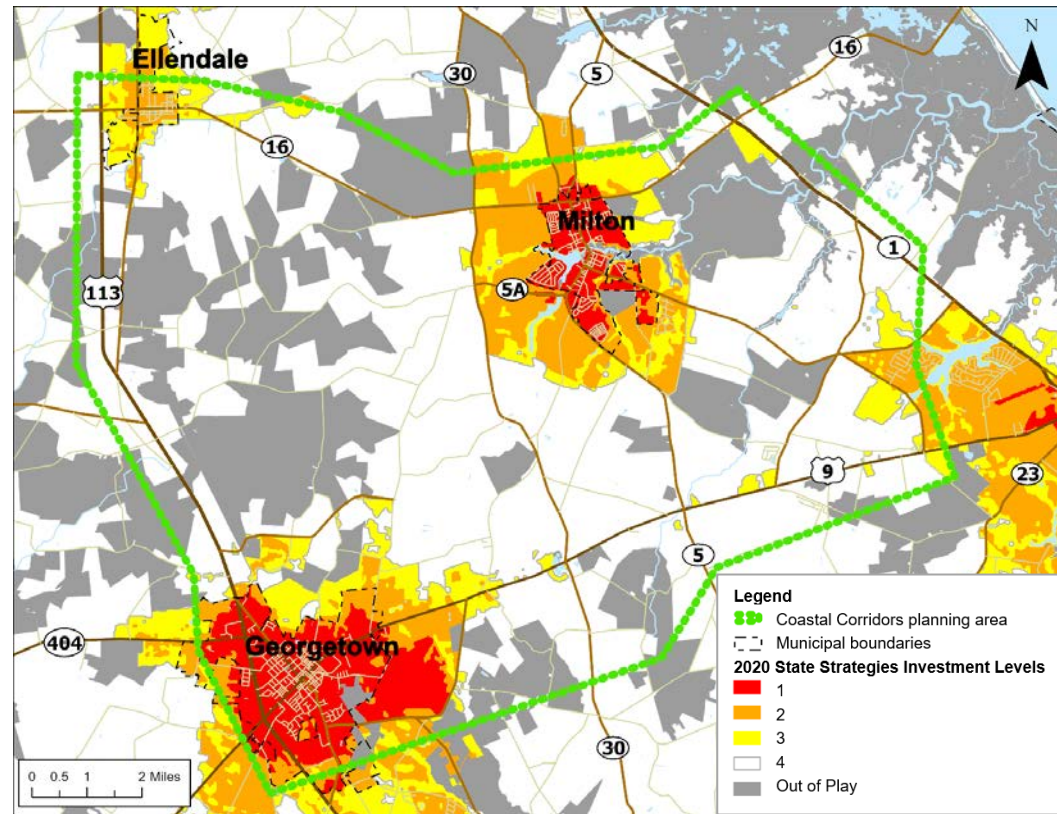


Figure 3. 2020 State Strategies Investment Levels in the planning area

2.4 DEVELOPMENT COORDINATION

The OSPC also coordinates the Preliminary Land Use Service (PLUS), which allows state agencies to review major land development applications before the plans are submitted to local government review bodies. Project information and application materials submitted by applicants to the PLUS process are publicly available on the OSPC's [PLUS Project Information Dashboard](#). Details regarding major land development applications in Sussex County can be found through state, county, and local resources.

The [Sussex County - DeIDOT Permit Tracker](#) is an interactive map and dashboard that provides information on issued building permits, pending permit applications, certificates of occupancy, and developer agreements throughout Sussex County.

While an overview of existing and proposed development in the project area is provided in Section 4.2, development details may change throughout the review process in response to regulatory feedback or due to changing market conditions. Please refer to the [Sussex County Land Use Application Docket](#) page for current project updates.

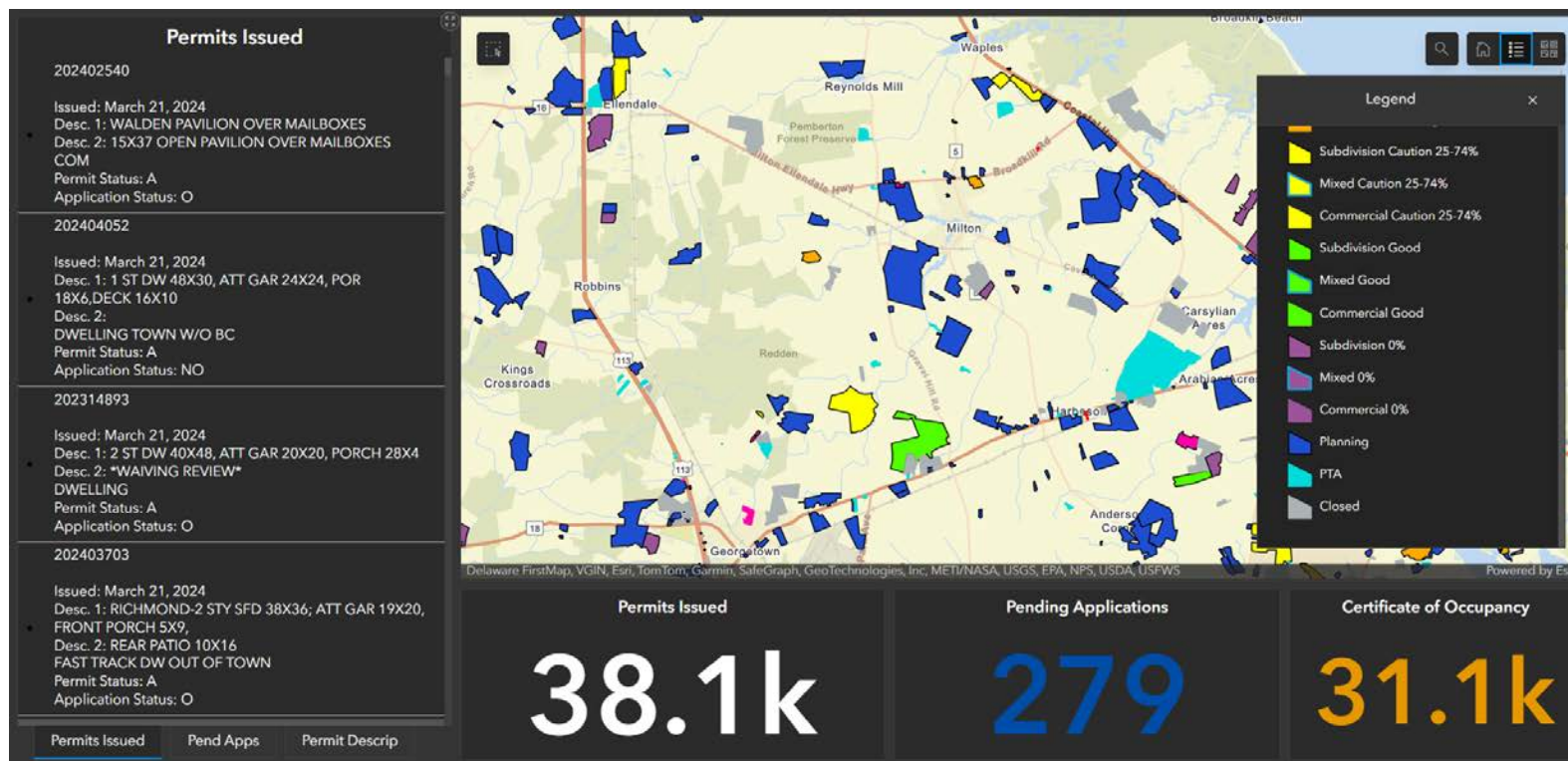


Figure 4. Screenshot showing the information available on the Sussex County - DeIDOT Permit Tracker

Proposals for new residential, commercial, and institutional developments are regularly reviewed by Sussex County, DelDOT, and OSPC. The 2018 Sussex County Comprehensive Plan, described above, promotes greater coordination between DelDOT and Sussex County in land use decisions. The [2020 Memorandum of Understanding for Land Development Coordination](#) between Sussex County and DelDOT states:

Land development has the potential to impact adjacent highways and Sussex County and DelDOT recognize that an analysis of the effects upon traffic is important in all types of land use decisions (Residential Planned Communities, Major Subdivisions, Conditional Uses) and not just rezoning applications.

A coordinated review process results in more efficient, effective, and timely use of public and private resources.

Traffic Analysis for Long-Range Planning vs. Development Coordination

Transportation planning requires the use of traffic analysis and forecasting to provide information to decision makers planning for future conditions. Forecasting and analysis occur at different geographic scales and different stages in integrated transportation-land use decision making.

A **planning analysis** uses forecasting to understand traffic operations at a future horizon year. In Delaware, the [Delaware Population Consortium](#) generates official population projections annually. These projections, along with the best available information on employment trends, future land use, and future transportation infrastructure, are used in Delaware's travel demand model—known as the Peninsula Model—to understand anticipated future conditions and impacts on the transportation system. That information can be applied at different geographic scales to help planners and communities determine where improvements may be needed. For details on forecasting completed for this study, see Section 4.6.4.

As a complement to areawide planning studies, DelDOT requires private developers to perform traffic analysis of significant land development through a Traffic Impact Study (TIS). The TIS, which is submitted by the developer and then reviewed by DelDOT, is completed to determine the impacts that traffic generated by specific development proposals may have on the surrounding street network and the improvements needed to the transportation system to mitigate those impacts. DelDOT requires the developer to implement mitigation specified in the TIS to obtain DelDOT approvals.

3 Process

3.1 PLANNING APPROACH

Community visioning and support work in tandem with technical analysis as the foundation of a successful transportation plan. For the Coastal Corridors planning process, traffic data and trends were analyzed beginning in 2019. The project team identified stakeholders throughout the planning area who could provide useful on-the-ground context to further the project team's understanding of the data. The results of the project team's listening tour and municipal outreach were used to develop study goals and a purpose statement. The COVID-19 pandemic altered traffic patterns, resulting in a delay in the data collection and analysis process. Traffic analysis resumed in 2021. A Coastal Corridors Committee composed of area stakeholders was formed to provide feedback on preliminary recommendations and the plan development. Two drop-in-style public workshops were held during the study to share data and collect feedback from the public. The public input process is described in more detail below.



Figure 5. Timeline showing the planning approach for the Coastal Corridors Study

3.2 PUBLIC AND STAKEHOLDER ENGAGEMENT

The public engagement approach for the Coastal Corridors study combined online and in-person engagement to increase project awareness and public participation and encourage collaboration between area stakeholders and DelDOT.

Many of the issues and concerns raised by the public during the preliminary engagement required additional traffic data collection. Due to the ongoing impact of the COVID-19 pandemic on travel patterns, additional time was necessary to collect and analyze spring and summer traffic counts. To accommodate this schedule, the second round of public engagement did not commence until spring 2022.

3.2.1 Winter 2020/2021 Listening Tour

During winter 2020/2021, the project team conducted a listening tour during which they met with 50 stakeholders across the county, including:

- Residents
- Schools
- Businesses
- Emergency service providers
- Elected and appointed officials

The predominant theme that emerged during the listening tour was that people love Sussex County and don't want to lose their small-town and rural way of life. The project team also heard many specific concerns and suggestions relating to:

- Safety
- Traffic
- Development
- Economic issues/opportunities
- Emergency services
- Technology/GPS

A summary of feedback from the listening tour is provided in Appendix A.

3.2.2 Spring 2021 Public Workshops

During March 2021, virtual public workshops were held to introduce the study. Attendees could submit questions and comments anonymously so they could speak freely. Five workshops were held, each promoted to one of the following communities. The attendance at each community's workshop was as follows:

- Ellendale: 19 attendees
- Greenwood: 15 attendees
- Bridgeville: 12 attendees
- Milton: 22 attendees
- Georgetown: 13 attendees

3.2.3 Spring 2022 Municipal Outreach

The project team followed up with municipal representatives from Ellendale, Georgetown, Milton, and Bridgeville in June 2022. These meetings were used to provide an update on the status of the study and preliminary findings from the data analysis. The meetings clarified the next steps for the study:

- The Coastal Corridors Study will focus on roadway capacity issues east of 113
- DelDOT will assist communities west of 113 with transportation master planning efforts (this resulted in the 2023 *Greenwood/Bridgeville Transportation Plan*)

Some municipal representatives expressed concern with the volume of traffic coming from Maryland across the Bay Bridge. Municipalities also shared updates about development proposals in the pipeline and areas where congestion is regularly observed. The project team shared traffic data to address those concerns.

Municipal representatives were supportive of the plan to convene a Coastal Corridors Committee to guide the study process and assist with the development of recommendations.

3.2.4 Coastal Corridors Committee

The Coastal Corridors Committee (the Committee) is comprised of local stakeholders including municipal representatives, business owners, community-based organizations, and residents who work with the project team to review data and provide feedback on potential transportation solutions in the planning area. Committee members are listed to the right. The role of the Committee is to:

- Participate actively throughout the process,
- Represent broader views in addition to individual views,
- Offer suggestions to DelDOT and Sussex County, and
- Build community support for solutions.

The Committee met in person four times during the winter of 2022/2023. The meetings were conducted as a hybrid in-person/virtual meeting to allow members of the public to listen, ask questions, and provide feedback either in person or virtually. Committee members were introduced to a Safety and Capacity Improvements Toolkit, available in Appendix C, to familiarize them with potential transportation improvements. All meeting materials were posted on the project website. The meeting dates and topics were:

- Monday, December 5, 2022—Existing conditions
- Monday, January 9, 2023—Focus on SR 16
- Monday, February 13, 2023—Focus on US 9
- Monday, March 13, 2023—Preliminary recommendations
- Tuesday, March 19, 2024—Recommendations and draft plan

Feedback from the Committee along with data analysis was used to generate the recommendations presented in Section 4 of this study.

Moving forward, the Committee will be convened periodically to track the implementation of the study's recommendations.

Corridors Committee representation:

I.G. Burton, The Nature Conservancy Trustee
 George Cardwell, Town of Milton representative
 Richard Crisci, Cape Henlopen School District
 Pastor Goehringer, Old Paths Church of Christ
 Will Helt, The Nature Conservancy
 Jocelyn Huff, Town of Georgetown representative
 Bob Klerlein, Ironworks
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 Jeff Wells, J. Carlton Wells & Sons
 Kevin Yingling, Delaware Electric Cooperative

3.2.5 January 24, 2023, English as a Second Language Outreach

As part of DelDOT's goal of seeking out and considering the needs of those traditionally underserved by existing transportation infrastructure, the project team conducted additional public outreach at an English as a Second Language (ESL) class at Sussex Technical High School on January 24, 2023.

Around 25 students were in attendance. Languages spoken by the students included Spanish, Vietnamese, and French Creole. All the students spoke English very well. Most students were from Laurel and Millsboro, with a few from Lewes, Georgetown, Seaford, and Milton. All the students stated that they use a car for all their transportation needs. They described transit as unreliable, and shared they do not feel that biking or walking is a safe option since most areas do not have sidewalks or bike lanes. Most of the students also stated that they work double shifts or two jobs, so they primarily travel early in the morning or late at night and do not have much spare time for recreational biking or walking.

Students shared that they encountered safety issues in the following locations:

- SR 16 in Ellendale
- Intersection of US 9 and Hudson Road
- Intersections in Milton (there are no traffic lights, only stop signs which causes accidents at some intersections)
- US 9 in front of Sussex County Technical High School (there are no bike lanes or sidewalks)

Students shared that they encountered traffic delays on an everyday basis, but traffic gets significantly worse during the summer months. Specific problem areas mentioned include:

- Georgetown Circle – congested every day
- Intersection of US 9 and US 113 – backs up to the Georgetown Circle everyday a.m. and p.m.
- US 9 – congested Monday through Friday and on summer weekends

The students recommended reaching out to minority and Limited English Proficiency (LEP) populations via the following:

- Radio – 95.3 FM
- Social media/Facebook (direct posts as well as paid advertisements)
- Backpack mail through the schools
- Churches – working directly with ministers or posting in bulletins
- Spanish newspaper – *La Hoy*
- Distribution of flyers at grocery stores or other local establishments

3.2.6 June 6, 2023, In-Person Public Workshop and Survey

The project team hosted a drop-in style public workshop on June 6, 2023, at the Mariner Middle School Cafeteria. Participants were able to listen to an overview presentation and learn more about the project recommendations by visiting one of seven stations. This format allowed members of the public who were only interested in a specific corridor or portion of a corridor to quickly get the information they needed. Below is a list of the stations:

1. Station 1 – Overview
2. Station 2 – Data and Trends
3. Station 3 – SR 16 West and Ellendale
4. Station 4 – SR 16 East and Milton
5. Station 5 – US 9 West and Georgetown
6. Station 6 – US 9 East
7. Station 7 – Policy

A public survey was conducted in conjunction with the June 6 public workshop. Printed copies of the survey and a QR code linking to the online survey were available at the public workshop. Members of the public could take the survey at the workshop or at home. During the workshop, participants also left written comments on tabletop maps located at each station. The survey remained open from June 6 through July 31. The survey results and comments left on the tabletop maps are available as Appendix B.

Generally, the public agreed with the recommendations as presented. There was a concern with increasing congestion throughout the planning area, including on SR 30 and the roads between SR 16 and US 9, which were not a focus of this study effort. Two members of the public objected to the recommendation that parking be removed on SR 16 in Ellendale to provide bike lanes because they stated that the parking lane is used frequently.

To supplement the in-person workshop, workshop materials and a video providing an overview of the project were posted on the project website.

3.2.7 Concluding Committee Meeting and Public Comment Period

A concluding Coastal Corridors Committee meeting was held March 19, 2024, to present and discuss the recommendations and draft report, which was published for Committee and public comment April 15, 2024. The comment period closed May 17, 2024 and no comments were received. During the comment period, DeIDOT conducted targeted outreach with local communities through town council / commission meetings, which included: Bridgeville Commission workshop (April 29); Ellendale Council (May 1); Greenwood Council (May 8); and Georgetown Commission (May 13). Engagement with the Town of Milton is ongoing through the Active Transportation Plan and SR 16 Corridor Study.

3.2.8 Project Webpage

The Coastal Corridors Committee website serves as the hub for online community engagement and as an information repository available to the public and project stakeholders throughout the study. Initially, the project page was hosted in on a standalone Corridors Committee webpage that included all meeting materials and recordings. In 2023, DeIDOT transitioned its study websites to the [DeIDOT Interactive Hub](#). Moving forward, this page will be used to host Committee Meeting Material and the final study document, and to provide updates on the status of recommendations.

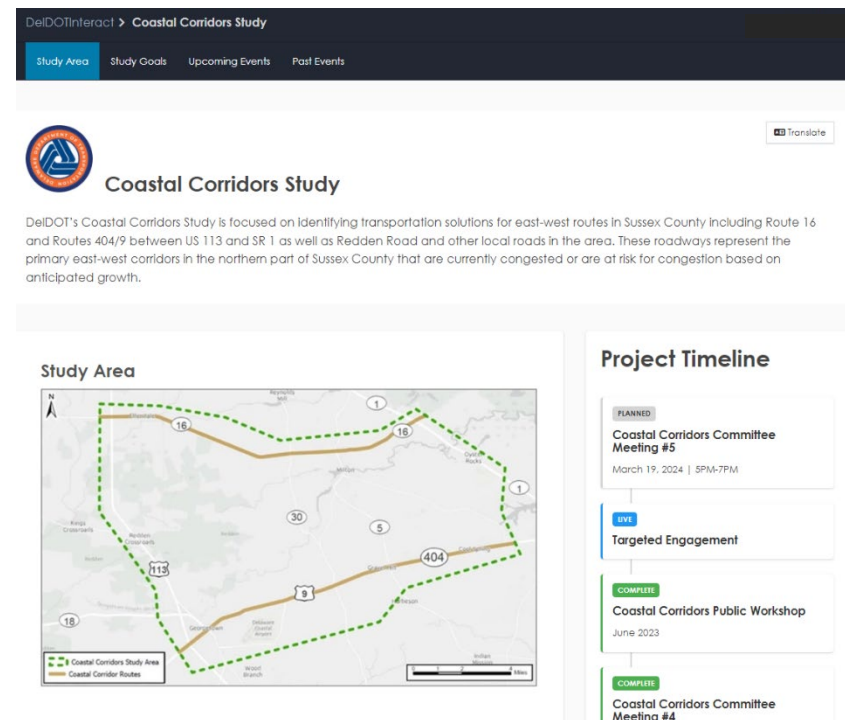
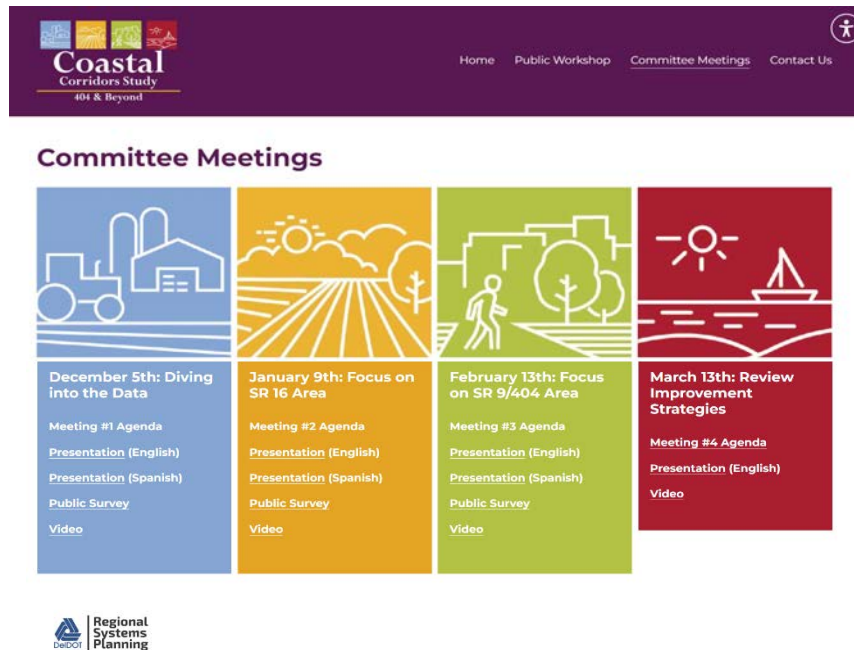


Figure 6. Screenshots from archived Coastal Corridors Committee website (left) and DeIDOT Interactive Hub page (right)

4 Existing Conditions

The existing conditions assessment for this effort includes a review of both land use and transportation data since planning needs to account for future growth and land use change. This section summarizes the existing land use and transportation conditions and trends in the planning area, which are the basis for the in-depth traffic analysis and recommendations.

4.1 OVERVIEW AND TRENDS

Sussex County, Delaware, is one of the fastest growing counties in the United States. Table 1 shows population change and the average annual growth rate over the last several decades for the State of Delaware, Sussex County, and the municipalities in the planning area. Population projections for 2050 from the Delaware Population Consortium are also included. The average annual growth rates allow for a comparison between the State, Sussex County, and each municipality. For all jurisdictions except Ellendale, growth was higher between 2000 and 2010 than between 2010 and 2020. While projected growth between 2020 and 2050 is lower than the historic growth rate, the anticipated growth rate in Sussex County and its municipalities is still significantly higher than the growth rate projected for the state as a whole.

The county's population density, however, remains relatively low and agricultural land makes up roughly 45 percent of the land area. As shown in Figure 7, Sussex County's jobs are concentrated along SR 1 by the beaches, in Georgetown, Milford, Seaford, Blades, and just east of Millsboro. These locations are the destination for many trips in the planning area. As shown in Figure 8, workers mostly live along SR 1 by the beaches and in and around the municipalities, which is where many trips in the planning area originate.

Table 1. Population growth and projections, 2000-2050.

Jurisdiction	Population				Average Annual Growth Rate		
	Census 2000	Census 2010	Census 2020	Projected 2050*	2000-2010	2010-2020	Projected 2020-2050*
Delaware	783,600	897,934	989,948	1,167,866	1.37%	0.98%	0.55%
Sussex County	156,638	197,145	237,378	361,422	2.33%	1.87%	1.41%
Georgetown	4,634	6,422	7,134	9,863	3.32%	1.06%	1.09%
Ellendale	307	381	487	761	2.18%	2.49%	1.50%
Milton	1,669	2,576	3,291	5,070	4.44%	2.48%	1.45%
*Population projections for 2050 were released October 31, 2023, by the Delaware Population Consortium (Version 2023.0). More information about their methodology is available on their website.							

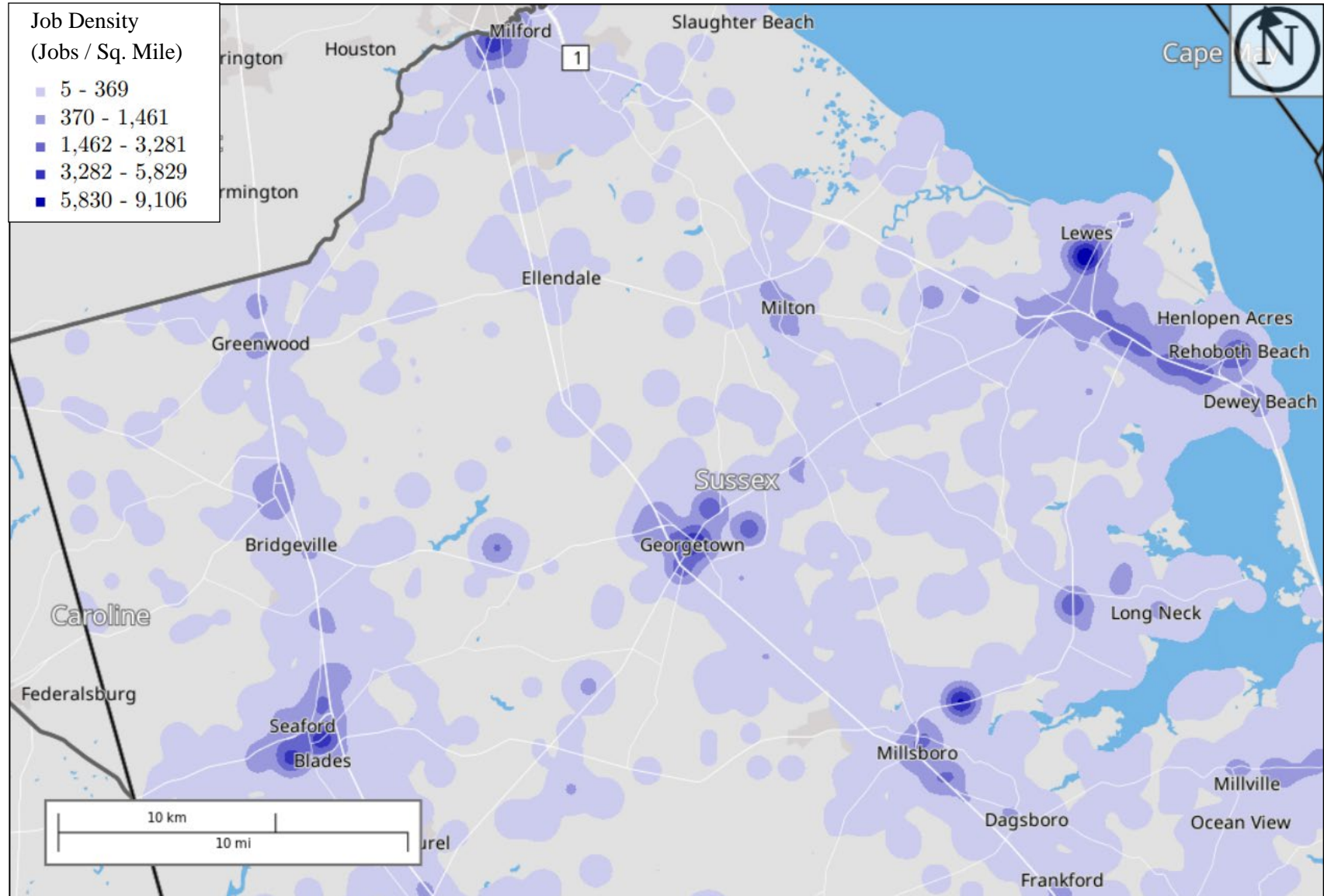


Figure 7. 2020 job density in Sussex County (source: OnTheMap interactive map of data from the U.S. Census Bureau Center for Economic Studies' Longitudinal Employer-Household Dynamics [LEHD] program)

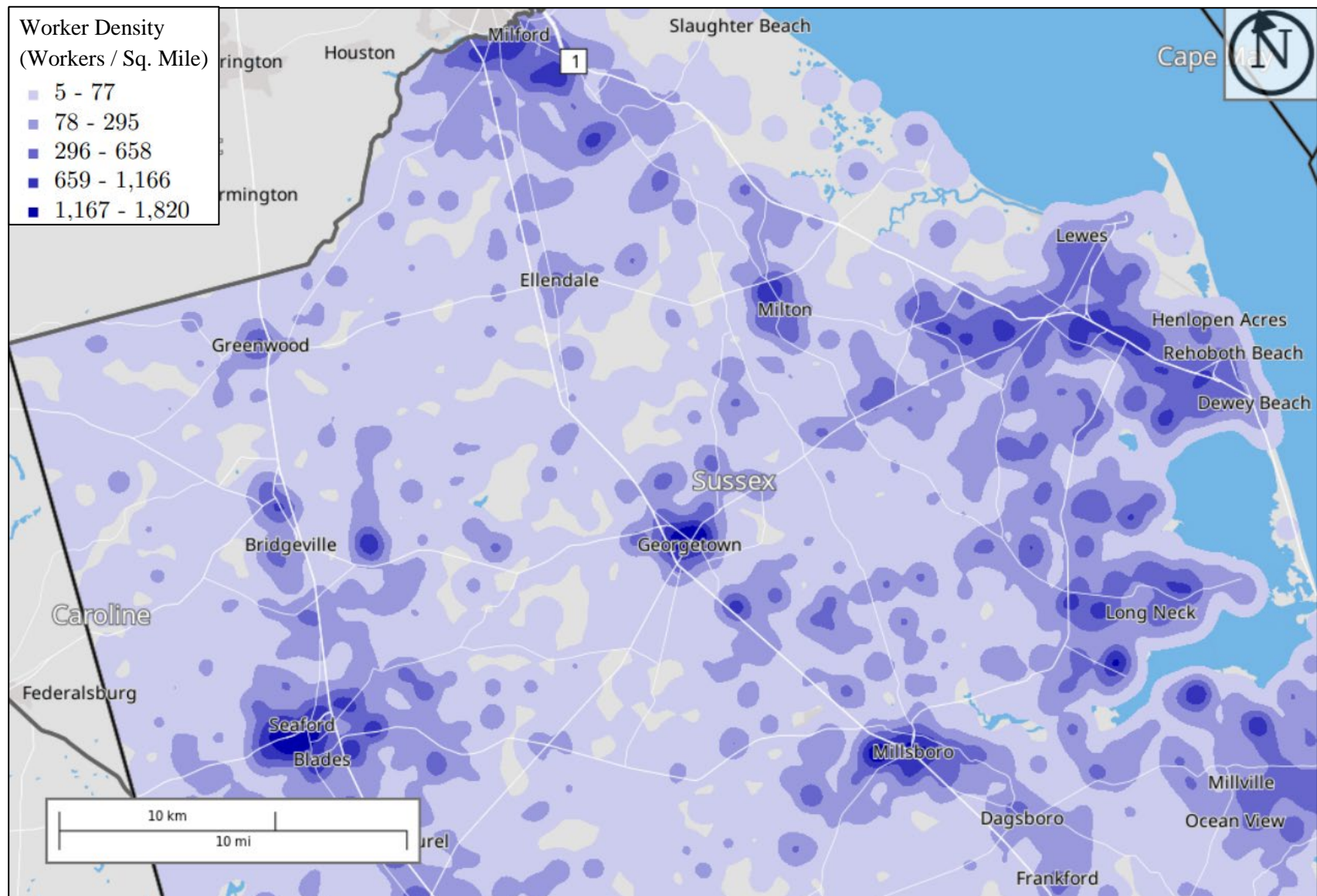


Figure 8. Heat map of where workers live in Sussex County in 2020 (source: OnTheMap interactive map of data from the U.S. Census Bureau Center for Economic Studies' Longitudinal Employer-Household Dynamics [LEHD] program)

Figure 9 shows Sussex County's network of major roads in the planning area. There are multiple high-capacity north-south routes, while east-west routes are fewer and have lower capacities. In the north-south direction, three multi-lane divided highways continue through all or most of the county: US 13, US 113, and SR 1. In contrast, the only major continuous east-west route is SR 404 / US 9, which is largely a two-lane road with some turn lanes.

Due to Sussex County's beaches, many roads have strong seasonal fluctuations in traffic volumes. This traffic is composed of both vacationers and service workers at beach businesses. Many beach service workers commute from west of SR 1, where housing is more affordable.

4.2 LAND USE CONTEXT

4.2.1 Current Land Use

Most of the planning area is made up of agricultural land. Residential and commercial uses are concentrated in Ellendale, Georgetown, Milton, and along the major roads, but can also be found scattered throughout.

Figure 10 is the [Sussex County Comprehensive Plan](#) current land use map, which shows the majority of land in the planning area identified as agricultural or undeveloped. Most industrial uses in the planning area are located on US 9. Residential uses in the unincorporated portion of the planning area are primarily single-family residential; however, there are also several mobile home park zones. The municipalities include some multi-family residential developments and most of the area's institutional uses.

SR 16 Corridor

SR 16 in the planning area passes through Ellendale and Milton. Much of the corridor outside of the towns is surrounded by agricultural and undeveloped land. However, there are several single-family house developments, as well as a limited number of

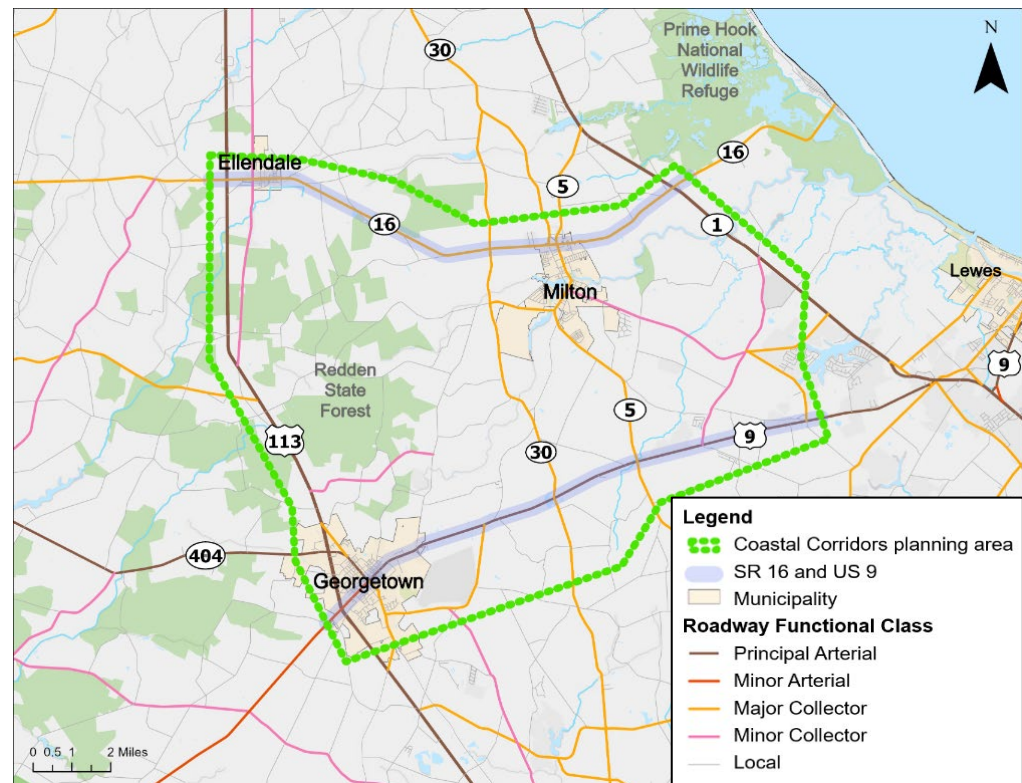


Figure 9. Roadway functional classifications

commercial, industrial, and institutional uses. SR 16 through Ellendale is Ellendale's Main Street and is therefore where most of Ellendale's stores and services are located. SR 16 between Ellendale and Saw Mill Road runs alongside the Milton Industrial Track, a rail line run by Delmarva Central Railroad. In Milton, SR 16 is the town's main commercial area other than its historic downtown.

US 9 Corridor

US 9 in the planning area passes through Georgetown. Within Georgetown, it is called Market Street. It passes through a wide variety of land uses in Georgetown including the downtown, residential neighborhoods, and auto-oriented commercial areas. East of Georgetown, US 9 is characterized primarily by single-family residential, agricultural, and undeveloped areas. Most of the planning area's industrial land uses are on US 9 and there are also clusters of commercial uses along the corridor. Delaware Coastal Airport is just south of US 9 and east of Georgetown.

4.2.2 Zoning

Most of the planning area is zoned AR-1 (Agricultural Residential). The Sussex County Code states that:

The purpose of these districts is to provide for a full range of agricultural activities and to protect agricultural lands, as one of the county's most valuable natural resources, from the depreciating effect of objectional, hazardous and unsightly uses. They should also protect established agricultural operations and activities. These districts are also intended for protection of watersheds, water resources, forest areas and scenic values and, at the same time, to provide for low-density single-family residential development, together with such churches, recreational facilities and accessory uses as may be necessary or are normally compatible with residential surroundings. The AR regulations seek to prevent untimely scattering of more-dense urban uses, which should be confined to areas planned for efficient extension of public services.

There are also several large areas zoned GR (General Residential). The Sussex County Code states that:

The purpose of this district is to provide for medium-density residential use, including all manufactured homes.

The only unincorporated areas in the planning area zoned HR-1 and HR-2 (High Density Residential) are located just west of Milton. These areas are not currently built out with high-density development. The Sussex County Code states that:

The purpose of these districts is to permit variety in housing types and provide for residential densities appropriate for areas which are or will be served by public sanitary sewer and water systems and which are well-located with respect to major thoroughfares, shopping facilities and centers of employment.

Other zoning categories are concentrated around the planning area's major roadways. Further detail on the permitted uses within each district and the density of those uses are available within the [Sussex County Code Chapter 115, Zoning](#).

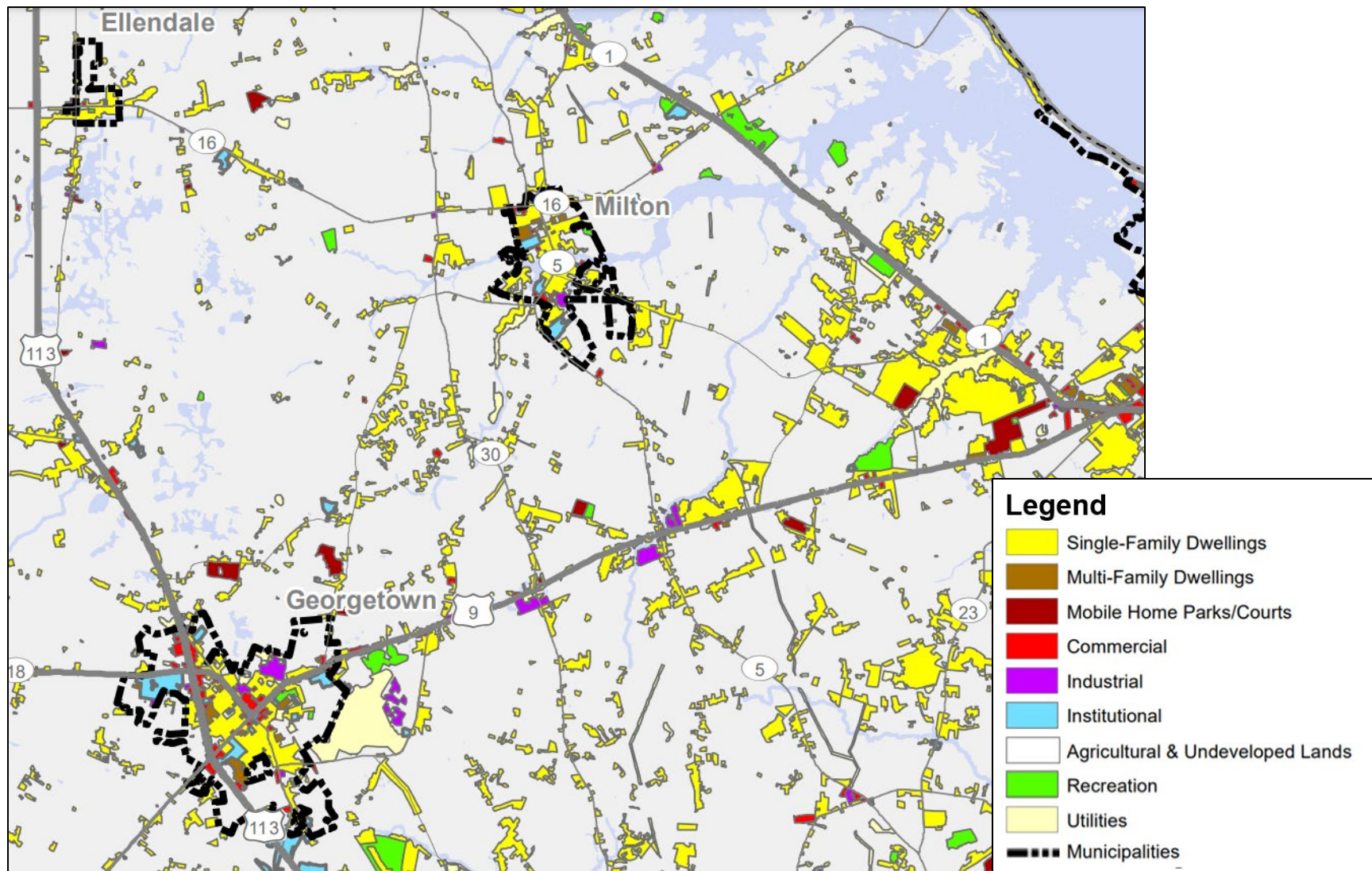


Figure 10. Existing land uses in the planning area (Source: The Sussex Plan: Sussex County Comprehensive Plan [2019])

4.2.3 Development Trends

According to the [OSPC's 2023 Annual Report on State Planning Issues](#), Sussex County added around 5,000 dwelling units each year for 2021 and 2022. Figure 11 shows development trends in and around the planning area relative to the 2020 SPSS levels.

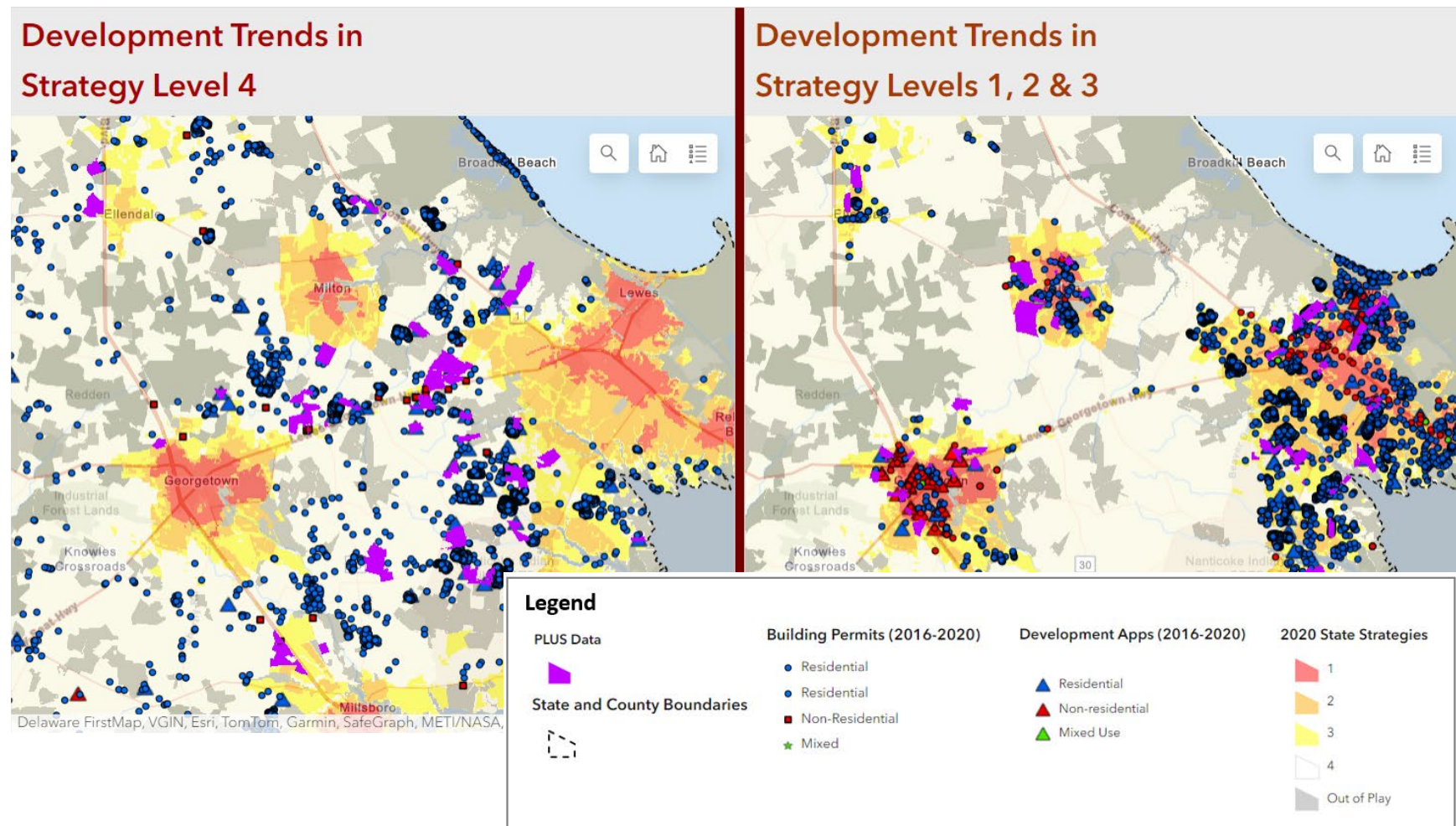


Figure 11. Building permits and development applications (2016–2020) and 2020 ‘State Strategies for Policies and Spending’ levels (Source: Development Trends Dashboard, OSPC, accessed March 2024 at <https://devtrends.stateplanning.delaware.gov/apps/74e1e1037eb247b7919a2f6dfc057c1/explore>)

4.2.4 Future Land Use and Development Projects

The Sussex Plan includes the county's future land use map, shown in Figure 12, which depicts designated growth areas and rural areas. Per *The Sussex Plan*, the development of the Future Land Use Map was guided by the Sussex County Planning and Zoning Commission, the public, and Sussex County Council, and included an exhaustive review of data including parcel data, current zoning, sewer and water areas, planned road improvements, municipal annexation areas, existing land use, DSHA Areas of Opportunity, electric and fiber optic utility data, and building permit data.

Designated growth areas from *The Sussex Plan* and municipal comprehensive plans are reviewed and endorsed by the OSPC during their review of each comprehensive plan. These future land use maps serve as the basis for the analysis conducted in the OSPC's SSPS (detailed in Section 2.3), the Delaware Population Consortium's projections, DelDOT's travel demand model (further discussed in Section 4.6.4), and DelDOT planning studies. Planning and designing future transportation infrastructure considers future population growth and where that growth will occur. This growth is based on the information in adopted comprehensive plans, zoning, and future land use maps. While the comprehensive plans follow systematic 10-year updates, there can be activity that changes and possibly impacts proposed transportation projects. As a result, it is vital that existing and forecast demographic data (based on recent land use activity trends and development patterns) be updated frequently, and that proposed and planned transportation investments also be updated, accordingly. Major changes to the future land use maps between the 10-year updates to the comprehensive plans that allow for increased population density can potentially impact the adequacy of proposed DelDOT projects already in the project development pipeline.

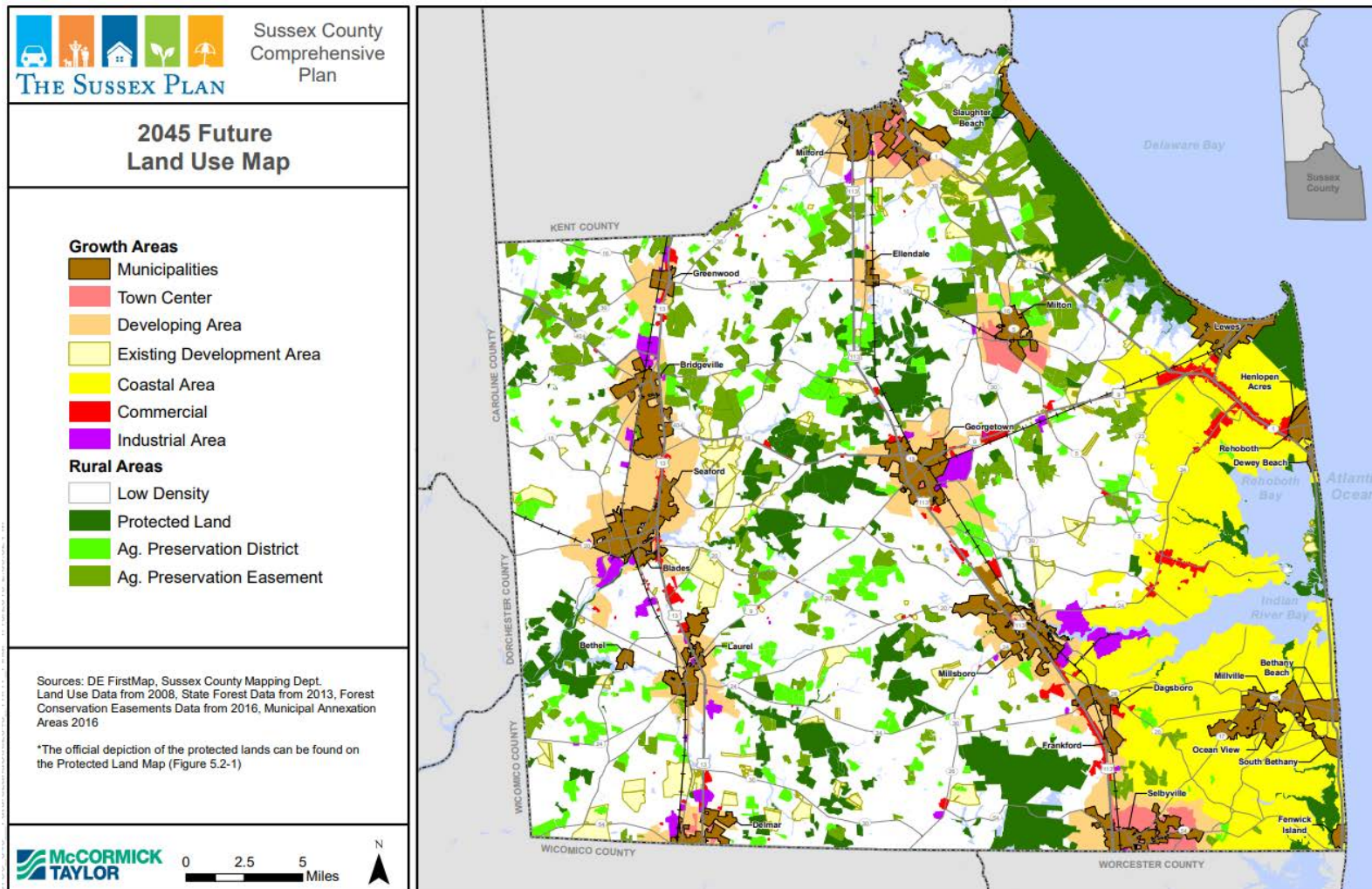
The Sussex Plan designates the southeastern portion of the planning area as "Coastal Area", which is defined as a growth area. *The Sussex Plan* acknowledges the Coastal Area as "among the most desirable locations in Sussex County for new housing" and among the most "ecologically important and sensitive."

There is also significant development activity around all three of the municipalities in the planning area. Most of the area around each municipality are designated "Town Center" or "Developing Area," which are two of the plan's eight types of growth areas. The Developing Area designation is applied to emerging growth areas.

The municipalities' comprehensive plans identify potential annexation areas. Milton's most recent comprehensive plan (2018) identifies a 3,600-acre "growth area." The town has annexed four sites totaling approximately 489 acres since it adopted its current comprehensive plan in December 2018. Georgetown's most recent comprehensive plan (2021) identifies approximately 6,328 acres of potential annexation areas. However, Georgetown's most recent annexation was in 2009. Ellendale's most recent comprehensive plan (2021) identifies growth and annexation areas but does not provide a total acreage for those areas. However, it does categorize the growth and annexation areas as Phase 1 (to be annexed in the next five years) or Phase 2 (to be annexed between five and 15 years on). In Ellendale, the annexation of three sites totaling approximately 280 acres have been finalized since adopting its current

comprehensive plan in November 2021. An additional four sites totaling approximately 340 acres have been annexed by the town and are awaiting official recordation with the county before the municipal boundaries are updated by the state.

A list of all proposed development projects reviewed for this study and considered in the preparation of recommendations are included in Appendix H. As discussed in Section 2.4 of this report, these developments are required to prepare a TIS and complete



necessary mitigation improvements prior to approval, recordation, and progression toward construction.

Figure 12. Sussex County Future Land Use Map (source: The Sussex Plan: Sussex County Comprehensive Plan [2019])

4.3 CRASH DATA SUMMARY

During 2017–2023, there were 10,181 crashes in the planning area. As shown in Figure 13, the planning area's major crash hot spots during this period were:

- US 113 and SR 404 / SR 18
- US 9 and SR 404
- US 9 and US 113
- US 113 and SR 16
- US 9 and SR 5
- US 13 and Redden Road

Of the 10,181 crashes that occurred in 2017–2023, 43 were fatal. The yearly breakdown of fatal crashes during that period is as follows:

- 2017: 5
- 2018: 4
- 2019: 7
- 2020: 12
- 2021: 6
- 2022: 6
- 2023: 3

US 113 Georgetown area (8 crashes), US 13 (5 crashes), SR 404 west of Bridgeville (4 crashes), and Redden Road (3 crashes) were among the most common locations for fatal crashes.

Additionally, 112 of the 10,181 crashes in 2017–2023 involved pedestrians or cyclists. Nine of those 112 crashes resulted in a pedestrian fatality and one crash resulted in a cyclist fatality. Pedestrian- and cyclist-involved crashes were overwhelmingly concentrated in Georgetown both along US 113 and within the downtown area.

Most crashes within the planning area were single-vehicle crashes (33%), front-to-rear crashes (31%), or angle crashes (19%). Approximately 13% of all crashes involved a deer or other animal.

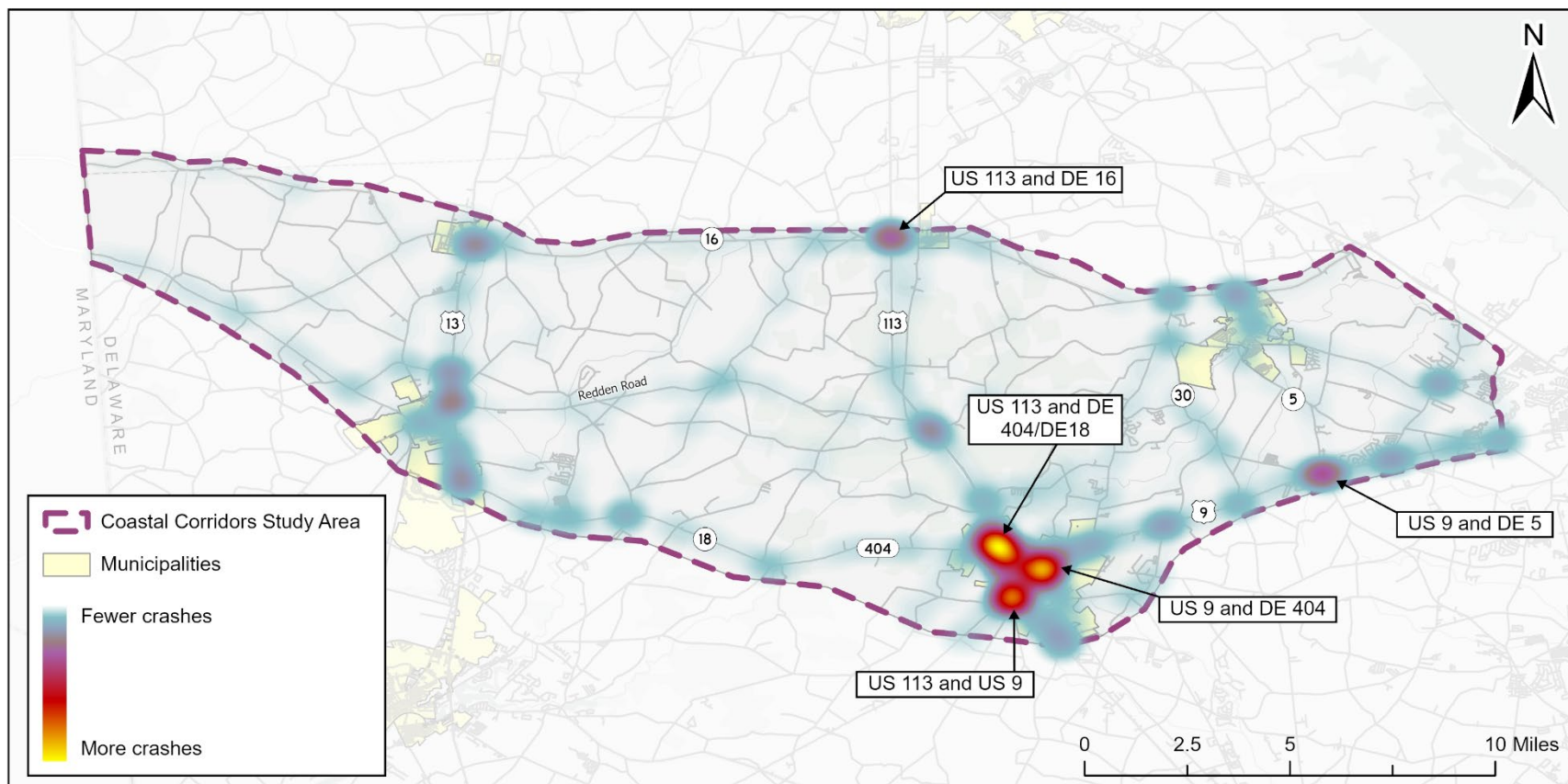


Figure 13. 2017–2023 crash data heat map of the study area

4.4 ROADWAY SUFFICIENCY ASSESSMENT

In 2021, DeIDOT conducted a Roadway Sufficiency Assessment (RSA) of locations throughout the preliminary study area that had a history of crashes. The RSA used existing data and mapping resources and new data collected in the field. Google Earth was used to determine the number of lanes, lane widths, shoulder widths, and presence of pedestrian/bike facilities. DeIDOT Gateway GIS was used to determine roadway length, functional classification, and speed limit. Computer-Aided Design and Drafting (CADD) software was used to measure roadway curves. The curves were then compared to American Association of State Highway and Transportation Officials (AASHTO) Design Standards.

During field data collection, DeIDOT recorded observed roadway deficiencies and associated pictures in a live GIS map. Observed deficiencies included:

- Obstacles in the Clear Zone
- Crossing locations
- Lighting
- Condition of Pedestrian Facility
- Railroad crossing
- Conflict points (e.g., proximate to intersections)
- Sight Distance
- Sign
- Steep roadside slopes and ditches
- Traffic Lane widths and striping
- Utility Poles

Figure 14 shows the location of the observed deficiencies.

Other features that were noted in the field were bridge tie-ins, rumble strips, pavement patches, railroad crossings, lane/shoulder configurations, and signage.

Appendix D provides a summary of major crash locations and potential issues documented during the RSA. These observations were provided to relevant DeIDOT Divisions so that they can be addressed as part of ongoing maintenance and part of future Capital Transportation Program projects.

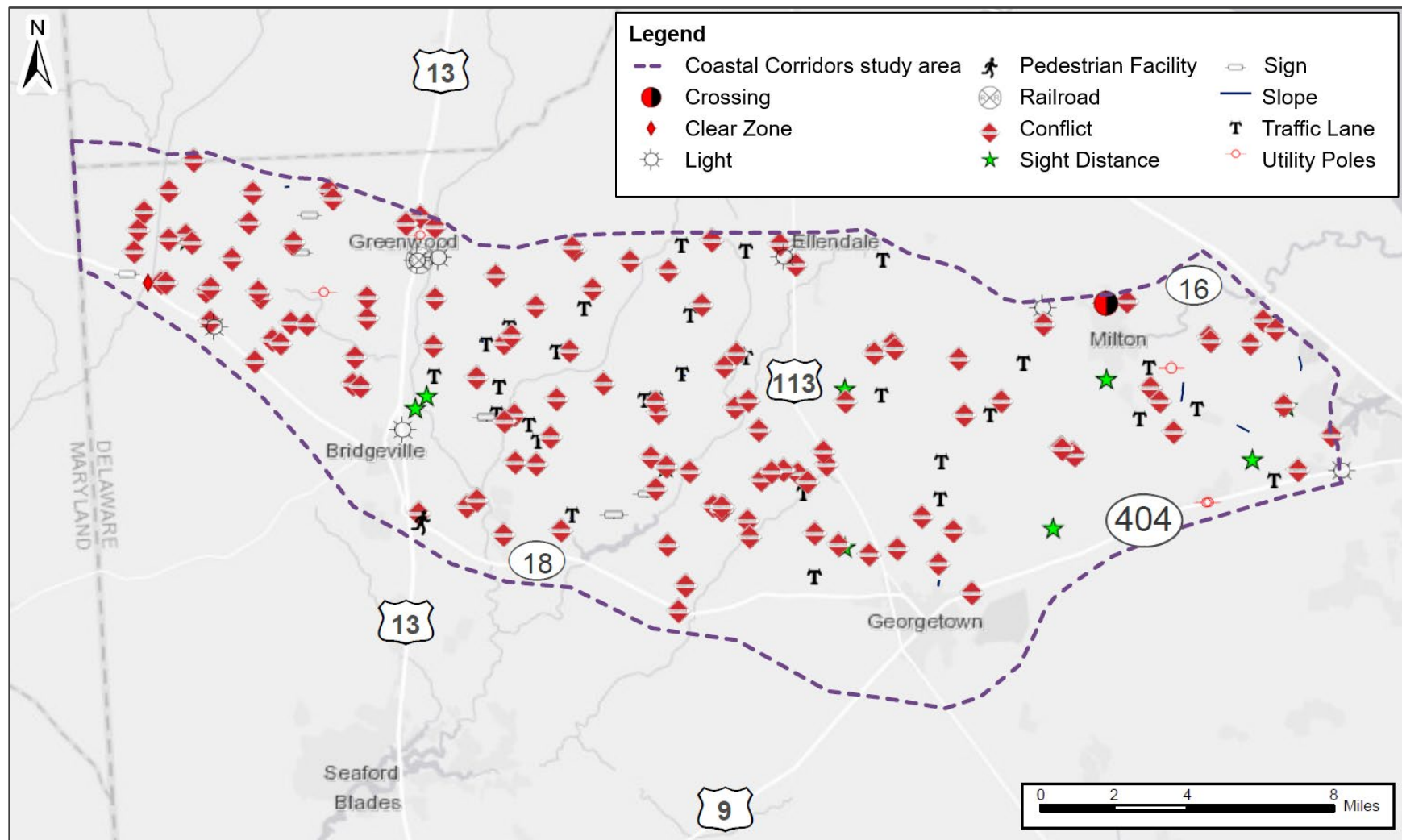


Figure 14. Deficiencies observed during Roadway Sufficiency Assessment field data collection

4.5 DELDOT CAPITAL TRANSPORTATION PROGRAM PROJECTS

Every two years, DelDOT develops a six-year [Capital Transportation Program \(CTP\)](#) that identifies anticipated capital investments. This program development process is illustrated Figure 15. Capital Transportation Program (CTP) Biennial Development Process, and includes project ideas from the Wilmington Area Planning Council (WILMAPCO), Dover/Kent County Metropolitan Planning Organization, Salisbury-Wicomico Metropolitan Planning Organization, and Sussex County. The program provides information on various DelDOT capital and maintenance programs and the estimated costs of project phases to occur during each year included in the CTP.

A list of the CTP projects reviewed for this study and considered in the preparation of recommendations are included in Appendix I. Each project title links to the DelDOT project page, which includes up-to-date documentation and graphics. CTP projects were **not** included in DelDOT's travel demand model forecasting, which is discussed in Section 4.6.4. However, the project summaries in Appendix I address the expected impact on east-west vehicular movement.

A key part of the implementation of this plan will be continuing to track the impact of land development projects and DelDOT capital projects.

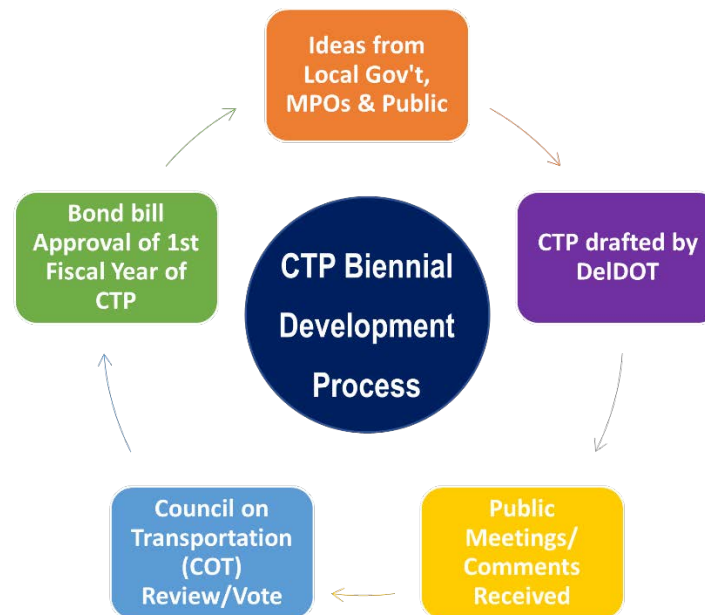


Figure 15. Capital Transportation Program (CTP) Biennial Development Process

4.6 TRAFFIC ANALYSIS

Data collection efforts began in 2019. Data was collected for the area outlined in red in Figure 16. Data collection was originally scheduled to continue in 2020; however, the COVID-19 pandemic caused major disruptions to travel behavior. Traffic patterns began to return to pre-pandemic levels in 2021, at which point the project team resumed data collection.

Initial traffic analysis focused on identifying which east-west roads in Sussex County would be most susceptible to problems caused by significant growth in traffic volumes from the Bay Bridge and widened MD 404. This analysis considered origination/destination data, weekly and monthly volume trends, and current roadway volumes. It was determined that, while most Bay Bridge traffic stays on US 50 in Maryland, most traffic that continues into Delaware uses MD/SR 404. Delaware-bound traffic that does not use MD/SR 404 largely uses MD 16 or SR 36 to access DE SR 16. For these reasons, the project team agreed to focus the study on SR 404 / US 9 and SR 16 from the Maryland line to SR 1, and the area between.

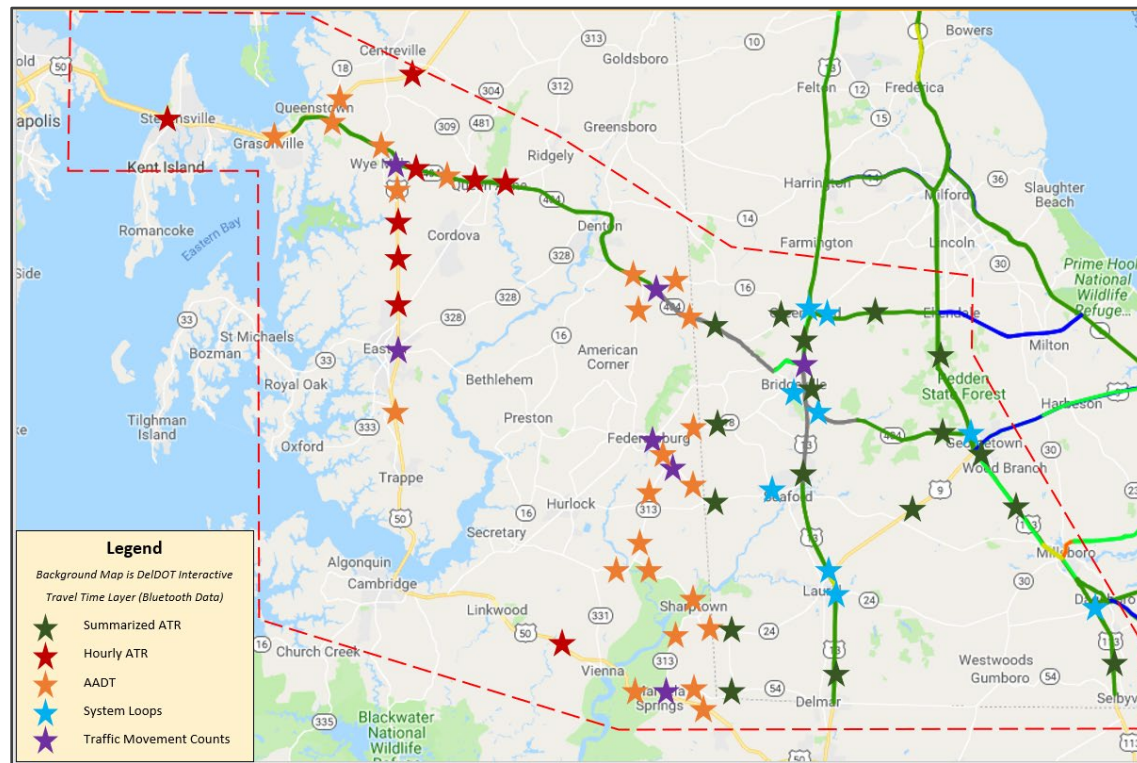


Figure 16. 2019 data collection points by data type

Further data collection, analysis, and growth projections were then conducted within the selected study area.

It was determined that, despite similar projected volumes east and west of US 113, there are some key differences between the two areas. East of US 113, there are higher-volume side streets connecting to SR 16 and US 9 that require intersection signalization for safe operation, while west of US 113, there are fewer side streets that warrant signalization. Since signalization lowers the carrying capacity of major roadways, east of US 113 is more at risk of congestion. Therefore, the area east of US 113 became the focus for further analysis and recommendations.

4.6.1 Methodology

Data Sources

During the study, DelDOT analyzed data from the following sources to better understand the traffic patterns across the study area:

- **Integrated Transportation Management System (ITMS):** ITMS includes data from Bluetooth Readers, Wavetronix Radar Detectors, Traffic Signal System Detectors, and Automatic Traffic Recorders (ATRs) which collectively can show information on traffic volume, flow, speed, and travel times.
- **Turning movement counts:** These counts supplement the ITMS data and are used to better understand turning movements and volumes at intersections.
- **StreetLight:** StreetLight is a subscription-based web application. The data it uses are derived from 40 billion anonymized location records from smartphones and navigation devices in connected cars and trucks. Data is processed through an algorithm and can be used to analyze travel patterns through a specific geographic area during specific times.
- **INRIX Signal Analytics (INRIX):** INRIX Signal Analytics (INRIX) is a subscription-based web application. The data it uses are derived from connected cars. It allows traffic professionals to identify and understand unnecessary delays at signalized intersections within a given geographic area.
- **Maryland State Highway Administration (SHA)**
 - Hourly Automatic Traffic Recorder (ATR)
 - Average Annual Daily Traffic (AADT)
 - Traffic Movement Counts

A full explanation of the data sources and summary of traffic counts conducted for this Study is included in Appendix E.

Level of Service

One key measure that was used during the traffic analysis was motor vehicle Level of Service (LOS). AASHTO Green Book Section 2.4.5 Level of Service (LOS) characterizes the operating conditions on a roadway in terms of traffic performance measures such as delay, speed, and density. It establishes a grading system where letter grades from A through F are assigned to different types of highway facilities based on their traffic performance. These letter grades are based on the highest congestion level on that roadway, even if that congestion level occurs for only a few minutes each day. For this study area, the highest congestion levels often occur in the summer, when seasonal beach traffic is added to local traffic. For that reason, data collected for this study focused on summer traffic counts.

The Transportation Research Board's (TRB) Highway Capacity Manual (HCM) presents a thorough discussion of the concept of LOS, specific methods to estimate traffic performance measures, and charts that establish LOS based on those traffic performance measures.

- Level of Service is closely related to the concept of capacity. Capacity is the maximum traffic flow that can be accommodated on a highway facility during a given period under prevailing roadway, traffic, and control conditions.
- Generally, the dividing line between LOS E and F coincides with a volume-to capacity (v/c) ratio of 1.0. In other words, when the v/c ratio is less than 1.0, the LOS is E or better, and when the v/c ratio is greater than 1.0, the LOS is F.
- While the HCM provides methods to determine LOS for motor vehicles, bicyclists, and pedestrians, the LOS (and/or other traffic performance measures) related to motor vehicle traffic is nearly always the controlling factor related to a project design for transportation projects in Delaware.
- DeIDOT projects should generally strive to attain a LOS E or better based on design year traffic projections and analyses during the design hours. This may vary based on the context of the project such as whether the project is included in a Transportation Improvement District (TID) that has a previously defined service level.
- The design hours are often peak traffic hours related to morning and afternoon commuting periods, but could also include weekend shopping peaks, summer recreational peaks, school peaks, or others depending on the context of the project.
- Beyond the estimating methods presented in the HCM, there are other methods which may be used for determining LOS, such as traffic simulation models.

Limitations of LOS:

Transportation for America highlights the limitations of motor vehicle LOS as a planning tool. Motor vehicle LOS does not measure trips taken via other modes, including by transit, walking, or biking. It also does not measure the duration of the congestion. It does not consider that there may be economic benefits to busy, congested streets, and economic costs to building wide roads that only serve the community during peak traffic times. Widening a road to improve motor vehicle LOS can increase air pollution, cause loss of habitat and tress, and result in housing displacement. Following a widening, induced travel demand can wipe out the benefit of the widening over time. These are all factors that need to be balanced when planning appropriate roadway improvements.

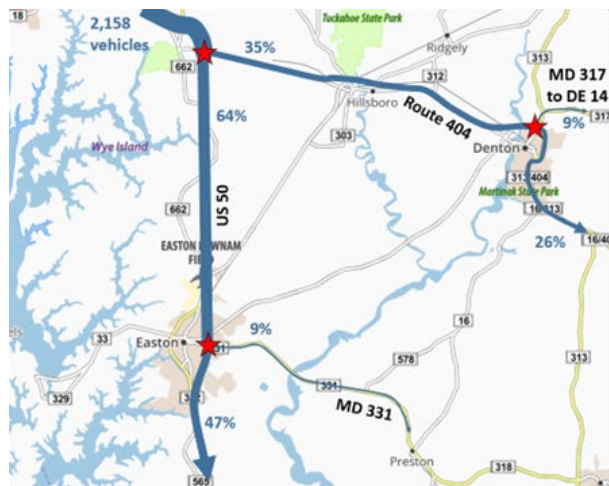
In addition to the specific traffic performance measures that are directly related to LOS, **there are other important traffic performance measures that can be measured and/or estimated such as travel time delay, queuing, and pedestrian/bicyclist level of traffic stress.**

4.6.2 Preliminary Findings (2019)

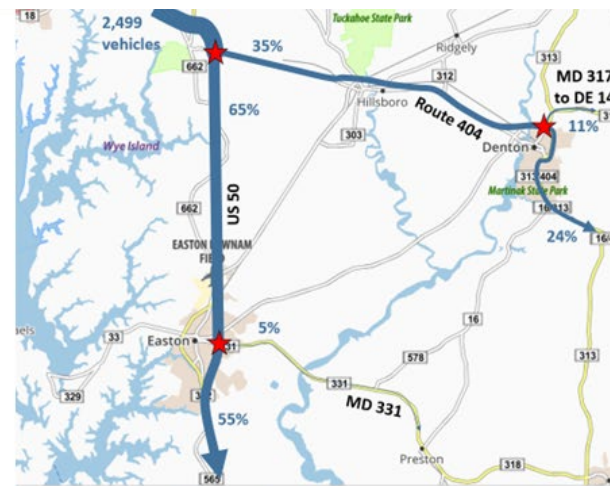
During preliminary data collection in 2019, data collection tools were added around the Maryland/Delaware state line. Preliminary data collection included annual/seasonal volumes derived from DelDOT permanent count stations, MD/DE turning movement counts, limited Bluetooth origin/destination data, and weeklong traffic recorder data. Preliminary data collection allowed the project team to make the following findings:

- Roads entering Delaware that had a combination of high year-round daily traffic **and** increased traffic during the summer season included:
 - SR 404
 - SR 16
 - SR 36
- Other Sussex County roads west of US 13 do not see significant traffic or summer/weekend volume spikes.
- Approximately two-thirds of eastbound Bay Bridge traffic stays on US 50 and therefore does not enter Delaware, as shown in Figure 17. Most of the remaining traffic turns onto MD 404. Once on MD 404, vehicles rarely divert to other roads.
- Maryland's small towns east of the Bay Bridge do not generate significant Delaware traffic.
- A large proportion of eastbound SR 404 traffic turns right onto southbound US 13, and a significant number of northbound US 13 traffic turns left onto westbound SR 404, as shown in Figure 18.

A detailed summary of the preliminary data collection activities and conclusions is provided in Appendix F.



Weekday Turning Movement Counts

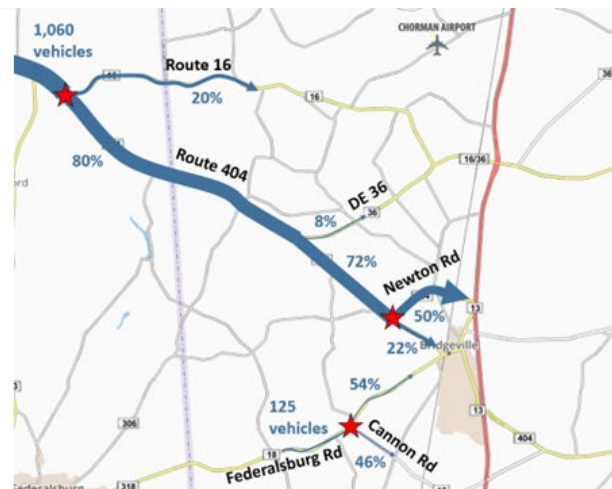


Saturday Turning Movement Counts

Figure 17. Weekday and Saturday turning movement count data for eastbound Bay Bridge traffic



Weekday Turning Movement Counts



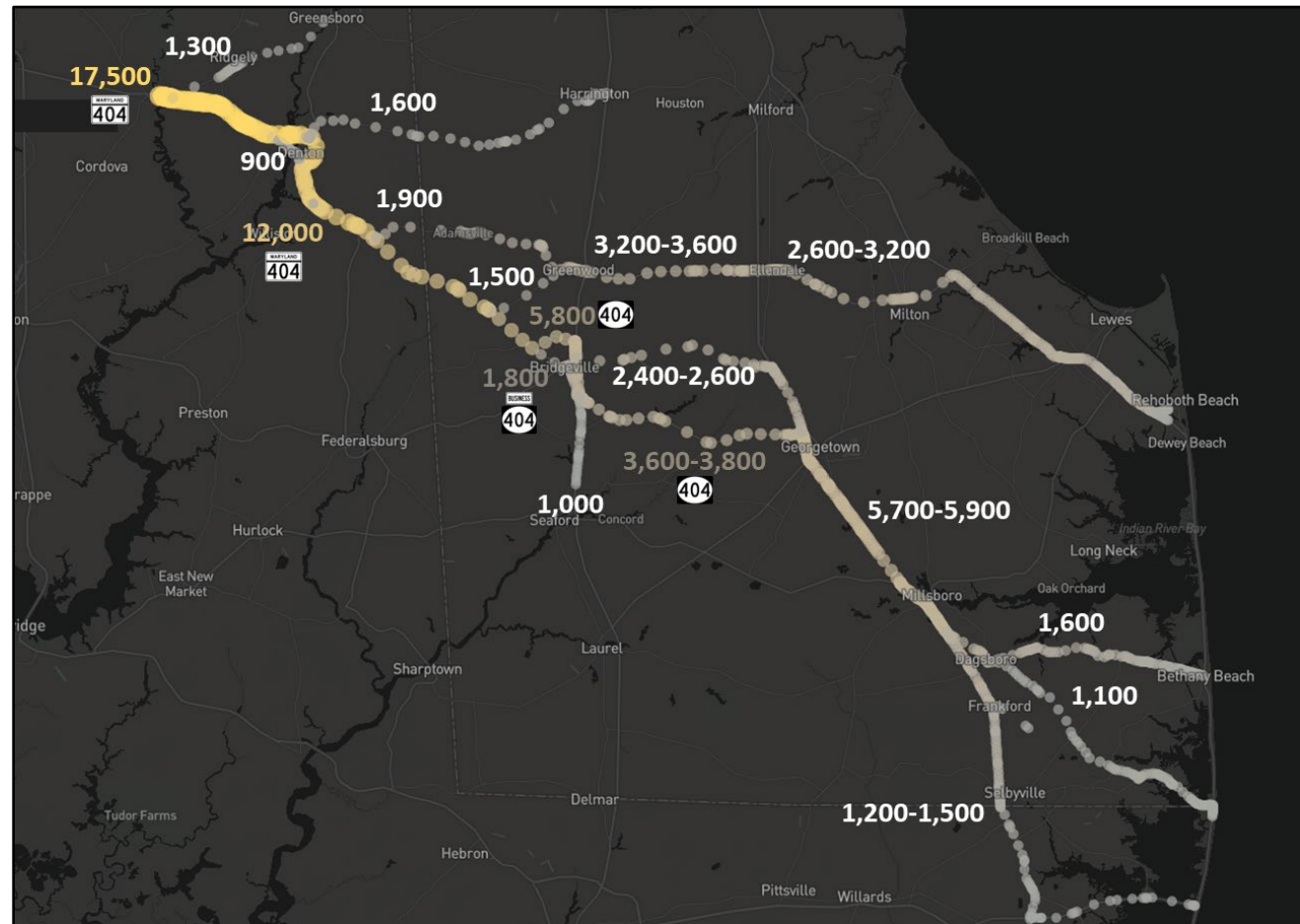
Saturday Turning Movement Counts

Figure 18. Weekday and Saturday turning movement count data for eastbound 404 traffic

4.6.3 Subsequent Findings (2021-2022)

StreetLight Analysis Findings

StreetLight data was used to verify 2019 findings and expand the project team's understanding of traffic patterns between the Delaware beaches and the Eastern Shore / Bay Bridge. The project team used StreetLight to evaluate how traffic originating on eastbound MD 404 on a summer Saturday in 2021 was distributed as it moved eastward. As shown in Figure 19, traffic volumes split along multiple paths near the Delaware line. This suggests that increased traffic resulting from the potential Bay Bridge expansion would also split off and disperse among multiple paths, rather than all continuing to Delaware beaches. For beach-bound traffic originating on eastbound MD 404, the analysis also showed that SR 16 and SR 36 are the primary routes used to reach the beaches north of Rehoboth Bay, while SR 404, Redden Road, and US 113 are the primary routes used to reach the beaches south of Rehoboth Bay.



2021-2022 Traffic Counts

Additional traffic counts were conducted in 2021 to verify the 2019 Automated Traffic Recorder (ATR) data and assess seasonal traffic changes. Additional data was collected during the spring and summer of 2022 to verify traffic volumes and projections. Count locations are shown in Figure 20.

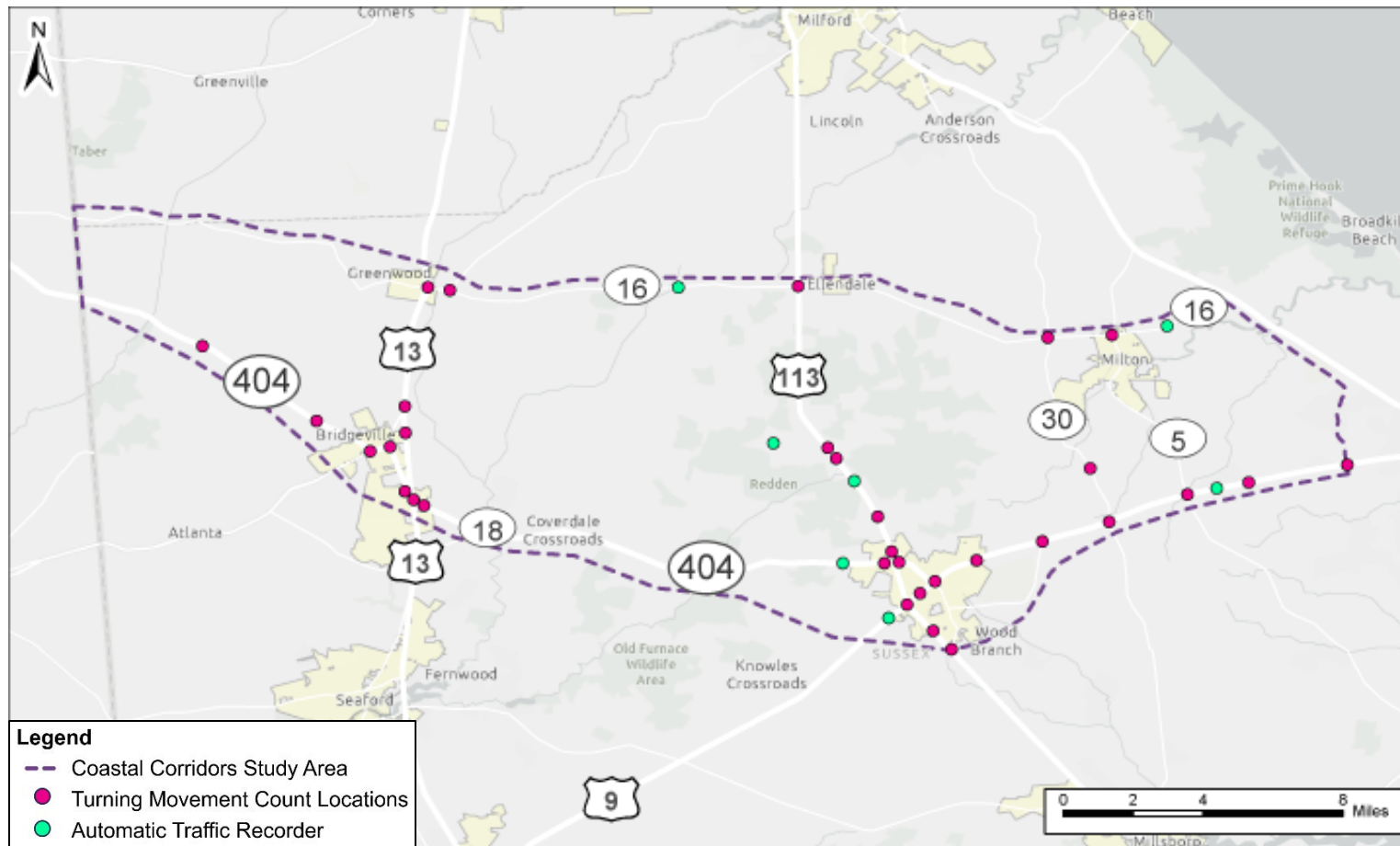


Figure 20. 2021–2022 traffic count locations

4.6.4 Anticipated Growth

Estimating future roadway volumes is a necessary step to plan for a community's transportation needs. Using DelDOT's Peninsula Travel Demand Model and the standard project planning practice of a 30-year time horizon (2050 target year), the planning team arrived at an annual *traffic* growth rate of 0.6%, which was used to determine traffic projections. (Additional information on the Peninsula Travel Demand Model and forecasting is in Section 2.4).

According to the U.S. Census, Sussex County's grew at an annual *population* growth rate of 1.87% as detailed in Section 4.1. Given the difference between the historic population growth rate and the 0.6% traffic growth rate derived from the Peninsula Travel Demand Model, the project team conducted additional analysis along US 9 using other traffic data sources and collected new ATR data to provide additional context on actual realized traffic growth in the last 5–10 years. Based on that review and the range of potential growth rates explained on page 43, the project team decided to use the **0.6% annual growth rate** derived from the Peninsula Travel Demand Model, per the standard for these types of planning applications.

Figure 21 shows the 2019 Average Annual Daily Traffic (AADT) data and 2050 projected AADT for major roads in the broader Coastal Corridors study area. Based on the projections, increased volumes are anticipated on SR 404 west of Bridgeville, Redden Road, SR 404 between US 113 and US 9 in Georgetown, SR 16 between US 113 and SR 30, and SR 30.

Understanding AADT

AADT provides a sense for approximately how many motor vehicles travel a corridor on any given day. Since the planning area is located close to the Delaware Beaches, volumes are generally higher during the summer peak season and lower in the off-season.

There is a rough relationship between AADT and number of lanes, although carrying capacity also depends on the frequency of high-volume side-street intersections. More intersections result in more delay.

Very generalized thresholds for the number of lanes required for a given AADT are as follows:

- Under 12,000 vehicles per day – 1 lane in each direction, mostly unsignalized
- 12,000 – 20,000 vehicles per day – 1 lane in each direction with turn lanes
- Over 20,000 vehicles per day – 2 lanes in each direction may be necessary

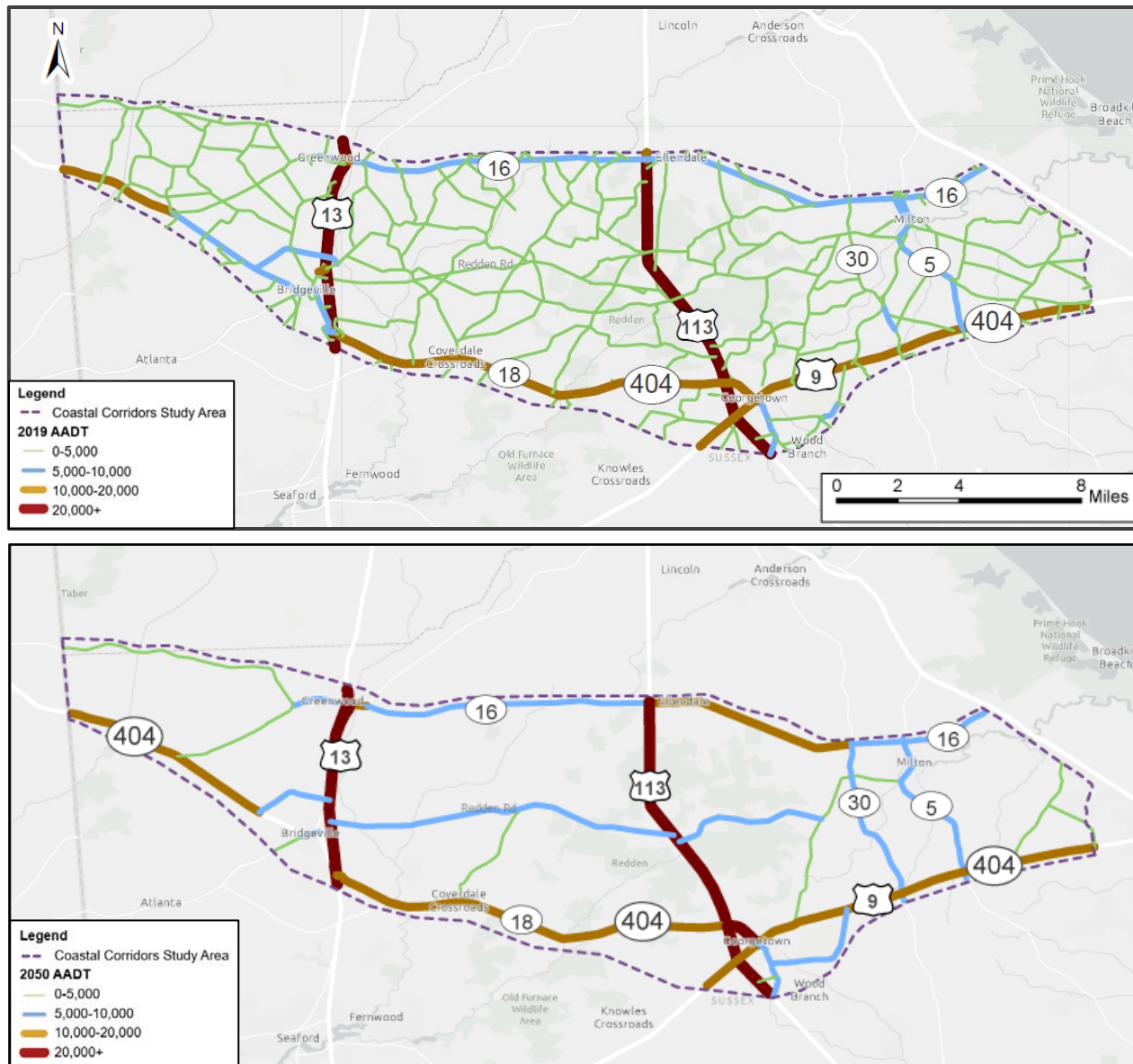


Figure 21. 2019 (top) and 2050 projected (bottom) Average Annual Daily Traffic (AADT)

Using the Critical Movement Summation (CMS) method, the project team calculated the intersection Level of Service (LOS) for all intersections in the broader Coastal Corridors study area using 2021 data and 2050 projected traffic volumes. (This calculation reflects the current transportation network without programmed transportation improvements). As shown in Figure 22, all intersections were determined to have LOS A, B, or C based on 2021 data. Based on the 2050 projected traffic volumes, the following intersections were projected to have LOS D, E, or F during worst-case peak hour scenarios (Summer AM/PM peak or Summer Saturday peak):

- Intersections with LOS D in 2050:
 - US 13 and Redden Road / Rd 40*
 - US 113 and SR 18 / SR 404*
 - US 113 and Bedford Street / Rd 431
 - SR 16 and SR 30
- Intersection with LOS E in 2050
 - US 9 and SR 5*
- Intersection with LOS F in 2050:
 - US 113 and US 9*

The project team determined estimated intersection LOS for the study area by calculating critical lane volumes. The CMS method is regularly used by DelDOT to approximate LOS.

As the analysis moved to the planning area east of US 113, the project team used the Highway Capacity Manual method to refine the results. Those results show more congested intersections, and are included in Section 5.4, US 9 Analysis Findings.

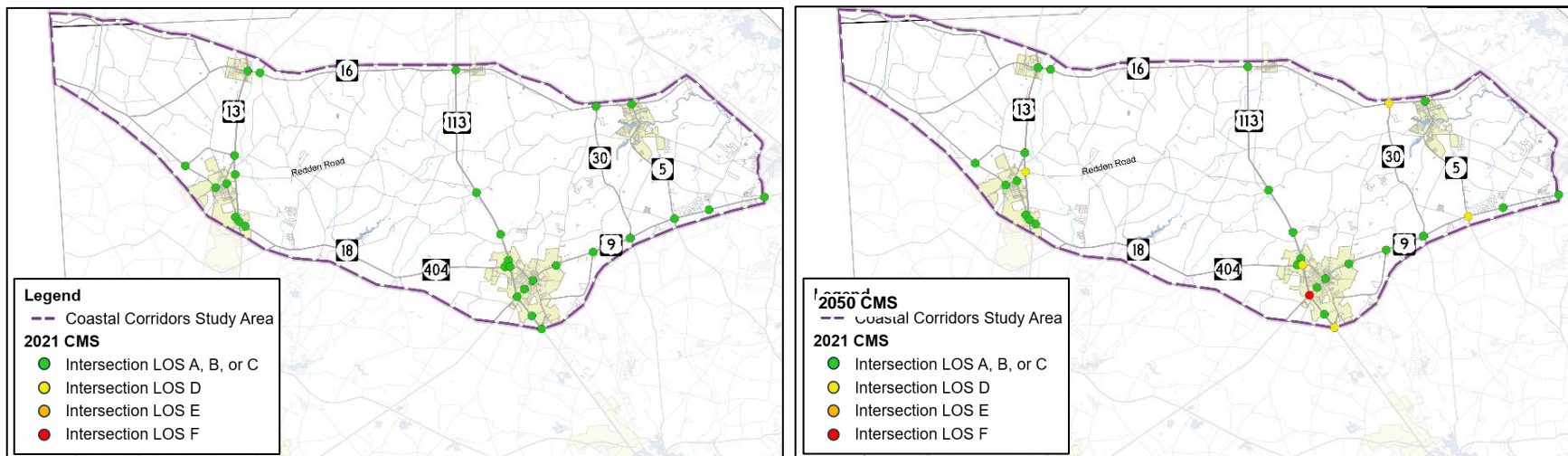


Figure 22. 2021 (left) and 2050 projected (right) Level of Service (Critical Movement Summation method) for the Coastal Corridors study area

Confirmation of Traffic Growth Rate for Forecasting

As described on page 40, the project team conducted additional analysis to confirm the appropriateness of the 0.6% growth rate derived from the Peninsula Travel Demand Model.

DeIDOT operates an ATR on US 9 east of SR 5 to support its annually published *Vehicle Volume Summary*. In 2022, DeIDOT also had access to a StreetLight data subscription. The effects of the COVID-19 pandemic were evidenced in the traffic data, and there was some uncertainty over when traffic levels would be considered “normal” again. Additional traffic growth rate projections were developed based on ATR and StreetLight data. The results of this analysis are summarized below:

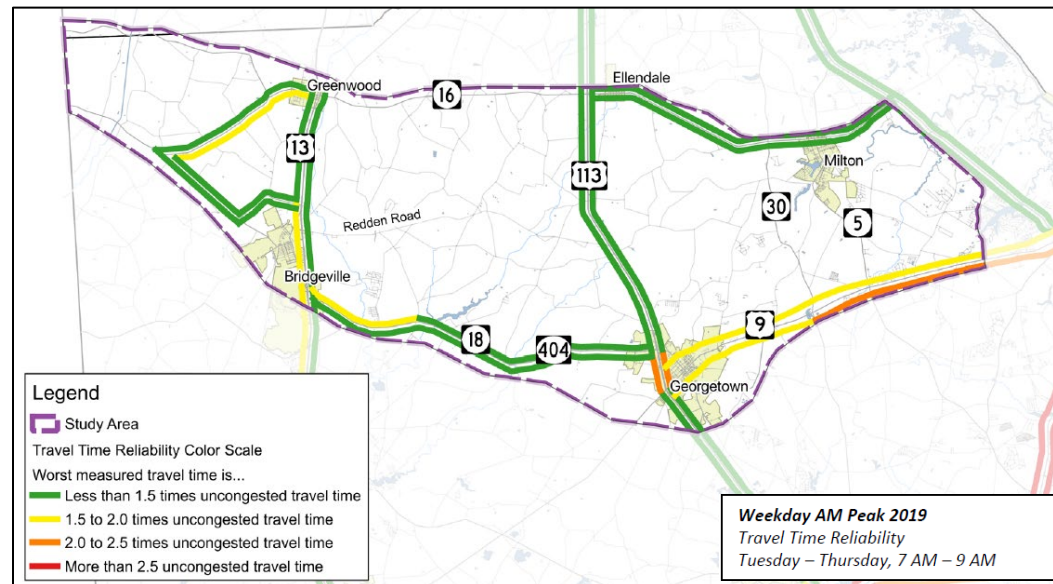
- Annual Average Daily Traffic (AADT) reported by the DeIDOT ATR east of SR 5 went from 14,700 in 2017 to 15,700 in 2022 – **1.3% annual growth rate**
 - Traffic volumes dipped slightly in 2018 and 2019, before the pandemic-related drop in 2020.
 - Traffic volumes have since recovered but findings illustrate that growth can be inconsistent, which can offset some large year-to-year increases.
- StreetLight AADT estimates aligned closely with the ATR volumes, but 5-year growth rates based on StreetLight’s AADT of 15,000 in 2016 and 15,200 in 2021 was **0.3% annually**
- Seasonal data was also reviewed – weeklong ATRs were deployed over Memorial Day week in 2022 (ADT 16,100) and for a week in July 2022 (ADT 16,600)
 - This indicates that peak season volumes along US 9 are only about 6–11% higher than “off-season” volumes. This finding was consistent with 2021 and 2016 ATR data.
 - This information is applicable to growth rates and capacity analyses because it suggests that there is not a significant summer rush that is being missed in the analyses and/or is driving significant AADT increases.
- Finally, two other segments of US 9 west of SR 5 had more limited data collected via *Vehicle Volume Summary* and StreetLight AADTs
 - Both segments last had “real” ATR traffic data collected in 2014 – projections for following years are based on data collected on similar segments and state/area trends applicable to the segments; however, the projections since 2014 indicate a volume decrease on one segment (**-0.7% growth**) and very small increase on the other (**0.3% annual growth**)
 - StreetLight data on those same segments also indicate volume decreases between 2016 and 2021

Given this review of historic traffic growth, it was determined that the **0.6% annual growth rate** derived from the Peninsula model was appropriate. As future analysis is conducted, a range of low-, moderate-, and high- growth scenarios will be used to consider the range of plausible development futures.

4.6.5 Travel Time Reliability

Although volumes east and west of US 113 are similar, there are higher-volume side streets connecting to SR 16 and US 9 east of US 113 that require intersection signalization for safe operation. Since signalization lowers the carrying capacity of major roadways, roadways east of US 113 are more at risk of congestion. This difference is reflected in travel time reliability (TTR), which is another method used to understand the performance of a roadway.

Using data from the 2019 traffic counts, the worst measured travel time was compared to uncongested or free-flow travel time. Travel time reliability at different periods in 2019 is shown in Figure 23. US 9 between US 113 and SR 1 regularly experiences congestion in both directions during weekday morning peak hours, weekday evening peak hours, and summer weekend peak.



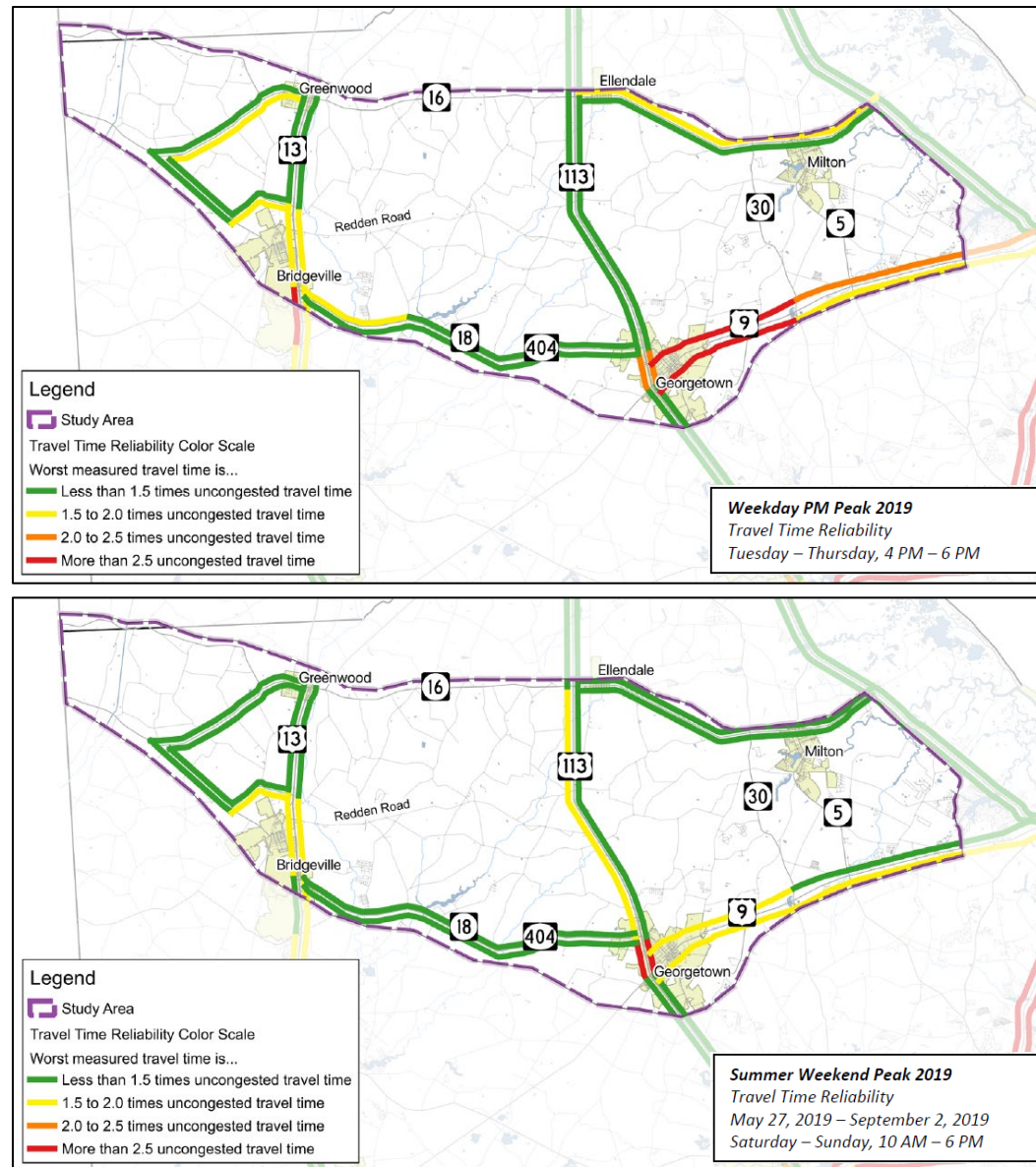


Figure 23. Travel Time Reliability maps for 2019 Weekday AM Peak, 2019 Weekday PM Peak, and Summer Weekend Peak

5 Findings and Recommendations

5.1 OVERVIEW

Recommendations were developed based on the results of the traffic analysis, Roadway Sufficiency Assessment, development trends, and feedback from the Coastal Corridors Committee and members of the public. Recommendations range from site specific project ideas intended to improve mobility and safety, to policy recommendations intended to further improve coordinated investment in public infrastructure and private development in the planning area. These recommendations are intended to foster continued monitoring and coordination that will support safe, multimodal mobility as land development continues and travel demand increases. The following sections organize this report's recommendations into three categories:

- Recommendations along or near SR 16 between US 113 and SR 1
- Recommendations along or near US 9 between US 113 and SR 1
- Policy recommendations that address issues that are not location-specific

Recommendations for SR 16 begin with "16" followed by an ID number. The recommendations are presented in order from west to east, starting at 16-1 and going up to 16-15. Similarly, recommendations for US 9 begin with "9" followed by an ID number and are ordered from west to east. Policy recommendations begin with "G" for general. Each recommendation section includes the recommendation, type of recommendation, purpose of the recommendation, and status of the recommendation where appropriate. Appendix J includes the recommendations in a matrix format, which will be used by DeIDOT to track recommendation implementation status. Each recommendation is also assigned a number from 1 to 5. The numbers represent five implementation types. These categories help to generally express how the strategy is likely to move forward. The categories are:

1. **Conduct under existing operations** – the recommendation can be undertaken within the current work of the lead agency or agencies. These are likely to progress in the near term.
2. **Needs second phase of study** – the recommendation requires additional evaluation before it can be included in the CTP and should progress with a subsequent phase of study.
3. **Needs CTP line item** – the recommendation is expected to require more significant resources and, therefore, needs to be funded through the Capital Transportation Program.
4. **Monitor (longer-term, year-to-year)** – evaluation under this study concluded that the concern does not require urgent action and is one that can be addressed over a longer time-period. For example, ongoing monitoring programs such as the Hazard Elimination Program, Corridor Capacity Preservation Program, or Transportation Operations Management Plan can be part of identifying when a concern rises to a threshold level.
5. **Responsibility of County or municipality, not DeIDOT**

Priority Initiatives

Although all the recommendations presented in this report are important, there are three main initiatives that require further study and coordination:

- 1. Re-envisioning SR 16 in Milton (Recommendation 16-9 through 16-12)**

The Town of Milton has an interest in re-envisioning SR 16 through Milton as a mixed-use main street that serves all modes of traffic and supports local businesses. Although widening of SR 16 through Milton is not necessary for accommodating the current and projected volumes of motor vehicle traffic, providing additional pedestrian/bicycle crossings to support multi-modal connectivity in this area may have an adverse impact on through traffic. A corridor study is necessary to determine a long-term vision for SR 16 in Milton and assess whether an alternate route is necessary for through traffic.

- 2. Accommodating traffic growth on US 9 (Recommendations 9-5 through 9-6, Recommendations G-5 through G-8)**

US 9 and SR 5 is the most congested signalized intersection in the planning area and is forecasted to be at or near capacity by 2050 without improvements. The US 9 corridor east of SR 5 has high traffic throughout the year, and 2050 traffic projections are at the threshold where dualization should be considered. There are significant constraints at the SR 5 intersection, so any study exploring widening US 9 should first understand the feasibility of widening at this intersection. There are also significant development pressures along this corridor, and land development regulations should be addressed to ensure sufficient public right of way is set aside to accommodate future infrastructure needs.

- 3. Exploring policies to achieve better transportation network interconnectivity (Recommendations G-1 through G-4)**

There are significant safety, operational, and economic benefits to better multimodal interconnectivity between land development. Better interconnectivity allows for better distribution of traffic throughout the network, resulting in fewer capacity issues. Interconnected roads also serve the mobility needs of neighborhood residents and emergency responders. Although interconnectivity is currently encouraged by applicable development regulations, it is not required. This report identifies multiple steps that can help ensure that future development provides better interconnectivity to improve safety and manage volumes on roadways in the planning area.

5.2 SR 16 ANALYSIS FINDINGS

For SR 16, baseline estimates of Annual Average Daily Traffic (AADT) were extracted from the [DelDOT Volume Summary](#). The estimates were refined based on StreetLight data and ATR counts performed for this study, as shown in Table 2. The refined estimates are slightly higher in Ellendale and east Milton compared to the baseline estimates. In the summer, traffic volumes increase by a factor of +25–30%, and by 2050, summer traffic may reach 15,000 vehicles per day. As discussed in Section 4.6.4, the intersection of SR 16 and SR 30 is anticipated to function at LOS D by 2050, assuming no improvements are made. However, a Grade Separated Intersection (GSI) is already programmed in DelDOT's Capital Transportation Program (CTP) for this location. The GSI will accommodate projected increases in traffic volumes and maintain an acceptable LOS.

Table 2. 2021 Annual Average Daily Traffic (AADT) along SR 16

Source	Ellendale	West Milton	East Milton
Baseline estimates from DelDOT Volume Summary	6,400-7,400	8,200	5,300
Improved estimates based on additional data from StreetLight and ATR counts	8,000-8,300	7,200-8,000	7,000-7,500

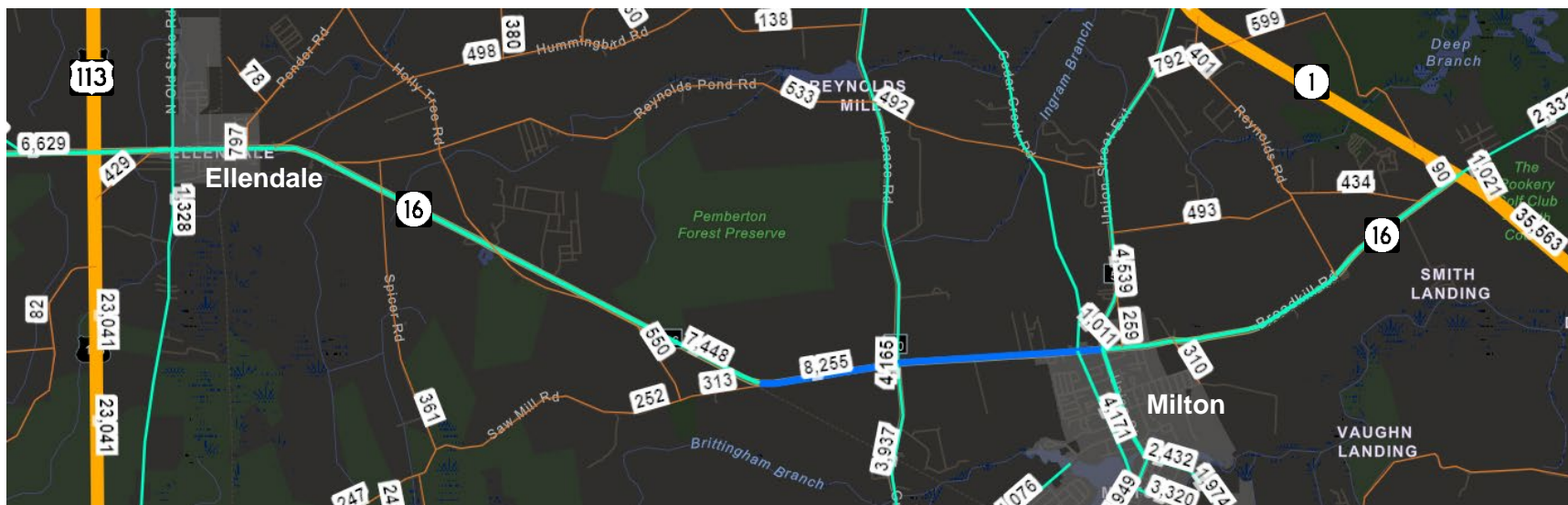


Figure 24. Map showing the extents of SR 16 included in the final analysis and AADT from the Vehicle Volume Summary (source: DelDOT Vehicle Volume Summary)

When reviewing eastbound traffic patterns along SR 16 from west of US 113, the project team observed that:

- Approximately 60% of through traffic continues to SR 1
- There is no notable drop in tracked volumes (i.e., destinations/stops) in Ellendale
- Some volume heads south on SR 30, SR 5 (via SR 30), and Mulberry St/Cave Neck Rd to points around US 9 and Long Neck area

When reviewing eastbound traffic patterns along SR 16 from east of Ellendale, the project team observed that:

- Approximately 60% of through traffic continues to SR 1
- First significant traffic split is at SR 30, with approximately 17% of traffic on SR 16 turning
- SR 30 to Sand Hill Road to SR 5 is the most common route to Long Neck and US 9 destinations
- Relatively small portion of traffic stopping in Milton (downtown or points along SR 16)

When reviewing westbound traffic patterns along SR 16, the project team observed that travel patterns are similar to eastbound patterns

When reviewing traffic patterns along SR 30 from south of SR 16, the project team observed that:

- SR 30 to Sand Hill Road to SR 5 is the most common path to points south – not as a bypass to SR 1. SR 30 typically is a balanced north/south “distributor” of traffic in the local area that becomes inundated with more regional traffic during peak times (i.e., summer Saturdays).
- Primary way traffic moves north/south through the planning area between US 113 and SR 1
- Logical alternate route to avoid regular congestion on US 113 in Georgetown and on SR 1 in Lewes
- Saturday volumes and patterns show much more of this through/bypass traffic

In summary, SR 16 can be considered a northern “beach route” with typical associated characteristics and patterns:

- Predominantly through traffic
- Higher weekend volumes
- High summer seasonal traffic increase
- Relatively low origins/destinations in Ellendale and Milton
- High-volume side-street intersections may need improvements such as turn lanes for safety or operational purposes

Projected summer 2050 volumes of 15,000 vehicles per day alone does not justify further study of roadway widening.

5.3 SR 16 RECOMMENDATIONS

16-1

<i>Recommendation:</i>	Ensure a low-stress pedestrian and bicycle connection is provided between downtown Ellendale and the Enclave at Starwood as part of the US 113/SR 16 Grade Separated Interchange (GSI) Project.
<i>Type</i>	1 – conduct under existing operations
<i>Responsible Party:</i>	DeIDOT Planning – Active Transportation and Community Connections
<i>Purpose:</i>	During the Corridors Committee process, representatives from Ellendale indicated that the Town intends to annex the parcel proposed for development at the northwest corner of the US 113/SR 16 intersection. A low-stress pedestrian and bicycle connection will ensure that town residents will be able to safely access Main Street in Ellendale via walking or biking.
<i>Status:</i>	Design is scheduled for FY 26- FY 27. The construction year is TBD. Implementation cost and impacts are for the pathway portion of the GSI project, not the entire GSI project. Including bike and pedestrian connectivity is now standard for GSI designs and will be incorporated in the project.

16-2

<i>Recommendation:</i>	Assess current and projected use of N. Old State Road and Fleatown Road as secondary access to 113 from new developments on North Old State Road. Determine whether any safety, capacity, or geometric improvements are warranted.
<i>Type</i>	4 – monitor (longer-term, year-to-year)
<i>Responsible Party:</i>	DeIDOT Planning – Statewide and Regional Planning
<i>Purpose:</i>	Fleatown Road provides an alternate connection between US 113 and Ellendale via N. Old State Road. It is currently a two-lane road with no shoulders. As area development increases, traffic volumes on Fleatown Road may increase resulting in capacity and safety concerns.
<i>Status:</i>	Monitor volumes and crash patterns along this corridor.

16-3

<i>Recommendation:</i>	Improve bicycle and pedestrian facilities along and across SR 16 in Ellendale. Explore the feasibility of eliminating on-street parking to provide bike lanes. Identify sidewalk gaps, and explore the provision of ADA-compliant sidewalks and crossing(s) of SR 16. Identify funding and implementation mechanism.
<i>Type</i>	1 – conduct under existing operations
<i>Responsible Party:</i>	DeIDOT Planning – Active Transportation and Community Connections & Municipality
<i>Purpose:</i>	Currently, on-street parking is allowed in the shoulder of SR 16 through Ellendale, however the parking is underutilized. Prohibiting on-street parking would allow for the striping of continuous traditional or buffered bike lanes through town. Additionally, there some gaps in the sidewalk network and no marked crosswalks over SR 16. ADA-compliant sidewalk and crossing improvements along with bike lanes would allow town residents to safely access destinations within town without the use of a motor vehicle.
<i>Status:</i>	The Town of Ellendale will need to restrict on-street parking on SR 16, after which they can coordinate improvements with DeIDOT Planning. During the June 2023 public workshop, two members of the public noted that some properties along this portion of SR 16 do not have access to off-street parking.

16-4

<i>Recommendation:</i>	Require incoming development to provide bicycle and pedestrian connections to SR 16 proportionate to the scale and type of development and upgrade existing sidewalks to current ADA standards (5-foot width) where applicable.
<i>Type</i>	5 – responsibility of County or municipality
<i>Responsible Party:</i>	Municipality
<i>Purpose:</i>	Multiple development proposals are recorded in and adjacent to Ellendale. Requiring developers to provide pedestrian and bicycle facilities provides people with a safe alternative to driving in order to access destinations within the Town.
<i>Status:</i>	Municipalities can request sidewalk as part of the development review process. Provision of a five-foot sidewalk is consistent with current standards.

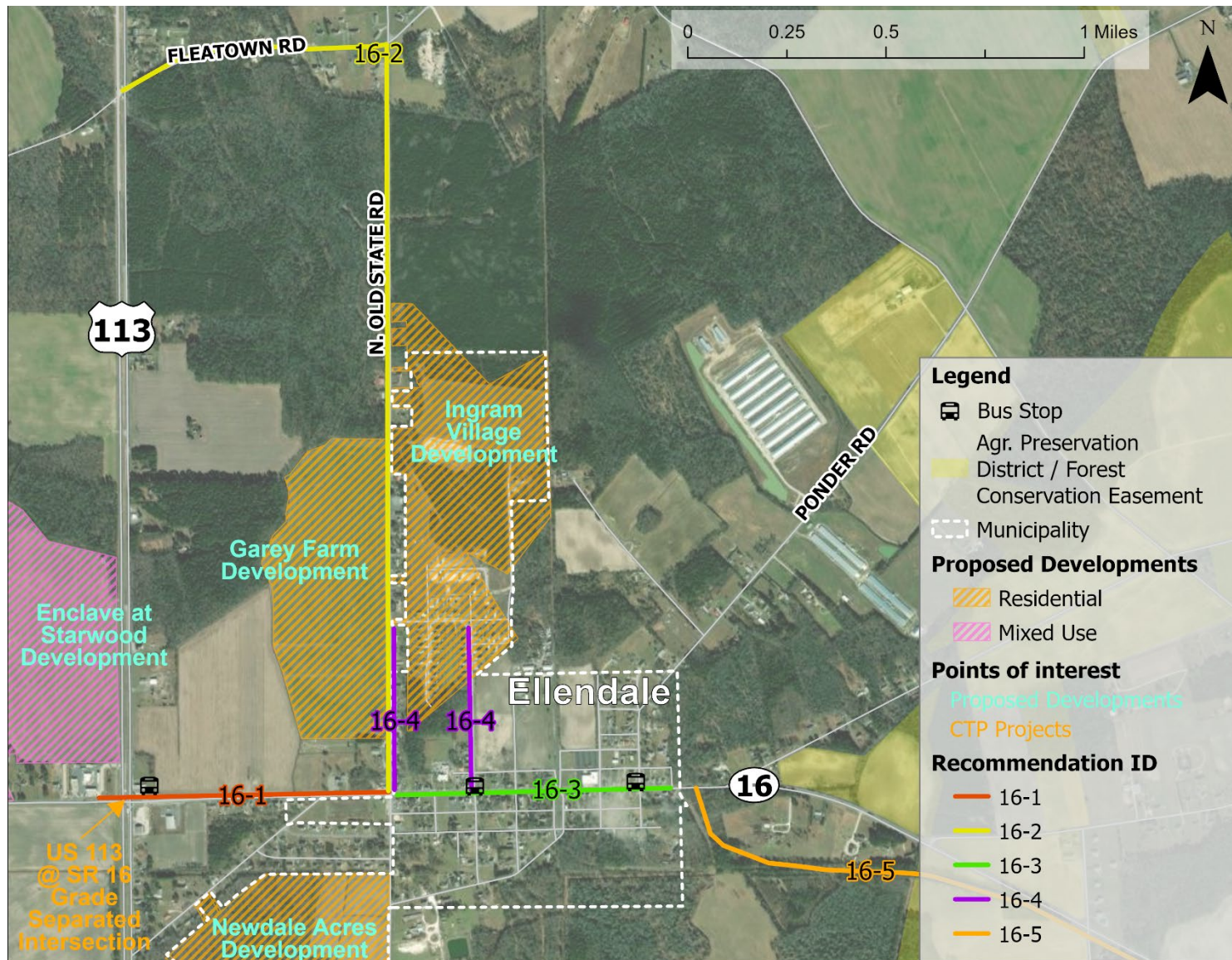


Figure 25. Recommendations in the Ellendale area (recommendations 16-1 to 16-4)

16-5

<i>Recommendation:</i>	Conduct a high-level feasibility assessment of a low-stress bike connection between Ellendale and Milton. This assessment should include looking at the potential for Rail-with-Trail improvements.
<i>Type</i>	2 – needs second phase of study
<i>Responsible Party:</i>	DeIDOT Planning – Active Transportation and Community Connections
<i>Purpose:</i>	The success of the Georgetown-Lewes Trail has demonstrated the demand for safe, low-stress trail connections between Sussex County municipalities. Members of the Coastal Corridors Committee and general public requested DeIDOT explore a connection between Ellendale and Milton.
<i>Status:</i>	Recommendation will be addressed as part of the Milton Active Transportation plan which is programmed for FY24-FY25.

16-6

<i>Recommendation:</i>	Ensure proposed roundabout at SR 16 and SR 30 consolidates access points and provides safe pedestrian and bicycle connectivity through the intersection.
<i>Type</i>	1 – conduct under existing operations
<i>Responsible Party:</i>	DeIDOT Planning – Statewide and Regional Planning
<i>Purpose:</i>	A roundabout at SR 16 and SR 30 is included in the FY21-FY26 CTP as part of the Hazard Elimination Program (HEP). The Corridors Committee expressed interest in ensuring that roundabout include facilities for people walking and biking, and that the design limit impacts to the businesses located at that intersection, to the extent practicable.
<i>Status:</i>	Planning has shared this recommendation with Project Development South and it is being incorporated into the project design.



Figure 26. Recommendations in the area between Ellendale and Milton (recommendations 16-5 and 16-6)

16-7

<i>Recommendation:</i>	Conduct traffic and circulation analysis of Mulberry Street Extended and the SR 16 and Mulberry Street intersection to determine appropriate capacity and crossing improvements. Implement improvements along Mulberry Street Extended and at the SR 16 and Mulberry Street intersection based on recommendations of traffic and circulation analysis.
<i>Type</i>	2 – needs second phase of study
<i>Responsible Party:</i>	DeIDOT Planning – Statewide and Regional Planning
<i>Purpose:</i>	Currently, Mulberry Street/Mulberry Street Extended is controlled by a two-way stop at SR 16. There is no crosswalk across SR 16. Commercial and residential development is proposed in the vicinity, including Royal Farms at the intersection of Union Street and SR 16, and the Granary residential neighborhood located to the south. This development will result in increased traffic, further impacting safety and circulation for all modes moving through this intersection.
<i>Status:</i>	The installation of a new traffic signal with a pedestrian crossing is scheduled for spring of 2024 will partially address this recommendation. Further analysis will be conducted as part of Milton SR 16 Corridor Study which is programmed for FY24-FY25.

16-8

<i>Recommendation:</i>	Ensure proposed developer improvements at SR 16 and SR 5 provide adequate capacity improvements and pedestrian and bicycle improvements. Conduct a signal phasing study once improvements are confirmed to optimize circulation (e.g., split phasing).
<i>Type</i>	2 – needs second phase of study
<i>Responsible Party:</i>	DeIDOT Planning – Statewide and Regional Planning
<i>Purpose:</i>	Developer improvements including turn lanes and phases to improve motor vehicle capacity and flow are proposed for the intersection of SR 16 and SR 5. The south leg of SR 5/Union Street is severely constrained by buildings close to the right of way, limiting the ability to provide turn lanes. Future study should confirm optimal signal phasing to address that constraint during the plan review process.
<i>Status:</i>	Developer improvements include adequate bicycle and pedestrian improvements. Recommendation will be addressed as part of SR 16 Study which is programmed for FY24-FY25.

16-9

<i>Recommendation:</i>	Explore the feasibility and benefits of an SR 16 bypass around Milton that would diverge from SR 16 east of the intersection of SR 16 and SR 30 and re-converge with SR 16 to the east of Milton town limits.
<i>Type</i>	2 – needs second phase of study
<i>Responsible Party:</i>	DeIDOT Planning – Statewide and Regional Planning
<i>Purpose:</i>	An SR 16 bypass around Milton is not a need per the current and projected volumes of motor vehicle traffic along SR 16 through Milton, although volumes do spike in the summer and capacity is a concern at major intersections. Rather, the Town of Milton has an interest in re-envisioning SR 16 through Milton as more of a mixed-use main street that serves all modes of traffic and supports local businesses. The provision of a bypass would allow for SR 16 through Milton to be redeveloped as a complete street. Coordinate with recommendation 16-10 and 16-11.
<i>Status:</i>	Recommendation will be addressed as part of SR 16 Study which is programmed for FY24-FY25.

16-10

<i>Recommendation:</i>	Explore the feasibility of widening SR 16 through Milton in order to accommodate future growth.
<i>Type</i>	2 – needs second phase of study
<i>Responsible Party:</i>	DeIDOT Planning – Statewide and Regional Planning
<i>Purpose:</i>	A full widening of SR 16 through Milton is not a need per the current and projected volumes of motor vehicle traffic, although volumes do spike in the summer. However, capacity is a concern at major intersections, and given the spacing of those intersections through town, and the possibility of additional signalized crossings, widening might improve the flow of current through traffic. Coordinate with recommendation 16-9, 16-11, and 16-12.
<i>Status:</i>	Recommendation will be addressed as part of SR 16 Study which is programmed for FY24-FY25.

16-11

<i>Recommendation:</i>	Improve bicycle and pedestrian facilities along and across SR 16 in Milton. Determine the appropriate short-term bicycle and pedestrian facilities. Identify sidewalk gaps and explore the provision of ADA-compliant sidewalks and crossing(s) of SR 16. Identify funding and implementation mechanism.
<i>Type</i>	2 – needs second phase of study
<i>Responsible Party:</i>	DeIDOT Planning & Municipality
<i>Purpose:</i>	SR 16 provides east-west connectivity for people walking and biking and is also where many Milton businesses and services are located. Facilities for people walking and biking are necessary to improve safety and connectivity.
<i>Status:</i>	Recommendation will be addressed as part of the Milton Active Transportation plan which is programmed for FY24-FY25.

16-12

<i>Recommendation:</i>	Plan for bicycle and pedestrian facilities along and across SR 16 in Milton in consideration of long-term improvements. Determine appropriate bicycle facility type and fill existing sidewalk gaps in consideration of future vehicular volumes if a bypass is provided. Potential improvements could include crossing improvements, traffic calming, bump outs, on-street parking, lower speeds, and wayfinding signage.
<i>Type</i>	2 – needs second phase of study
<i>Responsible Party:</i>	DeIDOT Planning & Municipality
<i>Purpose:</i>	SR 16 provides east-west connectivity for people walking and biking and is also where many Milton businesses and services are located. Facilities for people walking and biking are necessary to improve safety and connectivity. Coordinate with recommendation 16-9.
<i>Status:</i>	Recommendation will be addressed as part of the Milton Active Transportation Plan which is programmed for FY24-FY25.

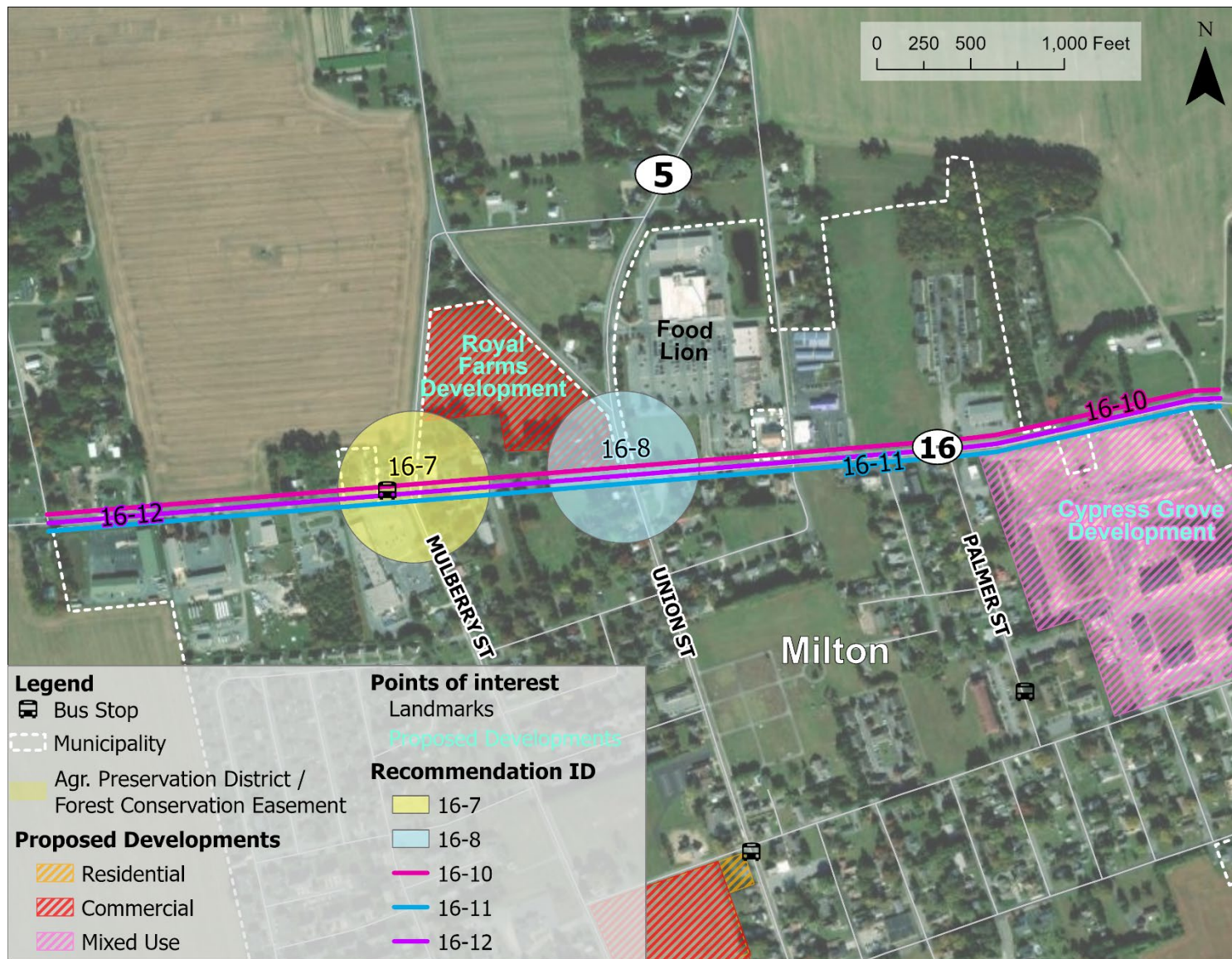


Figure 27. Recommendations on SR 16 in Milton (recommendations 16-7 to 16-8 and 16-10 to 16-12)

16-13

<i>Recommendation:</i>	Work with Delaware Transit Corporation via the DART Reimagined process to ensure adequate transit service to accommodate growth and support commuting in Ellendale and Milton.
<i>Type</i>	5 – responsibility of County or municipality
<i>Responsible Party:</i>	Sussex County & Municipality
<i>Purpose:</i>	SR 16 provides east-west connectivity between more affordable housing opportunities inland and service industry jobs along the coast. Improved transit service would provide local residents with an affordable transportation option and encourage transit use.
<i>Status:</i>	This recommendation has been shared with Delaware Transit Corporation (DTC), and DTC will be invited to be part of subsequent studies in the planning area including the Milton Active Transportation Plan and SR 16 Study, which are programmed for FY24-FY25.

16-14

<i>Recommendation:</i>	Explore the feasibility of providing bicycle parking adjacent to bus stops in Ellendale and Milton.
<i>Type</i>	5 – responsibility of County or municipality
<i>Responsible Party:</i>	Municipality
<i>Purpose:</i>	Although DART buses provide two on-bus bike racks, bicycle parking adjacent to bus stops would ensure a secure place to lock a bike if the on-bus racks are already full when the bus arrives. Bike racks also provide an option for transit users who used a bike to travel to the bus stop but do not need to bring their bike on the bus.
<i>Status:</i>	Municipalities can coordinate requests for facilities directly with DTC.

16-15

<i>Recommendation:</i>	Explore the feasibility of requiring bicycle parking in conjunction with private development.
<i>Type</i>	5 – responsibility of County or municipality
<i>Responsible Party:</i>	Municipality
<i>Purpose:</i>	In order for biking to be a viable transportation option, safe and secure bike parking needs to be provided near destinations. One way to ensure bike parking is provided close to the end destination is to require it be provided as part of any private commercial development.
<i>Status:</i>	Recommendation will be addressed as part of the Milton Active Transportation Plan which is programmed for FY24-FY25.

5.4 US 9 ANALYSIS FINDINGS

For US 9, baseline estimates of Annual Average Daily Traffic (AADT) were extracted from the DelDOT Volume Summary. The estimates were refined based on StreetLight data and ATR counts performed for this study, as shown in Table 3. The construction impacts from the ongoing Georgetown East Gateway project impacted 2021 traffic. In the summer, traffic volumes increase by a factor of +5–10%. With growth and development, daily volumes are projected to approach 20,000 by 2050. As discussed in Section 4.6.4, the intersection of US 113 and US 9 is anticipated to function at LOS F by 2050, assuming no improvements are made. However, a Grade Separated Intersection (GSI) is already programmed in DelDOT's CTP for this location. The GSI will accommodate projected increases in traffic volumes and maintain an acceptable LOS. The intersection of US 9 and SR 5 is anticipated to function at LOS E by 2050. There are currently no improvements planned for this location.

Table 3. 2021 Annual Average Daily Traffic (AADT) along US 9

Source	Georgetown	Harbeson	West Lewes
Baseline estimates from DelDOT Volume Summary	14,300	15,700	15,300
Improved estimates based on additional data from StreetLight and ATR counts	11,000-12,000	12,000-13,000	15,300

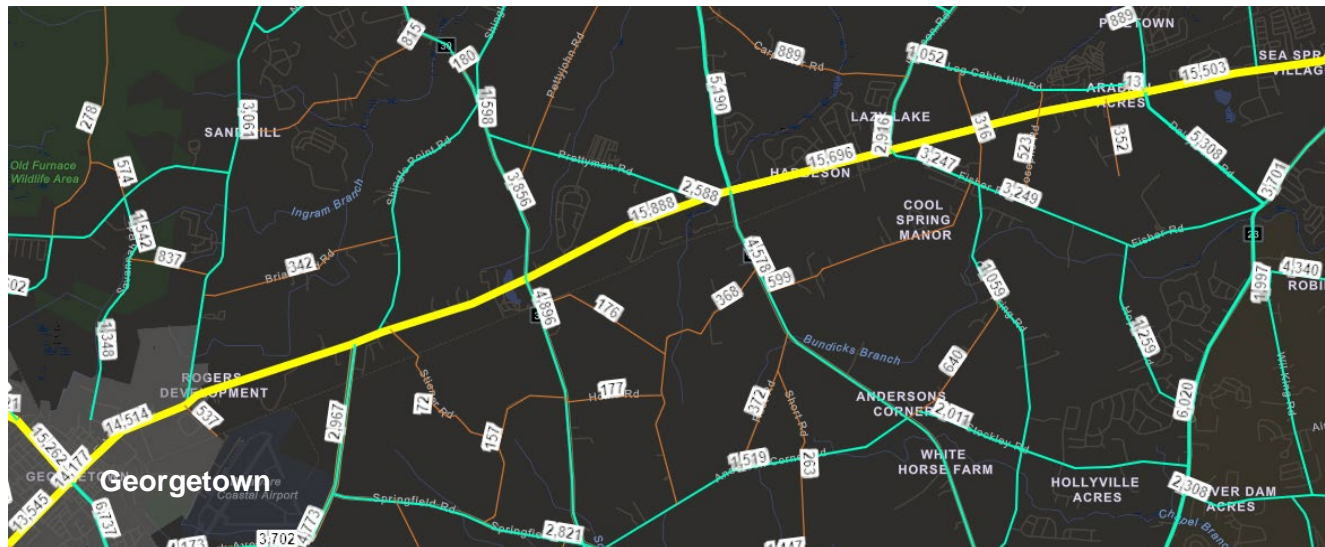


Figure 28. Map showing the extents of US 9 included in the final analysis and AADT from the Vehicle Volume Summary (source: DelDOT Vehicle Volume Summary)

When reviewing eastbound traffic patterns along US 9 from east of Georgetown, the project team observed that:

- Less than 40% of traffic continues through to Five Points
- Many cross streets receive traffic from US 9

When reviewing westbound traffic patterns originating from east of SR 5, the project team observed that:

- Only 40% of traffic enters downtown Georgetown
- Westbound traffic splits relatively evenly at the Georgetown Circle between northbound (to SR 18 / SR 404) and westbound (to US 9)

In summary, US 9:

- Carries roughly 15,000 vehicles daily
 - Over 50% more than SR 16
 - Lower summer seasonal percentage increase than SR 16
 - With growth and development, daily volumes are expected to approach 20,000—a common threshold for dualization—by 2050.
- Signalized intersections are essentially “built out”
 - Left- and right-turn lanes provided on all approaches
 - Sufficient storage, or space in the turn lanes to accommodate turning traffic
 - Bike lanes and pedestrian accommodations such as crosswalks at many locations
- Many of the more significant unsignalized intersections have full turn lanes and bike lanes
- A few locations may benefit from localized improvements but generally, bigger-picture solutions may be needed

Based on this understanding of existing conditions, a delay/LOS analysis was conducted for US 9, which includes existing, 2050 No Build, and 2050 Dualization scenarios using the 0.6% growth rate. The analysis looked at five intersections along the corridor and findings are summarized in Table 4. The existing LOS is shown on the map in Figure 29. The analysis is included as Appendix G.

The team also explored the impact of higher growth rates along the US 9 corridor and found that additional signals will cause issues by 2050 if growth is higher. However, dualization would keep all signals and all peaks comfortably below LOS E, even in the higher growth scenario.

Projected 2050 volumes of 20,000 vehicles per day on US 9 and related traffic impacts at the US 9-SR 5 intersection justifies further study of how to best accommodate growth.

Table 4. Findings from US 9 Synchro Delay/Level of Service Analysis of Existing, 2050 No Build, and 2050 Dualization Scenarios

Intersection	Existing Worst Case LOS During Summer Peak	2050 No Build Scenario Worst Case LOS During Summer Peak	2050 Dualization Scenario Worst Case LOS During Summer Peak
US 9 at Park Avenue	LOS B	LOS D	LOS B
US 9 at SR 30 (Gravel Hill Road)	LOS C	LOS D	LOS D
US 9 at SR 5 (Harbeson Road)	LOS D	LOS E	LOS D
US 9 at Hudson Road / Fisher Road	LOS C	LOS D	LOS C
US 9 at Sweetbriar Road / Dairy Farm Road	LOS C	LOS D	LOS C

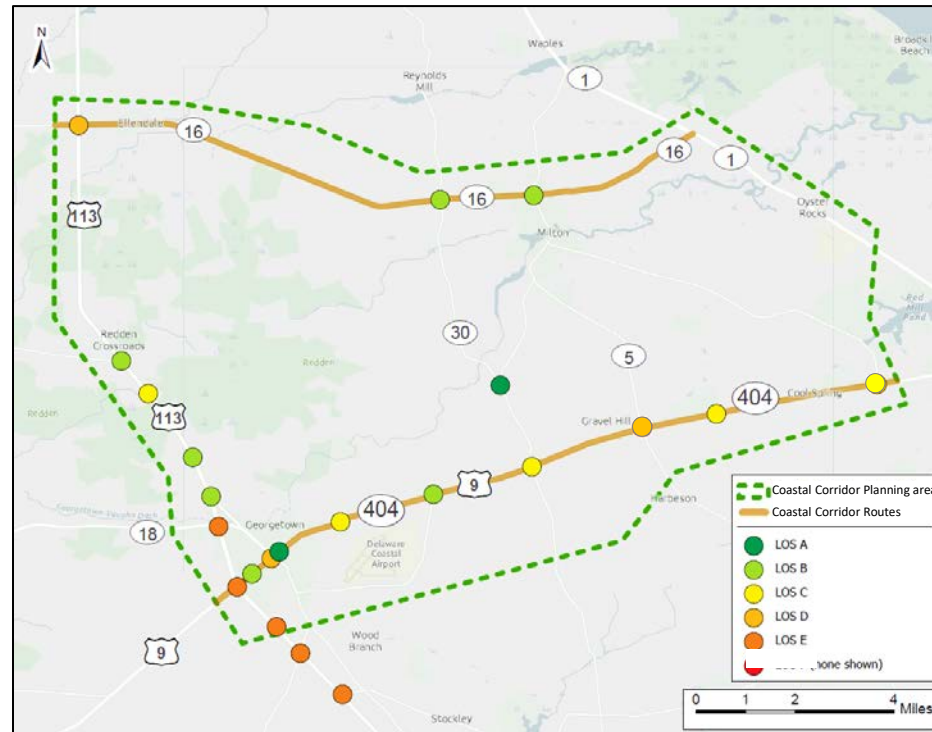


Figure 29. Existing Level of Service (Highway Capacity Manual method) for the Coastal Corridors planning area

5.5 US 9 RECOMMENDATIONS

9-1

<i>Recommendation:</i>	Conduct parking and circulation study for downtown Georgetown.
<i>Type</i>	5 – responsibility of County or municipality
<i>Responsible Party:</i>	Sussex County & Municipality
<i>Purpose:</i>	Many of the documented issues relating to traffic circulation in and around downtown Georgetown relate to parking access and availability. A parking and circulation study would assess these issues and recommend solutions.
<i>Status:</i>	This recommendation has been provided to Sussex County and the Town of Georgetown.

9-2

<i>Recommendation:</i>	Complete an area circulation study exploring multimodal connectivity for the area east of Sand Hill Road including Sports at the Beach and the new campground/RV park. The study should focus on alleviating traffic and improving safety for all modes. Coordinate the implementation of recommendations with private development.
<i>Type</i>	2 – needs second phase of study
<i>Responsible Party:</i>	DeIDOT Planning – Statewide and Regional Planning
<i>Purpose:</i>	Sports at the Beach is a popular recreational destination that generates a lot of traffic during events. Development proposed in the vicinity includes a campground/RV park less than a mile away. Some families in town to participate in events at Sports at the Beach and Sand Hill Fields will stay at this facility. Currently, there is no multimodal access between the campground and Sports at the Beach, requiring all visitors to drive motor vehicles, increasing congestion on Route 9. This study would explore avenues to improve multimodal circulation between the two destinations and across Route 9.
<i>Status:</i>	DeIDOT Planning is reviewing this recommendation and determining next steps.

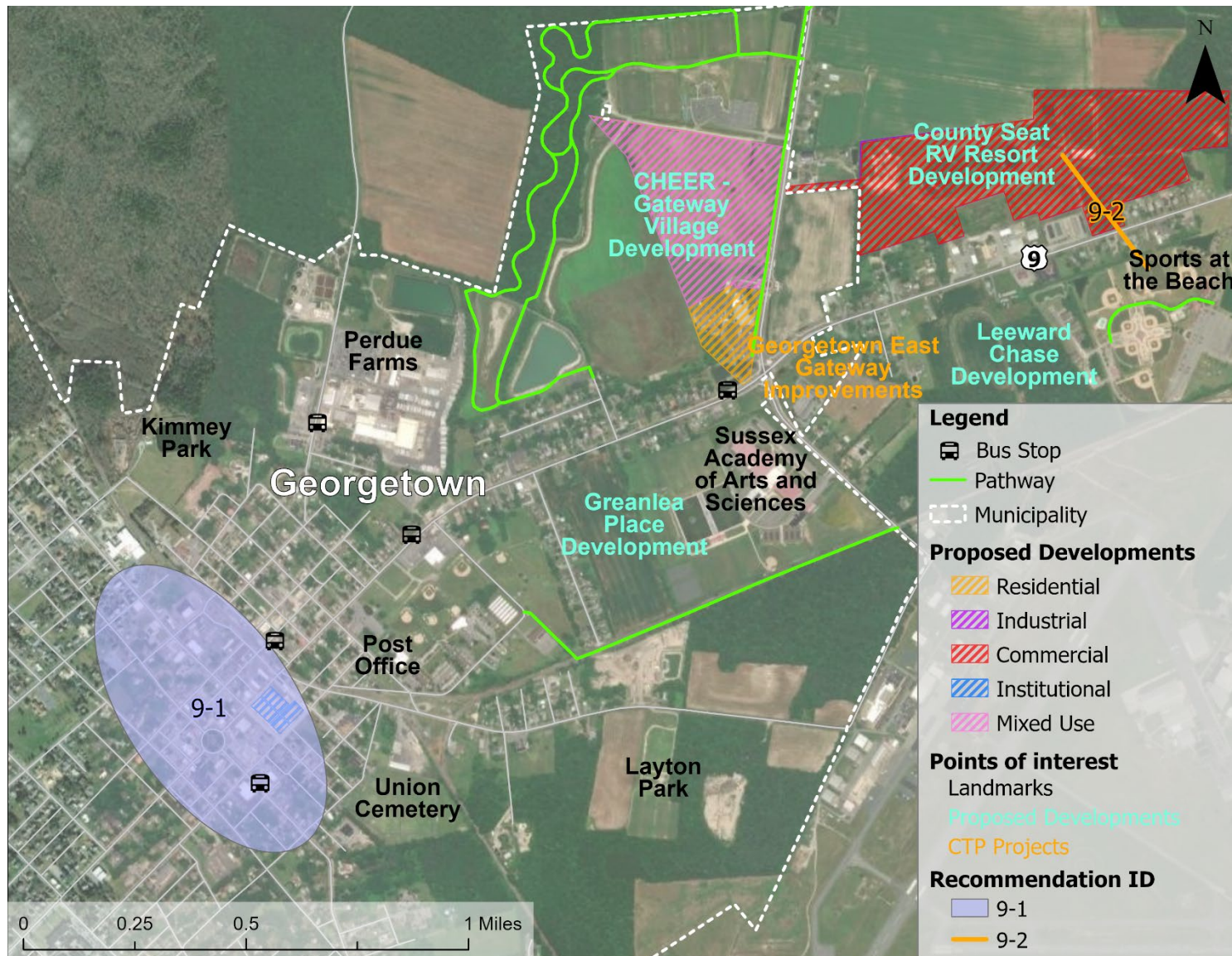


Figure 30. Recommendations for Georgetown area (recommendations 9-1 and 9-2)

9-3

<i>Recommendation:</i>	Evaluate the intersection for the addition of channelizing islands and crosswalks on all legs of the US 9-SR 30 intersection to facilitate safe pedestrian and bicycle movement through the intersection. Provide low-stress bicycle and pedestrian connection from SR 30 intersection to the future Georgetown-Lewes Trail (1200 feet to the south of the US 9 and SR 30 intersection).
<i>Type</i>	2 – needs second phase of study
<i>Responsible Party:</i>	DeIDOT Planning – Regional Systems Planning, Development Coordination
<i>Purpose:</i>	Currently, this intersection does not provide pedestrian crosswalks across US 9 or SR 30. Improving conditions is appropriate given planned residential development along with the proximity of the future Georgetown-Lewes Trail 1200 feet to the south of this intersection.
<i>Status:</i>	DeIDOT Planning is advancing a US 9 Corridor Study in FY24-FY25.

9-4

<i>Recommendation:</i>	Provide low-stress bicycle and pedestrian connection from SR 5 intersection to the future Georgetown-Lewes Trail (1500 feet to the south of the US 9 and SR 5 intersection).
<i>Type</i>	2 – needs second phase of study
<i>Responsible Party:</i>	DeIDOT Planning
<i>Purpose:</i>	The future Georgetown-Lewes Trail runs roughly parallel to US 9 and crosses SR 5 approximately 1500 feet to the south of the US 9/SR 5 intersection. Currently there are partial shoulders and sidewalks along this portion of SR 5, but a sidepath would provide a low-stress connection for people walking or bicycling to access the Trail.
<i>Status:</i>	DeIDOT Planning is reviewing this recommendation and determining next steps.

9-5

Recommendation: Study the feasibility of widening US 9 at SR 5.

Type 2 – needs second phase of study

Responsible Party: DeIDOT Planning – Statewide and Regional Planning

Purpose: This is currently the most congested signalized intersection in the planning area. The intersection is classified as Level of Service (LOS) D during multiple peaks times, with LOS E (at or near capacity) projected in 2050 without improvements. There are significant constraints at this intersection including a cemetery in the southwest corner and a bridge along the west leg. Therefore, any study exploring widening US 9 should first understand the feasibility of widening at this intersection. This recommendation should be coordinated with recommendation 9-6.

Status: DeIDOT Planning is advancing a US 9 Corridor Study in FY24-FY25.

9-6

Recommendation: Explore the feasibility of widening US 9 east of SR 5.

Type 2 – needs second phase of study

Responsible Party: DeIDOT Planning – Statewide and Regional Planning

Purpose: This corridor has high Annual Average Daily Traffic (AADT) throughout the year, not just in the summer. There are multiple near-capacity intersections. This recommendation should be coordinated with recommendation 9-5.

Status: DeIDOT Planning is advancing a US 9 Corridor Study in FY24-FY25.



Figure 31. Recommendations for US 9 at SR 30 and SR 5 (recommendations 9-3 to 9-6)

9-7

<i>Recommendation:</i>	Conduct analysis to determine appropriate setback requirements along US 9 between Georgetown and SR 1.
<i>Type</i>	2 – needs second phase of study
<i>Responsible Party:</i>	DeIDOT Planning – Development Coordination
<i>Purpose:</i>	Currently, setbacks along a development frontage are dictated by the zoning classification which varies along a given corridor. A uniform setback should be developed based on an assessment of the right of way required to support future widening of US 9. This recommendation should be examined in consideration of recommendation 9-8.
<i>Status:</i>	DeIDOT Planning is working with Project Development South to determine an appropriate setback requirement based on existing CTP projects.

9-8

<i>Recommendation:</i>	Create a uniform setback requirement across all zoning districts along US 9 between Georgetown and SR 1.
<i>Type</i>	5 – responsibility of County or municipality
<i>Responsible Party:</i>	Sussex County
<i>Purpose:</i>	Currently, setbacks along a development frontage are dictated by the zoning classification which varies depending on the zoning district. A uniform setback on this part of US 9 would preserve corridor capacity for future widening and alleviate future right of way impacts. This recommendation should be examined in conjunction with recommendation 9-7.
<i>Status:</i>	This recommendation will advance once recommendation 9-7 is completed

9-9

<i>Recommendation:</i>	Conduct short-term traffic safety study for the intersection of US 9 and Cool Spring Road. Potential improvements could include turn lanes, signage improvements, and pavement markings.
<i>Type</i>	1 – conduct under existing operations
<i>Responsible Party:</i>	DeIDOT Planning – Statewide and Regional Planning
<i>Purpose:</i>	Extensive residential development is proposed for the vicinity of Cool Spring Road. Increased volumes may result in the need for intersection upgrades.

Status: Analysis is ongoing for the Traffic Impact Study (TIS) for a mixed-use development in the vicinity of Cool Spring Road. DelDOT Planning is advancing a US 9 Corridor Study in FY24-FY25 which will address this intersection.

9-10

Recommendation: Provide at-grade bicycle and pedestrian connection across US 9 at Cool Spring Road that ties into the Georgetown-Lewes Trail.

Type 1 – conduct under existing operations

Responsible Party: DelDOT Planning – Active Transportation and Community Connections

Purpose: DelDOT received a \$21 million Rebuilding American Infrastructure with Sustainability and Equity grant to complete the remaining six miles of the Georgetown-Lewes Trail. Construction is expected to be completed by spring 2026.

Status: This project is moving forward according to schedule.

9-11

Recommendation: Conduct short-term traffic safety study for the intersection of US 9 and Josephs Road. Potential improvements could include turn lanes, signage improvements, and pavement markings. Implement improvements at Josephs Road based on recommendations of short-term traffic safety study.

Explore feasibility of providing a bicycle and pedestrian connection across US 9 at Josephs Road.

Type 2 – needs second phase of study

Responsible Party: DelDOT Planning – Statewide and Regional Planning

Purpose: The intersection of US 9 and Josephs Road is one of the only 4-leg intersections along the corridor with no turn lanes. Even a small number of left turns may cause delay and safety issues along US 9.

Currently, there is no safe pedestrian access across US 9 in the vicinity of this intersection. There are bus stops along US 9 adjacent to this intersection. The Georgetown-Lewes Trail is also located 450 feet to the north of this intersection, which may contribute to demand for crossing facilities.

Status: Analysis is ongoing for the Traffic Impact Study (TIS) for a mixed-use development in the vicinity of Josephs Road. DelDOT Planning is advancing a US 9 Corridor Study in FY24-FY25 which will address this intersection.

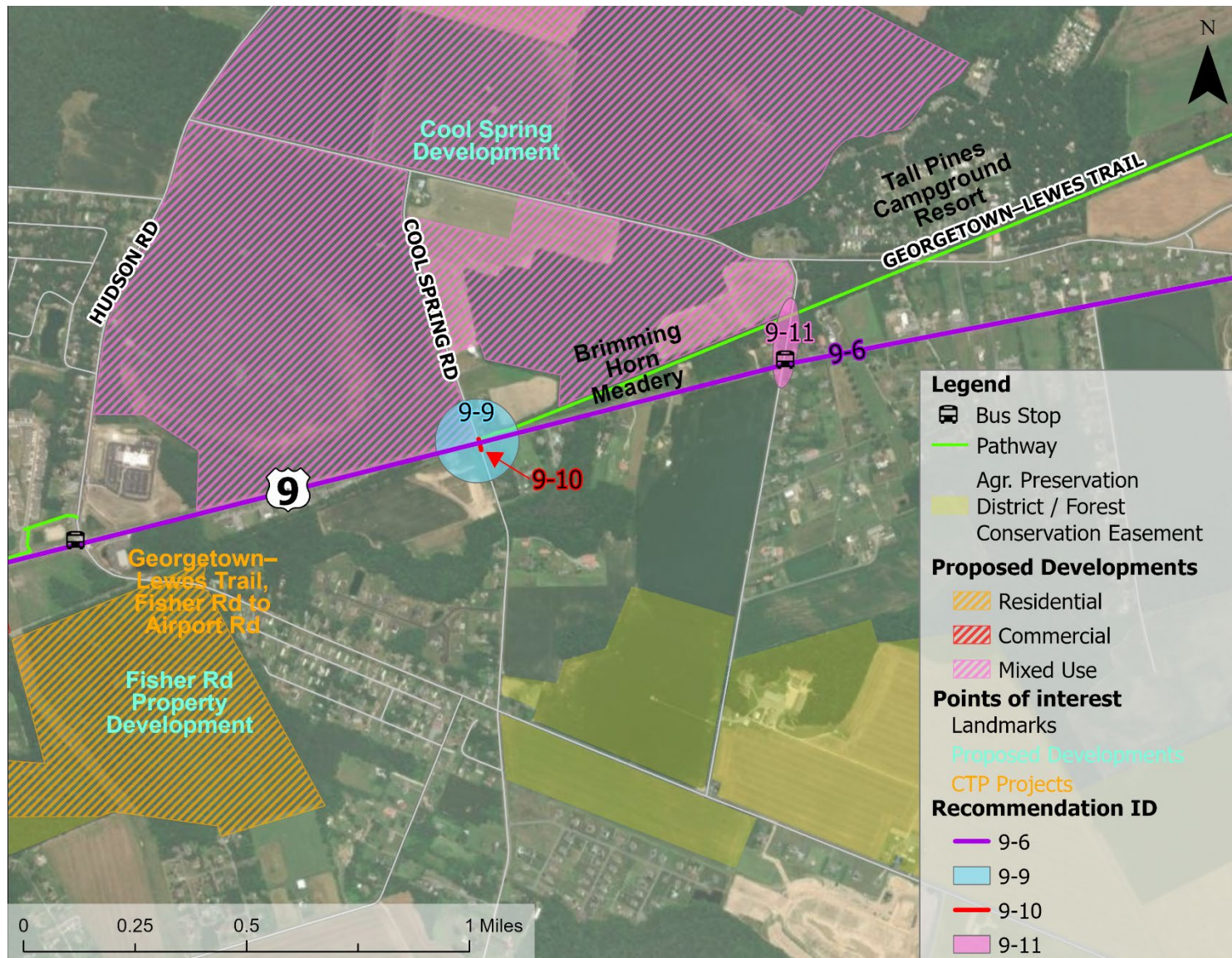


Figure 32. Recommendations for US 9 at Cool Spring Road and Joseph Road (recommendations 9-9 to 9-11)

9-12

<i>Recommendation:</i>	Evaluate the intersection for the addition of channelizing islands and crosswalks on all legs of the US 9-Sweetbriar / Dairy Farm Road intersection to facilitate safe pedestrian and bike movement through the intersection. Explore feasibility of providing a low-stress bicycle and pedestrian connection between Sweetbriar/Dairy Farm Road and the Georgetown-Lewes Trail (1350 feet to the north of the US 9 and SR 30 intersection).
<i>Type</i>	2 – needs second phase of study
<i>Responsible Party:</i>	DeIDOT Planning – Development Coordination
<i>Purpose:</i>	Currently, this intersection does not provide pedestrian crosswalks across US 9 or Sweetbriar / Dairy Farm Road. Improving conditions is appropriate given planned residential development along with the proximity of the future Georgetown-Lewes Trail 1350 feet to the north of this intersection. The future Georgetown-Lewes Trail runs roughly parallel to US 9 and crosses Sweetbriar Road approximately 1350 feet to the north of the US 9/Sweetbriar Road intersection. Currently there are bike lanes along this portion of Sweetbriar Road, but a sidepath would provide a low-stress connection for people walking or bicycling to access the Trail.
<i>Status:</i>	DeIDOT Planning is advancing a US 9 Corridor Study in FY24-FY25.

9-13

<i>Recommendation:</i>	Explore the feasibility of providing bicycle and pedestrian connection across US 9 at Mulberry Knoll Road Extension.
<i>Type</i>	1 – conduct under existing operations
<i>Responsible Party:</i>	DeIDOT Planning – Statewide and Regional Planning
<i>Purpose:</i>	The need for this improvement is contingent upon DeIDOT advancing the Mulberry Road Extension Project which is detailed in the Mulberry Road Extension Study and listed as a project in the FY23-FY28 CTP.
<i>Status:</i>	DeIDOT Planning has reviewed this recommendation and will ensure it is included in the CTP project.

9-14

<i>Recommendation:</i>	Explore the feasibility of providing bicycle and pedestrian connectivity across and along US 9 in the vicinity of Old Vine Road.
<i>Type</i>	1 – conduct under existing operations
<i>Responsible Party:</i>	DeIDOT Planning – Active Transportation and Community Connections
<i>Purpose:</i>	Currently, there is a 1900 foot-long sidepath along the frontage of the Vineyards development on the north side of US 9 and a 2800 foot-long sidepath along the frontage of Lewes Crossing on the south side of US 9. There is a bus stop along each sidepath east of the Old Vine Road intersection, but the only dedicated pedestrian access across US 9 is at Old Vine Boulevard, which does not tie into the Lewes Crossing sidepath. This poor connectivity creates a safety issue for transit users and people looking to use the sidepaths for a low-stress way to walk or bike along the corridor.
<i>Status:</i>	DeIDOT Planning has reviewed this recommendation and will work with Project Development South to ensure multimodal connectivity issues are addressed during the design and construction of the US 9 Widening Project which extends from SR 1 through Old Vine Road.

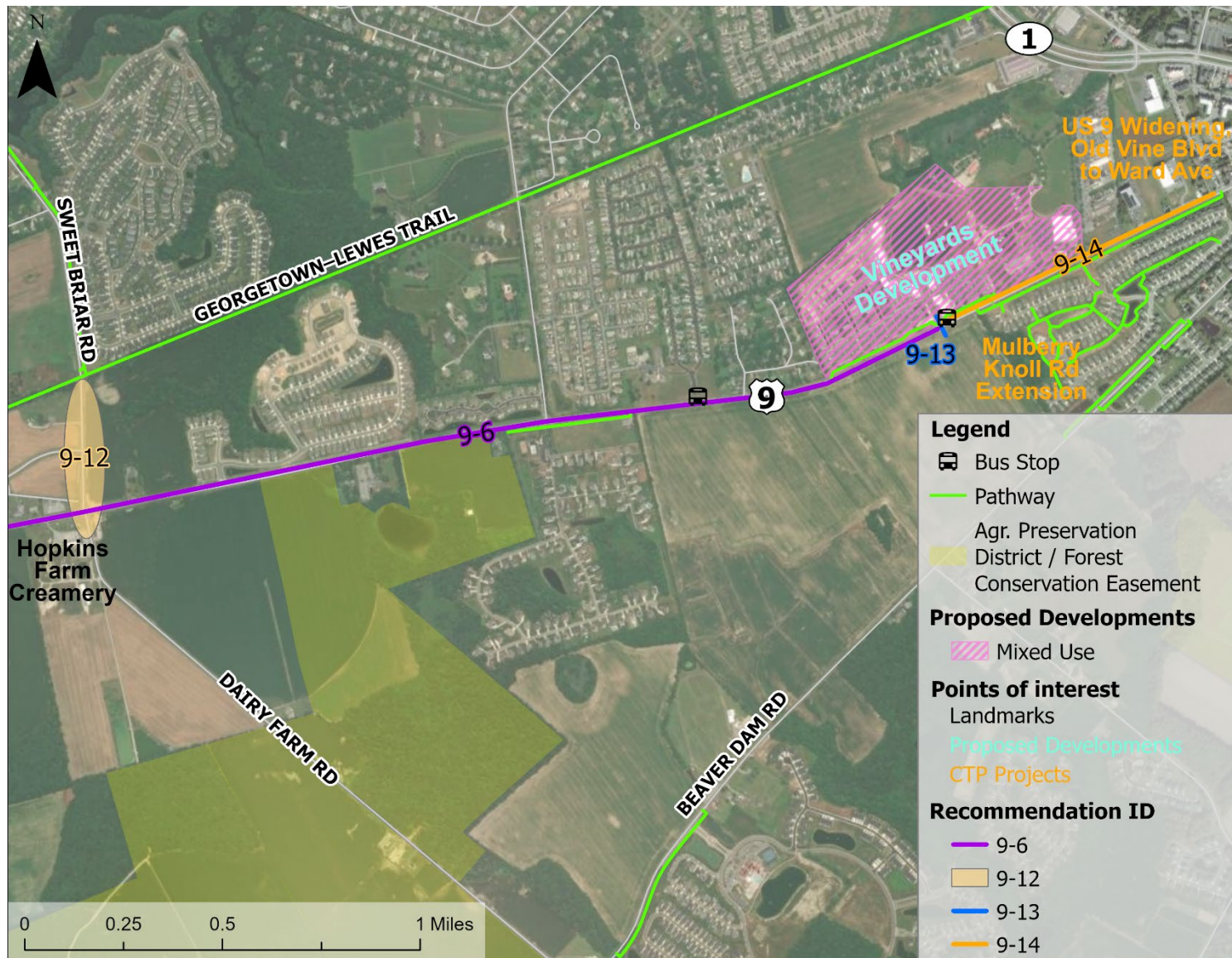


Figure 33. Recommendations for US 9 in the vicinity of the Vineyards development (recommendations 9-12 to 9-14)

5.5.1 Further Context for Recommendations 9-7 and 9-8

Existing Code Provisions

Currently, building setbacks along US 9 vary based on the zoning of the parcel. Minimum front yard setbacks in the [Sussex County Zoning Code](#) range from 25 feet (for cluster developments with central sewers in the AR-1 and AR-2 zoning districts³) to 60 feet. Some other provisions from the Zoning Code that may modify the minimum front yard setback are as follows:

- [Chapter 115, Table I: General Table of Height, Area and Bulk Requirements, Table Note \(7\)](#) states that “On property fronting on highways designated by the Delaware Department of Transportation as Principal Arterials or Minor Arterials, the setback shall be measured from a point not less than 50 feet from the center line of the right-of-way.” If the street line or the property’s front property line is less than or greater than 50 feet from the Principal Arterial’s center line, this requirement would result in a different front yard setback than if the setback was measured from the street line or front property line. US 9 is designated a Principal Arterial.
- [Chapter 115, Article XXV, Section 115-182\(B\)](#) states that, on corner lots, the minimum setback on the side street is 15 feet.
- [Chapter 115, Article XXV, Section 115-182\(C\)](#) states that “On a street or road with existing buildings having a front yard setback that is less than that required in the district, any building may have a front yard setback that is equal to the average setback of those existing buildings located on the same side of the street or road and being with 300 feet of the building. Any vacant lot shall be calculated as having the required setback for the district. No front yard setback reduced pursuant to this subsection shall be reduced to less than five feet. The provision of this subsection shall not apply to any lot in a cluster subdivision, Coastal Area cluster subdivision or residential planned community.”
- [Chapter 115, Article XXV, Section 115-182\(D\)](#) states that unroofed structures such as porches and steps “that do not extend above the level of the first floor of the building” may project up to five feet into the front yard setback.

³ [Sussex County Code Chapter 115, Article IV, Section 115-25\(C\)](#).

5.6 POLICY CONSIDERATIONS

Some of the recommendations that came out of the Coastal Corridors Committee process did not relate to specific locations but relate to improvements to general policy or regulatory processes.

G-1

Recommendation: Conduct a study to highlight the safety, operational, and economic benefits of multimodal interconnectivity for all road users. This document should be used to educate decision makers and members of the public to support revisions to the Comprehensive Plan and justify recommendations to amend the Code.

Responsible Party: Interagency Coordination

Purpose: This study is a necessary first step to providing the data needed to support recommendations G-2 through G-5.

G-2

Recommendation: In the next Comprehensive Plan update, consider including language encouraging interconnectivity to improve safety and manage volumes on the roadways.

Responsible Party: Interagency Coordination

Purpose: Interconnectivity is currently encouraged, but there was a strong interest from Corridors Committee members to make this a requirement of the development process. Better interconnectivity will distribute traffic throughout the network, resulting in fewer capacity issues. Interconnected roads also serve the mobility needs of neighborhood residents and emergency responders. Proposed interconnectivity as shown on the street design plan should serve the mobility needs of neighborhood residents and emergency responders, but not function as a cut through.

G-3

Recommendation: Explore the feasibility of clarifying Sussex County Code Chapters 115 and 99 to require private developers to plan and provide for interconnectivity between developments.

Responsible Party: Interagency Coordination

Purpose: Interconnectivity is currently encouraged, but there was a strong interest from Corridors Committee members to make this a requirement of the development process. Better interconnectivity will better distribute traffic throughout the network, resulting in fewer capacity issues. Interconnected roads also serve the mobility needs of neighborhood residents and emergency responders. Proposed interconnectivity as shown on the street design plan should serve the mobility needs of neighborhood residents and emergency responders, but not function as a cut through.

G-4

Recommendation: Where interconnectivity currently exists between developments, it should only be removed after consultation with core agencies including DelDOT, Sussex County, and Delaware Emergency Management Agency. Explore the feasibility of codifying this requirement in the Mobility Chapter of the Comprehensive Plan and the Sussex County Code.

Responsible Party: Interagency Coordination

Purpose: Recent development proposals and actions by neighborhood HOAs have shown that there is an interest in restricting neighborhood connectivity that was requested and implemented at the time of development. This change would remove a loophole by giving agencies enforcement power over maintaining that interconnectivity in perpetuity.

G-5

Recommendation: Explore the feasibility of updating the Development Coordination Manual to increase the provision of connections between developments.

Responsible Party: Interagency Coordination

Purpose: One obstacle to requiring interconnectivity between developments is that development streets are generally owned and maintained by the development. This encourages developers and HOAs to want to restrict through traffic on their streets. In addition to the requirements being considered as part of recommendations G-1 to G-3, potential incentives should also be developed.

G-6

<i>Recommendation:</i>	Explore code revisions to reduce the extent to which parking and stormwater facilities are permitted in the front yard setback.
<i>Responsible Party:</i>	Interagency Coordination
<i>Purpose:</i>	Increasingly, stormwater management facilities are being provided as ribbon-like swales directly adjacent to the right of way line. Parking is also often located in the front yard setback. This placement may interfere with future ROW needs such as roadway widening or the provision of multimodal facilities.
<i>Status:</i>	The Sussex County Zoning Code states that “Parking within front yard setback shall be discouraged and subject to site plan review.” ⁴ In the case of the LI-1 (Limited Industrial) Zoning District, parking is specifically prohibited in the front yard setback. ⁵

G-7

<i>Recommendation:</i>	Consider modifications to land development regulations and/or the Development Coordination Manual that require additional buffers/setbacks for all new developments to support future right of way needs.
<i>Responsible Party:</i>	Interagency Coordination
<i>Purpose:</i>	Increasingly, stormwater management facilities are being provided as ribbon-like swales directly adjacent to the right of way line. Parking is also often located in the front yard setback. This placement may interfere with future ROW needs such as roadway widening or the provision of multimodal facilities.

G-8

<i>Recommendation:</i>	Explore the feasibility of developing additional guidance and design criteria that highlights what types of landscaping treatments are appropriate in the front yard setback.
<i>Responsible Party:</i>	Interagency Coordination
<i>Purpose:</i>	Landscaping is often located directly adjacent to the right of way line. Parking is also often located in the front yard setback. This placement may interfere with future ROW needs such as roadway widening or the provision of multimodal facilities.

⁴ [Sussex County Code Chapter 115, Article XXII, Section 115-166\(C\).](#)

⁵ [Sussex County Code Chapter 115, Article XIII, Section 115-93\(F\).](#)

G-9

Recommendation: Review all trail crossings for active or enhanced bicycle and pedestrian crossing improvements and implement where appropriate.

Responsible Party: Interagency Coordination

Purpose: The Georgetown-Lewes Trail has proven to be extremely popular. With its anticipated completion, there will be more trail crossings proximate to US 9 within the planning area. DelDOT has already reviewed the Georgetown-Lewes Trail for enhanced crossings, implemented them where appropriate, and incorporated enhanced crossings into the final phase of design. This recommendation also applies to future trail crossings in the planning area.

G-10

Recommendation: Improve coordination between the County and DelDOT during large scale events hosted at venues to ensure traffic is adequately managed.

Responsible Party: Interagency Coordination

Purpose: Hosting special events at event venues is a matter of right use. Venues in the project area include Sand Hill Fields and Sports at the Beach. Currently, special events result in delays along the US 9 corridor.

G-11

Recommendation: Evaluate efficacy of CTP projects to ensure that safety, capacity, and multimodal connectivity goals have been met.

Responsible Party: Interagency Coordination

Purpose: As DelDOT advances CTP projects in the project area, recommendations from this plan should be considered during the preliminary engineering phase and incorporated in the project engineering. Before and after traffic and safety studies will provide insight as to whether projects are effective in addressing safety and capacity goals so the approach can be refined if necessary.

6 Next Steps

Implementing the recommended strategies will require ongoing collaboration among DelDOT, the municipalities, Sussex County, and community members. Some recommendations are relatively simple and have a clear course of action, while others will need additional evaluation, planning, and/or programming. Figure 34 shows additional factors that should be considered moving forward. These considerations are specified for each recommendation in the matrices in Appendix J.

Priority	Level	Type	Assumed Lead Agency	Study Timeframe	Implementation Timeframe	Implementation Cost	Implementation Impacts
◇ Low ◇◇ Medium ◇◇◇ High	Network Corridor Intersection	Policy Study Infrastructure	Municipality DelDOT (Specify Division) Sussex County	* < 3 years ** 3-10 years *** > 10 years	* < 3 years ** 3-10 years *** > 10 years	\$ <\$200k \$\$ \$200k-2M \$\$\$ \$2M-20M \$\$\$\$ \$20M-200M \$\$\$\$\$ >\$200M	◇ Low ◇◇ Medium ◇◇◇ High

Figure 34. Considerations for recommendation implementation

6.1 RECOMMENDED NEXT STEPS

- Prioritize recommended strategies and move forward with near-term priorities
- Proceed with a monitoring/tracking approach, which varies by scale and program:
 - Ongoing agency programs for monitoring and planning broader or longer-term trends include:
 1. State land use monitoring through the OSPC's State Strategies for Policies and Spending and Annual Reports on State Planning Issues
 2. Local land use monitoring through the comprehensive development planning processes
 3. Traffic operations and congestion monitoring through DelDOT's Transportation Operations Management Plan
 4. Traffic safety monitoring through Delaware's Highway Safety Improvement Program
 5. Integrated land use and transportation monitoring and planning through DelDOT's travel demand modeling, Corridor Capacity Preservation Program, and other state/local collaboration
 - Nearer-term and more localized monitoring can occur through corridor-focused assessments, studies, and planning processes.
- Continue ongoing communication and coordination among DelDOT, the towns, county, and community, including:
 - Community updates via the [DelDOT Interact project page](#) and local events and communication
 - Convening the Coastal Corridors Committee periodically to provide study and project updates

Appendices

APPENDIX A. SUMMARY OF WINTER 2020/2021 LISTENING TOUR AND SPRING 2021 WORKSHOP FEEDBACK

Below is a summary of feedback the project team heard from participants in winter 2020/2021 listening tour and the spring 2021 virtual public workshops.

Overarching Theme: The predominant theme that emerged during the listening tour was that people love Sussex County and don't want to lose their small-town and rural way of life.

Traffic Congestion

- To avoid congestion on more major roads, drivers are using secondary roads that aren't designed for the traffic volumes resulting from the detouring traffic.
- Out-of-state drivers heading to beaches are congesting east-west routes. This issue will be exasperated when a new Bay Bridge span is built.
- People who work in the service industry at the beaches live to the west of SR 1 because housing is more affordable, so they travel on the east-west roads to their jobs. This means that congestion is no longer just on the weekends. It occurs all week.
- Improving the east-west roads without fixing the existing bottleneck on Route 1 will only result in feeding more traffic into the existing backup.
- An east-west route that doesn't go through downtown Georgetown is needed.
- There is a need to address truck traffic in the towns.
- The following specific locations were mentioned as having traffic concerns:
 - Cave Neck Road, Hudson Road, and Sweetbriar Road
 - SR 16 and SR 30
 - SR 16 and SR 5
 - SR 16 and SR 1

Safety

- Traffic causes safety problems for farm equipment, especially on roads without shoulders.
- Several specific roads and intersections have been identified as having safety problems.
 - SR 404 and Coverdale Road
 - Cave Neck Road, Hudson Road, and Sweetbriar Road
 - US 13 and Redden Road
 - US 13 and Rifle Range Road
 - US 113 and Redden Road
 - Redden Road
 - Gravel Hill Road
 - Sand Hill Road

- Red light running is an issue.

Emergency Services

- There is a need for a mass evacuation route that can quickly get large numbers of people away from the beaches.
- Difficult for emergency services to travel east-west between the western part of Sussex, where services are more limited, and Milton and Lewes, which have more services.
- Summer traffic hinders emergency response vehicles from getting to emergencies.

Economic

- Some level of traffic in town is good for local businesses.
 - Therefore, a bypass that draws all traffic away from downtowns would hurt local businesses.
- It is important to preserve productive farmland in Sussex County.
- There is a high volume of trucks associated with the poultry industry. Trucks use main roads to travel to and from the processing plants, but they also use small secondary roads to travel to and from the farms.
- The prohibition of left turns from Cave Neck Road to SR 1 North causes challenges for trucks leaving Dogfish Head Brewery.

Development

- Private development has been rapidly occurring and transportation infrastructure is not keeping pace.

Technology/GPS

- Traffic on 404 was worse in the past. GPS wayfinding seems to have dispersed some traffic to other roads.
- Trucks following GPS get stuck on small streets in Milton.
- There is a need to improve GPS wayfinding technology to alleviate the issue of heavy through traffic being directed onto small roads when there is a backup on a major road and to improve the GPS apps for truckers, particularly the free apps.

Other

- There is a high demand for recreational bicycling in all communities east of US 113.
- People should be made aware that Delaware is allocating more road improvement funding to Sussex County than ever before and has many projects in the pipeline.
- It is important that the public be involved in the conversations about how to plan for future traffic growth.
- Green infrastructure should be considered in transportation improvement projects.

APPENDIX B. SUMMARY OF SUMMER 2023 PUBLIC WORKSHOP AND SURVEY FEEDBACK

Comments that were documented on tabletop maps at the workshop are documented below:

1. Station 1 – Overview
2. Station 2 – Data and Trends
3. Station 3 – SR 16 West and Ellendale
 - Need to start preserving ROW on 16 west of 30 b/c of amount of proposed development and increases in traffic due to cars being redirected by navigation apps
 - 2 people stated that parking lanes on 16 in Ellendale is frequently used so should not be removed for bike lanes
 - Congestion on 30 on weekends and holidays is as bad as SR 1
 - A member of the public who owns land at the 30/16 intersection indicated interest in being part of future committees
 - 2 people stated that they feel that roads between 16 and 9 are being neglected by planning processes and road capacity being squeezed
4. Station 4 – SR 16 East and Milton
 - Left turn into Royal Farms from SR 16 – why?
 - EB cars stopped at SR 1 can see a green light on far side of SR 1 when their light is red – confusing
5. Station 5 – US 9 West and Georgetown
 - Parking for appointments in town (Georgetown) is difficult & dangerous – streets too narrow [arrow pointing at open space northwest of Cheer Gateway Village]
6. Station 6 – US 9 East
 - Impossible to turn left from Nicole Lane onto US 9
 - Label added west of Nassau Valley Vineyards-Winery: Vineyards
7. Station 7 – Policy

Four survey responses were received. The responses are documented below.

1. Where do you live?

- a. *Route 9 & 1*
- b. *Route 1 & Minos Conaway Road*
- c. *Conley's Chapel Road & Wil King Road*
- d. *Route 16 & Route 13*

2. Where do you work?

- a. *Retired*
- b. *Retired*
- c. *Route 1 & Postal Lane*
- d. *Route 16 & Route 13*

3. Do you think DeIDOT and the Town of Milton should study ways that SR 16 through Milton could be redeveloped like a traditional main street with better connections for people who walk, bike and take transit?

See preliminary recommendations 16-9 through 16-11 for additional details. This study would explore alternatives for SR 16 through Milton including the feasibility of providing a bypass for through traffic.

3 replied strongly agree, 1 replied neutral

4. Do you think DeIDOT should study ways to improve safety and alleviate congestion along US 9 between SR 5 (Harbeson Road) and SR 1 (Coastal Highway)?

See preliminary recommendations 9-6 through 9-7 for additional details. This study would explore the feasibility of widening US 9.

3 replied strongly agree, 1 replied neutral

5. Do you think that Sussex County and DeIDOT should plan for the future by developing uniform setback standards along major corridors like US 9 to ensure that there is sufficient right of way for future needs like roadway widening?

See preliminary recommendations 9-8, 9-9, and G-6 through G-8 for additional details.

2 replied strongly agree, 1 replied agree, 1 replied disagree

6. Once complete, how likely are you to use the Georgetown-Lewes Trail, or similar, low-stress trails and pathways for walking and biking as an alternative to driving for some trips?

2 replied strongly agree, 2 replied neutral

7. Do you think that Sussex County and DeIDOT should work together to ensure that incoming residential and commercial developments are more interconnected?

See preliminary recommendations G-1 through G-5 for additional details. Multiple connections between developments and the surrounding streets, as opposed to a single road in/out improve safety and alleviate traffic. Connecting communities also improves mobility options for residents and access for emergency responders.

4 replied strongly agree

8. Please provide any other feedback you have regarding the Coastal Corridors Study and the preliminary recommendations available for review on the [project website](#)

- a. Extra fees for out of state cars at toll booths*
- b. While my husband and I live just south of the Coastal Corridors, we and our neighbors are and will continue to be adversely affected by all construction projects planned and implemented along Rte. 1. Please, please put up air boards with messages like 'high traffic area' and 'watch for cross traffic' and to slow down, park a DSP vehicle on the shoulder with a mannequin in it to slow traffic, increase patrols and speed enforcement to hopefully prevent more accidents at Rte. 16 and Cave Neck Rd., lower the speed limits on affected roads.*
- c. No feedback given*
- d. Consideration should be given for sound abatement (e.g. landscaped embankments by developed areas, prohibiting brake retarders in certain areas, etc). Also, allow for wide shoulders so that law enforcement has a safe area to perform DUI and speed enforcement.*

APPENDIX C. SAFETY AND CAPACITY IMPROVEMENTS “TOOLBOX”

The Safety and Capacity Improvement “Toolbox” was presented to the Coastal Corridors Committee during the first meeting to provide an overview of the general types of network, roadway, and intersection improvements DelDOT deploys to improve the safety and capacity of the road network.

Safety and Capacity Improvements “Toolbox”

Every Trip.

We strive to make every trip taken in Delaware safe, reliable and convenient for people and commerce.

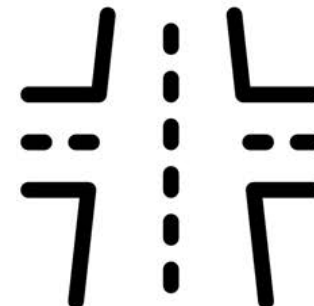
Network Level



Roadway Level



Intersection Level



Safety and Capacity Improvements “Toolbox”

Cost	
\$	<\$200K
\$\$	\$200k-\$2M
\$\$\$	\$2M-\$20M
\$\$\$\$	\$20M-\$200M
\$\$\$\$\$	>\$200M

Cost to implement improvements. Could be funded by public or private dollars.

Time	
*	<3 years
**	3-10 years
***	>10 years

Time required to program, plan, and design improvements.

Impact	
◇	low
◇◇	medium
◇◇◇	high

Impact to existing private property and members of the traveling public.



Safety and Capacity Improvements “Toolbox”

Network-Level

- **New Roadway Construction**

- e.g., North Millsboro Bypass, US 113 to SR 24

Pros	Cons	
Significant capacity increase	Cost	\$\$\$\$\$
Potential relief to congested areas	Time	000
Opportunity to add facilities for people walking or biking	Impact	***



Safety and Capacity Improvements “Toolbox”

Network-Level

- **New Interchange / Grade Separation**

- e.g., SR 1 and SR 16; many others along US 113 and SR 1
- Similar pros/cons to new roadway construction but with more limited scope / impact area

Pros	Cons	
Significant capacity increase	Cost	\$\$\$\$
Potential relief to congested areas	Time	000
Opportunity to add facilities for people walking or biking	Impact	**



Safety and Capacity Improvements “Toolbox”

Network-Level

- **Roadway Realignment**

- e.g., Georgetown East Gateway Improvements (minor intersection alignment)
- e.g., Park Avenue Relocation (major roadway realignment)

Pros	Cons	
Capacity improvements	Cost	\$\$\$-\$\$\$\$
Reduces dangerous turns and circuitous routes	Time	000
Opportunity to add facilities for people walking or biking	Impact	**



Safety and Capacity Improvements “Toolbox”

Network-Level

Improved Interconnectivity

- Most municipalities were developed with a grid pattern
- New commercial or residential developments are designed, funded, and built by the developer
- Developers may only propose one or two points of access to the surrounding street network
- Better interconnectivity with the existing street network has benefits:
 - Alleviates pinch points in the transportation network
 - Provides better emergency service response times
 - Potential for more direct routes for everyone - especially people walking and biking





Safety and Capacity Improvements “Toolbox”

Roadway-Level (On-alignment)

• Dualization / Widening

- e.g., SR 24 from SR 1 to west of Love Creek Elementary School and US 9 from SR 1 to Old Vine Rd are in construction/design
- When multiple critical (typically signalized) intersections reach a point where localized widening (turn storage, add/drop through lane) has been implemented or further improvements are not feasible/economical

Pros	Cons	
Capacity increase	Cost	\$\$\$\$
Relief to congested areas	Time	000
Opportunity to add facilities for people walking and biking	Impact	***
	Increased crossing distance for people walking and biking	

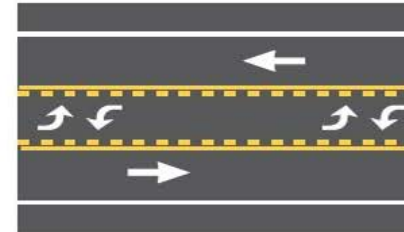


Safety and Capacity Improvements “Toolbox”

Roadway-Level (On-alignment)

- **Two-way Left-turn Lane (a.k.a. Center Turn Lane)**

- e.g., SR 24 at SR 5/SR 23



Pros	Cons	
Improves traffic flow/efficiency	Cost	\$\$-\$\$\$
Works well in areas with side streets/driveways	Time	◇◇
May “fit” within current roadway or right-of-way	Impact	**
May accommodate median refuge island for people walking	Increased crossing distance for people walking or biking	



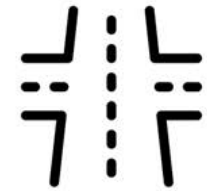
Safety and Capacity Improvements “Toolbox”

Roadway-Level (On-alignment)

- **Frontage/Service Roads**

- e.g., many of the SR 1 interchange projects provide frontage roads along SR 1 for access management purposes
- Relocate all crossing/conflicting maneuvers to a safer interchange or intersection

Pros	Cons	
Consolidates access points	Cost	\$\$\$\$
Decreases conflicts/improves safety	Time	◇◇◇
Improves traffic flow/efficiency	Impact	***
Opportunity to add facilities for people walking or biking	Increased crossing distance for people walking or biking	



Safety and Capacity Improvements “Toolbox”

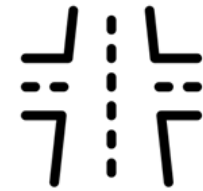
Intersection-Level

- **Add right-turn lane**

- A large speed differential in a through lane (cars slowing to turn or slowing behind someone) is a drain on roadway capacity and can result in higher crash rates



Pros	Cons	
Allows turning vehicles to slow outside through lane	Cost	\$-\$\$
Decreases conflicts/improves safety	Time	◇
Improves traffic flow/efficiency	Impact	*
	Increased crossing distance for people walking or biking	



Safety and Capacity Improvements “Toolbox”

Intersection-Level

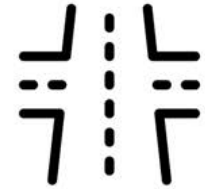
• Add left-turn lane

- Left turns from a through lane on an uncontrolled approach can be particularly dangerous as they must often stop completely to yield as opposed to just slowing down
- A left-turn lane can eliminate these “sitting duck” rear end crashes and provide capacity benefits

Pros	Cons	
Allows turning vehicles to slow/stop outside through lane	Cost	\$-\$\$
Decreases conflicts/improves safety	Time	◇
Improves traffic flow/efficiency	Impact	*
	Increased crossing distance for people walking or biking	

Safety and Capacity Improvements “Toolbox”

Intersection-Level



• All-way Stop Control

- Volume and crash warrants are provided in the MUTCD
- Stop signs not to be used as a speed control measure
- Where used appropriately, have been shown to provide significant safety benefits over two-way stop control
- DelDOT research at 20 recent statewide conversion:

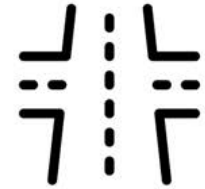


Table 2. Annual Crashes at Newly Converted AWSC Intersections

Total Annual Crashes from All Study Intersections	Crash Type					Severity		
	Total	Angle	Rear End	Single Vehicle	All Others	PDO	Injury	Fatal
Before	88.67	52.33	11.67	15.33	8.67	54.33	38.33	1.33
After	25.33	9.17	5.33	7.83	2.67	21.67	3.67	0.33
% Change	-71%	-82%	-54%	-49%	-69%	-60%	-90%	-75%

Safety and Capacity Improvements “Toolbox”

Intersection-Level



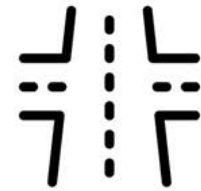
- **All-way Stop Control**



Pros	Cons	
Increased safety	Cost	\$
Ease of implementation	Time	◇
	Impact	*
Opportunity to add crosswalks for people walking		

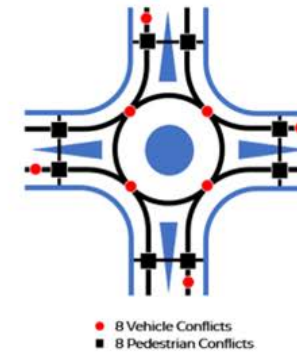
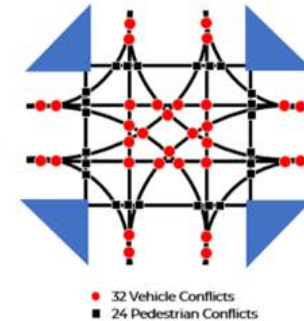
Safety and Capacity Improvements “Toolbox”

Intersection-Level



- **Roundabout**

- Keeps traffic on all approaches flowing safely (minimal conflict points) with no equipment to maintain
- Higher throughput capacity than all-way stop
- Effective speed control with proper design
- Generally require more right-of-way than other alternatives
 - Compact and mini roundabouts may be an alternative
- Longer timeline to implement and more impact to traffic during construction



Safety and Capacity Improvements “Toolbox”

Intersection-Level

- Roundabout



Pros	Cons	
Increased safety	Cost	\$\$-\$\$\$
Fewer conflict points/slower speeds	Time	00-000
Increased throughput	Impact	**
Opportunity to add crosswalks for people walking and biking	More right-of-way required than all-way stop	



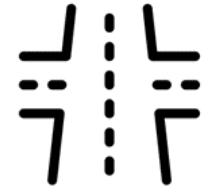
Safety Benefits:
Two-Way Stop-Controlled Intersection to a Roundabout

82%
reduction in fatal and injury crashes.¹

Signalized Intersection to a Roundabout

78%
reduction in fatal and injury crashes.¹

For more information on this and other FHWA Proven Safety Countermeasures, please visit <https://safety.fhwa.dot.gov/provencountermeasures/> and <https://safety.fhwa.dot.gov/intersection/roundabouts/index.cfm>.

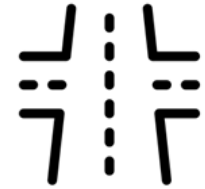


Safety and Capacity Improvements “Toolbox”

Intersection-Level

- **Signalization**

- Well-understood option for intersections reaching capacity
- Can reduce angle and injury crashes, but often rear-end and property damage crashes increase
- Many options to improve capacity and safety:
 - Add turn lanes
 - Left-turn phasing (protected-only, FRA, etc.)
 - Side-street phasing (concurrent vs. split)
 - Timing and coordination adjustments
 - Widening locally for additional through lane



Safety and Capacity Improvements “Toolbox”

Intersection-Level

- **Signalization**

Pros	Cons	
Increased capacity	Cost	\$\$
Adjustable (phasing/timing/coord.)	Time	◇◇
Reduce serious crash types	Impact	**
Opportunity to add crosswalks for people walking and biking	More right-of-way required than all-way stop	

APPENDIX D. ROADWAY SUFFICIENCY ASSESSMENT MAJOR CRASH LOCATIONS

SR 16 at US 113

Intersection Data:

- Signalized intersection
- RT, LT, and through movements at each approach

Potential issues:

- Short RT merge lanes
- Poor signing for LTs

Photos:

All photos were taken from the NW corner of the intersection



SR 16 at US 113 Aerial View (Google Maps)



Scotts Store Road at SR 404 (Seashore Highway)

Intersection Data:

- Stop controlled for Scotts Store Road with overhead flashing beacons for Scotts Store Road and SR 404
- Scotts Store Road—LT/RT turn lanes onto SR 404
- SR 404—LT/RT turn lanes onto Scotts Store Road

Potential issues:

- Poor intersection layout with several conflict points
- Steep side slopes at the northern corner of the intersection
- Water ponding on the southern corner of the intersection

Photos:

Ditch along north corner of intersection Water Ponding on east side of intersection

Intersection from east corner

Intersection from north corner



Scotts Store Road at SR 404 (Seashore Highway) Aerial View (Google Maps)



Newton Road at Adams Road

Intersection Data:

- Stop controlled for Adams Road
- Adams Road—RT turn lanes onto Newton Road
- Newton Road—Bypass lane, RT turn lanes onto Adams Road

Potential issues:

- Offset T-intersections: two intersections very close together
- Several conflict points
- Large horizontal curve very close to both intersections

Photos:

RT lane heading EB on Newton Rd



Intersection

RT lane and bypass lane looking WB on Newton Rd



Looking WB at Adams Rd



Newton Road at Adams Road Aerial View (Google Maps)



US 13 NB (Sussex Highway) at SR 16 (Market Street)

Intersection Data:

- Signalized intersection
- RT/LT turn lanes from US 13 NB to SR 16
- RT turn lane from SR 16 to US 13 NB

Potential issues:

- Several conflict points
 - Royal Farms entrance shortly after the intersection
- Signal poles very close to the intersection

Photos:

All photos were taken from the SE corner of the intersection



US 13 NB (Sussex Highway) at SR 16 (Market Street) Aerial View (Google Maps)



US 13 SB (Sussex Highway) at SR 16 (Market Street)

Intersection Data:

- Signalized intersection
- RT/LT turn lanes from US 13 SB to SR 16
- LT turn lane from SR 16 to US 13 SB

Potential issues:

- Several conflict points
 - Several business entrances very close to or essentially in the intersection
- Signal and UT poles very close to the intersection

Photos:

All photos were taken from the NE corner of the intersection



US 13 SB (Sussex Highway) at SR 16 (Market Street) Aerial View (Google Maps)



Redden Road at US 113

Intersection Data:

- Yield and stop controlled for Redden Road
- RT turn lane from Redden Road to US 113
- RT/LT turn lane from US 113 to Redden Road

Potential issues:

- From field observations, the traffic volumes coming from Redden Road onto US 113 seem very high (Video in the Field Data folder)
- Ponding water on the northern corner of the intersection

Photos:

All photos were taken from the NW corner of the intersection



Redden Road at US 113 Aerial View (Google Maps)



SR 30 (Gravel Hill Road) at Huff Road

Intersection Data:

- Stop controlled for Huff Road
- Only through movements at each approach

Potential issues:

- Poor sight distance from Huff Road
- Intersection is between a 7° curve and a 12.1° curve
- The speed limit is 50 mph on SR 30. However, it is not safe/possible to go 50 mph, making this area a hot spot for crashes involving a fixed object.

Photos:

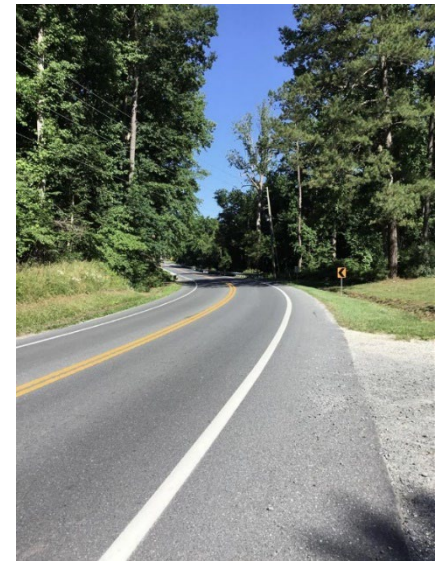
Looking left from Huff Rd



Looking right from Huff Rd

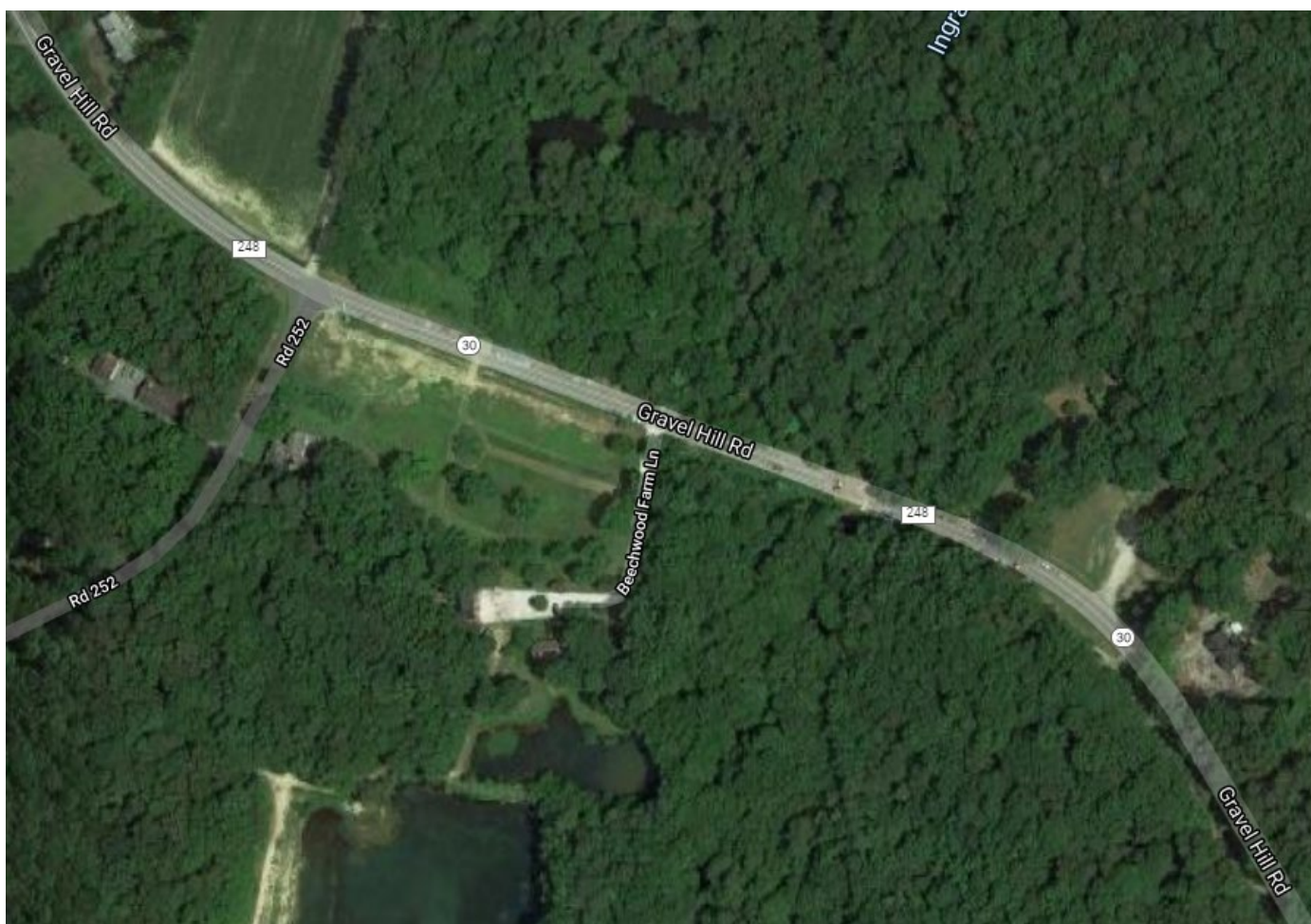


12.1° curve on SR 30, facing NB SB approach to 12.1° on SR 30



SR 30 (Gravel Hill Road) at Huff Road Aerial View (Google Maps)





SR 16 (Milton Ellendale Highway) at SR 30 (Gravel Hill Road / Isaacs Road)

Intersection Data:

- Signalized intersection
- Gravel Hill Road—RT turn lane onto SR 16

Potential issues:

- Heavy turning traffic from all directions
- Tight curve (10.6°) on Gravel Hill Road approaching the intersection

Photos:

SR 16 at SR 30 Intersection



SR 16 at SR 30 Intersection



10.6° curve on Gravel Hill Rd, facing NB



SR 16 (Milton Ellendale Highway) at SR 30 (Gravel Hill Road / Isaacs Road) Aerial View (Google Maps)



SR 16 (Milton Ellendale Highway / Broadkill Road) at SR 5 (Union Street)

Intersection Data:

- Signalized intersection
- Only through movements at each approach

Potential issues:

- High volume of LT turns from SR 16 (Milton Ellendale Highway) onto SR 5 NB (Union Street Ext.)
- The signal pole base at the NW corner is on the edge of pavement. May conflict with clear zone requirements
- Water ponding at the NW corner of the intersection

Photos:

Signal pole base on NW corner



Signal pole base on NW corner



Water ponding on NW corner



SR 16 (Milton Ellendale Highway / Broadkill Road) at SR 5 (Union Street) Aerial View (Google Maps)



SR 5 (Harbeson Road) at Shingle Point Road / Chestnut Street

Intersection Data:

- Stop controlled for Shingle Point Road / Chestnut Street
- RT turn lane from SR 5 onto Shingle Point Road
- RT turn lane from SR 5 onto Chestnut Street

Potential issues:

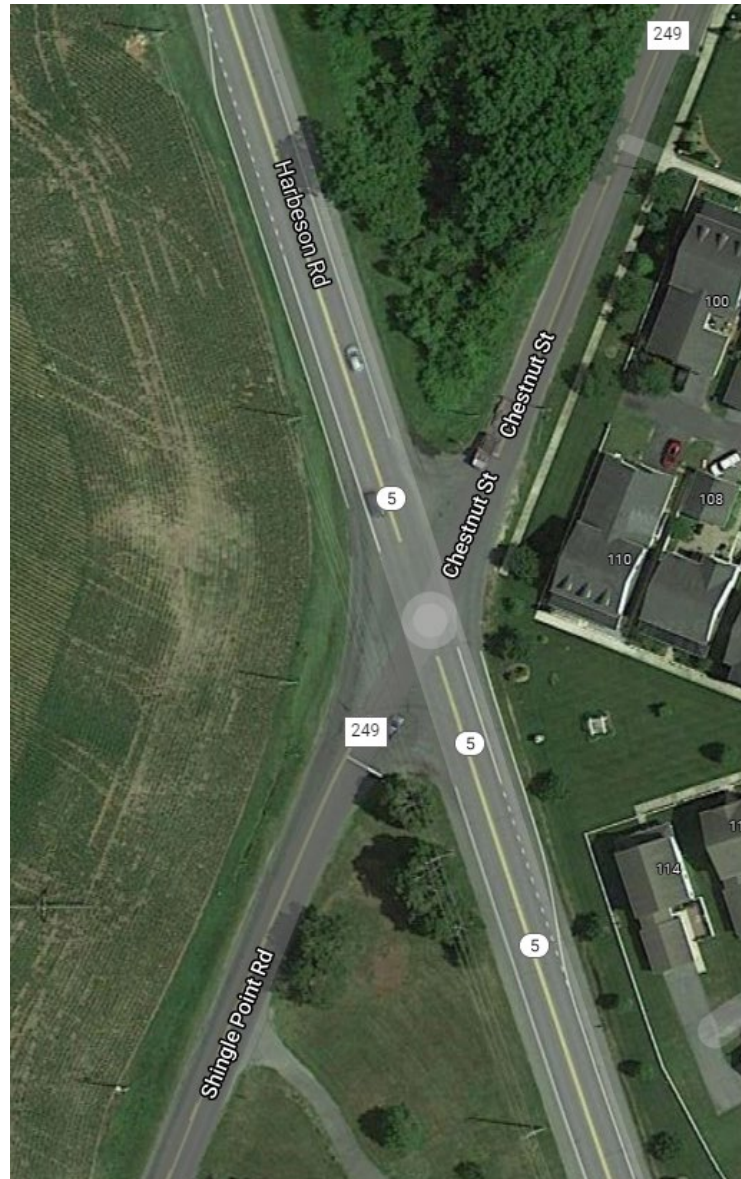
- Poor sight distance from Shingle Point Road due to trees

Photos:

Trees blocking the view of SR 5 NB traffic (Image source: Google Streetview)



SR 5 (Harbeson Road) at Shingle Point Road / Chestnut Street Aerial View (Google Maps)

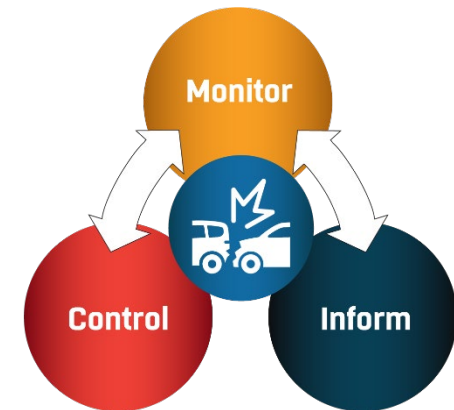


APPENDIX E. Traffic Data Sources and Traffic Count Summary

Integrated Transportation Management System (ITMS)

DelDOT's Transportation Management Center (TMC) monitors and manages DelDOT's response to transportation incidents throughout the state. The TMC's ITMS records transportation data over time. Live ITMS data including traffic flow and travel times are available at deldot.gov/map. The project team used historic traffic data from the TMC to understand changes in traffic patterns and travel times in recent years.

Device Type	What It Provides
Bluetooth Readers	Travel times, origins/destinations
Wavetronix Radar Detectors	Traffic volume, speed, and length-based classification
Traffic Signal System Detectors	Traffic volume and delay
Automatic Traffic Recorders (ATRs)	Traffic volume, sometimes speed, and axle-based classification



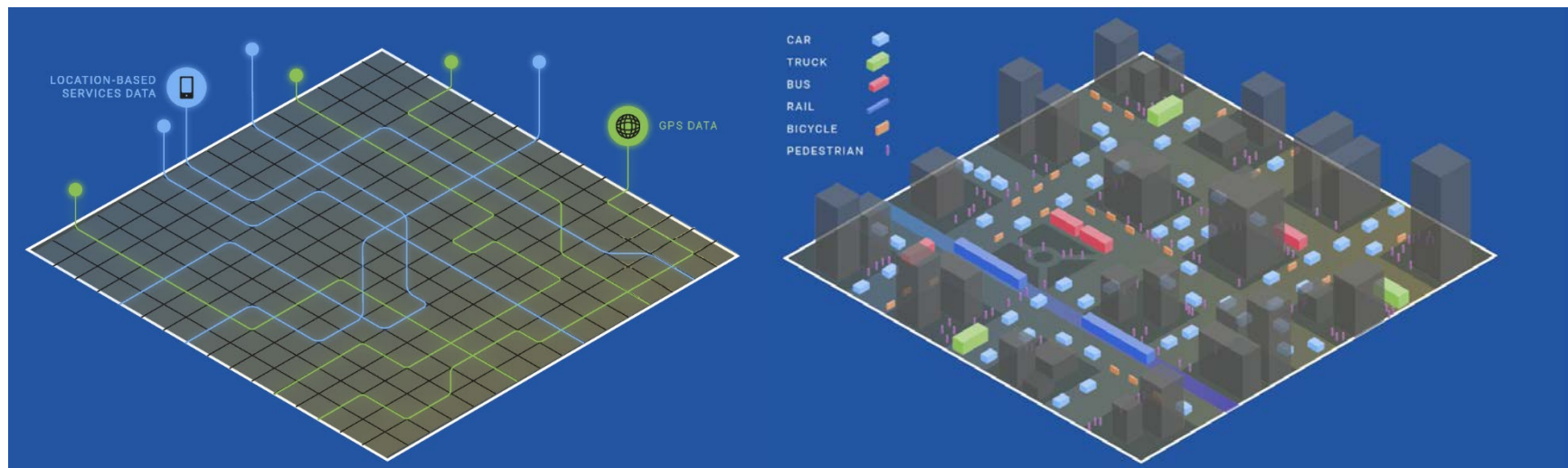
Turning Movement Counts

Turning movement counts were performed to supplement the TMC's ongoing monitoring. Some counts were performed manually by a person at the intersection using an electronic count board to count each movement. Other counts were performed using Miovision. Miovision captures traffic video at an intersection using a portable camera. Counts are derived from the video footage using a software analysis tool or by counting manually. Streetlight and INRIX were utilized to verify trends.

StreetLight

StreetLight Insight ("StreetLight") is a subscription-based web application. Data is derived from 40 billion anonymized location records from smartphones and navigation devices in connected cars and trucks. Data is processed through an algorithm and can be used to analyze travel patterns through a specific geographic area during specific times.

StreetLight data are sourced from a sufficiently large data set to provide relatively accurate estimates of roadway ADTs and intersection turning movement counts. Due to the parameters of the StreetLight algorithm, StreetLight is useful for determining yearly and seasonal "typical" volumes and traffic patterns but not for specific-day event or incident information. Generally, data availability lags by about 3–4 months.



StreetLight Insight graphic showing data sources and mode types

INRIX

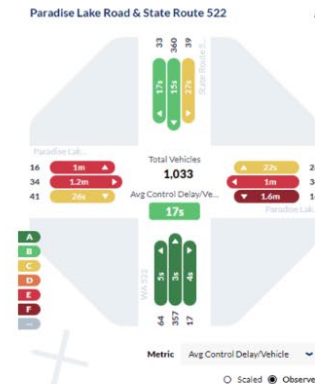
- INRIX Signal Analytics (INRIX) is a subscription-based web application
- Data is derived from connected cars and allows traffic professionals to identify and understand unnecessary delays at signalized intersections within a given geographic area
- Pros: Best for travel time and delay data at intersections and corridors customizable to project needs. Data is available within 1–3 days (*now the next day*) and is usable for specific days and specific peaks. Can also be averaged weekly/monthly. Some Advanced Traffic Signal Performance Measures (*continuing to develop these, more just released*)
- Cons: The data set is too small to extrapolate roadway or intersection counts. Requires more user setup and is limited to corridors the user sets up correctly – more reactionary/diagnostic than exploratory/big-picture

Arrival on Green



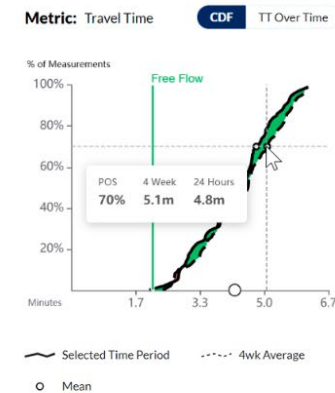
The percent of vehicles without a stop recorded at the intersection

Turning Movement



The number of observed vehicles making right turns, left turns, and through movements at the intersection for a chosen time period

Travel Time



The distribution of travel time for each movement at each intersection approach

Example of INRIX intersection data

The below traffic counts were conducted to supplement already available Wavetronix, Bluetooth, and StreetLight data.

2019 traffic counts:

- July
 - 9 weekend and weekday counts
 - Supplemental data collected at areas of interest
- August
 - 7 weekend counts
 - Supplemental data collected at areas of interest
- September
 - Supplemental data collected at areas of interest
- October
 - Supplemental data collected at areas of interest

2021 traffic counts:

- May
 - 30 AM and PM peak hour counts
- Saturday, October 30
 - 15 counts
- Summer counts could not be completed
 - Factored based on system loop data to estimate “true” summer Saturday volumes
- November
 - 5 fall weekday counts
 - Supplemental data collected at additional areas of interest

2022 traffic counts:

- Memorial Day weekend
 - 14 Friday afternoon turning movement counts
 - 7 weeklong ATR counts
- Summer
 - 17 Thursday AM and PM peak hour turning movement counts
 - 17 Saturday peak turning movement counts
 - 7 weeklong ATR counts

APPENDIX F. PRELIMINARY DATA CONCLUSIONS AND PATH FORWARD

This presentation was given to DelDOT leadership to review the results of the preliminary traffic analysis and determine the next steps necessary.



Coastal Corridors Study

Data Conclusions and Path Forward

November 5, 2019



Coastal Corridors Study

Purpose of the Meeting



2

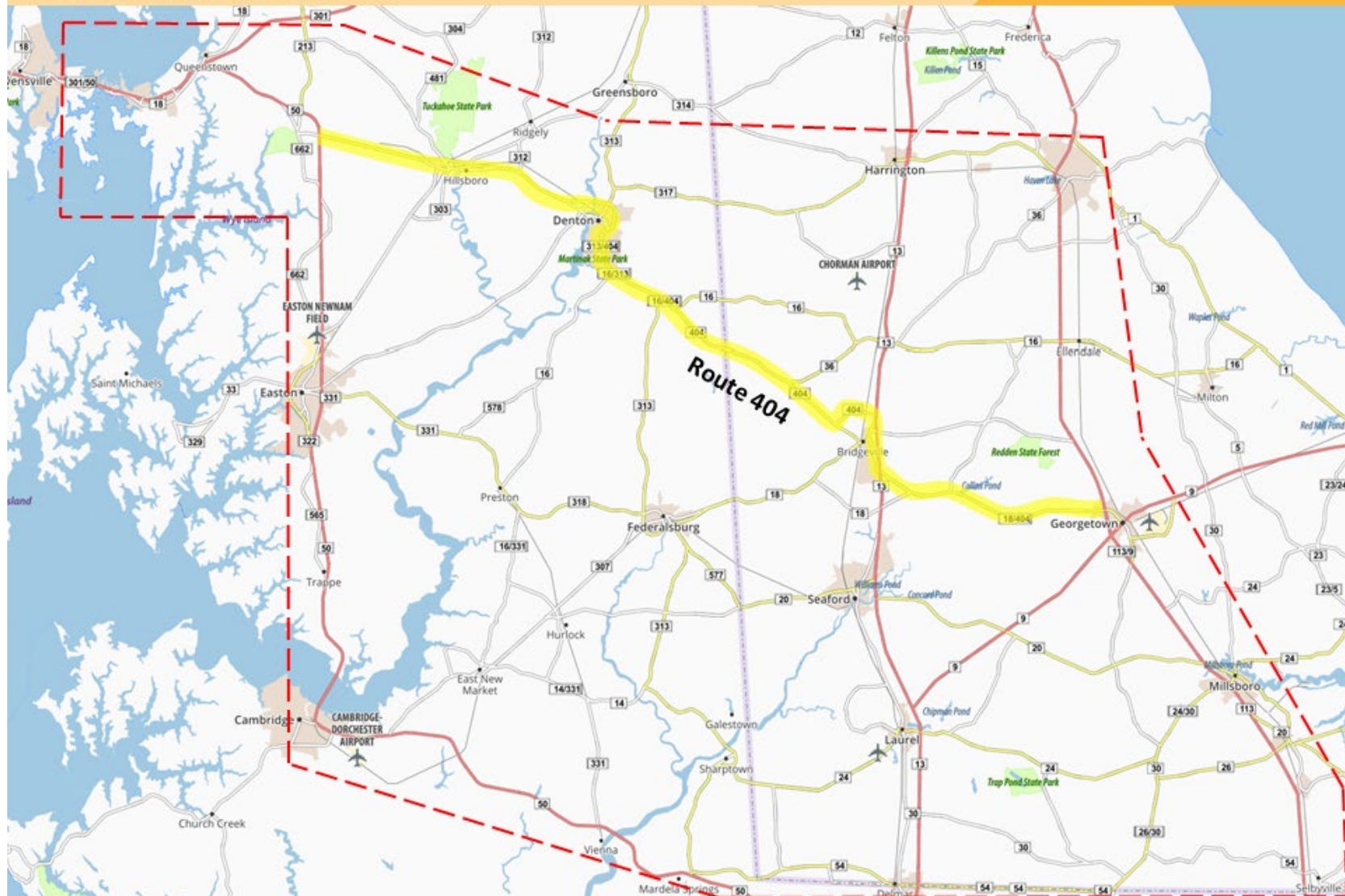
- Present data confirming that DE 404 is where DelDOT should focus its ongoing study efforts
- Determine what the first phase of those ongoing efforts should consist of

Coastal Corridors Study

Initial Study Area



3



Coastal Corridors Study

February 2019 Conclusions and Questions



4

- Initial conclusions from earlier this year
 - Most traffic from the Bay Bridge remains on US 50 down to Salisbury
 - Significant traffic turns onto MD 404
 - Once on MD 404, vehicles rarely divert onto other roads
 - Eastbound DE 404 right turns onto US 13 and northbound US 13 left turn on DE 404 are heavy
 - Other Sussex County roads west of US 13 do not see significant traffic or summer/weekend volume spikes
- Questions
 - Can we rule out US 50 as a part of the study area?
 - Are DE 14 and DE 16 used by beach-bound traffic?
 - Is the DE 404 bypass of Bridgeville effective at keeping beach-bound traffic out of downtown Bridgeville?
 - Is Redden Road used by beach-bound traffic?

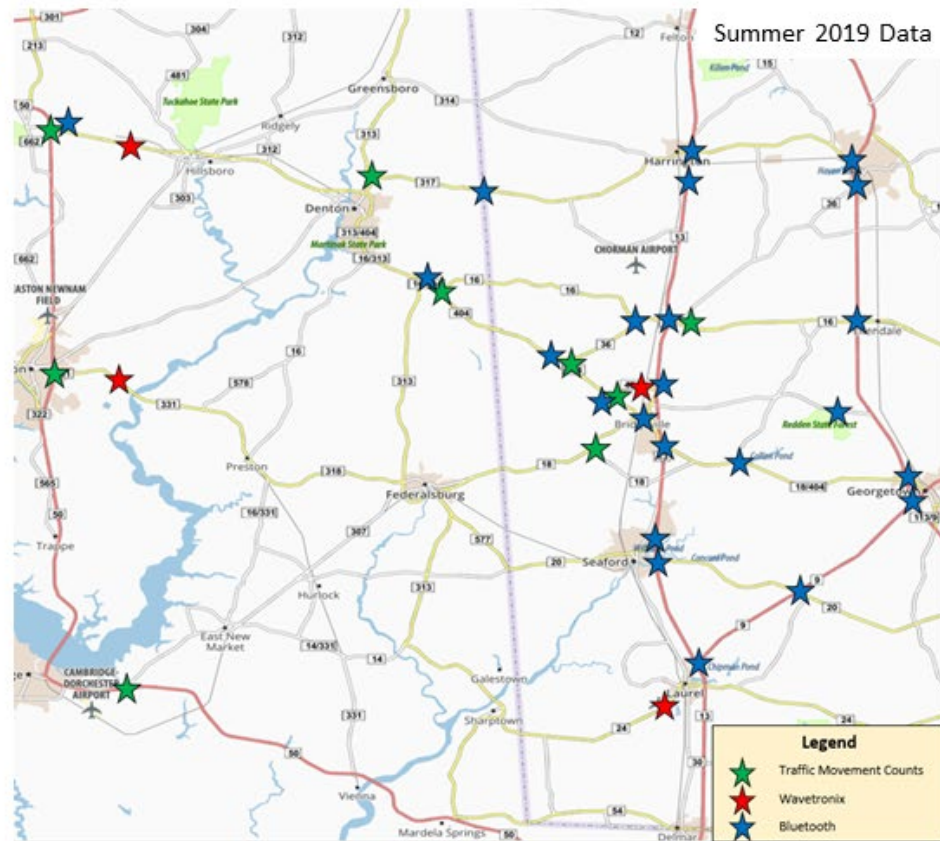
Coastal Corridors Study

Summer 2019 Data Collected



5

- Turning movement counts at 9 intersections
 - Weekday, Saturday, and Sunday
 - Last week of June 2019
- Wavetronix at 4 locations
 - Continuous data collection
 - First week in August to mid-September
- Bluetooth at 23 locations
 - Saturday, August 24
 - A collection of permanent and temporary locations

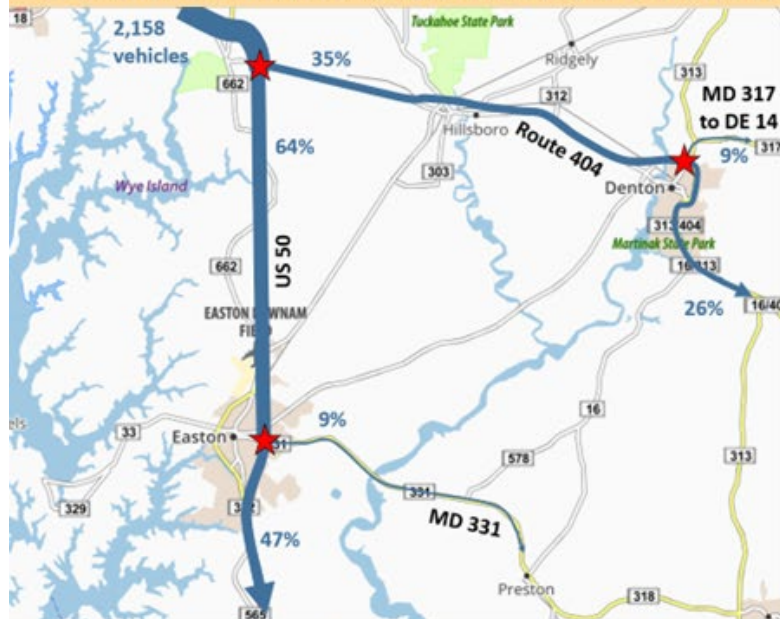


Coastal Corridors Study

June 2019 Weekday/Saturday Counts



6



Weekday Turning Movement Counts



Saturday Turning Movement Counts

- The majority of traffic approaching MD 404 on US 50 continues on US 50 and never enters western Sussex County
- The minimal traffic leaving US 50 to travel on local Maryland roads is likely local traffic (decrease in volume and share of volume on the weekends)
- MD 317 to DE 14 does not see significant traffic volumes, but it does experience a slight increase on weekends, suggesting a few beach-bound vehicles may use this route

Coastal Corridors Study

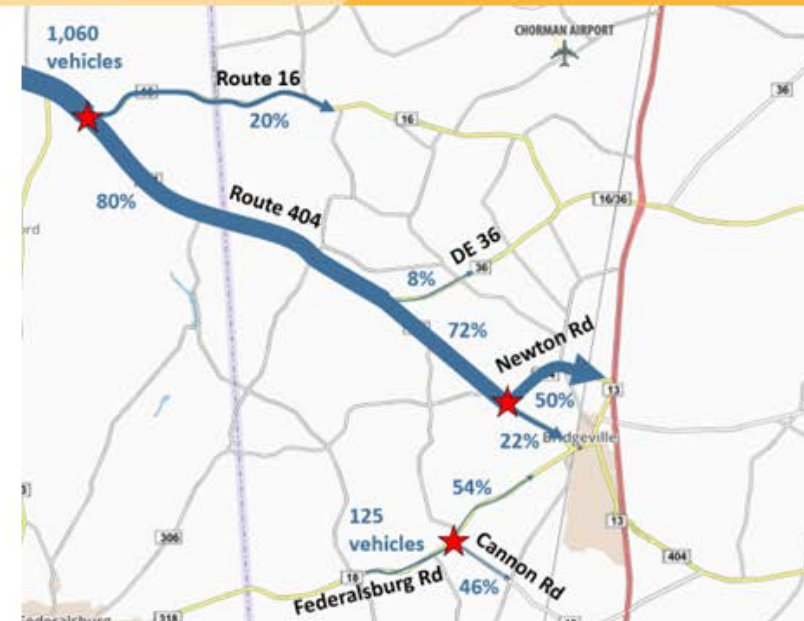
June 2019 Weekday/Saturday Counts



7



Weekday Turning Movement Counts



Saturday Turning Movement Counts

- A majority of vehicles entering Delaware on DE 404 use the signed bypass on Newton Road around Bridgeville
- Of the vehicles turning off DE 404 north of Newton Road, DE 16 is more popular than DE 36
- Volume shares are generally consistent from weekdays to Saturdays, but overall volume increases 23% on Saturdays
- Low volumes approaching Bridgeville from the southwest – not a significant volume entering Bridgeville and confirmation that DE 18 is not used as a beach-bound route in this area (Saturday volume is lower than weekday volume)

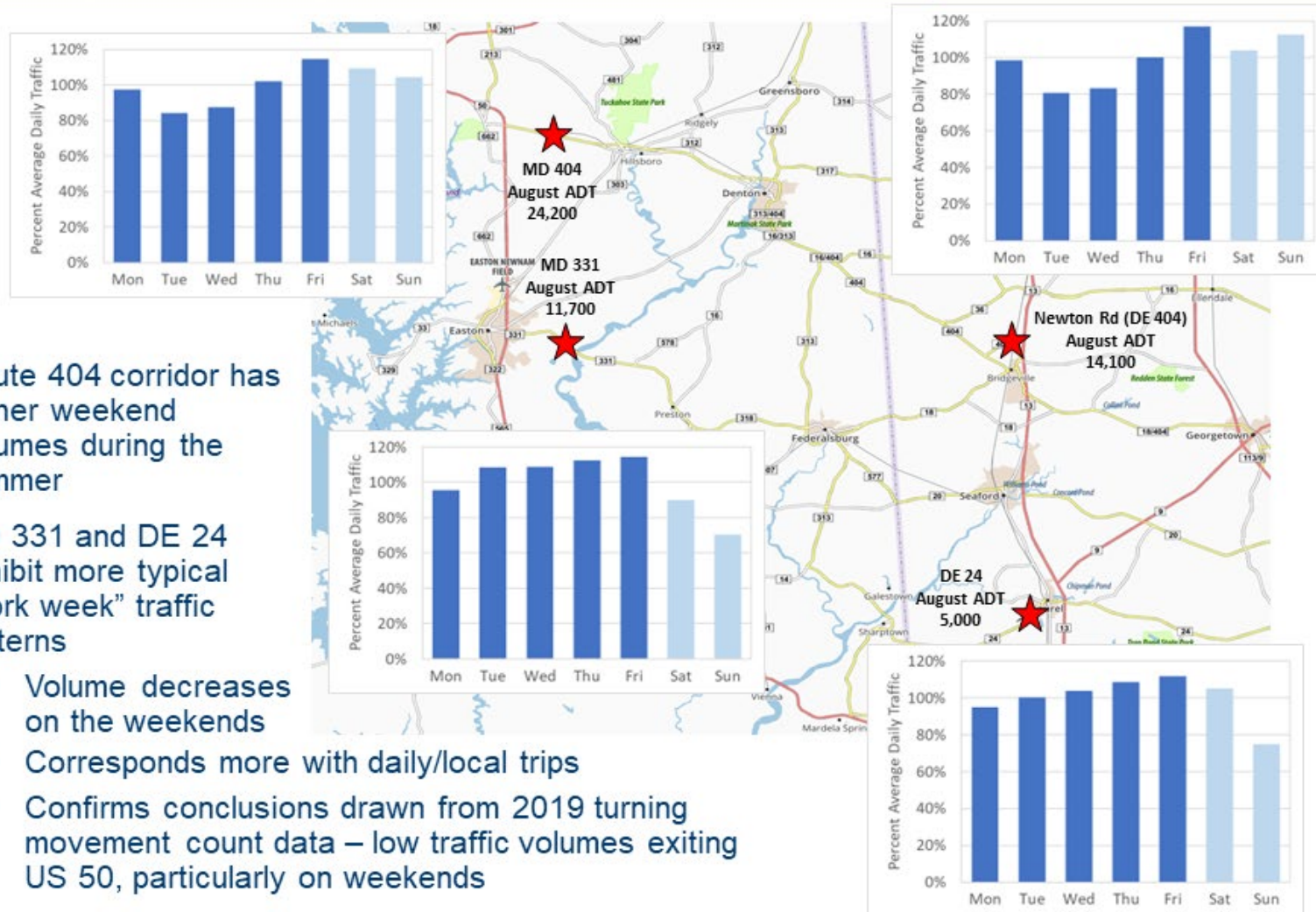
Coastal Corridors Study

2019 Wavetronix Data



8

- Route 404 corridor has higher weekend volumes during the summer
- MD 331 and DE 24 exhibit more typical “work week” traffic patterns
 - Volume decreases on the weekends
 - Corresponds more with daily/local trips
 - Confirms conclusions drawn from 2019 turning movement count data – low traffic volumes exiting US 50, particularly on weekends

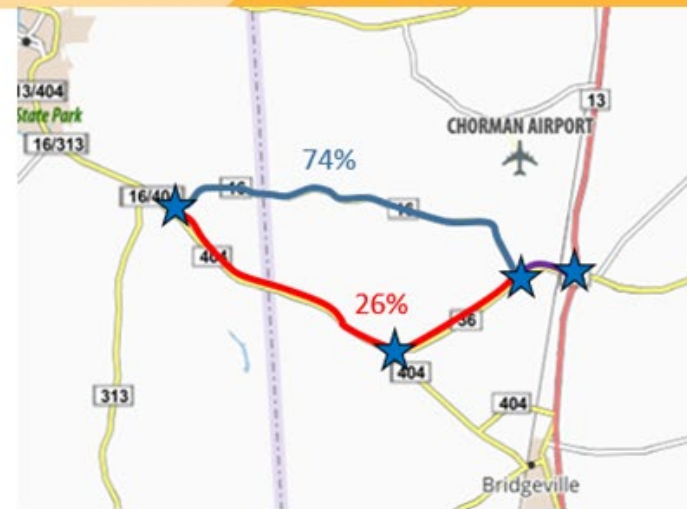


Coastal Corridors Study

Summer 2019 Bluetooth Data



9



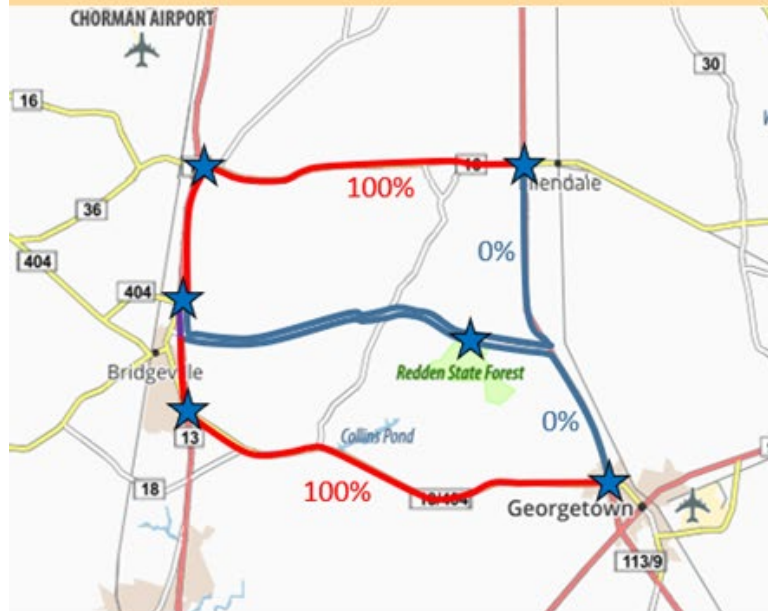
- For traffic that wishes to continue east towards Harrington, a significant majority leave MD 404 in Denton
- For traffic accessing DE 16/36 at US 13, a majority leaves MD 404 and takes MD/DE 16
- Some traffic does continue on MD/DE 404 to DE 36

Coastal Corridors Study

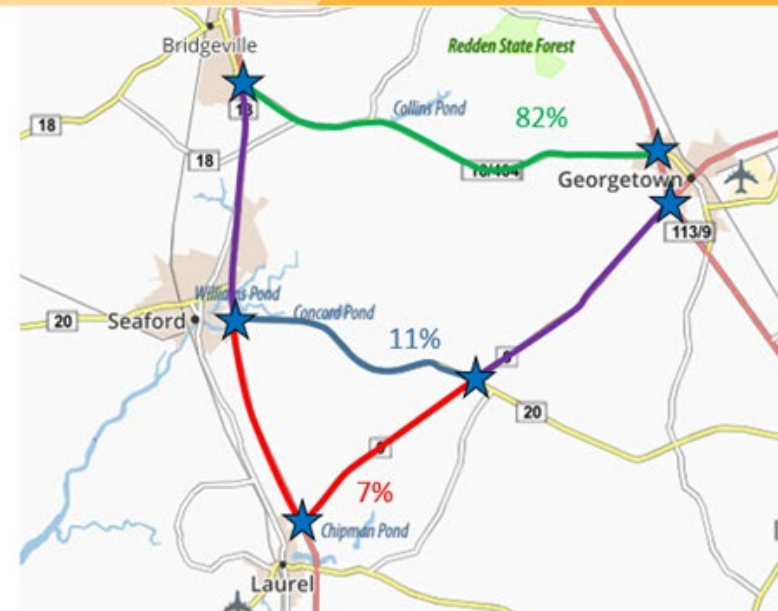
Summer 2019 Bluetooth Data



10



- A temporary Bluetooth detector on Redden Road did not record any matches between US 13 @ Newton Rd and major intersections on US 113
- It may be worthwhile to reevaluate this route as the study progresses



- Most traffic heading from Bridgeville to Georgetown will take DE 404
- While still relatively low, more traffic will take DE 20 than US 9 from Laurel

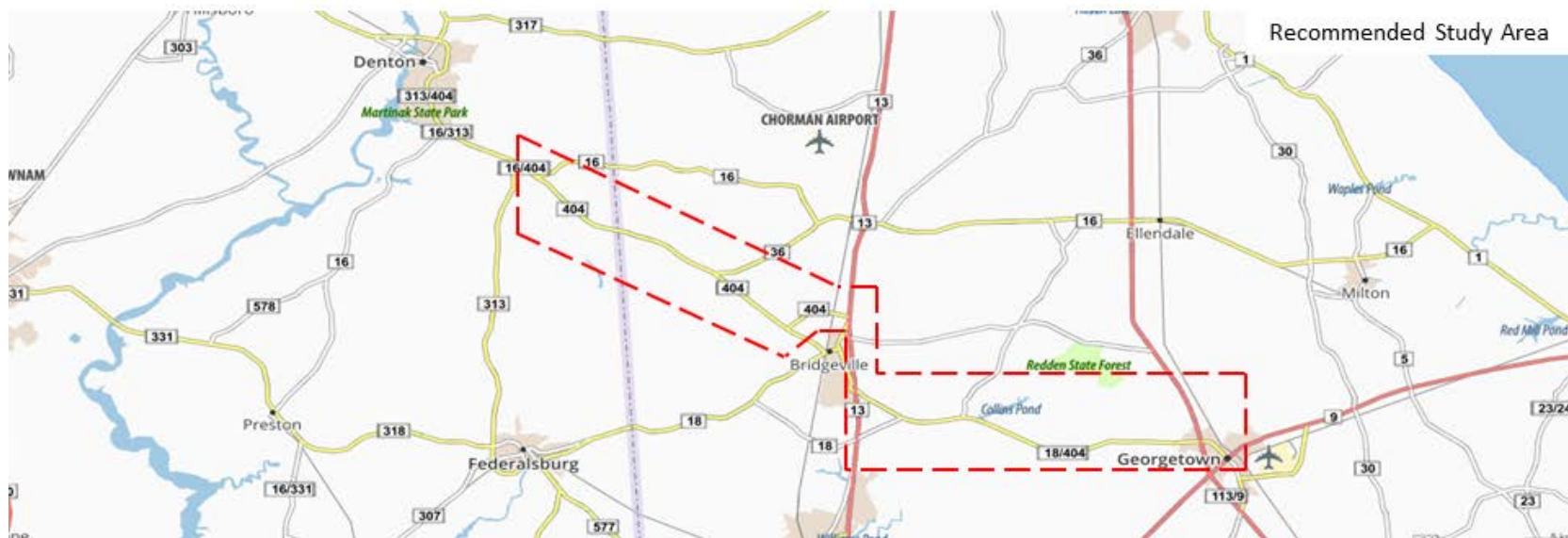
Coastal Corridors Study

Conclusions



11

- DE 404 should be the focus of the study west of US 13
 - US 50 has significant eastbound traffic on summer weekends, but that traffic typically does not leave US 50 and use Maryland local roads to enter Sussex County
 - MD 16 is the first notable departure from MD/DE 404 – it is a small proportion of traffic
 - Traffic entering Delaware on DE 404 largely stays on this road until Bridgeville
- Downtown Bridgeville does not experience significant beach-bound traffic
 - Eastbound DE 404 traffic largely bypasses Bridgeville on Newton Road
 - Roads southwest of Bridgeville do not have significant traffic volumes entering town
- Redden Road does not appear to experience significant beach-bound traffic



APPENDIX G. US 9 DUALIZATION ANALYSIS

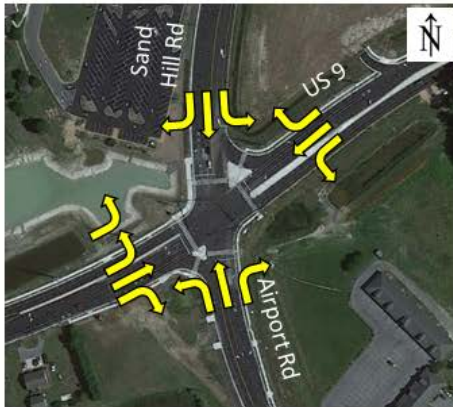
For the purposes of this study, the model growth rate was applied to all movements at the US 9 signals analyzed, rather than running the model to obtain projections for each and every side street.

US 9 @ Airport Road/Sand Hill Road

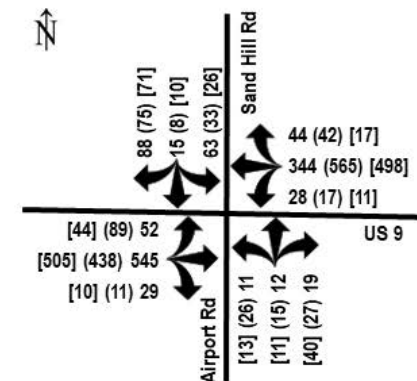
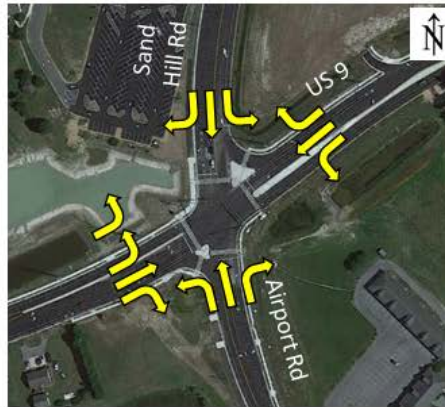
Synchro Delay / LOS	Existing	2050 No Build	2050 Dualization
Summer AM	24.7 sec (C)	28.4 sec (C)	28.4 sec (C)
Summer PM	26.6 sec (C)	26.7 sec (C)	26.7 sec (C)
Summer Saturday	25.0 sec (C)	28.4 sec (C)	28.4 sec (C)

* End of dualization, so no change here

Existing



Dualization



AM/PM: Thursday August 18, 2022

SAT: Saturday August 20, 2022

AM (PM) [SAT]

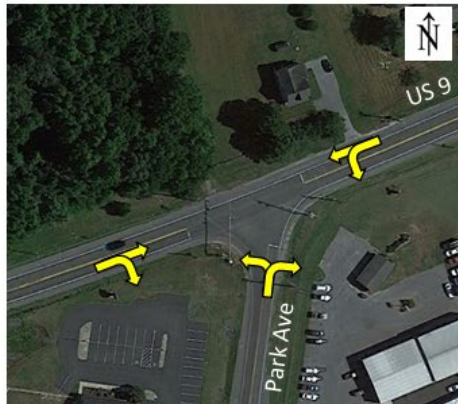
Signal operates FREE

** 2050 Volumes assume 0.6% annual growth
18% growth by 2050

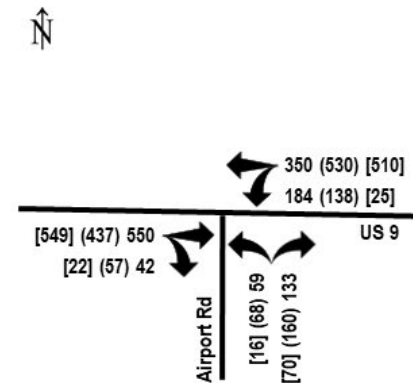
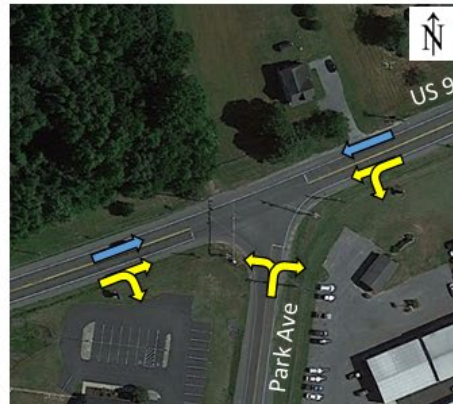
US 9 @ Park Avenue

Synchro Delay / LOS	Existing	2050 No Build	2050 Dualization
Summer AM	14.8 sec (B)	45.2 sec (D)	10.6 sec (B)
Summer PM	16.5 sec (B)	41.5 sec (D)	12.0 sec (B)
Summer Saturday	7.8 sec (A)	7.9 sec (A)	6.9 sec (A)

Existing



Dualization



AM/PM: Grown from Offseason Counts
 SAT: Grown from July 28, 2012
 AM (PM) [SAT]

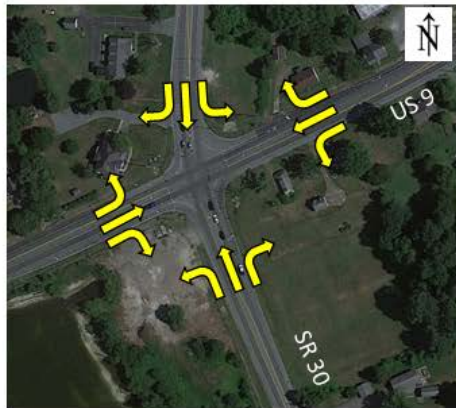
Signal operates FREE

** 2050 Volumes assume 0.6% annual growth
 18% growth by 2050

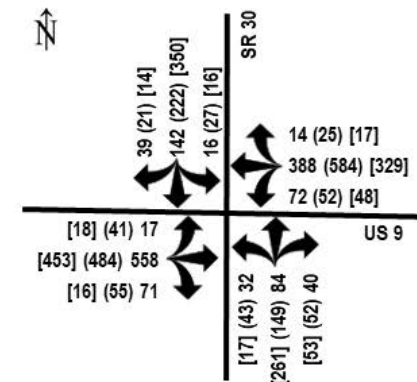
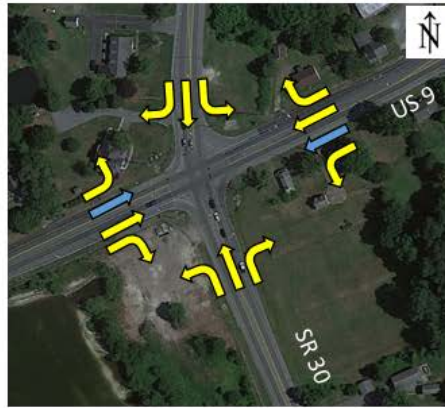
US 9 @ SR 30

Synchro Delay / LOS	Existing	2050 No Build	2050 Dualization
Summer AM	22.9 sec (C)	27.8 sec (C)	22.7 sec (C)
Summer PM	29.2 sec (C)	34.2 sec (C)	27.2 sec (C)
Summer Saturday	34.8 sec (C)	45.7 sec (D)	42.7 sec (D)

Existing



Dualization

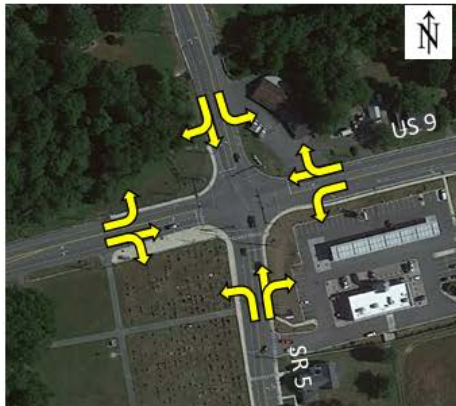


** 2050 Volumes assume 0.6% annual growth
18% growth by 2050

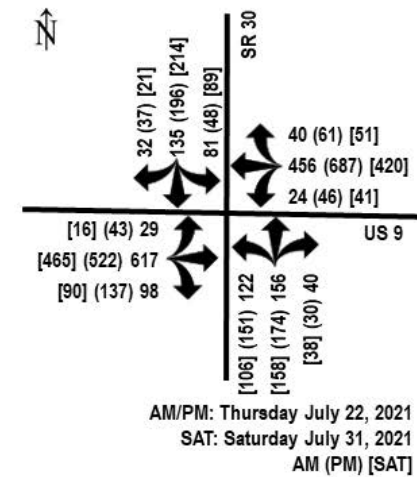
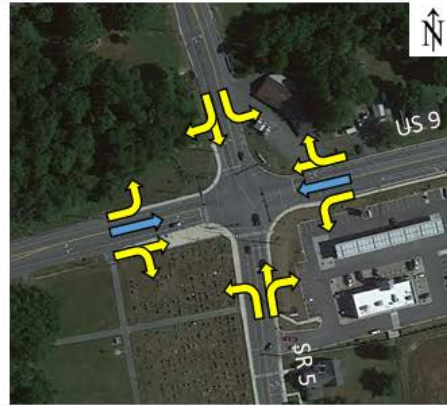
US 9 @ SR 5

Synchro Delay / LOS	Existing	2050 No Build	2050 Dualization
Summer AM	38.0 sec (D)	53.2 sec (D)	30.4 sec (C)
Summer PM	47.9 sec (D)	79.4 sec (E)	35.9 sec (D)
Summer Saturday	35.9 sec (D)	47.6 sec (D)	31.2 sec (C)

Existing



Dualization

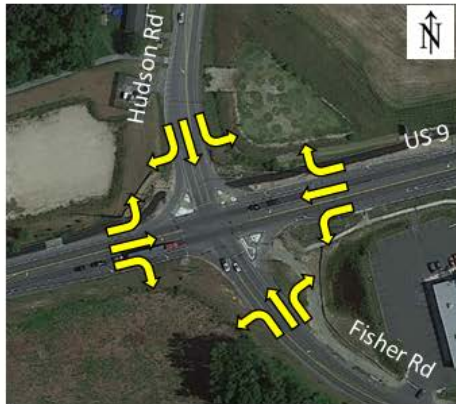


** 2050 Volumes assume 0.6% annual growth
 18% growth by 2050

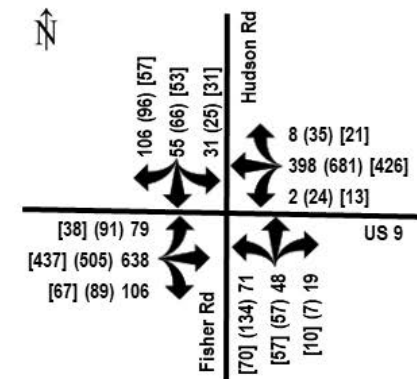
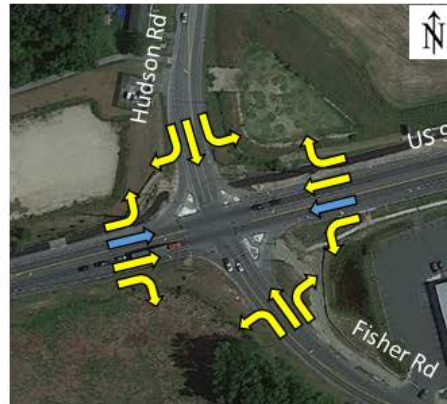
US 9 @ Hudson Road/Fisher Road

Synchro Delay / LOS	Existing	2050 No Build	2050 Dualization
Summer AM	22.6 sec (C)	26.8 sec (C)	21.5 sec (C)
Summer PM	28.6 sec (C)	36.6 sec (D)	24.1 sec (C)
Summer Saturday	21.2 sec (C)	22.5 sec (C)	19.8 sec (B)

Existing



Dualization



AM/PM: Wednesday July 21, 2021

SAT: Saturday July 24, 2021

AM (PM) [SAT]

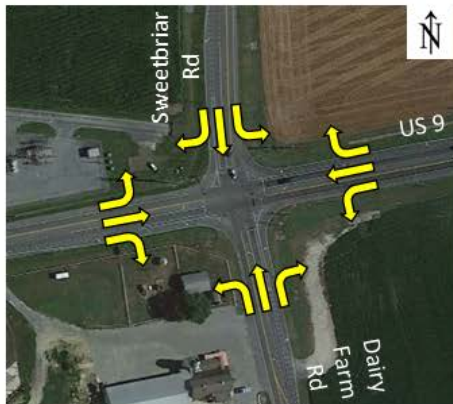
Signal operates FREE

** 2050 Volumes assume 0.6% annual growth
18% growth by 2050

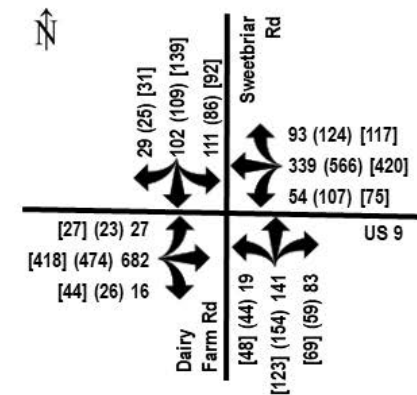
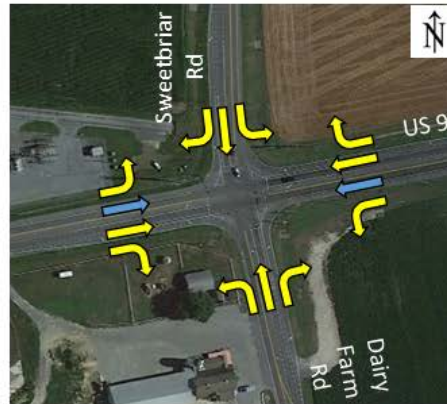
US 9 @ Sweetbriar Road/Dairy Farm Road

Synchro Delay / LOS	Existing	2050 No Build	2050 Dualization
Summer AM	34.0 sec (C)	45.7 sec (D)	30.0 sec (C)
Summer PM	30.7 sec (C)	35.4 sec (D)	29.6 sec (C)
Summer Saturday	29.6 sec (C)	32.3 sec (C)	29.1 sec (C)

Existing



Dualization



AM/PM: Wednesday July 28, 2021

SAT: Saturday August 7, 2021

AM (PM) [SAT]

Signal operates FREE

** 2050 Volumes assume 0.6% annual growth
18% growth by 2050

APPENDIX H. Land Development Projects

Proposed development projects on SR 16 and US 9 in the planning area are listed below in order from west to east. Please visit the [PLUS Project Information Dashboard](#), the [Sussex County Land Use Application Docket](#), or the [Sussex County DeIDOT Agreement Dashboard](#) for up to date information and a map showing the development site.

SR 16 Corridor Land Development Projects

- The Enclave at Starwood
 - Location: Northwest corner of SR 16-US 113 intersection
 - Status: under review
 - Dwelling units: 697
 - Commercial square footage: 367,350
- Newdale Acres
 - Location: Near SR 16-US 113 intersection
 - Status: under construction
 - Dwelling units: 296
- Garey Farm
 - Location: Ellendale
 - Status: Under review
 - Dwelling units: 491
- Ingram Village
 - Location: Ellendale
 - Status: Under construction
 - Dwelling units: 399
- Captain's Way
 - Location: north side of SR 16 between Ellendale and Milton
 - Status: Under construction
 - Dwelling units: 301
 - Commercial square footage: 130,680
- Milton Village
 - Location: Southeast corner of SR 16-SR 30 intersection

- Status: TIS [approved in 2023](#). Phase I received preliminary approval from [Sussex County Planning & Zoning Commission on October 13, 2022](#).
 - Dwelling units: 696
 - Commercial square footage: 325,000, includes an assisted living facility
- Harper's Glen
 - Location: Near SR 16-SR 30 intersection
 - Status: Received preliminary approval from approval from [Sussex County Planning & Zoning Commission on April 14, 2022](#).
 - Dwelling units: 33
- Royal Farms
 - Location: Northwest corner of SR 16-SR 5 intersection
 - Status: Site plan approved by Milton
 - Commercial square footage: 4,708
- Milton McDonalds
 - Location: Northeast corner of SR 16-SR 5 intersection
 - Status: under review
 - Commercial square footage: 12,010
- Your Space Milton
 - Location: Southwest corner of SR 15-SR 5 intersection
 - Status: under review
 - Commercial square footage: 113,480
- DE Storage Milton
 - Location: Northwest corner of SR 16 and Palmer Street
 - Status: under review
 - Commercial square footage: 118,400
- Cypress Grove
 - Location: Milton
 - Status: Under construction
 - Dwelling units: 240
 - Commercial square footage: 20,000

US 9 Corridor Land Development Projects

- Isaac's Farm
 - Location: Georgetown
 - Status: PLUS process complete, County reviews complete, no building permits issued
 - Dwelling units: 332
 - Commercial square footage: 171,590
- The Oaks at Georgetown
 - Location: Georgetown
 - Status: PLUS process complete, County reviews complete, no building permits issued
 - Dwelling units: 506 (in addition to existing apartment units)
- Greenlea Place
 - Location: Georgetown
 - Status: PLUS process complete, County reviews complete, no building permits issued
 - Dwelling units: 127 (senior living)
- CHEER – Gateway Village
 - Location: Georgetown
 - Status: PLUS process complete
 - Dwelling units: 500 (senior living)
- County Seat RV Resort
 - Location: US 9-Sand Hill Road intersection
 - Status: PLUS process complete
 - Commercial square footage: 60,000
 - Other: 304 campsites, 46 cabins
- Leeward Chase
 - Location: US 9 between Airport Road and Park Avenue
 - Status: PLUS process complete, County reviews underway
 - Dwelling units: 106
- Wilson Moore / Azalea Woods
 - Location: Near US 9-SR 30 intersection
 - Status: PLUS process complete

- Dwelling units: 580
- Silver Oak Villas
 - Location: Northeast corner of US 9-SR 30 intersection
 - Status: PLUS process complete
 - Dwelling units: 42
- Hawthorne (FKA Landlock Acres)
 - Location: Near US 9-SR 30 intersection
 - Status: Under construction
 - Dwelling units: 214
- Hawthorne Ext.
 - Location: north of US 9, between SR 30 and Prettyman Road
 - Status: PLUS process complete, County reviews underway
 - Dwelling units: 100
- Beaver Creek – Phase 3
 - Location: Near US 9-SR 5 intersection
 - Status: Under construction
 - Dwelling units: 154
- Route 9 Wilkinson Property
 - Location: Northwest corner of US 9-Fisher Road intersection
 - Status: Complete
 - Dwelling units: 105
- Fisher Road Property
 - Location: Near US 9-Fisher Road intersection
 - Status: PLUS process complete, County reviews underway
 - Dwelling units: 264
- Cool Spring Crossing
 - Location: US 9 between Hudson Road and Sweetbriar Road
 - Status: Under review
 - Dwelling units: 2,000
 - Commercial square footage: 125,125 (includes an assisted living facility)

- Vineyards
 - Location: Northwest corner of US 9-Nassau Commons Boulevard intersection
 - Status: Under construction
 - Dwelling units: 984
 - Commercial square footage: 215,600

Other Planning Area Land Development Projects

- The Granary at Draper Farm
 - Location: Near SR 30-Sand Hill Road intersection
 - Status: Traffic Impact Study (TIS) [approved in 2022](#)
 - Dwelling units: 1,350
 - Commercial square footage: 60,000

APPENDIX I. PLANNING AREA CAPITAL TRANSPORTATION PROGRAM (CTP) PROJECTS

CTP projects are listed from west to east and are linked to their DelDOT project pages, which include up-to-date information on project status.

SR 16 Corridor CTP Projects

[US 113 at SR 16 \(Ellendale\) Grade Separated Intersection](#)

- This project was an outcome of the [US 113 North/South Study](#) which examined potential improvements throughout the entire length of US 113 in Delaware, from the Maryland state line in Selbyville to SR 1 north of Milford. The study was divided into four geographic areas: Millsboro-South (including Millsboro, Dagsboro, Frankford, and Selbyville), Georgetown, Ellendale, and Milford.
- The [Ellendale Area Environmental Assessment \(EA\)](#) was approved by the Federal Highway Administration (FHWA) on September 28, 2010, with a Finding of No Significant Impact (FONSI) on the natural and human environment. The issuance of a FONSI by FHWA concluded the environmental process for the Ellendale Area. The preferred alternative included a grade-separated intersection at US 113 and SR 16, which was first included in the FY13-FY18 DelDOT Capital Transportation Program (CTP). As of 2023, the project is in design.
- This project will install a grade-separated intersection at US 113 and SR 16 in Ellendale. The project will accommodate long-term transportation capacity needs as well as improve safety and maintain consistency with state/local plans for the transportation system along the US 113 corridor.
- Construction Start Date: TBD
- Construction End Date: TBD

[HEP SC, SR 30 at 16 Intersection Improvements](#)

- This project will install a roundabout at the intersection of SR 30 and SR 16.
- Construction Start Date: TBD
- Construction End Date: TBD

[HEP Sussex County, SR 1 and SR 16 Grade Separated Intersection](#)

- This project will replace the existing SR 1-SR 16 signalized intersection with a grade-separated intersection.
- Construction Start Date: Summer 2022
- Construction End Date: Fall 2025

US 9 Corridor CTP Projects

US 113 @ SR 18/SR 404 (Georgetown) Grade Separated Intersection

- This project and the other US 113 GSIs along US 9 was an outcome of the [US 113 North/South Study](#) which examined potential improvements throughout the entire length of US 113 in Delaware, from the Maryland state line in Selbyville to SR 1 north of Milford. The study was divided into four geographic areas: Millsboro-South (including Millsboro, Dagsboro, Frankford, and Selbyville), Georgetown, Ellendale, and Milford.
- The [Georgetown Area Environmental Assessment \(EA\)](#) was approved by the Federal Highway Administration (FHWA) on March 28, 2014, with a Finding of No Significant Impact (FONSI) on the natural and human environment. The issuance of a FONSI by FHWA concludes the environmental process for the Georgetown Area. The preferred alternative included a grade-separated intersection at US 113 and US 9, which was first included in the FY18–FY23 DeIDOT CTP. As of 2023, the project is in design. Section 0 of this report provides additional details on this project.
- This project will install a grade-separated intersection at the intersection of US 113 and SR 18 / SR 404 in Georgetown. SR 18 / SR 404 will be bridged over US 113, with loop ramps in the northeast and southwest quadrants. The project's improvements will also include widening US 113 to provide three lanes in each direction from Bedford Street to Ennis Street
- Construction Start Date: Fall 2024
- Construction End Date: Summer 2027

US 113 at US 9 Grade Separated Intersection

- This project will install a grade-separated intersection at the intersection of US 113 and US 9 in Georgetown.
- Construction Start Date: TBD
- Construction End Date: TBD

Georgetown East Gateway Improvements (Complete)

- This project realigned Sand Hill Road and Airport Road to intersect US 9 at one location at an improved angle and added turn lanes, pedestrian and bicycle facilities, and drainage improvements.
- Construction Start Date: Summer 2020
- Construction End Date: Spring 2022

Park Avenue Relocation, Phase 1

- This project will relocate Park Avenue to create a fourth leg of the South Bedford Street / Arrow Safety Road intersection, widen Arrow Safety Road to provide shoulders so that the road can be signed as the truck route, and install a roundabout at the intersection of South Bedford Street / Arrow Safety Road / Park Avenue.
- Construction Start Date: Spring 2022
- Construction End Date: Spring 2024

Park Avenue Relocation, Phase 2

- The project will improve Park Avenue from Park Avenue Relocation - Phase 1 to the intersection with US 9. The project includes the reconstruction of Park Avenue and US 9 to provide appropriate turn lanes and signals, and railroad crossing improvements. An estimated 65 parcels will be affected.
- Construction Start Date: 2024
- Construction End Date: 2027

HSIP SC, US 9 and SR 5 Intersection (Complete)

- This project widened the US 9 / SR 5 intersection to provide turn lanes.
- Construction Start Date: January 2019
- Construction End Date: Fall 2019

US 9 Widening, SR 1 to Old Vine Road

- This project consists of widening US 9, from SR 1 to Old Vine Road, to provide two travel lanes in each direction and complete associated intersection improvements. The purpose of the project is to provide additional capacity to accommodate the design year traffic volumes and improve the safety of the corridor. Improvements along this corridor were recommended by the Henlopen Transportation Improvement District technical analysis and study and the Five Points Working Group.
- Construction Start Date: TBD
- Construction End Date: FY 2029

Mulberry Knoll Road Extension from Cedar Grove Road to US 9 at Old Vine Road

- This new road segment was recommended by the Five Points Working Group and was studied as an alternative to widening Plantation Road from Robinsonville to Cedar Grove because of the high cost of the widening project. Based on the findings of the Henlopen Transportation Improvement District (TID), if Mulberry Knoll Road was extended to US 9, the Plantation widening would not be necessary prior to 2050.
- Construction Start Date: Design is funded and scheduled to begin in FY 2028.
- Construction End Date: TBD

Plantation Road Improvements, Robinsonville Road to US 9 (Phase 1)

- This project will improve intersection safety and pedestrian/bicycle facilities and realign the Plantation Road / Beaver Dam Road / US 9 intersection.
- Construction Start Date: Fall 2022
- Construction End Date: Winter (January–March) 2025

Georgetown to Lewes Trail, Fisher Road to Airport Road

- This is the final phase of the Georgetown–Lewes Trail. The project will include the construction of a multi-use trail along and adjacent to the state-owned railroad as well as road intersection improvements where the rail line crosses a road.
- Construction Start Date: Fall/Winter 2024
- Construction End Date: Spring 2026

Other Planning Area CTP ProjectsCave Neck Road, Hudson Road, and Sweetbriar Roads Intersection Improvement

- This project includes geometric changes to the Cave Neck Road-Sweetbriar Road intersection and the Cave Neck Road-Hudson Road intersection to address safety concerns. A 5-legged roundabout will be implemented.
- Construction Start Date: Right of way acquisitions are underway, and utilities work will begin in 2025.
- Construction End Date: TBD

SR 1 at S264 & S258 Intersection Improvements

- This project will provide median and side road channelization to allow certain movements and remove some movements at the SR 1-Eagle Crest Road / Oyster Rocks Road intersection and the SR 1-Hudson Road / Steamboat Landing Road intersection. The project includes the closure of some median crossovers and the improvement of auxiliary lanes.
- Construction Start Date: The construction schedule is not yet known and is dependent on coordination with the SR 1 and SR 16 grade separation project as well as local special events.
- Construction End Date: TBD

SR 1 and Cave Neck Road Grade Separated Intersection

- This project will install a grade-separated intersection at the intersection of SR 1 and Cave Neck Road.
- Construction Start Date: Spring 2026
- Construction End Date: Summer 2028

SR 1, Minos Conaway Road Grade Separated Intersection

- This project will install a grade-separated intersection to separate through movements on SR 1 and turning movements between SR 1 and Minos Conaway Road, Nassau Road, and Old Mill Road. A shared use path would also be constructed to accommodate pedestrians and bicyclists.
- Construction Start Date: Summer 2024
- Construction End Date: Spring 2027

Appendix J. Recommendations Matrix

COASTAL CORRIDORS TRANSPORTATION STUDY
SR 16 Preliminary Recommendations

* <3 years \$ < \$200K ◇ - Low
** 3-10 year \$\$ \$200K - \$2M ◇◇ - Medium
*** >10 years \$\$\$ \$2M - \$20M ◇◇◇ - High
\$\$\$\$ \$20M - \$200M
\$\$\$\$\$ > \$200M

#	Preliminary Recommendation	Location	Priority	Level	Type	Assumed Lead Agency	Study Timeframe	Imp. Timeframe	Imp. Cost	Imp. Impacts	Purpose	Status	Implementation Type
		Ordered west to east	◇ ◇◇ ◇◇◇	Network Corridor Intersection	Policy Study Infrastructure	Municipality DeIDOT (Specify Division) Sussex County	* ** ***	* ** ***	\$ \$\$ \$\$\$ \$\$\$\$ \$\$\$\$\$	◇ ◇◇ ◇◇◇			1 = conduct under existing operations 2 = needs second phase of study 3 = needs CTP line item 4 = monitor 5 = County or municipal
16-1	Ensure a low-stress pedestrian and bicycle connection is provided between downtown Ellendale and the Enclave at Starwood as part of the US 113/SR 16 Grade Separated Interchange (GSI) Project.	US 113		Corridor	Infrastructure	DeIDOT Planning	*	**	\$\$	◇◇	During the Corridors Committee process, representatives from Ellendale indicated that the Town intends to annex the parcel proposed for development at the northwest corner of the US 113/SR 16 intersection. A low-stress pedestrian and bicycle connection will ensure that town residents will be able to safely access Main Street in Ellendale via walking or biking.	Design is scheduled for FY 26- FY 27. The construction year is TBD. Implementation cost and impacts are for the pathway portion of the GSI project, not the entire GSI project. Including bike and pedestrian connectivity is now standard for GSI designs and will be incorporated in the project.	1
16-2	Assess current and projected use of N. Old State Road and Fleatown Road as secondary access to 113 from new developments on North Old State Road. Determine whether any safety, capacity, or geometric improvements are warranted.	US 113 to N. Old State Road		Network	Study	DeIDOT Planning	**	***	\$\$\$	◇◇◇	Fleatown Road provides an alternate connection between US 113 and Ellendale via N. Old State Road. It is currently a two-lane road with no shoulders. As area development increases, traffic volumes on Fleatown Road may increase resulting in capacity and safety concerns.	Monitor volumes and crash patterns along this corridor.	4
16-3	Improve bicycle and pedestrian facilities along and across SR 16 in Ellendale. Explore the feasibility of eliminating on-street parking to provide bike lanes. Identify sidewalk gaps, and explore the provision of ADA-compliant sidewalks and crossing(s) of SR 16. Identify funding and implementation mechanism.	Ellendale		Corridor	Infrastructure	DeIDOT Planning and Municipality	*	**	\$\$	◇	Currently, on-street parking is allowed in the shoulder of SR 16 through Ellendale, however the parking is underutilized. Prohibiting on-street parking would allow for the striping of continuous traditional or buffered bike lanes through town. Additionally, there some gaps in the sidewalk network and no marked crosswalks over SR 16. ADA-compliant sidewalk and crossing improvements along with bike lanes would allow town residents to safely access destinations within town without the use of a motor vehicle.	The Town of Ellendale will need to restrict on-street parking on SR 16, after which they can coordinate improvements with DeIDOT Planning. During the June 2023 public workshop, two members of the public noted that some properties along this portion of SR 16 do not have access to off-street parking.	1
16-4	Require incoming development to provide bicycle and pedestrian connections to SR 16 proportionate to the scale and type of development and upgrade existing sidewalks to current ADA standards (5-foot width) where applicable.	N. Old State Road, others (Ellendale)		Network	Policy	Municipality	*	*	\$	◇	Multiple development proposals are recorded in and adjacent to Ellendale. Requiring developers to provide pedestrian and bicycle facilities provides people with a safe alternative to driving in order to access destinations within the Town.	Municipalities can request sidewalk as part of the development review process. Provision of a five foot sidewalk is consistent with current standards.	5
16-5	Conduct a high-level feasibility assessment of a low-stress bike connection between Ellendale and Milton. This assessment should include looking at the potential for Rail-with-Trail improvements.	Ellendale to Milton		Corridor	Study	DeIDOT Planning	**	*	\$\$\$	◇◇	The success of the Georgetown-Lewes Trail has demonstrated the demand for safe, low-stress trail connections between Sussex County municipalities. Members of the Coastal Corridors Committee and general public requested DeIDOT explore a connection between Ellendale and Milton.	This recommendation will be addressed as part of the Milton Active Transportation Plan which is programmed for FY24-FY25.	2

#	Preliminary Recommendation	Location	Priority	Level	Type	Assumed Lead Agency	Study Timeframe	Imp. Timeframe	Imp. Cost	Imp. Impacts	Purpose	Status	Implementation Type
		Ordered west to east	◇ ◇◇ ◇◇◇	Network Corridor Intersection	Policy Study Infrastructure	Municipality DelDOT (Specify Division) Sussex County	* ** ***	* ** ***	\$ \$\$ \$\$\$ \$\$\$\$ \$\$\$\$\$	◇ ◇◇ ◇◇◇			1 = conduct under existing operations 2 = needs second phase of study 3 = needs CTP line item 4 = monitor 5 = County or municipal
16-6	Ensure proposed roundabout at SR 16 and SR 30 consolidates access points and provides safe pedestrian and bicycle connectivity through the intersection.	SR 30		Intersection	Infrastructure	DelDOT Planning	*	*	\$\$	◇◇	A roundabout at SR 16 and SR 30 is included in the FY21-FY26 CTP as part of the Hazard Elimination Program (HEP). The Corridors Committee expressed interest in ensuring that roundabout include facilities for people walking and biking, and that the design limit impacts to the businesses located at that intersection, to the extent practicable.	A roundabout at SR 30 and SR 16 is in the CTP as part of the Hazard Elimination Program (HEP). Planning has shared this recommendation with Project Development South and it is being incorporated into the project design.	1
16-7	Conduct traffic and circulation analysis of Mulberry Street Extended and the SR 16 and Mulberry Street intersection to determine appropriate capacity and crossing improvements. Implement improvements along Mulberry Street Extended and at the SR 16 and Mulberry Street intersection based on recommendations of traffic and circulation analysis.	Mulberry Street		Intersection	Study	DelDOT Planning	*	*	\$	◇◇	Currently, Mulberry Street/Mulberry Street Extended is controlled by a two-way stop at SR 16. There is no crosswalk across SR 16. Commercial and residential development is proposed in the vicinity, including Royal Farms at the intersection of Union Street and SR 16, and the Granary residential neighborhood located to the south. This development will result in increased traffic, further impacting safety and circulation for all modes moving through this intersection.	This intersection is not being addressed by the Royal Farms development per the TIS. Recommendation will be addressed as part of SR 16 Study which is programmed for FY24-FY25.	2
16-8	Ensure proposed developer improvements at SR 16 and SR 5 provide adequate capacity improvements and pedestrian and bicycle improvements. Conduct a signal phasing study once improvements are confirmed to optimize circulation (e.g., split phasing).	SR 5		Intersection	Infrastructure	DelDOT Development Coordination	*	*	\$\$	◇	Developer improvements including turn lanes and phases to improve motor vehicle capacity and flow are proposed for the intersection of SR 16 and SR 5. The south leg of SR 5/Union Street is severely constrained by buildings close to the right of way, limiting the ability to provide turn lanes. Future study should confirm optimal signal phasing to address that constraint during the plan review process.	Developer improvements include adequate bicycle and pedestrian improvements. Recommendation will be addressed as part of SR 16 Study which is programmed for FY24-FY25.	2
16-9	Explore the feasibility and benefits of an SR 16 bypass around Milton that would diverge from SR 16 east of the intersection of SR 16 and SR 30 and re-converge with SR 16 to the east of Milton town limits.	Milton		Network	Study	DelDOT Planning	**	***	\$\$\$\$\$	◇◇◇	An SR 16 bypass around Milton is not a need per the current and projected volumes of motor vehicle traffic along SR 16 through Milton, although volumes do spike in the summer and capacity is a concern at major intersections. Rather, the Town of Milton has an interest in re-envisioning SR 16 through Milton as more of a mixed-use main street that serves all modes of traffic and supports local businesses. The provision of a bypass would allow for SR 16 through Milton to be redeveloped as a complete street. Coordinate with recommendation 16-10 and 16-11.	Recommendations will both be addressed as part of the Milton SR 16 Corridor Study which is programmed for FY 24 – FY 25.	2
16-10	Explore the feasibility of widening SR 16 through Milton in order to accommodate future growth.	Milton		Corridor	Study	DelDOT Planning	**	***	\$\$\$	◇◇	A full widening of SR 16 through Milton is not a need per the current and projected volumes of motor vehicle traffic, although volumes do spike in the summer. However, capacity is a concern at major intersections, and given the spacing of those intersections through town, widening might provide capacity for future growth and improve the flow of current through traffic. Coordinate with recommendation 16-9.	Recommendations will both be addressed as part of the Milton SR 16 Corridor Study which is programmed for FY 24 – FY 25.	2

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		Ordered west to east	◇ ◇◇ ◇◇◇	Network Corridor Intersection	Policy Study Infrastructure	Municipality DelDOT (Specify Division) Sussex County	* ** ***	* ** ***	\$ \$\$ \$\$\$ \$\$\$\$ \$\$\$\$\$	◇ ◇◇ ◇◇◇			1 = conduct under existing operations 2 = needs second phase of study 3 = needs CTP line item 4 = monitor 5 = County or municipal
16-11	Improve bicycle and pedestrian facilities along and across SR 16 in Milton. Determine the appropriate short-term bicycle and pedestrian facilities. Identify sidewalk gaps and explore the provision of ADA-compliant sidewalks and crossing(s) of SR 16. Identify funding and implementation mechanism.	Milton		Corridor	Study	DelDOT Planning and Municipality	*	**	\$\$	◇	SR 16 provides east-west connectivity for people walking and biking, and is also where many Milton businesses and services are located. Facilities for people walking and biking are necessary to improve safety and connectivity.	Recommendation will be addressed as part of the Milton Active Transportation plan which is programmed for FY24-FY25.	2
16-12	Plan for bicycle and pedestrian facilities along and across SR 16 in Milton in consideration of long-term improvements. Determine appropriate bicycle facility type and fill existing sidewalk gaps in consideration of future vehicular volumes if a bypass is provided. Potential improvements could include crossing improvements, traffic calming, bump outs, on-street parking, lower speeds, and wayfinding signage.	Milton	◇◇◇	Corridor	Study	DelDOT Planning and Municipality	**	***		◇◇	SR 16 provides east-west connectivity for people walking and biking, and is also where many Milton businesses and services are located. Facilities for people walking and biking are necessary to improve safety and connectivity. Coordinate with recommendation 16-9.	Recommendation will be addressed as part of the Milton Active Transportation plan which is programmed for FY24-FY25.	2
16-13	Work with Delaware Transit Corporation via the DART Reimagined process to ensure adequate transit service to accommodate growth and support commuting in Ellendale and Milton.	Milton and Ellendale		Network	Study	Sussex County and Municipality	*	*	\$\$	◇	SR 16 provides east-west connectivity between more affordable housing opportunities inland and service industry jobs along the coast. Improved transit service would provide local residents with an affordable transportation option and encourage transit use.	DTC will be invited to be a part of subsequent studies in the study area. Recommendations will be addressed by the Milton Active Transportation Plan and the Milton SR 16 Corridor Study which is programmed for FY24-FY25.	5
16-14	Explore the feasibility of providing bicycle parking adjacent to bus stops in Ellendale and Milton.	Milton and Ellendale		Corridor	Policy	Municipality	*	*	\$	◇	Although DART buses provide two on-bus bike racks, bicycle parking adjacent to bus stops would ensure a secure place to lock a bike if the on-bus racks are already full when the bus arrives. Bike racks also provide an option for transit users who used a bike to travel to the bus stop but do not need to bring their bike on the bus.	DTC will be invited to be a part of subsequent studies in the study area. Recommendations will be addressed by the Milton Active Transportation Plan and the Milton SR 16 Corridor Study which is programmed for FY24-FY25.	5
16-15	Explore the feasibility of requiring bicycle parking in conjunction with private development.	Milton and Ellendale		Corridor	Policy	Municipality	*	*	\$	◇	In order for biking to be a viable transportation option, safe and secure bike parking needs to be provided near destinations. One way to ensure bike parking is provided close to the end destination is to require it be provided as part of any private commercial development.	Recommendations will be addressed by the Milton Active Transportation Plan which is programmed for FY24-FY25.	5

COASTAL CORRIDORS TRANSPORTATION STUDY
US 9 Recommendations

* <3 years \$ < \$200K ◇ - Low
** 3-10 years \$\$ \$200K - \$2M ◇◇ - Medium
*** >10 years \$\$\$ \$2M - \$20M ◇◇◇ - High
 \$\$\$\$ \$20M - \$200M
 \$\$\$\$\$ > \$200M

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9-1	Conduct parking and circulation study for downtown Georgetown.	Georgetown		Network	Study	Sussex County and Municipality	*	**	\$\$	◇	Many of the documented issues relating to traffic circulation in and around downtown Georgetown relate to parking access and availability. A parking and circulation study would assess these issues and recommend solutions.	This recommendation has been provided to Sussex County and the Town of Georgetown.	5
9-2	Complete an area circulation study exploring multimodal connectivity for the area east of Sand Hill Road including Sports at the Beach and the new campground/RV park. The study should focus on alleviating traffic and improving safety for all modes. Coordinate the implementation of recommendations with private development.	Sports at the Beach		Network	Infrastructure	DelDOT Planning	*	**	\$\$\$	◇◇	Sports at the Beach is a popular recreational destination that generates a lot of traffic during events. Development proposed in the vicinity includes a campground/RV park less than a mile away. Some families in town to participate in events at Sports at the Beach and Sand Hill Fields will stay at this facility. Currently, there is no multimodal access between the campground and Sports at the Beach, requiring all visitors to drive motor vehicles, increasing congestion on Route 9. This study would explore avenues to improve multimodal circulation between the two destinations and across Route 9.	DelDOT Planning is reviewing this recommendation and determining next steps.	2
9-3	Evaluate the intersection for the addition of channelizing islands and crosswalks on all legs of the US 9-SR 30 intersection to facilitate safe pedestrian and bicycle movement through the intersection. Provide low-stress bicycle and pedestrian connection from SR 30 intersection to the future Georgetown-Lewes Trail (1200 feet to the south of the US 9 and SR 30 intersection).	SR 30		Intersection/Corridor	Infrastructure	DelDOT Planning and Development Coordination	*	**	\$\$	◇	Currently, this intersection does not provide pedestrian crosswalks across US 9 or SR 30. Improving conditions is appropriate given planned residential development along with the proximity of the future Georgetown-Lewes Trail 1200 feet to the south of this intersection.	DelDOT Planning has reviewed this recommendation and will incorporate it in the review of proximate land development proposals.	1
9-4	Provide low-stress bicycle and pedestrian connection from SR 5 intersection to the future Georgetown-Lewes Trail (1500 feet to the south of the US 9 and SR 5 intersection).	SR 5 to Georgetown-Lewes Trail		Corridor	Infrastructure	DelDOT Planning	**	***	\$\$	◇◇	The future Georgetown-Lewes Trail runs roughly parallel to US 9 and crosses SR 5 approximately 1500 feet to the south of the US 9/SR 5 intersection. Currently there are partial shoulders and sidewalks along this portion of SR 5, but a sidepath would provide a low-stress connection for people walking or bicycling to access the Trail.	DelDOT Planning is reviewing this recommendation and determining next steps.	2
9-5	Study the feasibility of widening US 9 at SR 5.	SR 5		Intersection	Infrastructure	DelDOT Planning	**				This is currently the most congested signalized intersection in the study area. The intersection is classified as Level of Service (LOS) D during multiple peaks times, with LOS E (at or near capacity) projected in 2050 without improvements. There are significant constraints at this intersection including a cemetery in the SW corner and a bridge along the west leg. Therefore, any study exploring widening US 9 should first understand the feasibility of widening at this intersection. This recommendation should be coordinated with recommendation 9-6.	DelDOT Planning is advancing a US 9 Corridor Study in FY24-FY25.	2
9-6	Explore the feasibility of widening US 9 east of SR 5.	SR 5 to Old Vine Road		Corridor	Infrastructure	DelDOT Planning	**				This corridor has high Annual Average Daily Traffic (AADT) throughout the year, not just in the summer. There are multiple near-capacity intersections. This recommendation should be coordinated with recommendation 9-5.	DelDOT Planning is advancing a US 9 Corridor Study in FY24-FY25.	2
9-7	Conduct analysis to determine appropriate setback requirements along US 9 between Georgetown and SR 1.	Georgetown to SR 1		Corridor	Policy	DelDOT Planning and Development Coordination	*	*	\$	◇	Currently, setbacks along a development frontage are dictated by the zoning classification which varies along a given corridor. A uniform setback should be developed based on an assessment of the right of way required to support future widening of US 9. This recommendation should be examined in consideration of recommendation 9-8.	DelDOT Planning is working with Project Development South to determine an appropriate setback requirement based on existing CTP projects.	2

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9-8	Create a uniform setback requirement across all zoning districts along US 9 between Georgetown and SR 1.	Georgetown to SR 1		Corridor	Policy	Sussex County	*	*	\$	◊	Currently, setbacks along a development frontage are dictated by the zoning classification which varies depending on the zoning district. A uniform setback on this part of US 9 would preserve corridor capacity for future widening and alleviate future right of way impacts. This recommendation should be examined in conjunction with recommendation 9-7.	Recommendation 9-8 will advance once recommendation 9-7 is completed.	5
9-9	Conduct short-term traffic safety study for the intersection of US 9 and Cool Spring Road. Potential improvements could include turn lanes, signage improvements, and pavement markings.	Cool Spring Road		Intersection	Study	DeIDOT Planning and Development Coordination					Extensive residential development is proposed for the vicinity of Cool Spring Road. Increased volumes may result in the need for intersection upgrades.	Analysis is ongoing for the Traffic Impact Study (TIS) for a mixed-use development in the vicinity of Cool Spring Road.	1
9-10	Provide at-grade bicycle and pedestrian connection across US 9 at Cool Spring Road that ties into the Georgetown-Lewes Trail.	Cool Spring Road		Corridor	Infrastructure	DeIDOT Planning					DeIDOT received a \$21 million Rebuilding American Infrastructure with Sustainability and Equity grant to complete the remaining six miles of the Georgetown-Lewes Trail. Construction is expected to begin in spring 2025.	Bicycle improvements at Cool Spring Road will be completed as part of the Georgetown-Lewes Trail project.	1
9-11	Conduct short-term traffic safety study for the intersection of US 9 and Josephs Road. Potential improvements could include turn lanes, signage improvements, and pavement markings. Implement improvements at Josephs Road based on recommendations of short-term traffic safety study. Explore feasibility of providing a bicycle and pedestrian connection across US 9 at Josephs Road.	Josephs Road		Intersection/ Corridor	Study	DeIDOT Planning and Development Coordination	*	**	\$\$	◊	The intersection of US 9 and Josephs Road is one of the only 4-leg intersections along the corridor with no turn lanes. Even a small number of left turns may cause delay and safety issues along US 9. Currently, there is no safe pedestrian access across US 9 in the vicinity of this intersection. There are bus stops along US 9 adjacent to this intersection. The Georgetown-Lewes Trail is also located 450 feet to the north of this intersection, which may contribute to demand for crossing facilities.	Analysis is ongoing for the Traffic Impact Study (TIS) for a mixed-use development in the vicinity of Josephs Road.	2
9-12	Evaluate the intersection for the addition of channelizing islands and crosswalks on all legs of the US 9-Sweetbriar / Dairy Farm Road intersection to facilitate safe pedestrian and bike movement through the intersection. Explore feasibility of providing a low-stress bicycle and pedestrian connection between Sweetbriar/Dairy Farm Road and the Georgetown-Lewes Trail (1350 feet to the north of the US 9 and SR 30 intersection).	Sweetbriar / Dairy Farm Road		Intersection/ Corridor	Infrastructure	DeIDOT Planning and Development Coordination	*	**	\$\$	◊◊	Currently, this intersection does not provide pedestrian crosswalks across US 9 or Sweetbriar / Dairy Farm Road. Improving conditions is appropriate given planned residential development along with the proximity of the future Georgetown-Lewes Trail 1350 feet to the north of this intersection. The future Georgetown-Lewes Trail runs roughly parallel to US 9 and crosses Sweetbriar Road approximately 1350 feet to the north of the US 9/Sweetbriar Road intersection. Currently there are bike lanes along this portion of Sweetbriar Road, but a sidepath would provide a low-stress connection for people walking or bicycling to access the Trail.	DeIDOT Planning has reviewed this recommendation and will incorporate it in the review of proximate land development proposals.	1
9-13	Explore the feasibility of providing bicycle and pedestrian connection across US 9 at Mulberry Knoll Road Extension.	Mulberry Knoll Road Extension		Intersection	Infrastructure	DeIDOT Planning	**	***	\$\$	◊	The need for this improvement is contingent upon DeIDOT advancing the Mulberry Road Extension Project which is detailed in the Mulberry Road Extension Study and listed as a project in the FY23-FY28 CTP.	DeIDOT Planning has reviewed this recommendation and will ensure it is included in the CTP project.	1
9-14	Explore the feasibility of providing bicycle and pedestrian connectivity across and along US 9 in the vicinity of Old Vine Road.	Old Vine Road		Intersection	Infrastructure	DeIDOT Planning					Currently, there is no safe pedestrian access across US 9 in the vicinity of this intersection. Currently, there is a 1900 foot-long sidepath along the frontage of the Vineyards development on the north side of US 9 and a 2800 foot-long sidepath along the frontage of Lewes Crossing on the south side of US 9. There is a bus stop along each sidepath east of the Old Vine Road intersection, but there is no safe pedestrian access across US 9. This poor connectivity creates a safety issue for transit users and people looking to use the sidepaths for a low-stress way to walk or bike along the corridor.	DeIDOT Planning has reviewed this recommendation and will work with Project Development South to ensure multimodal connectivity issues are addressed during the design and construction of the US 9 Widening Project which extends from SR 1 through Old Vine Road.	1

COASTAL CORRIDORS TRANSPORTATION STUDY
Policy Preliminary Recommendations

* <3 years \$ < \$200K ◇ - Low
** 3-10 years \$\$ \$200K - \$2M ◇ ◇ - Medium
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		<i>Ordered west to east</i>	◇ ◇◇ ◇◇◇	<i>Network Corridor Intersection</i>	<i>Policy Study Infrastructure</i>		* ** ***	* ** ***	\$ \$\$ \$\$\$ \$\$\$\$ \$\$\$\$\$	◇ ◇◇ ◇◇◇	
G-1	Conduct a study to highlight the safety, operational, and economic benefits of interconnectivity for all road users. This document should be used to educate decision makers and members of the public to support revisions to the Comprehensive Plan and justify recommendations to amend the Code.	N/A		Network	Policy	Interagency Coordination					This study is a necessary first step to providing the data needed to support recommendations G-2 through G-5.
G-2	In the next Comprehensive Plan update, consider including language encouraging interconnectivity in order to improve safety and manage volumes on the roadways.	N/A		Network	Policy	Interagency Coordination					Interconnectivity is currently encouraged, but there was a strong interest from Corridors Committee members to make this a requirement of the development process. Better interconnectivity will better distribute traffic throughout the network, resulting in fewer capacity issues. Interconnected roads also serve the mobility needs of neighborhood residents and emergency responders. Proposed interconnectivity as shown on the street design plan should serve the mobility needs of neighborhood residents and emergency responders, but not function as a cut through.
G-3	Explore the feasibility of clarifying Sussex County Code Chapters 115 and 99 to require private developers to plan and provide for interconnectivity between developments.	N/A		Network	Policy	Interagency Coordination					Interconnectivity is currently encouraged, but there was a strong interest from Corridors Committee members to make this a requirement of the development process. Better interconnectivity will better distribute traffic throughout the network, resulting in fewer capacity issues. Interconnected roads also serve the mobility needs of neighborhood residents and emergency responders. Proposed interconnectivity as shown on the street design plan should serve the mobility needs of neighborhood residents and emergency responders, but not function as a cut through.
G-4	Where interconnectivity currently exists between developments, it should only be removed after consultation with core agencies including DeIDOT, Sussex County, and Delaware Emergency Management Agency. Explore the feasibility of codifying this requirement in the Mobility Chapter of the Comprehensive Plan and the Sussex County Code.	N/A		Network	Policy	Interagency Coordination					Recent development proposals and actions by neighborhood HOAs have shown that there is an interest in restricting neighborhood connectivity that was requested and implemented at the time of development. This change would remove a loophole by giving agencies enforcement power over maintaining that interconnectivity in perpetuity.
G-5	Explore the feasibility of updating the Development Coordination Manual to increase the provision of connections between developments.	N/A		Network	Policy	Interagency Coordination					One obstacle to requiring interconnectivity between developments is that development streets are generally owned and maintained by the development. This encourages developers and HOAs to want to restrict through traffic on their streets. In addition to the requirements being considered as part of recommendations G-1 to G-3, potential incentives should also be developed.
G-6	Explore code revisions to reduce the extent to which parking and stormwater facilities are permitted in the front yard setback.	N/A		Network	Policy	Interagency Coordination					Increasingly, stormwater management facilities are being provided as ribbon-like swales directly adjacent to the right of way line. Parking is also often located in the front yard setback. This placement may interfere with future ROW needs such as roadway widening or the provision of multimodal facilities.

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G-7	Consider modifications to land development regulations and/or the Development Coordination Manual that require additional buffers/setbacks for all new developments to support future right of way needs.	N/A		Network	Policy	Interagency Coordination					Increasingly, stormwater management facilities are being provided as ribbon-like swales directly adjacent to the right of way line. Parking is also often located in the front yard setback. This placement may interfere with future ROW needs such as roadway widening or the provision of multimodal facilities.
G-8	Explore the feasibility of developing additional guidance and design criteria that highlights what types of landscaping treatments are appropriate in the front yard setback.	N/A		Network	Policy	Interagency Coordination					Increasingly, stormwater management facilities are being provided as ribbon-like swales directly adjacent to the right of way line. Parking is also often located in the front yard setback. This placement may interfere with future ROW needs such as roadway widening or the provision of multimodal facilities.
G-9	Review all trail crossings for active or enhanced bicycle and pedestrian crossing improvements and implement where appropriate.	N/A		Network	Policy	Interagency Coordination					The Georgetown-Lewes Trail has proven to be extremely popular. With its anticipated completion, there will be more trail crossings proximate to US 9 within the study area. Enhanced crossings will ensure better yielding compliance from vehicles and improve safety for people walking and biking.
G-10	Improve coordination between the County and DelDOT during large scale events hosted at venues to ensure traffic is adequately managed.	N/A		Network	Policy	Interagency Coordination					Hosting special events at event venues is a matter of right use. Venues in the project area include Sand Hill Fields and Sports at the Beach. Currently, special events result in delays along the US 9 corridor.
G-11	Evaluate efficacy of CTP projects to ensure that safety, capacity, and multimodal connectivity goals have been met.	N/A		Network	Policy	Interagency Coordination					As DelDOT advances CTP projects in the project area, recommendations from this plan should be considered during the preliminary engineering phase and incorporated in the project engineering. Before and after traffic and safety studies will provide insight as to whether projects are effective in addressing safety and capacity goals so the approach can be refined if necessary.