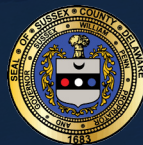
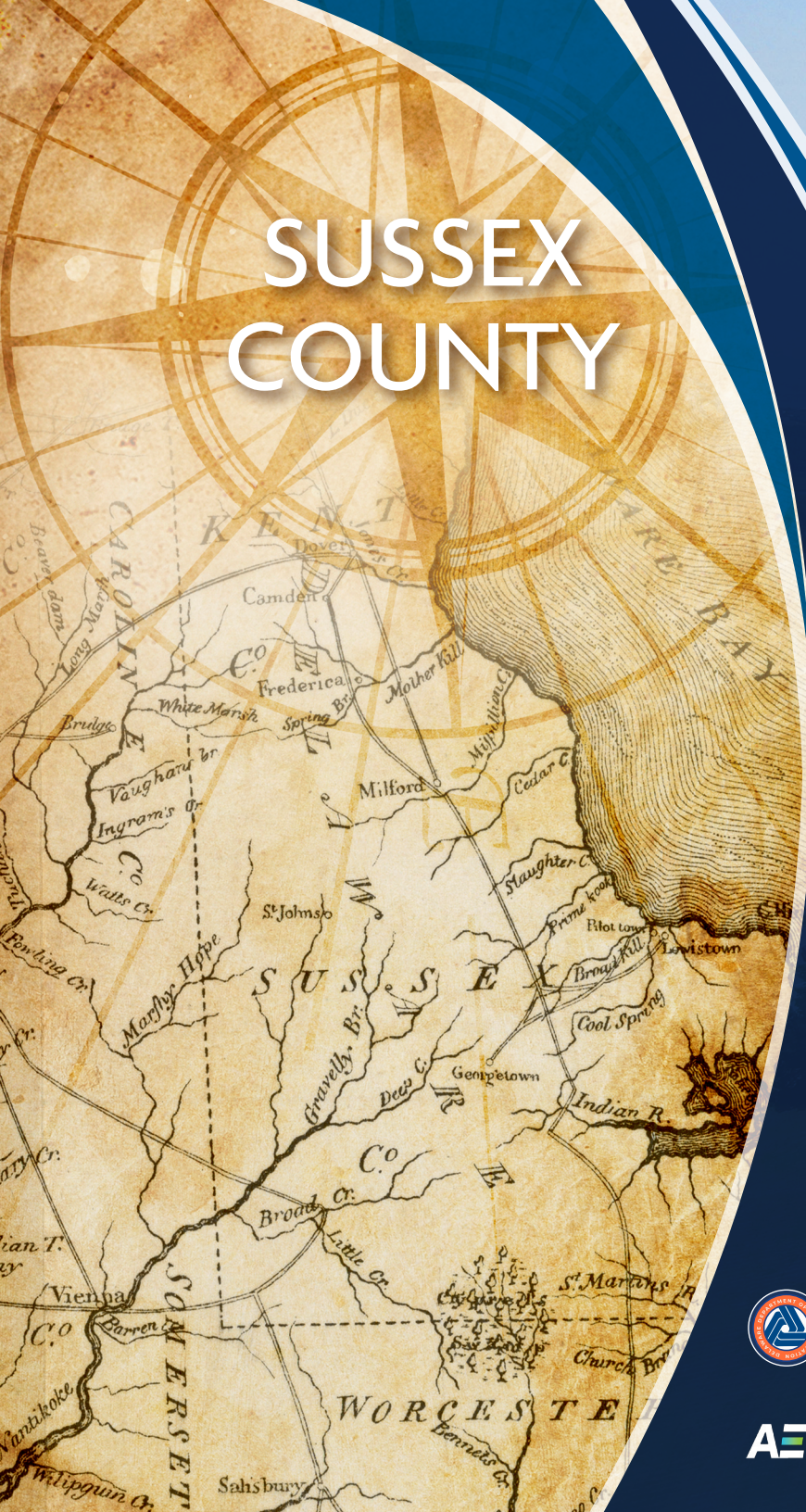


SUSSEX COUNTY

LONG RANGE TRANSPORTATION PLAN JUNE 2024



Regional
Systems
Planning

AECOM



1.0 | BACKGROUND

- *Land Use and Development*
- *Demographic Trends: Population and Employment*
- *Transportation System*



EXISTING LAND USE

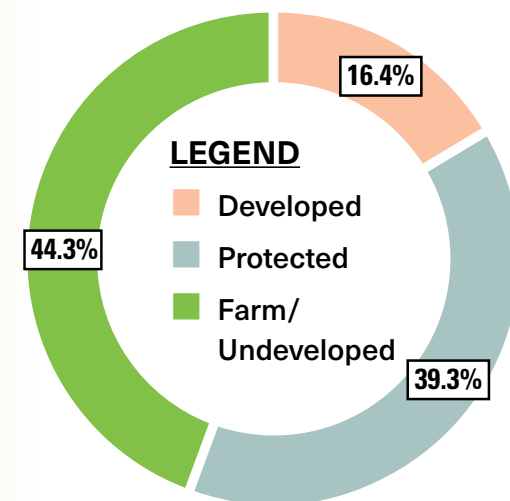
Where is development in the County?

While development is primarily concentrated to the east and in municipal areas, it is increasing throughout the County. The amount of developed and undeveloped land is as follows:

- Developed - 95,000 acres (16.4%)
- Undeveloped or in farmland - 256,000 acres (44.3%)
- Protected - 227,000 acres (39.3%)

Sussex County is likely to continue to experience higher levels of residential, commercial, and industrial development activity due to the forecasted population growth within the County.

Figure 1.1 Developed and Undeveloped Land (acres)



Source: 2018 Sussex County Comprehensive Plan

DEVELOPMENT – RECENT TRENDS

How dense is the development?

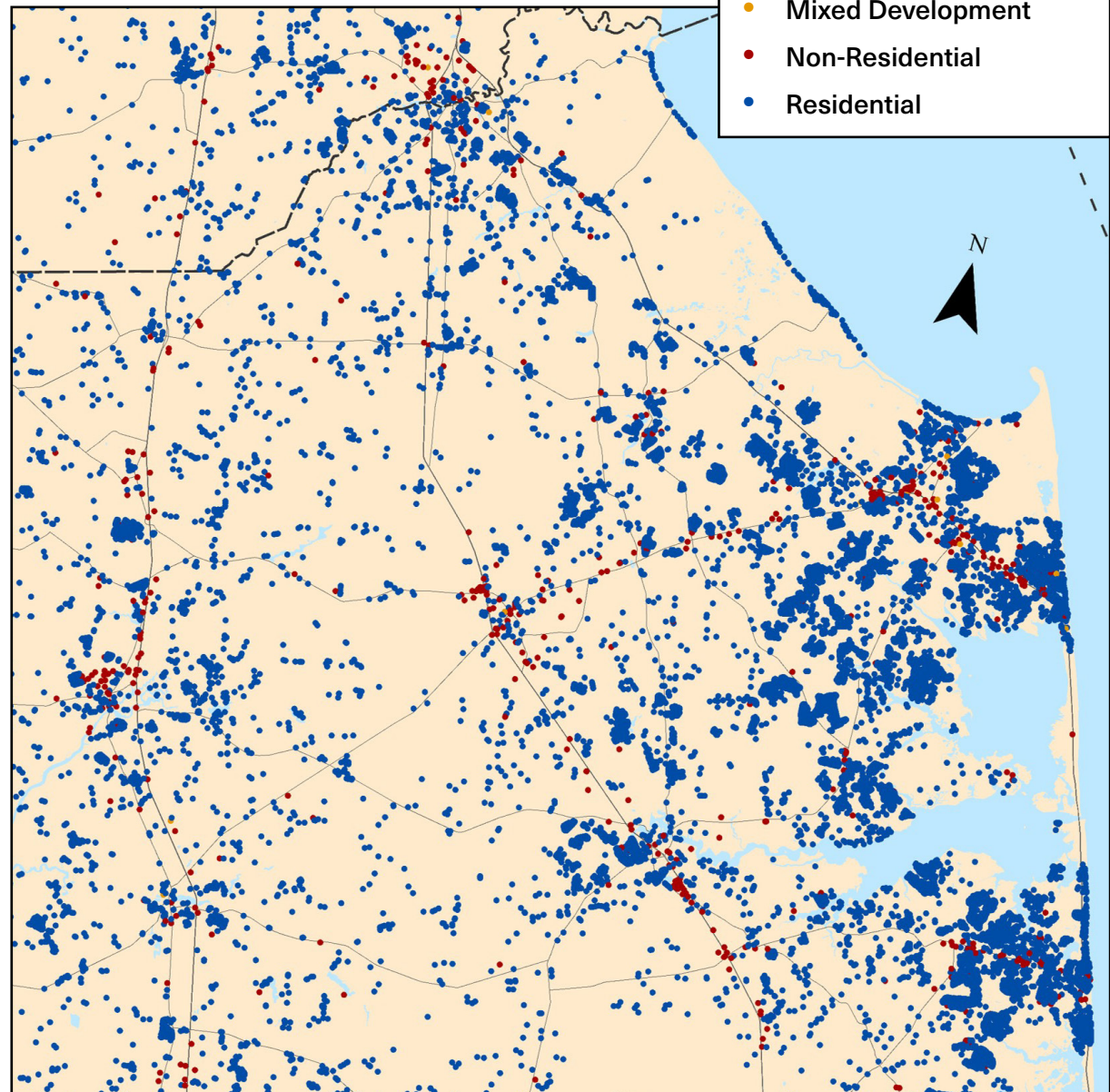
As illustrated by the permit distribution map, the majority of the residential and commercial growth in the County has been located in the County's coastal areas.

- Average density of new residential development:
 - ◆ Rural areas – 1.9 dwelling units/acre
 - ◆ Growth areas – 2.5 dwelling units/acre

What is the predominant development activity?

- Predominantly residential
- Non-residential is mostly along key arterials
- Number of mixed-use development is steadily increasing due to commercial and employment sectors locating near population centers in the Coastal Areas

Figure 1.2 Location of Building Permits, 2008-2019



Data Source: State of Delaware

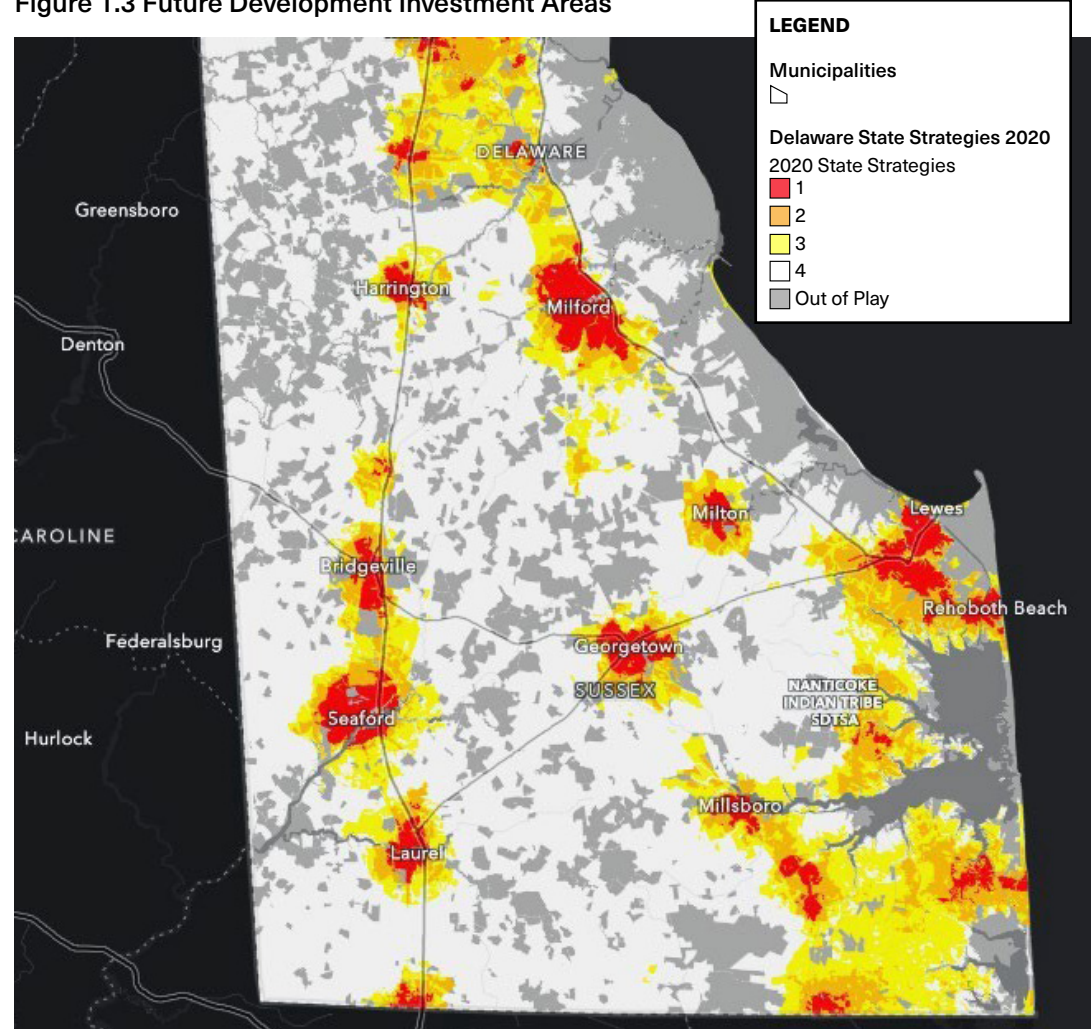
LAND USE AND DEVELOPMENT

Where is development encouraged?

The Office of State Planning's Strategies for State Policies and Spending encourage future development in incorporated/municipal areas and along key arterials. They identify these locations by investment levels. Due to the limits of finite financial resources, state infrastructure spending on "hard" or "grey" infrastructure such as roads, sewer, water, and public facilities will generally be directed to Investment Level 1 and 2 Areas

- **Investment Level 1** Areas are often municipalities, towns, or urban/urbanizing places in counties. Density is generally higher than in the surrounding areas. There are a variety of transportation opportunities available.
- **Investment Level 2** Areas can be composed of less developed areas within municipalities, rapidly growing areas in the counties that have or will have public water and wastewater services and utilities, areas that are generally adjacent to or near Investment Level 1 Areas, smaller towns and rural villages that should grow consistently with their historic character, and suburban areas with public water, wastewater, and utility services.

Figure 1.3 Future Development Investment Areas



The detailed future land use projections are available in Chapter 4 of the 2018 Sussex County Comprehensive Plan

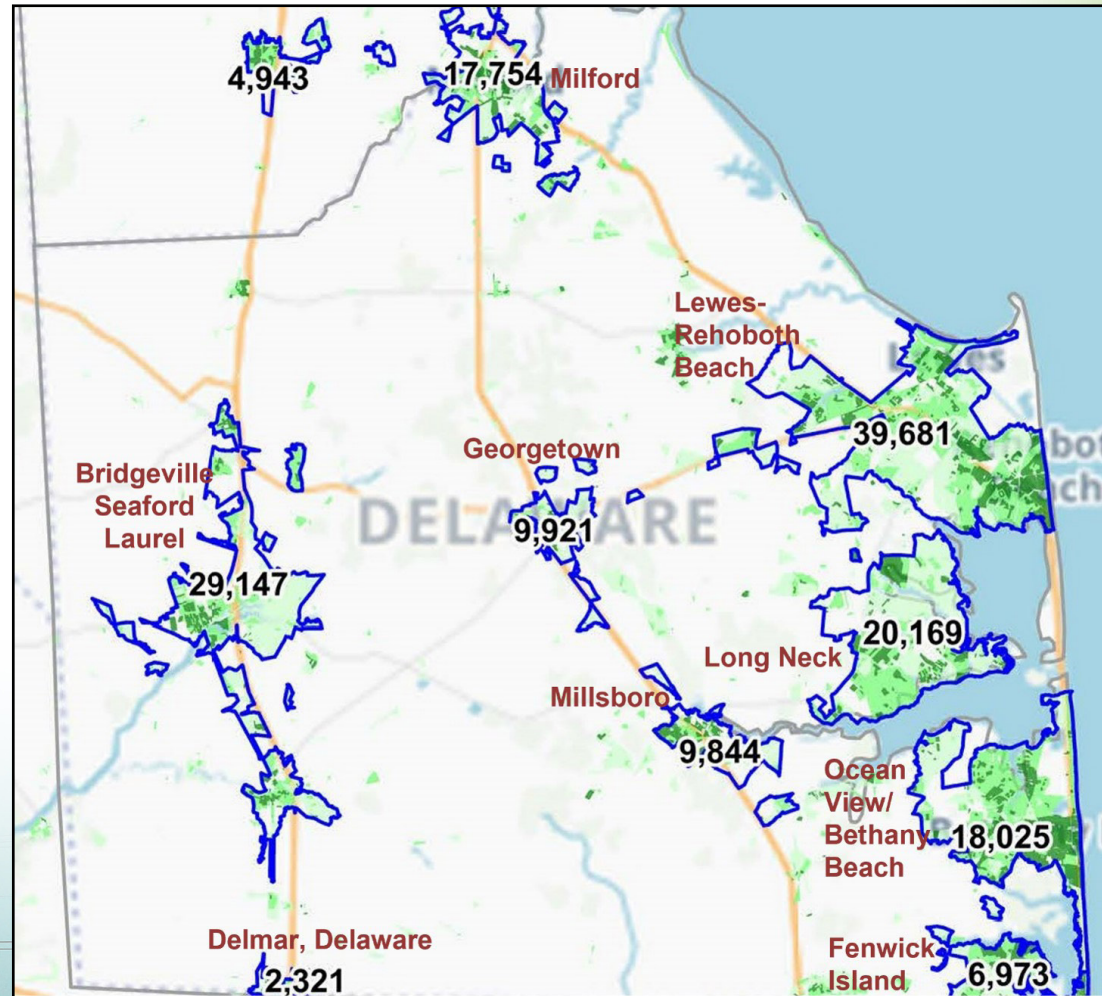
sussexcountyde.gov/sites/default/files/PDFs/2018CompPlan-Final

Census Data 2020

Even with large increases to the population in Sussex County Municipal areas, the County does not currently meet the requirements for a Metropolitan Planning Organization (MPO).

Land use decisions impact population densities when development is approved outside of the State Strategy Levels 1 and 2. These municipal areas are still considered Urban Planning Areas and require the State agencies, such as DelDOT to provide planning funding to inform necessary improvements.

Figure 1.4 Urbanized Population Census Data 2020



DEVELOPMENT GROWTH TRENDS IN SUSSEX COUNTY 2017-2021

Data is collected in January of each year for the 12 months prior. Data collected includes:

- Residential Building Permits and Non-Residential Building permits issued by County and are imminent or under construction **(Blue)**
- Development Approvals, including the number of homes and/or the non-residential square footage approved by County but not yet built **(Green)**
- PLUS Projects are not guaranteed for development **(Yellow)**

Figure 1.5 reflects where growth is encouraged around Municipalities, and State spending can support the most efficient use of available resources.

Figure 1.5 Development Trends in Strategy Levels 1, 2 & 3

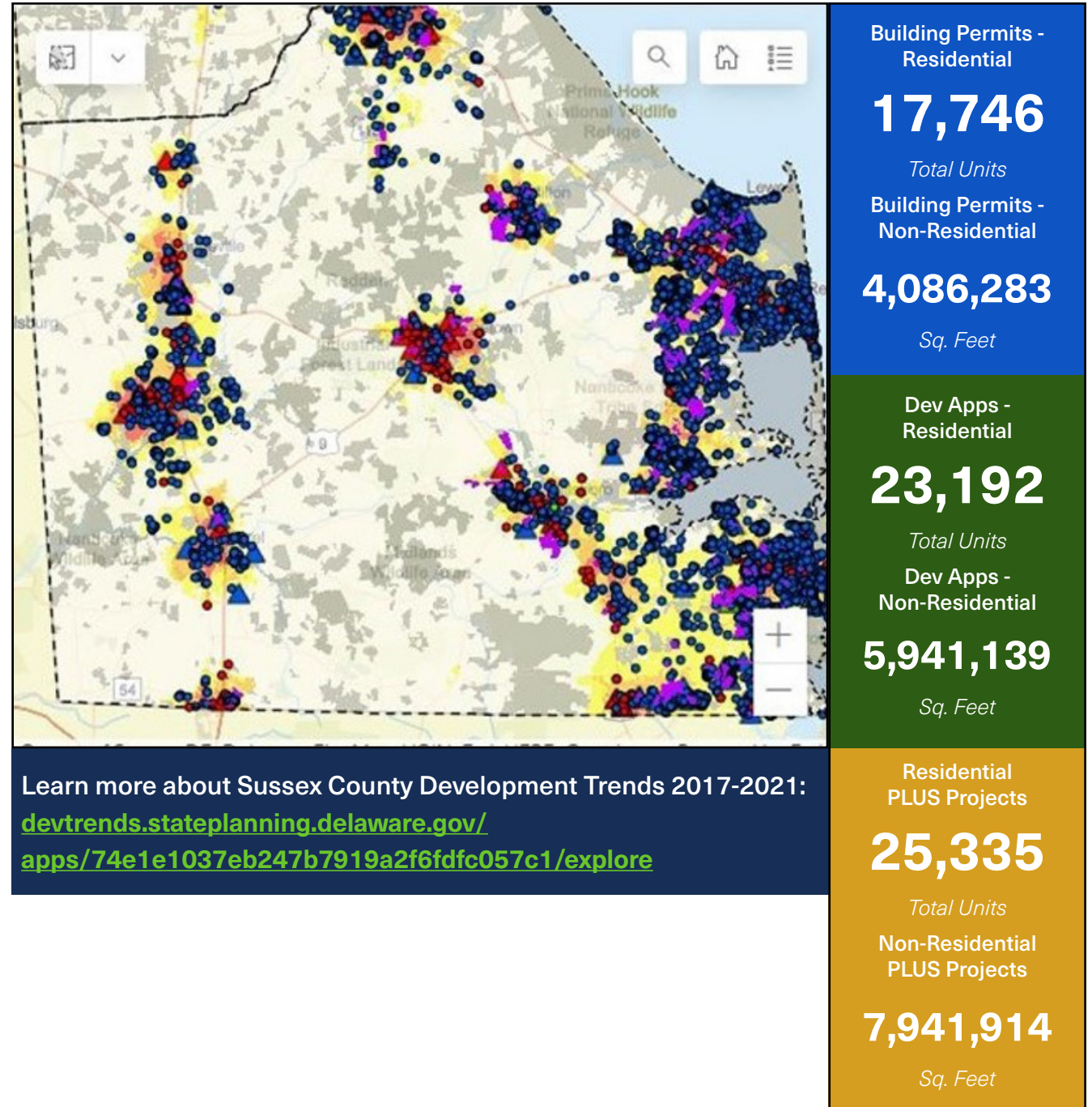
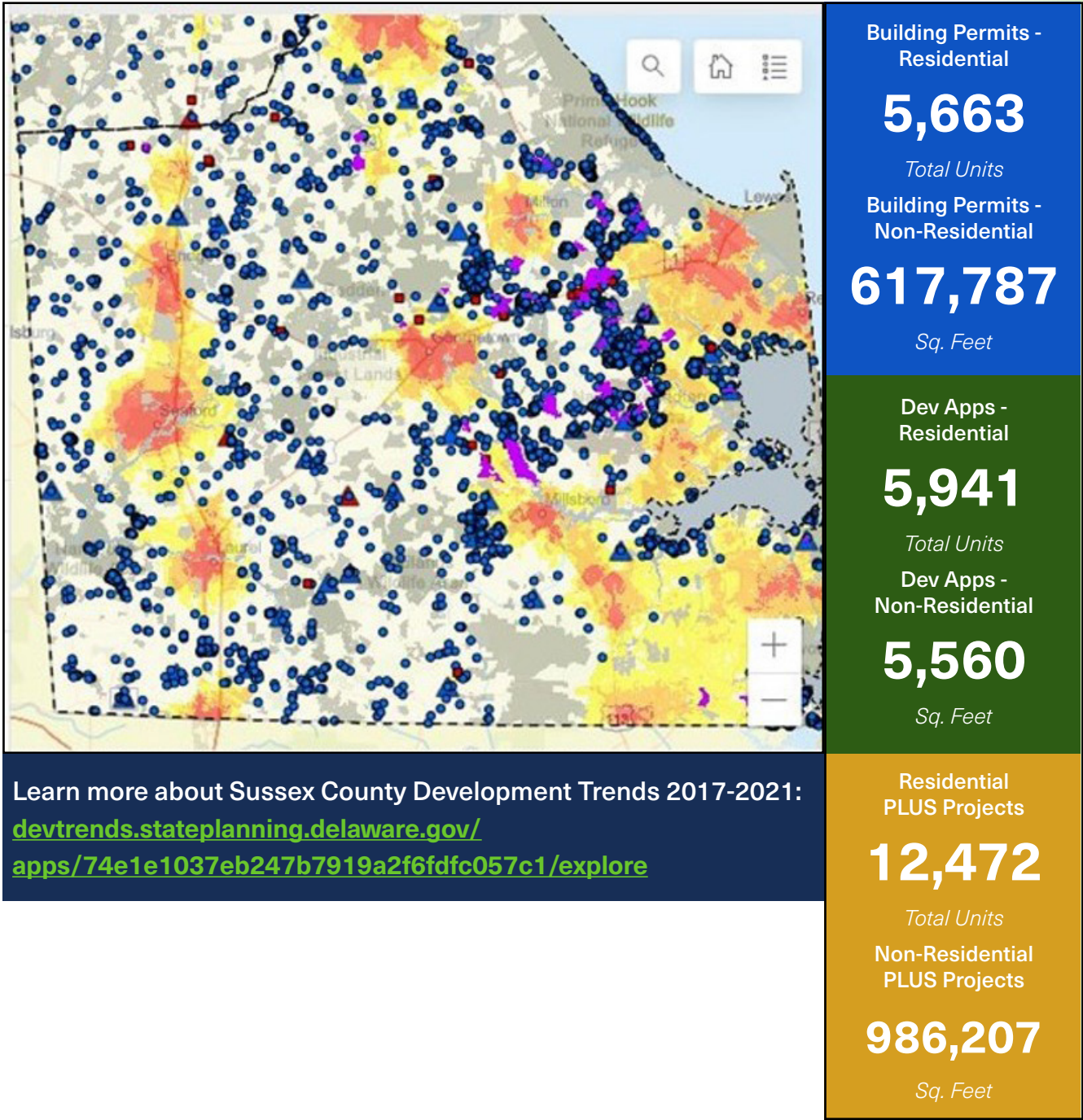


Figure 1.6 reflects the incoming development where growth is not encouraged, and State funding is extremely limited.

Figure 1.6 Development Trends in Strategy Level 4



POPULATION

What are the key population trends?

The County has been experiencing high levels of growth in both year-round and seasonal population.

- In 2020, seasonal population was nearly 43% of year-round resident population.
- By 2050, permanent resident population is projected to increase at a much faster rate when compared to projected increase in seasonal population.
- Permanent residents – 43% increase.
- Seasonal – 27% increase.
- The County's population growth between 2000 and 2020 outpaced neighboring counties in Delaware and Maryland.

Table 1.1 Population Summary Statistics 2010-2050

	2010	2015	2020	2025	2030	2035	2040	2045	2050
Population	197,946	214,722	237,378	270,818	290,861	307,874	324,894	340,305	361,422
Households	75,739	85,955	99,614	112,946	121,641	127,598	131,620	133,292	136,975
Population Change*	16,776	22,656	33,440	20,043	17,013	17,020	15,411	21,117	N/A
Births*	11,210	11,411	11,453	13,288	15,460	17,316	18,789	20,447	N/A
Deaths*	10,663	13,005	15,922	20,451	24,756	28,269	29,820	29,019	N/A
Net Migration*	16,229	24,250	37,909	27,206	26,309	27,973	26,442	29,689	N/A
Household Change*	10,216	13,659	13,332	8,695	5,957	4,022	1,672	3,683	N/A

*Represents a five-year total beginning with specified year

Source: Delaware Population Consortium

Table 1.2 Seasonal Population Summary Statistics 2010-2050

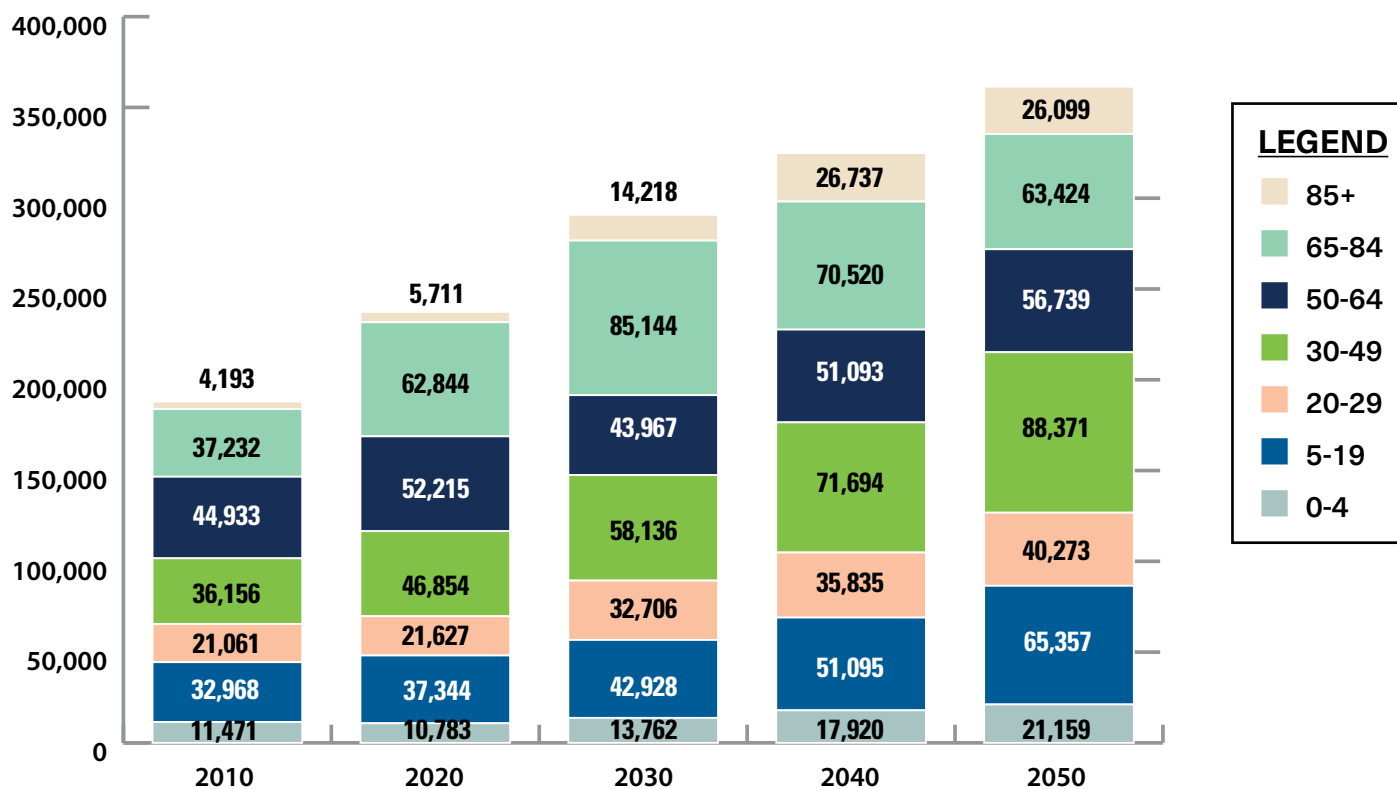
	2010	2015	2020	2025	2030	2035	2040	2045	2050
Seasonal Population	91,793	96,408	111,199	117,784	126,143	129,651	133,257	136,963	140,772
Resident Population	197,892	215,622	254,940	271,694	293,406	312,864	331,363	345,522	365,362
Total Population	289,685	312,030	366,139	389,478	419,549	442,515	464,620	482,485	506,134

Source: Delaware Population Consortium

DEMOGRAPHIC CHARACTERISTICS

Demographic trends include increasing older population and increasing minority population.

Figure 1.7 Sussex County Age Breakdown 2010-2050



Source: Delaware Population Consortium

Between 2010 and 2050, population over 65 years is projected to increase by nearly 116% compared to nearly 73% increase in population below 65 years.

The number and percent of population aged 65+ has been increasing and is projected to continue.

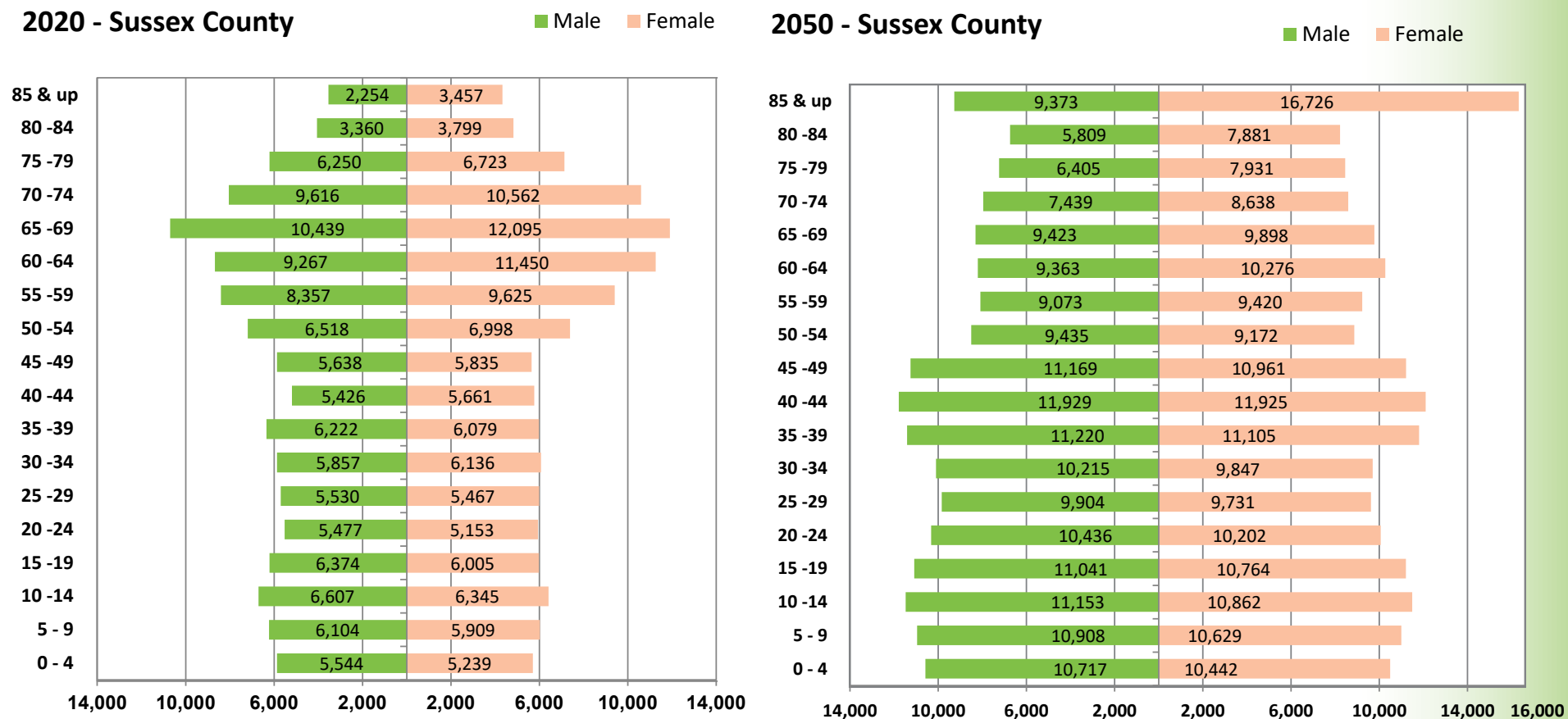
Table 1.3 Aging Population

Sussex County	2010	2020	2030	2040	2050	2020 - 2050 Change
0 to 4	11,471	10,783	13,762	17,920	21,159	1,376
5 to 19	32,968	37,344	42,928	51,095	65,357	28,013
20 to 29	21,061	21,627	32,706	35,835	40,273	18,646
30 to 49	36,156	46,854	58,136	71,694	88,371	41,517
50 to 64	44,933	52,215	43,976	51,093	56,739	4,524
65 to 84	37,232	62,844	85,144	70,520	63,424	580
85 +	4,193	5,711	14,218	26,737	26,099	20,388
Total	197,946	237,378	290,861	324,894	361,422	124,044

Source: Delaware Population Consortium



Figure 1.8 Sussex County Gender Breakdown 2020 - 2050



Source: Delaware Population Consortium

Significant increase in projected population over 80 years by 2050 would require a focus on supporting transportation options such as on-demand micro transit and para-transit services.

ECONOMY/ EMPLOYMENT

What has been the level of economic growth in the County?

Total jobs have nearly doubled between 1985 and 2015. The rate of job growth in the County was higher than that of the state or the U.S.

Which employment sectors are supporting economic growth in the County?

Recent economic growth has been highlighted by increased employment in the health care, construction, finance/insurance, and professional/technical services sectors. Manufacturing, a key employment sector in the County, has been showing declining job trends in the past decade.

Table 1.4 Industry Projections, 2012 - 2022

NAICS	Industry	2012	2022	2012-2022 Change	2012-2022 Annual Growth
	Total Employment, All Jobs	437,480	478,380	40,900	0.90%
11	Agriculture, Forestry, Fishing	5,270	4,940	-330	-0.64%
21	Mining	0	0		
22	Utilities	2,010	1,880	-130	-0.67%
23	Construction	18,530	23,600	5,070	2.45%
31	Manufacturing	25,690	26,640	950	0.36%
42	Wholesale trade	12,480	13,500	1,020	0.79%
44-45	Retail Trade	50,680	53,350	2,670	0.51%
48-49	Transportation and Warehousing	12,220	13,210	990	0.78%
51	Information	5,460	5,830	370	0.66%
52	Finance and Insurance	37,140	41,580	4,440	1.14%
53	Real Estate and Rental and Leasing	5,420	5,950	530	0.94%
54	Professional and Technical Services	27,210	31,000	3,790	1.31%
55	Management of Companies and Enterprises	7,530	5,500	-2,030	-3.09%
56	Administrative and Waste Services	21,520	23,850	2,330	1.03%
61	Educational Services	33,450	35,400	1,950	0.57%
62	Health Care and Social Assistance	61,220	71,200	9,980	1.52%
71	Arts, Entertainment, and Recreation	8,490	9,180	690	0.78%
72	Accommodation and Food Services	35,090	38,300	3,210	0.88%
81	Other Services, Except Public Administration	19,570	21,370	1,800	0.88%
	Government	28,400	29,650	1,250	0.43%

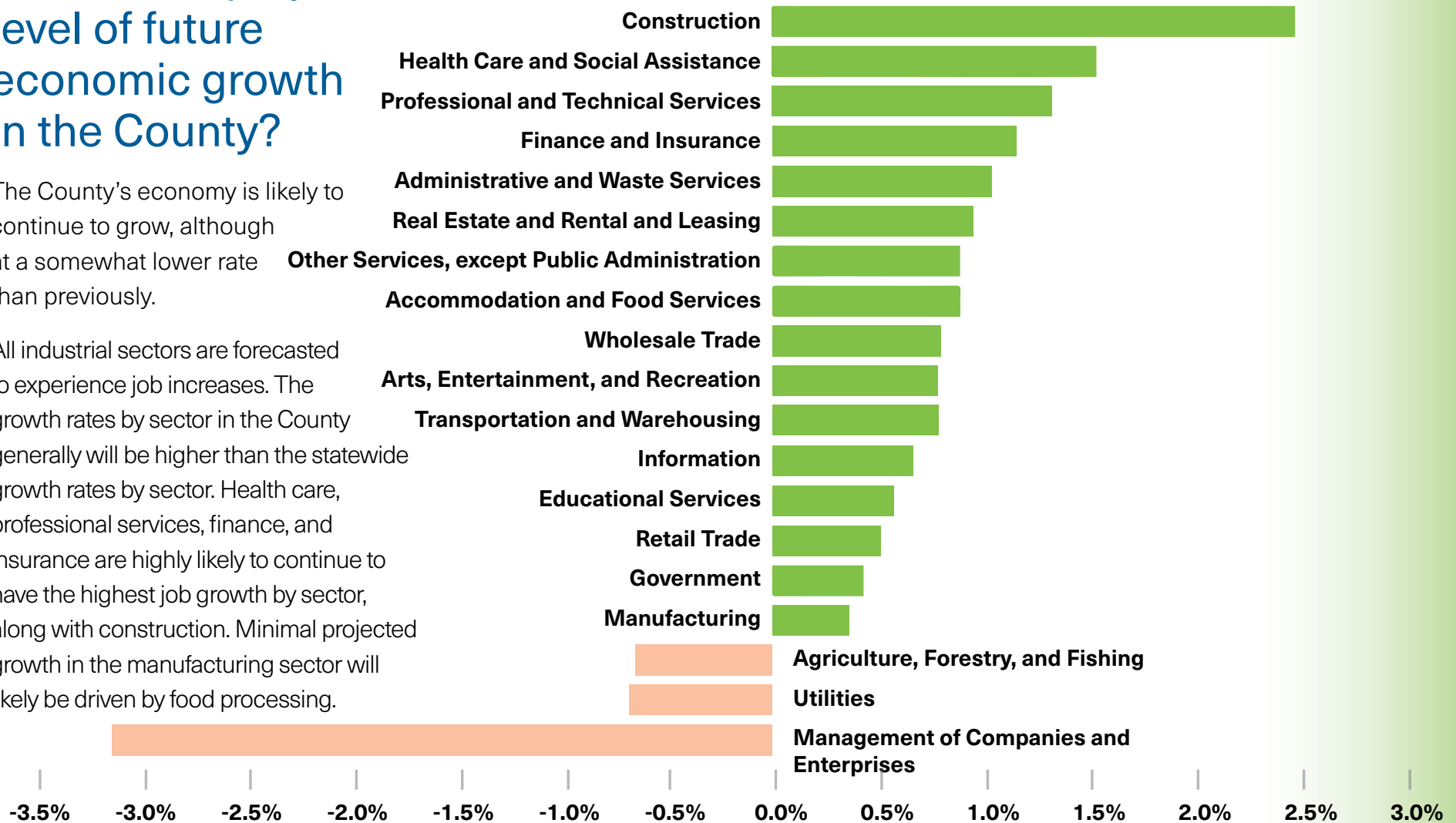
Source: Delaware Department of Labor *Delaware 2022 Occupation and Industry Projections*

What is the projected level of future economic growth in the County?

The County's economy is likely to continue to grow, although at a somewhat lower rate than previously.

All industrial sectors are forecasted to experience job increases. The growth rates by sector in the County generally will be higher than the statewide growth rates by sector. Health care, professional services, finance, and insurance are highly likely to continue to have the highest job growth by sector, along with construction. Minimal projected growth in the manufacturing sector will likely be driven by food processing.

Figure 1.9 Projected Annual Rate of Growth by Industry Sector, 2012–2022



Source: Delaware Department of Labor Delaware 2022 Occupation and Industry Projections

TRANSPORTATION SYSTEM

Multimodal System

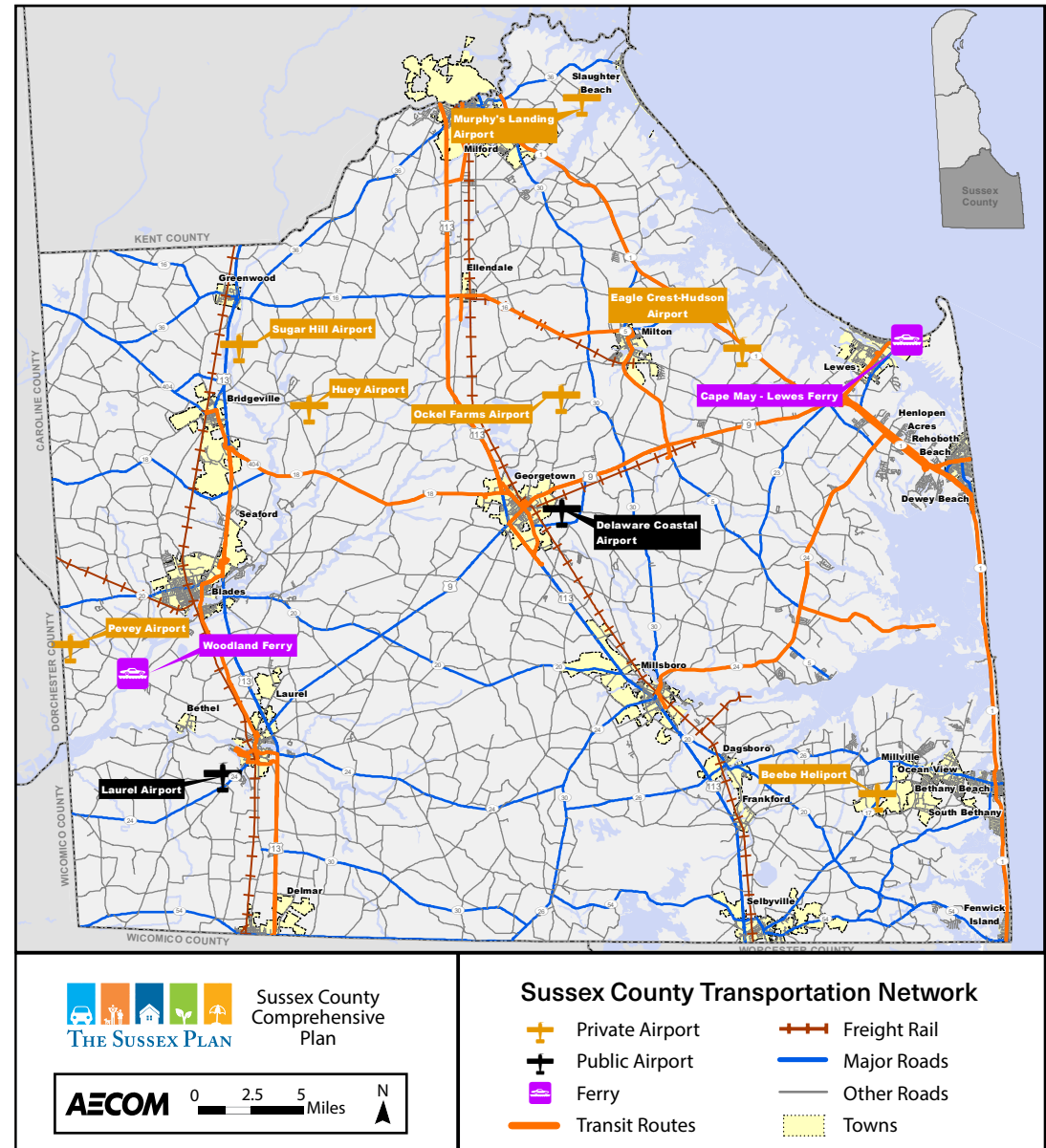
- Highways
- Bus Transit
- Bicycle/Pedestrian
- Aviation
- Waterways
- Truck/Rail Freight

The multimodal mobility considerations are available in Chapter 13 of the 2018 Sussex County Comprehensive Plan

sussexcountype.gov/sites/default/files/PDFs/2018CompPlan-Final.pdf



Figure 1.10 Sussex County Transportation Network



Sources: DE FirstMap, Sussex County Mapping Dept. Delaware Department of Transportation, Bureau of Transportation Statistics (RITA/BTS) National Transportation Atlas Databases (NTAD) 2006.

ROADS

Major north-south routes include US 13, US 113, and SR 1, with secondary routes such as SR 30, SR 5 and SR 20. Major east-west routes include SR 404, portions of SR 18, and portions of US 9.

These key roads:

- Serve major activity centers and many are designated primary evacuation routes.
- Function as highest traffic volume corridors with typically long trip lengths.
- Comprise only 10% of the total lane miles but carry the largest share of County traffic.

Minor arterials and major collectors act as feeder routes.

In recent years, increasing traffic volumes have led to increasing congestion, especially in the eastern part of the County. The highest growth in traffic has been along the US 113 and SR 1 corridors. With population trends, significant congestion is anticipated along several major and secondary routes.



PUBLIC TRANSIT

DART First State services include six year-round fixed routes and three intercounty routes. It also offers a new, affordable on-demand microtransit service called DART Connect to anyone traveling in Georgetown and Millsboro.

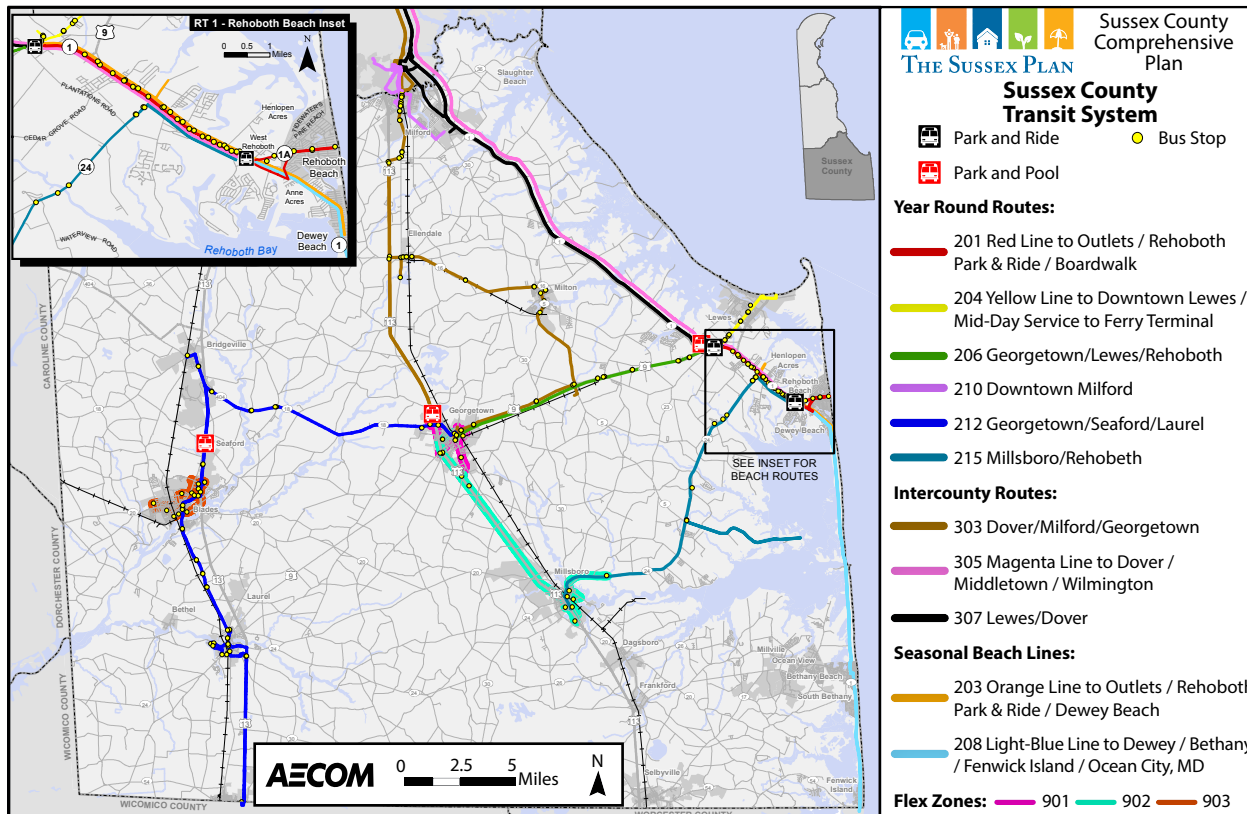
Transit hub and park-and-ride facilities include:

- Lewes Transit Center

- Georgetown transit hub
- Rehoboth Beach Park-and-Ride

DART and social service agencies provide paratransit services, focused on serving senior citizens and persons with disabilities. These are key services, considering the growing 65+ population in the County. DART also provides two summer seasonal routes in the beach area.

Figure 1.11 Sussex County Transit System



Sussex County

Routes

REVISED

Effective

February 14, 2021

Weekday

Saturday

201, 204, 206, 212, 215

Flex

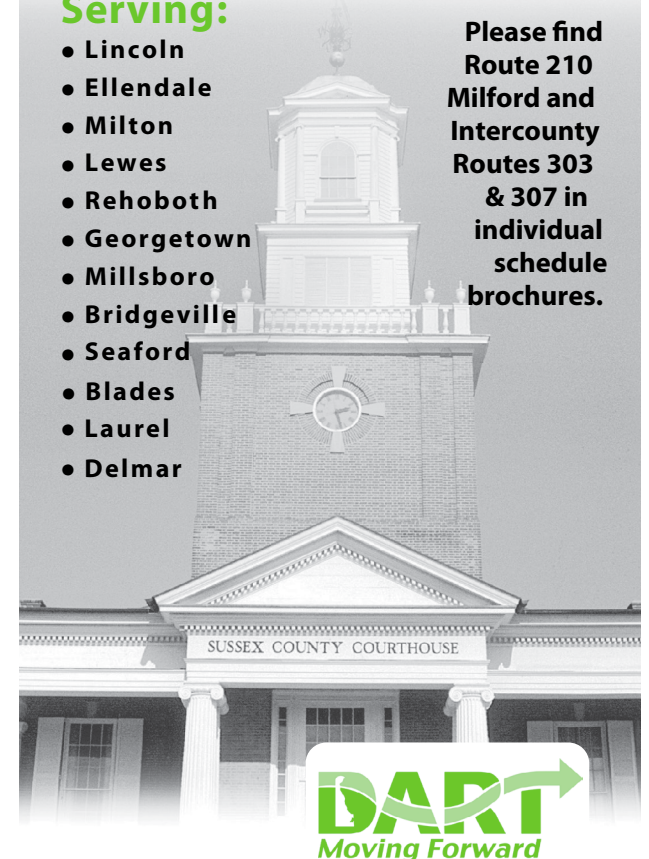
Routes 903

and DART Connect

Serving:

- Lincoln
- Ellendale
- Milton
- Lewes
- Rehoboth
- Georgetown
- Millsboro
- Bridgeville
- Seaford
- Blades
- Laurel
- Delmar

Please find
Route 210
Milford and
Intercounty
Routes 303
& 307 in
individual
schedule
brochures.



Sources: DE FirstMap, Sussex County Mapping Dept. Delaware
Department of Transportation, DART

* Some routes will begin year-round service from September 10, 2018

BICYCLE AND PEDESTRIAN FACILITIES

The County has three major trail facilities:

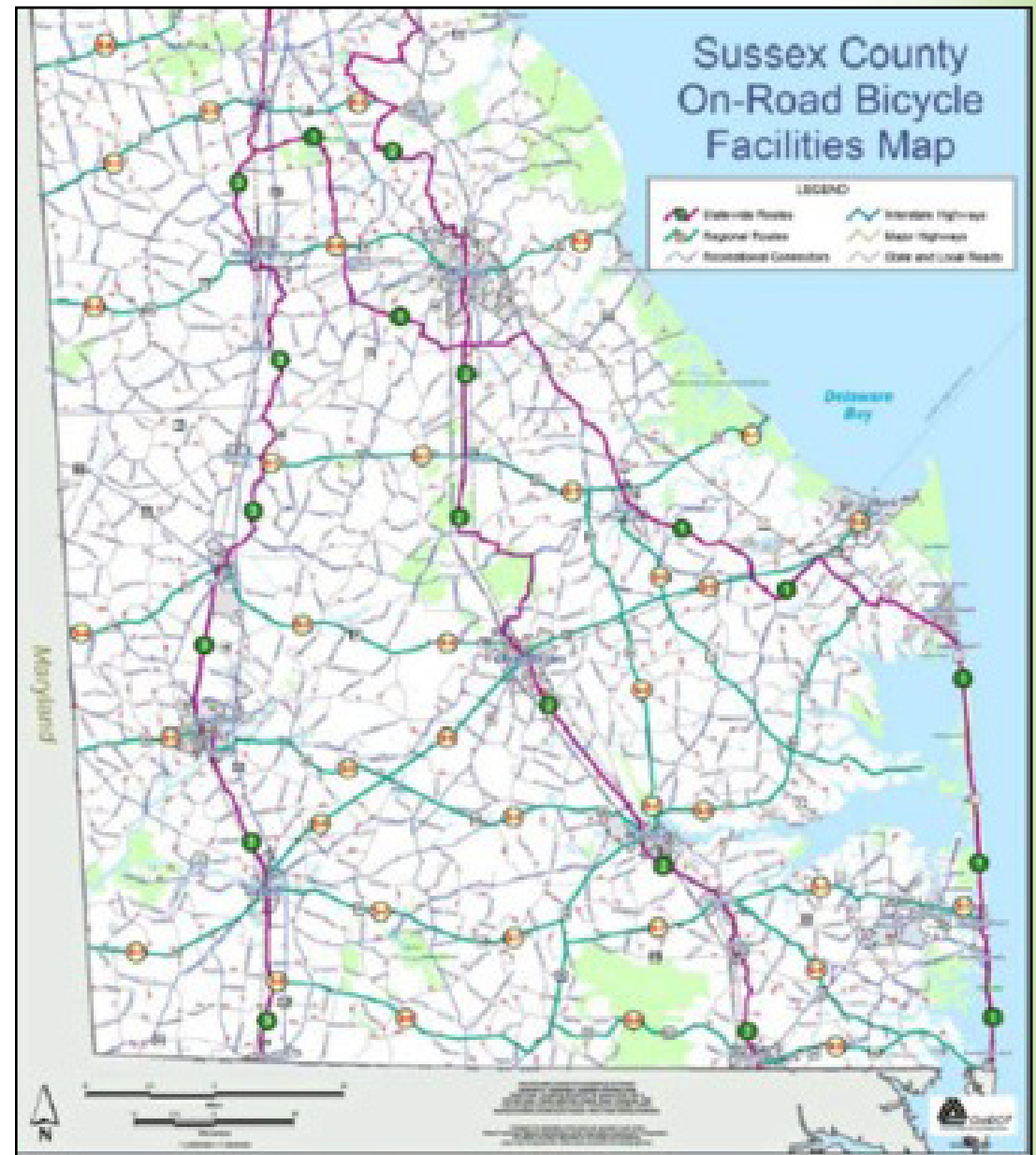
- The Junction Breakwater Trail is complete between Lewes and Rehoboth Beach.
- The Georgetown-Lewes Trail, Phase I, opened in 2016, and Phase II opened in 2019. Six (6) miles of the planned 16.8 miles are completed.
- The Ellendale-Milton Industrial Track has two phases open. Almost one (1) mile is completed of the planned 6.8 miles.

Based upon the DelDOT statewide bicycle plan, most roads in the County are considered unrideable for most or all bicyclists.

Delaware has one of the highest per-capita pedestrian fatality rates in the nation. In 2018, there were five fatalities and 33 injuries in pedestrian crashes in Sussex County.

In addition to trails, pedestrian facilities include sidewalks and crosswalks in major activity centers. The County also has three scenic byways: the Historic Lewes Byway, the Nanticoke Heritage Byway and the Delaware Bayshore Byway.

Figure 1.12 Sussex County On-Road Bicycle Facilities Map



Sources: DelDOT Bicycle Facility Master Plan
https://deldot.gov/Publications/archived/bike_facilities/index.shtml

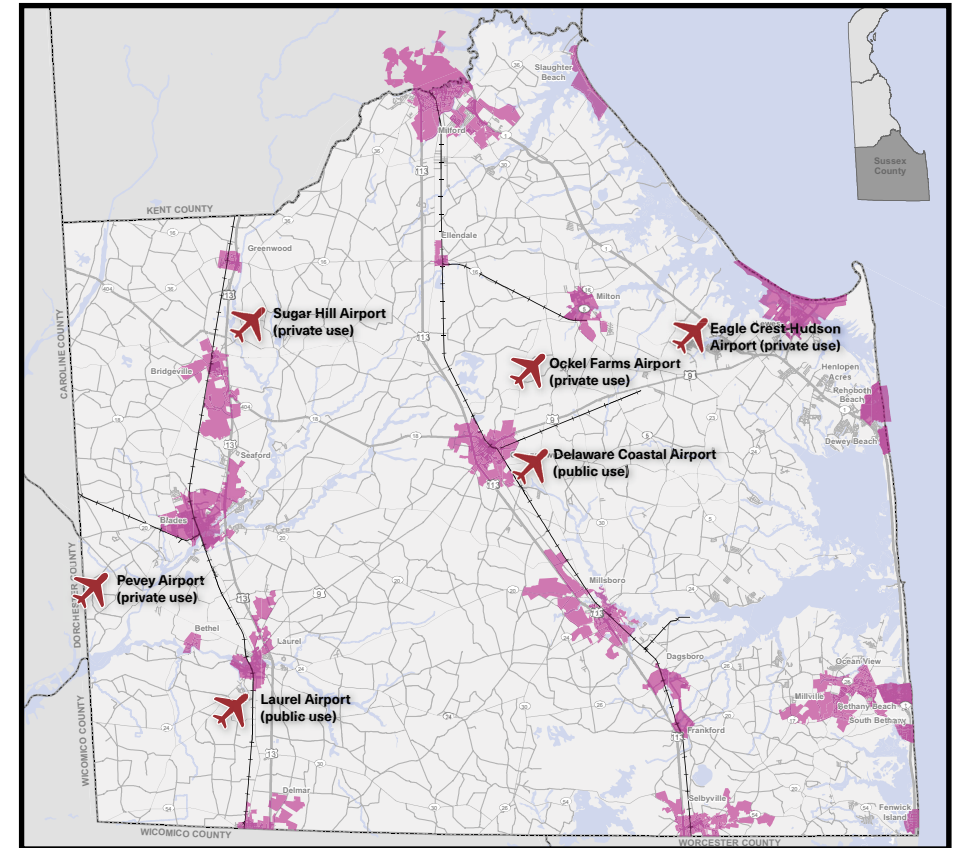
AVIATION AND WATERWAYS

The Delaware Coastal Airport is owned by the County, which has been pursuing expansion plans, and is viewed as an economic development opportunity. The Laurel Airport is used mostly for agricultural spraying and flight training.

The County also has two ferries of different sizes. The Cape May – Lewes Ferry provides service across the Delaware Bay, while the Woodland Ferry runs across the Nanticoke River south of Seaford.



Figure 1.13 Sussex County Airports



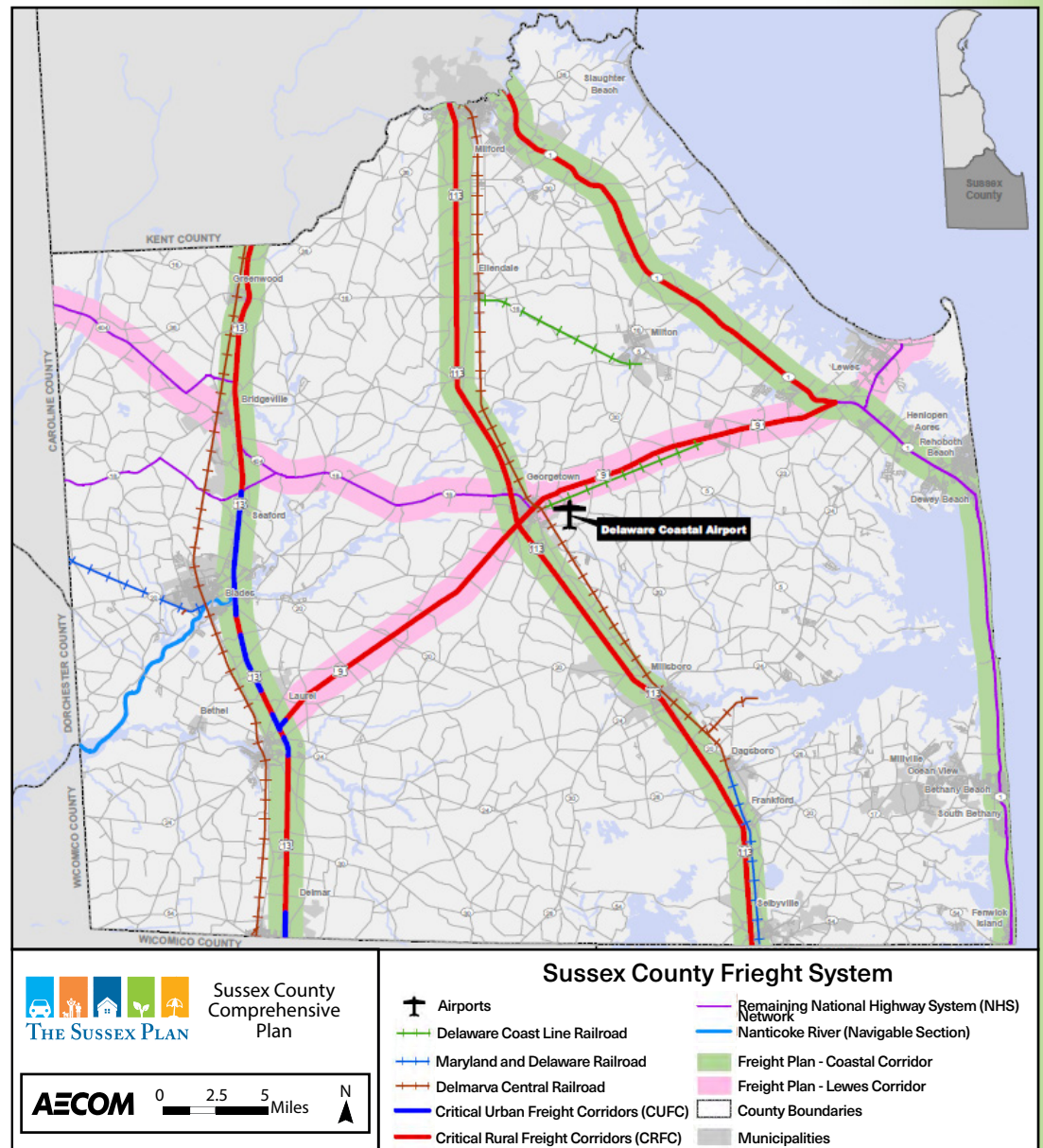
FREIGHT

Truck freight is the primary mode of goods movement, carrying over 80% of freight. The County has two designated freight corridors. The Coastal Corridor runs north-south, and the Lewes corridor runs east-west.

Rails carry an estimated 10% of freight. The Delmarva Central runs north-south, and the MD & DE has two lines, one between Seaford and Cambridge, MD and the other between Townsend – Centreville, MD.

Some freight also moves via barge along the Nanticoke River. Barges carry grain, liquid fertilizer, and aggregates.

Figure 1.14 Sussex County Freight System



Sources: DE FirstMap, Sussex County Mapping Dept. Delaware Department of Transportation, Bureau of Transportation Statistics (RITA/BTS) National Transportation Atlas Databases (NTAD) 2006.



2.0 | KEY CONSIDERATIONS

- ***Safety Concerns***
- ***Increasing Traffic Congestion***
- ***Severe Weather Impacts***
- ***Transportation Needs Based on Demographics***
- ***Transportation Needs of Economic Sectors***
- ***Longer Travel Distances and Times for Commuters***
- ***Freight Use, Impacts and Needs***
- ***Limited Access to and Use of Multi-Modal Facilities***
- ***Expansion Options for Aviation and Ferry Terminals***

SAFETY CONCERNS

The annual number of total crashes as well as the annual number of fatal crashes in the County has been increasing steadily. Statewide crash analysis shows concerns related to various crash types and factors including intersections, pedestrians, and heavy vehicles.



Figure 2.1 Total Crashes

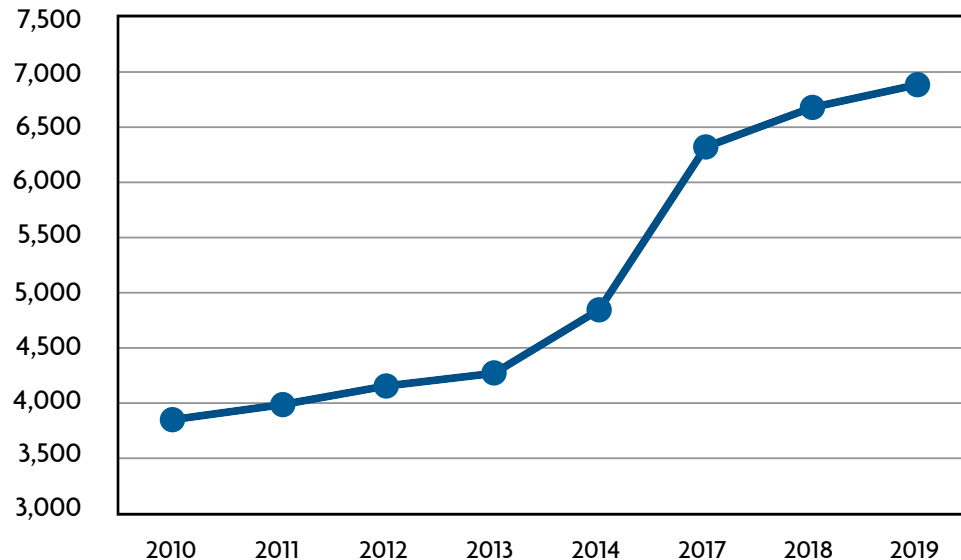
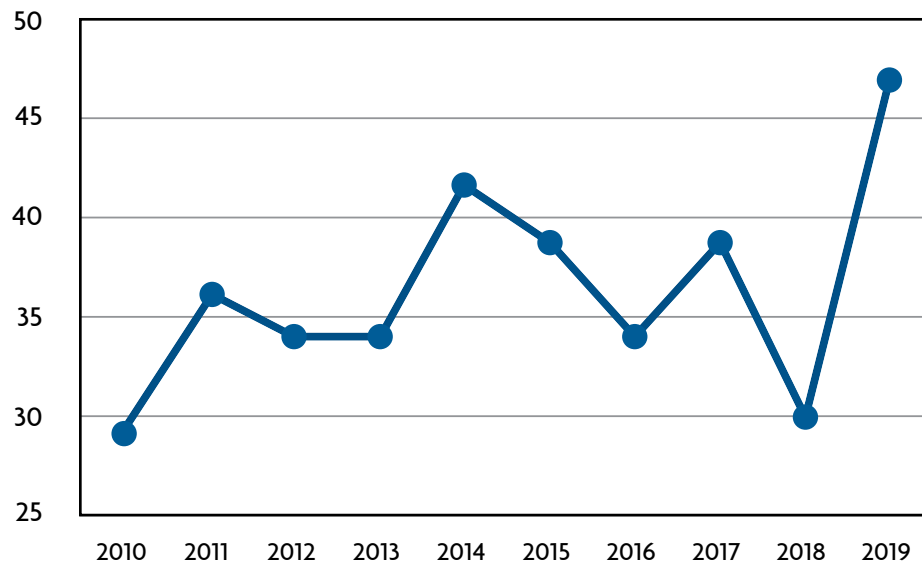


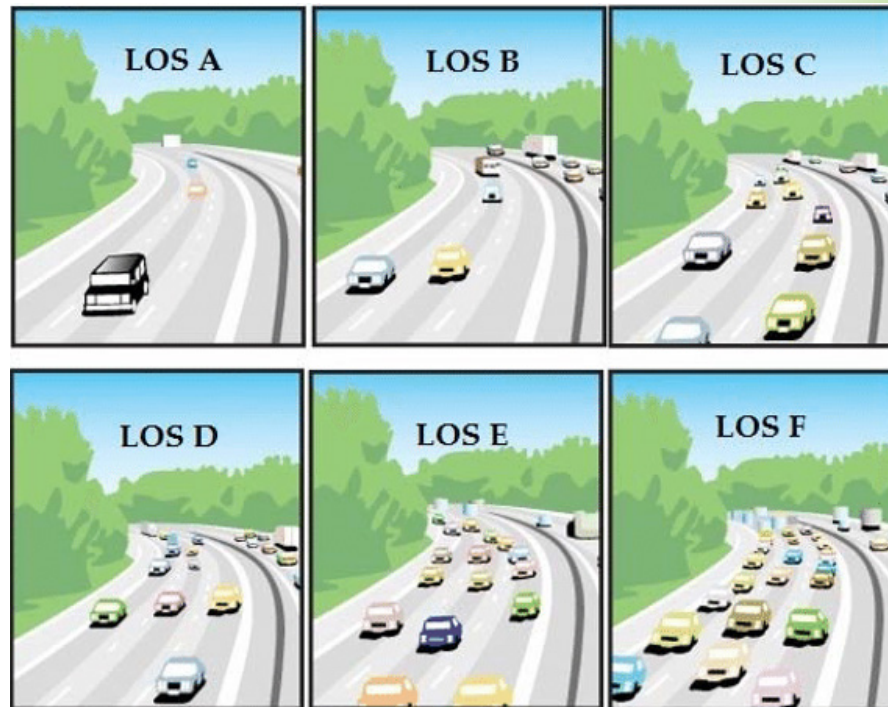
Figure 2.2 Fatal Crashes



Source: DSP

Delaware's Annual Traffic Statistical Reports provide details on crashes, fatalities and injuries, and contributing factors: <https://dsp.delaware.gov/wp-content/uploads/sites/118/2020/06/2019-Annual-Traffic-Statistical-Report.pdf>

Figure 2.3 Visualization of Roadway Levels of Service (LOS)



INCREASING TRAFFIC CONGESTION

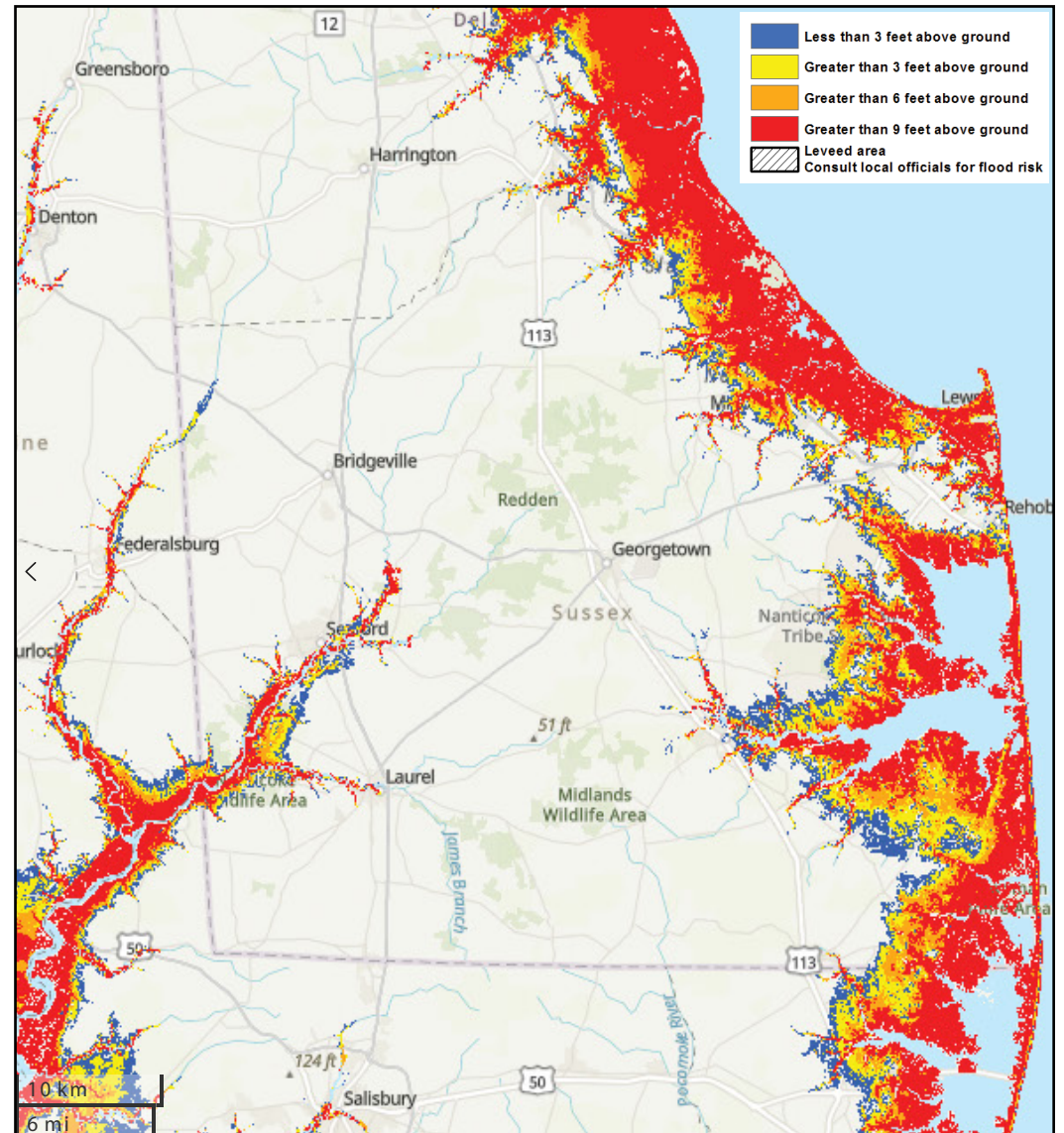
- Development and population growth lead to increased travel demands and traffic.
- Congestion has been increasing along the main corridors, particularly in the east.
- There has been an increasing mix of volumes of through and local traffic on secondary/local roads.
- Congestion impacts emergency vehicle response times.

SEVERE WEATHER IMPACTS

Severe weather, particularly in the form of coastal and inland flooding, may have various impacts to the transportation system. Impacts include road closures, which may cause travel delays, increased traffic on alternative routes, decreased emergency access, and economic impacts. Flooding also may damage roads, bridges, and other transportation facilities, thereby increasing costs for repair and maintenance.



Figure 2.4 Category 4 Storm Surge Inundation



DeIDOT's Sussex County All Hazards Evacuation Index report focuses on tidal inundation incidents and events that may affect the County: deldot.gov/Publications/reports/ITMS/pdfs/SussexCountyEvacuationAnnex.pdf

TRANSPORTATION NEEDS BASED ON DEMOGRAPHICS

Increases in older populations, minority populations, and continuing needs of persons with disabilities has created an increased demand for public transportation. These population segments have lower rates of vehicle ownership and other limitations on driving. They also tend to have greater needs for access to medical services and social services. Americans with Disabilities Act (ADA) Paratransit service is limited on Saturdays, and no service is available on Sundays.



TRANSPORTATION NEEDS OF ECONOMIC SECTORS

Employment has decreased in manufacturing and farming, but agriculture and food processing is still a major part of the County's economy.

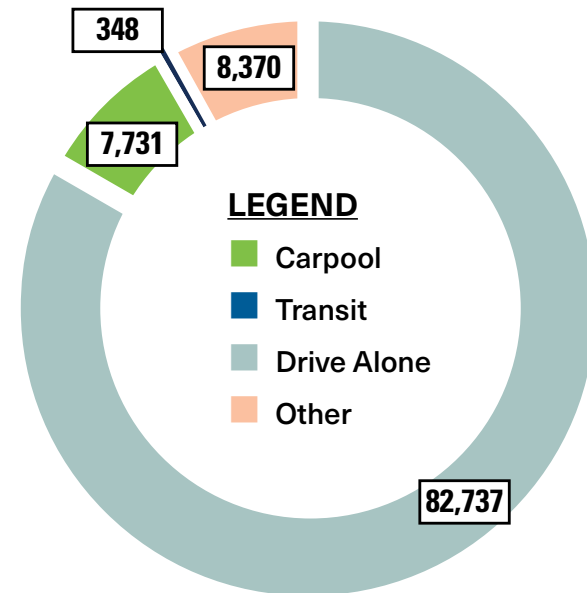
- The poultry industry has high transportation needs primarily with truck traffic crossing the County.
- Farming equipment and other slow-moving vehicles can impact other methods of travel.
- Tourism and seasonal businesses increase the demand on the transportation network.



LONGER TRAVEL DISTANCES AND TIMES FOR COMMUTERS

Sussex County is a net exporter of workers to other counties and the state of Maryland. Due to cost of living and other economic factors, an increasing number of workers with jobs in the eastern part of the County are having to reside in the western part of the County. The average commute time for resident workers increased from 23.5 minutes in 2010 to 26.4 in 2019. Due to the patterns of development and commuting, it is difficult to serve everyone with public transit.

Figure 2.5 Primary Commute Mode for Resident Workers, 2019



FREIGHT USE, IMPACTS AND NEEDS

The growth of e-commerce and the needs of the poultry industry have contributed to an increase in truck traffic volumes. Concerns include traffic congestion, bottlenecks, rail crossings, truck regulations, and parking needs. Local impacts and concerns include increased congestion, noise, fumes, and safety hazards.

Rail carries about 10% of goods in Sussex County, but there are opportunities for rail to carry more freight. The Delmarva Central railroad opened a new trans-load terminal in Seaford and will be making improvements including the Seaford bridge. Some impacts to consider for increased rail service are increases to noise, grade crossing delays, and safety.



LIMITED ACCESS TO AND USE OF MULTI-MODAL FACILITIES

Transit

- Less than 1% commute by transit; DART ridership decreased 2012-2017.
- Key concerns include insufficient transit infrastructure, low-density land uses, distances between town centers, and transit-unfriendly designs such as narrow road widths.
- Facility improvements are scheduled for the Georgetown Transit Hub and Rehoboth Beach Park & Ride operations center.

Bike and Pedestrian Facilities

- There have been ongoing advances in providing new and improved bike-ped facilities, but some segments still need to be built and connected.
- Many roads are not bicycle-friendly.
- Pedestrian/traffic calming projects have occurred or are planned across the County.



EXPANSION OPTIONS FOR AVIATION AND FERRY TERMINALS

As an economic development opportunity, Sussex County is working to expand the facilities and increase operations at the Delaware Coastal Airport. The main runway already has been expanded to 5,500 feet, and the County would like to expand it to 6,000 feet. Plans also include new hangars and maintenance facilities. There may be potential for air freight activity. Salisbury Regional Airport also is seeking to build capacity by marketing to Sussex County passengers due to the I-95 construction in New Castle County.

Delaware River and Bay Authority (DRBA) has identified several projects for maintaining and upgrading the ferry facilities. DRBA also has plans for upgrading both terminals, including replacing utility infrastructure. A small fleet emphasizes the importance of ongoing maintenance. Removing a vessel from service affects short-term scheduling, ridership, and revenues. Work is underway on a new Marine Master Plan, which will provide recommendations for the future fleet follow this link for more information on this project:

cmlf.com/marine-master-plan



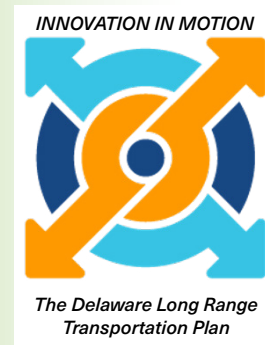
3.0 | CORRIDOR VISIONS

- *Long-Range Planning*
- *Corridor Capacity Preservation Program*
- *Sussex County Corridors*
- *Future Strategies*



LONG-RANGE TRANSPORTATION PLANNING

In 2019, DelDOT released *Innovation in Motion*, the **Long-Range Transportation Plan (LRTP)**, outlining DelDOT's efforts and strategies to embrace new technologies, enhance the state's transportation system, and respond to the evolving needs of Delawareans.



Innovation in Motion illustrated statewide transportation goals, strategies, actions, and performance measures in order to position Delaware to have a more competitive economy, develop more vibrant communities, and support environmental sustainability for the vitality of future generations.

DelDOT is currently working on the LRTP update. The updated LRTP, "Connecting Everyone Everywhere," is scheduled to be adopted in Winter 2024.

This chapter provides an overview of current efforts, conceptual visions for the main roadway corridors in Sussex County, and consideration of the most appropriate corridor planning approaches moving forward. Corridor planning and management is a key category of strategies for long-range coordination of transportation investment and land use decision-making.

CORRIDOR CAPACITY PRESERVATION PROGRAM (CCPP)

DeIDOT established a program in 1996 to preserve the regional function of selected corridors. Portions of the three main north-south corridors (US 13, US 113, and SR 1) are located in Sussex County. The purpose of the CCCP is to protect corridors serving predominantly statewide and/or regional travel with the following goals:

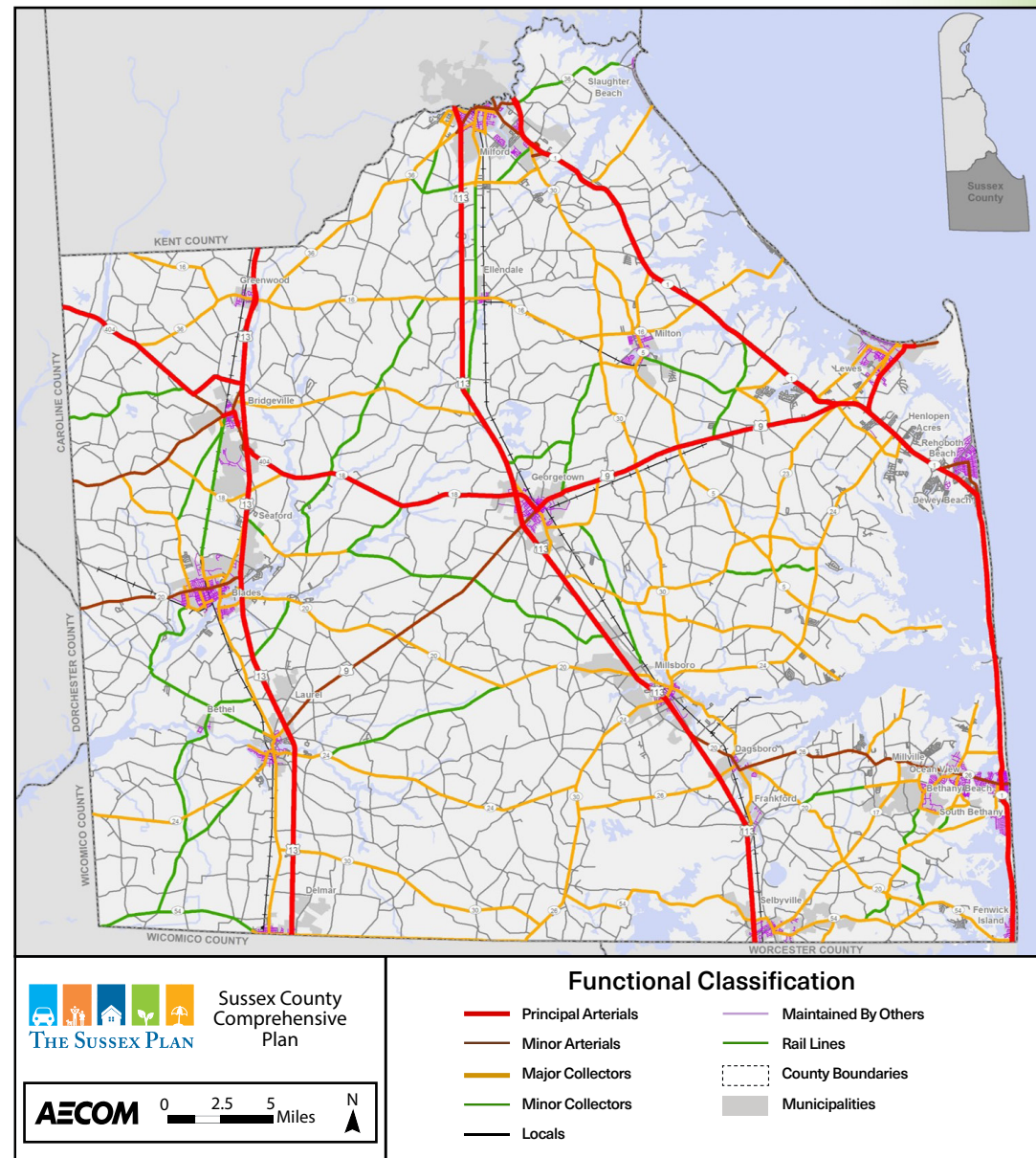
- Maintain a road's ability to handle traffic safely and efficiently.
- Minimize the impacts of increased development growth.
- Preserve the ability to make future improvements.
- Prevent the need to build an entirely new road.

DeIDOT will be bringing the program to the public in order to update the policy and examine potential candidates for capacity preservation.

For more details about the CCCP program, visit:

del.dot.gov/Programs/corr_cap/index.shtml

Figure 3.1 Classification of State-Maintained Roads



Sources: DE FirstMap, Sussex County Mapping Dept. Delaware Department of Transportation

North-South Corridors

SR1

The main north/south corridors are **divided highways with multiple lanes, medians, and wide Rights-of-Way (ROW)**. Therefore, the strategy for these corridors is **preservation** of the existing capacity.

Background

A 31-mile section of SR 1 between Nassau in Sussex County and the Dover Air Force Base (DAFB) in Kent County was the first corridor in the CCPP. High volumes of existing and future projected traffic, coupled with the guidelines in the **Strategies for State Policies and Spending**, created the need for corridor capacity preservation on this section.

Vision

This corridor is being converted to a limited-access roadway. DeIDOT has coordinated capital improvements with new developments, in order to prioritize capital projects, and to take a more proactive approach to property acquisition.

Planned Actions

Currently programmed Sussex County projects along this corridor include interchanges with SR 16 and Cave Neck Road.

Figure 3.2 Corridor Capacity Preservation North-South Corridors, SR 1



US113

Background

The study process led to forming working groups in four areas:

- Milford
- Georgetown
- Ellendale
- Millsboro-South

Vision

The 2001 North-South Study addressed anticipated growth due to rapid development along this corridor. Secondary considerations included beach traffic, Maryland upgrades to US 113, and emergency evacuation planning.

Planned Actions

Currently programmed projects include the following:

- Interchange at SR 16
- North Millsboro Bypass, including interchange with SR 20
- Interchanges at SR 404/18 and US 9 in Georgetown
- Widening in Millsboro

Figure 3.3 Corridor Capacity Preservation North-South Corridors, US 113



US13

Background

Municipalities along this corridor include Bridgeville, Seaford, Laurel, and Delmar. **Greenwood/Bridgeville Transportation Plan** began as a breakoff of **DeIDOT's Coastal Corridors Study**.

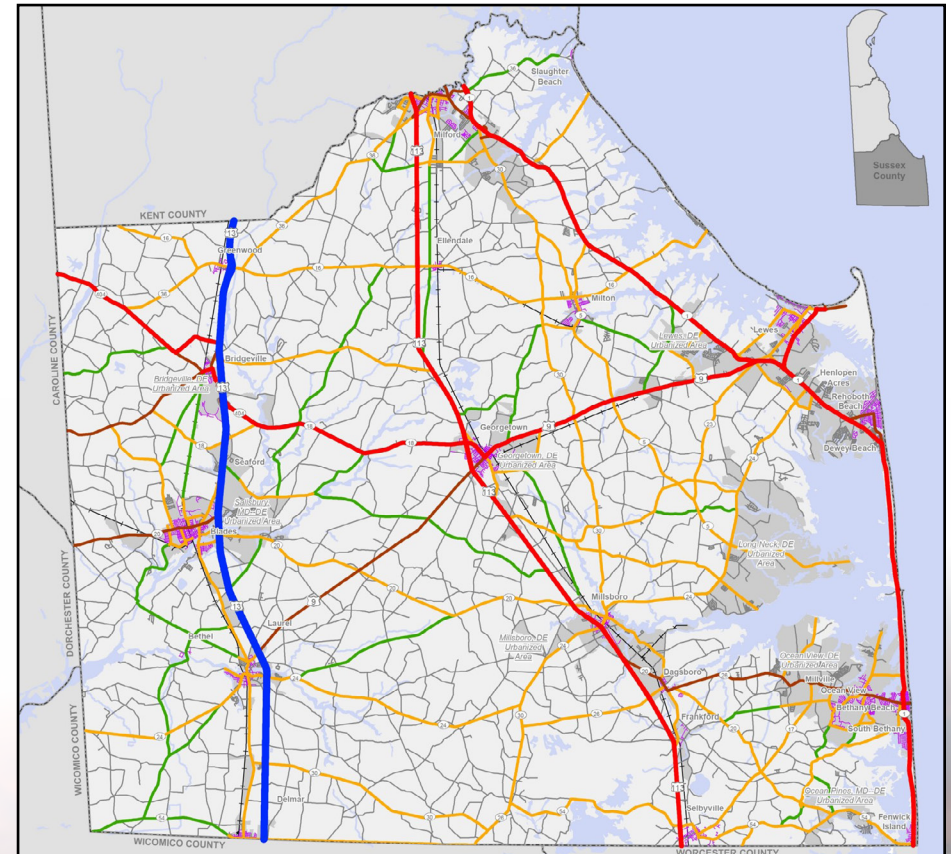
Vision

While studies and improvements along US 13 in New Castle and Kent Counties are ongoing, the growth along this corridor in the Bridgeville area and south into the Metropolitan Planning Area will require more studies and planning efforts to mitigate increasing traffic volumes due to increasing travel and developmental growth.

Planned Actions

DeIDOT Planning worked with the towns of Greenwood and Bridgeville to develop a future-looking, long-range transportation plan for Greenwood, Bridgeville, and the areas surrounding the towns, which will help integrate transportation improvements with community goals and visions.

Figure 3.4 Corridor Capacity Preservation North-South Corridors, US 13



Additional North-South Corridors

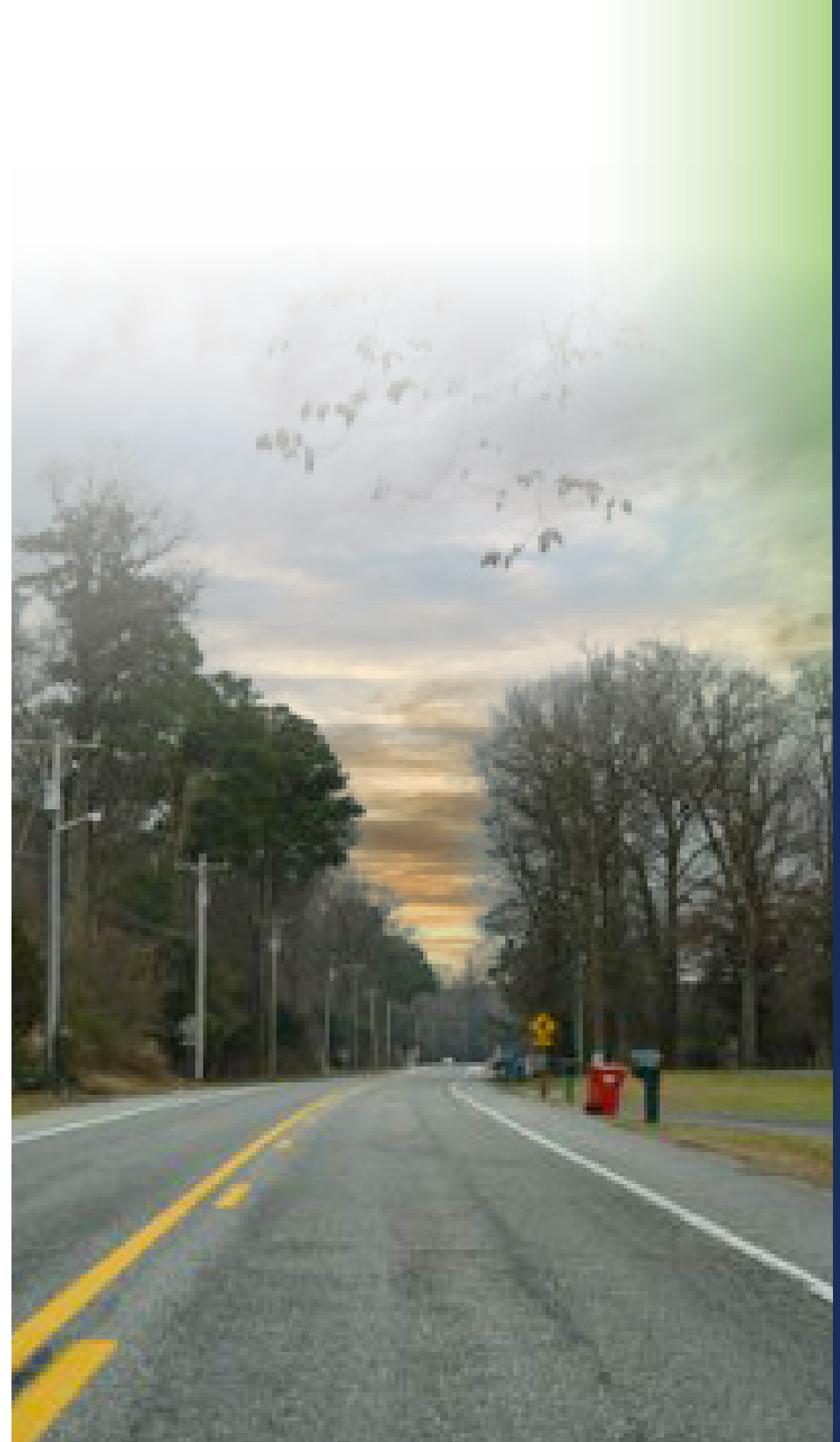
SR 30

Background

One additional north-south corridor for planning consideration is the SR 30 corridor, extending south from DE 1 in southeast Milford. The recent expansion of the Bayhealth Sussex medical facility and new Nemours Sussex Campus at the north end of the corridor has generated a considerable increase in traffic. At the same time, the area to the south along DE 30 currently is undeveloped.

Vision

Corridor planning, including consideration of what densities and built-outs may be permitted in each Zoning District, would enable projected traffic impacts to be considered in further detail. The calculation of current build-out potential and traffic impacts would provide the basis for assessing possible transportation improvement needs along the corridor. Based upon this assessment, DelDOT and the County could coordinate to achieve a consensus vision for the corridor in terms of land use and transportation.



Sussex County East-West Corridors

The main east-west corridors in the County include **SR 404/18, SR 16, Redden Road, US 9, SR 20, SR 24, SR 26, and SR 54**. None of these corridors are managed under the CCPP.

These routes are arterials and collectors that carry significant regional through traffic, and they could require capacity improvements to meet future transportation demand. These roads currently are mostly two-lane roads, which have narrower ROW than the main north/south corridors.

The overall strategy for these corridors should be to develop proactive plans to reduce the encroachment of development adjacent to the ROW, which would allow for future capacity expansion along these corridors.

The following pages provide concepts and visions for the County's main east-west corridors. These visions are purely conceptual until formal plans may be adopted. These visions may require significant commitments by Sussex County and its partners, and they should explore appropriate methods to implement these visions.



Coastal Corridors Study

Background

DelDOT launched the **Coastal Corridors Study** in 2019, which includes the SR 404/US 9/SR 18 corridor as well as the SR 16 and Redden Road corridors.

The Study was initiated after Maryland's improvements and upgrades along the MD 404 corridor to improve safety and the flow of regional traffic heading towards the coast. In addition, the State of Maryland's Planning Division recently completed a Tier 1 environmental study for a new Bay Bridge crossing.

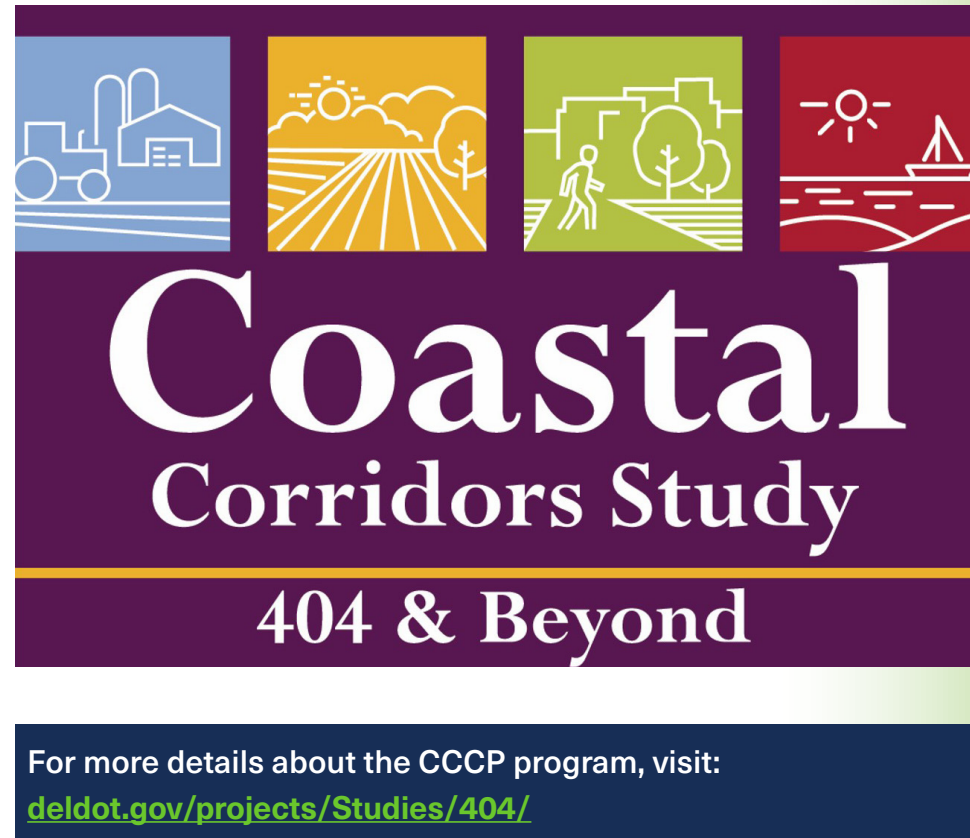
Vision

This corridor should be preserved to allow for possible future capacity expansion. Close attention should be paid to land use along this corridor beginning at US 113 and headed east.

There are many economic development opportunities along these corridors with options for providing services to travelers.

Planned Actions

The Study led a comprehensive public engagement process to determine how the corridor should develop from US 113 heading east.



US 9

Vision

Consistent with the County's Comprehensive Plan, US 9 can be developed as a business corridor with a mix of residential and commercial uses that provide residents with access to services they need. The US 9 vision is also tied to efforts to make the corridor multi-modal by providing active transportation (bike/ped) connections between US 9 and the Georgetown to Lewes trail.

While this vision would build a better local community on the corridor, it shouldn't reduce its capacity to handle east-west through traffic. US 9 is a principal arterial and an important freight corridor. DelDOT currently has a project planned to widen this corridor beginning at SR 1 and heading west beginning at Ward Avenue and ending at Old Vine Boulevard.

Potential Actions

Explore the potential for increased setbacks, along with clarification of whether stormwater management features and/or parking may be permitted within the building setback areas for each parcel. Looking ahead, opportunities exist for increased partnership between Sussex County and DelDOT to examine the anticipated growth patterns along this corridor. DelDOT is studying alternatives for capacity increases throughout the entire US 9 corridor from Georgetown to Lewes.

Additional East-West Corridors

SR 16

Background

SR 16 is being explored as an alternative east-west corridor and can be proposed as an addition to the CCPP.

Vision

This corridor capacity should be preserved to allow for future capacity expansion and prevention of development encroachment. DelDOT is studying alternatives for increased multimodal facilities and potential alternative routes for the SR 16 corridor.

Planned Actions

Construction continues on the SR 1/SR 16 grade-separated intersection (GSI). Another GSI is currently programmed in DelDOT's Capital Transportation Program for the intersection of SR 16 with US 113.



Redden Road, SR 20, SR 24, SR 26, and SR 54

Background

These east/west routes carry a significant amount of traffic accessing the coastal resort areas and serve as primary evacuation routes.

Improvements to SR 26 were completed in 2016 which included multi-modal facilities. Expansion projects are currently underway for SR 24 in the Lewes/Rehoboth area.

Local traffic continues to increase due to development pressure on all routes. Due to the planned bypass of northern Millsboro, which will link SR 24 with US 113, regional traffic could also increase.

Vision

Moving forward, Sussex County should work actively with DelDOT and other planning partners to anticipate future growth on these corridors and time it with adequate transportation improvements.

Planned Actions

CTP projects are programmed for segments of Redden Road and SR 54.



OPPORTUNITIES FOR ENHANCED COORDINATION

Delaware is one of the few states in the nation with different entities responsible for land use decisions that directly impact transportation. This tends to cause a disconnect between land use, transportation planning, and decision making.

In Sussex County, DeIDOT is responsible for nearly 90% of the roadway network. The Sussex County Planning and Zoning Commission and, in turn, Sussex County Council are responsible for all land use decisions within the unincorporated areas of the County.

Additionally, 25 separate municipalities are responsible for land use decisions within incorporated municipal boundaries. The Sussex County Council and those 25 individual municipalities review, approve or deny development and/or redevelopment proposals and other zoning related requests to implement land use policies and strategies. These policies and strategies reflect local goals as well as objectives and they are mostly aligned with the development vision for the entire County, but they may not align with transportation policies.

DeIDOT ensures that improvements to incoming traffic flow issues and safety are addressed by incoming development based on anticipated growth strategies outlined in the Delaware LRTP. DeIDOT strives to improve coordination between state, county and local entities to advance integrated land-use and transportation planning vision.

PUBLIC OUTREACH AND ENGAGEMENT

Securing public buy-in is an important but challenging task. Many times, there are conflicting interests and opinions about the objectives and outcomes of specific improvement projects that result in lack of public support for them.

Public involvement processes should be improved to prevent delays in future projects. Building an early consensus on improvement concepts through public participatory decision-making has been found to be very effective and essential in building a long-term trust among all partners. Projects that serve the greater good must move forward in the face of limited opposition to improve mobility and transportation safety in Sussex County. DeIDOT is using Public Input to streamline public outreach and engagement efforts.



TOOLBOX OF COUNTYWIDE CORRIDOR STRATEGIES

Management and Operational Improvements

- Controlled access
- ADA-compliant infrastructure
- Corridor Capacity Preservation
- Road diets
- Safety enhancements
- Intersection improvements
- Traffic Calming Measures

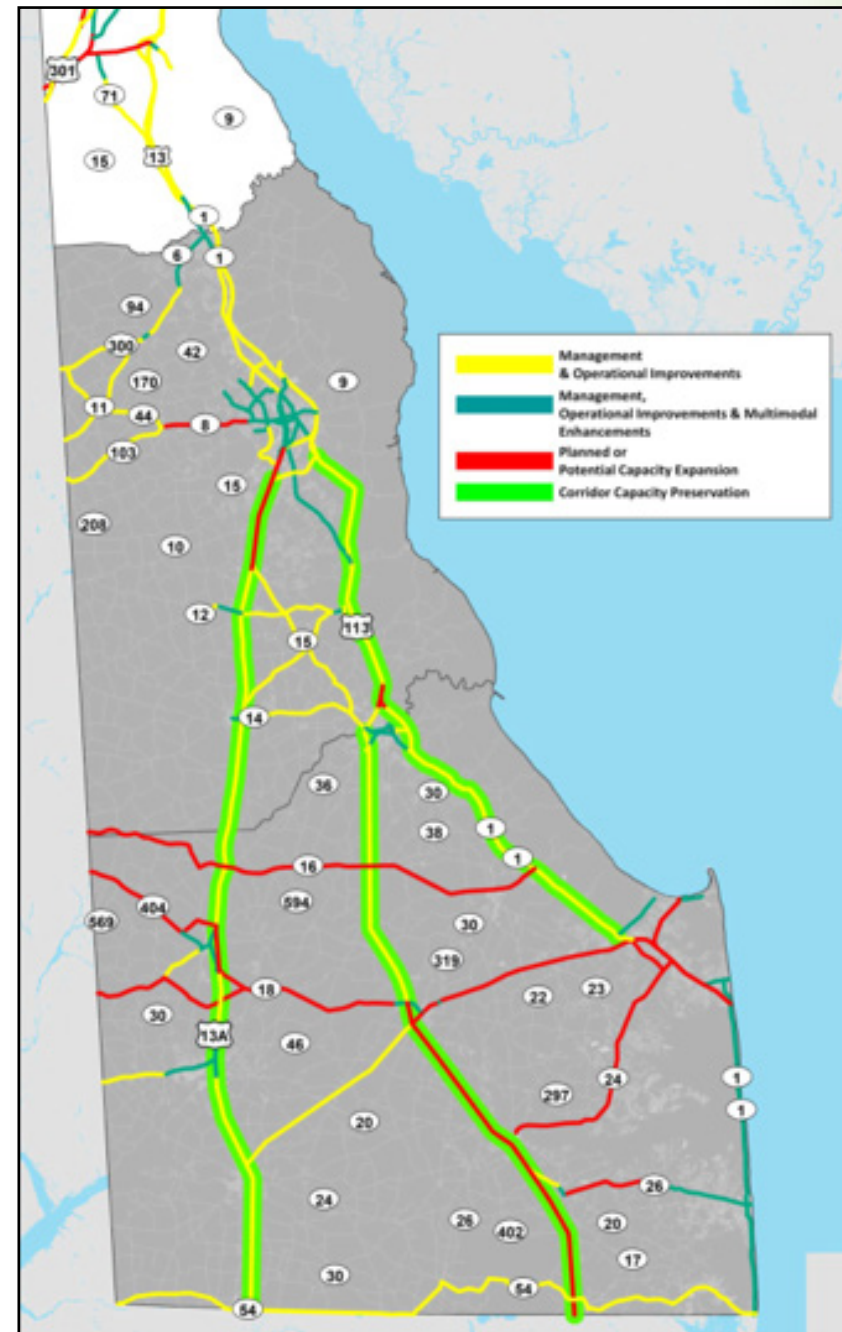
Multi-modal Enhancements

- Complete Streets communities
- Bicycle and Pedestrian facilities
- Public Transportation options
- Safety enhancements

Potential Capacity Expansion

- New highways, bypasses or arterials
- Additional travel lanes
- Public transportation expansions

Figure 3.5 DeIDOT Corridor Strategies - Kent & Sussex County



TRANSPORTATION STRATEGIES FOR COUNTY CORRIDORS

Sussex County would benefit from additional roadway capacity. To address increasing demand on the transportation network, the County should coordinate with DelDOT to implement CCPP strategies.

Operational capacity solutions can be found in the **Sussex County Transportation Operations Management Plan (TOMP)**. These solutions include traveler information systems, incident management, transit management, and additional operational capacity improvement techniques such as signal system optimization.

Innovative data collection techniques with various devices, such as Bluetooth detectors and traffic signal system detectors, help determine where and when infrastructure investments should be made.

Flexible transit routing, such as DART Connect, provides an intermediate service option in-between conventional fixed-route transit service and demand responsive paratransit service.



MUNICIPAL DESIGN STRATEGIES FOR COUNTY CORRIDORS

Grid network patterns usually have a high degree of connectivity while also providing a diversity of street types that serve various uses ranging from higher-volume commercial to lower-volume residential.

Interconnectivity between similar land uses aligns perfectly with the principles of Residential Planned Communities. Interconnectivity also fosters opportunities for community interaction by eliminating barriers between developments and providing better connectivity for non-motorized travel options like walking and bicycling.

Lack of street connectivity has resulted in an over-reliance on the higher classification roadway system for local trips, more traffic congestion, longer travel times, and greater travel distances. Local street interconnectivity plays an important role in ensuring efficient transportation systems.

Opportunities to work with developers on initiatives that promote connected designs should be explored. The context-sensitive design of street networks is important in providing accessibility for residents and businesses, optimizing network efficiency, and building sustainable communities.



4.0 | INTERGOVERNMENTAL COORDINATION

- *Delaware Strategies for State Policies and Spending*
- *DeIDOT and Sussex County Coordination*
- *DeIDOT and Municipal Coordination*



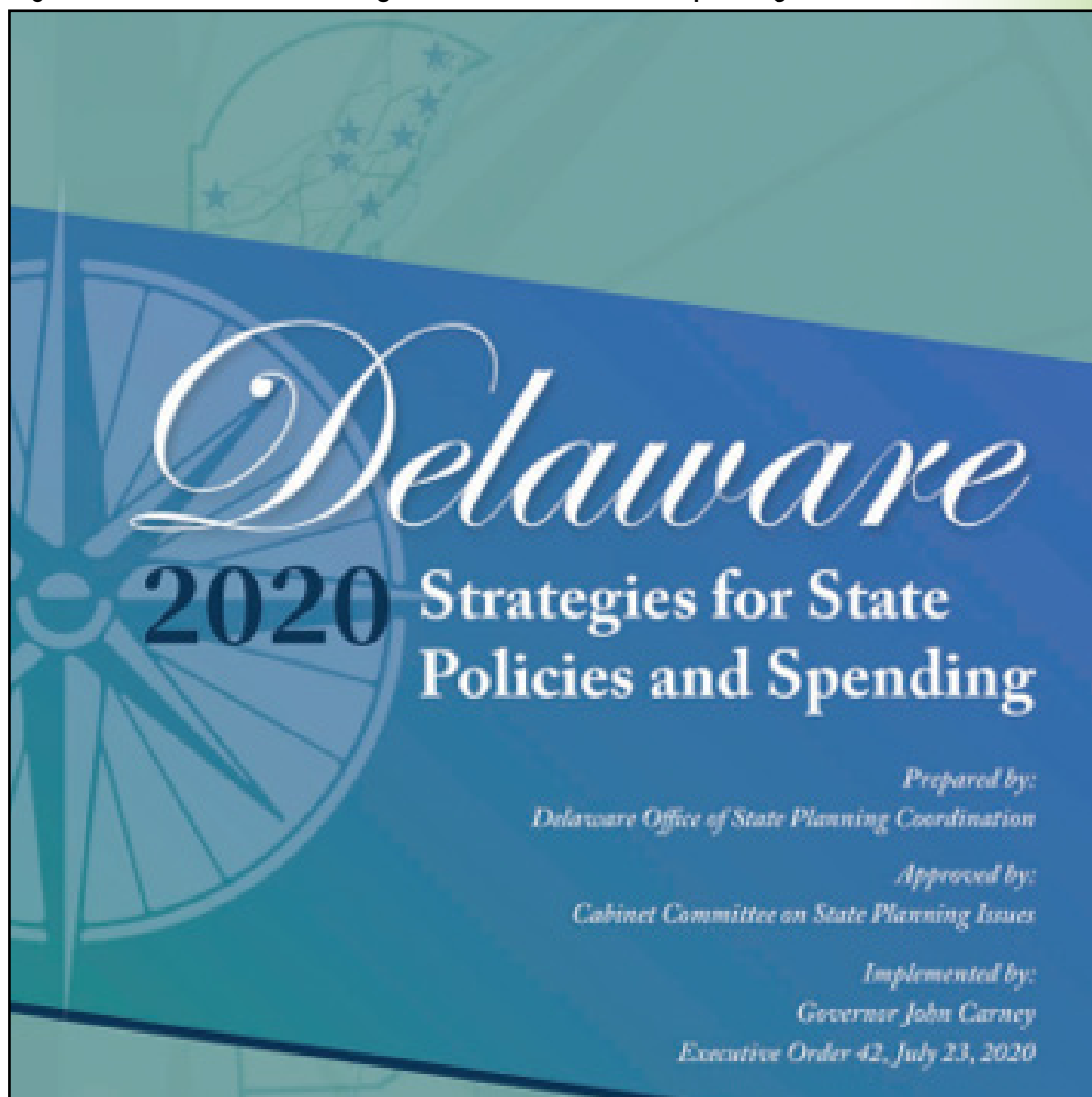
DELAWARE STRATEGIES FOR STATE POLICIES AND SPENDING

This program for extensive coordination with local governments, citizens, and state agencies is used to determine what areas are most prepared for growth and where the state can make the most cost-effective investments in roads, schools, and other public facilities and services.

- Maps are provided that reflect current development trends and identify areas with Investment Levels ranging from urban (Level 1) to rural (Level 4), along with areas considered “Out-of-Play.”
- Transportation investments are designated primarily in Levels 1 and 2. In Level 3, DeIDOT will focus on regional movements between towns and other population centers.

- For Level 4 and Out-Of-Play areas, such as State Parks and agriculturally preserved parcels, transportation funds will be used to preserve and maintain existing facilities in safe working order, corridor-capacity preservation, and the enhancement of transportation facilities to support agricultural business.
- County and municipal comprehensive plans will be reviewed by the Office of State Planning Coordination (OSPC) and should be consistent with these Strategies in order to be certified.

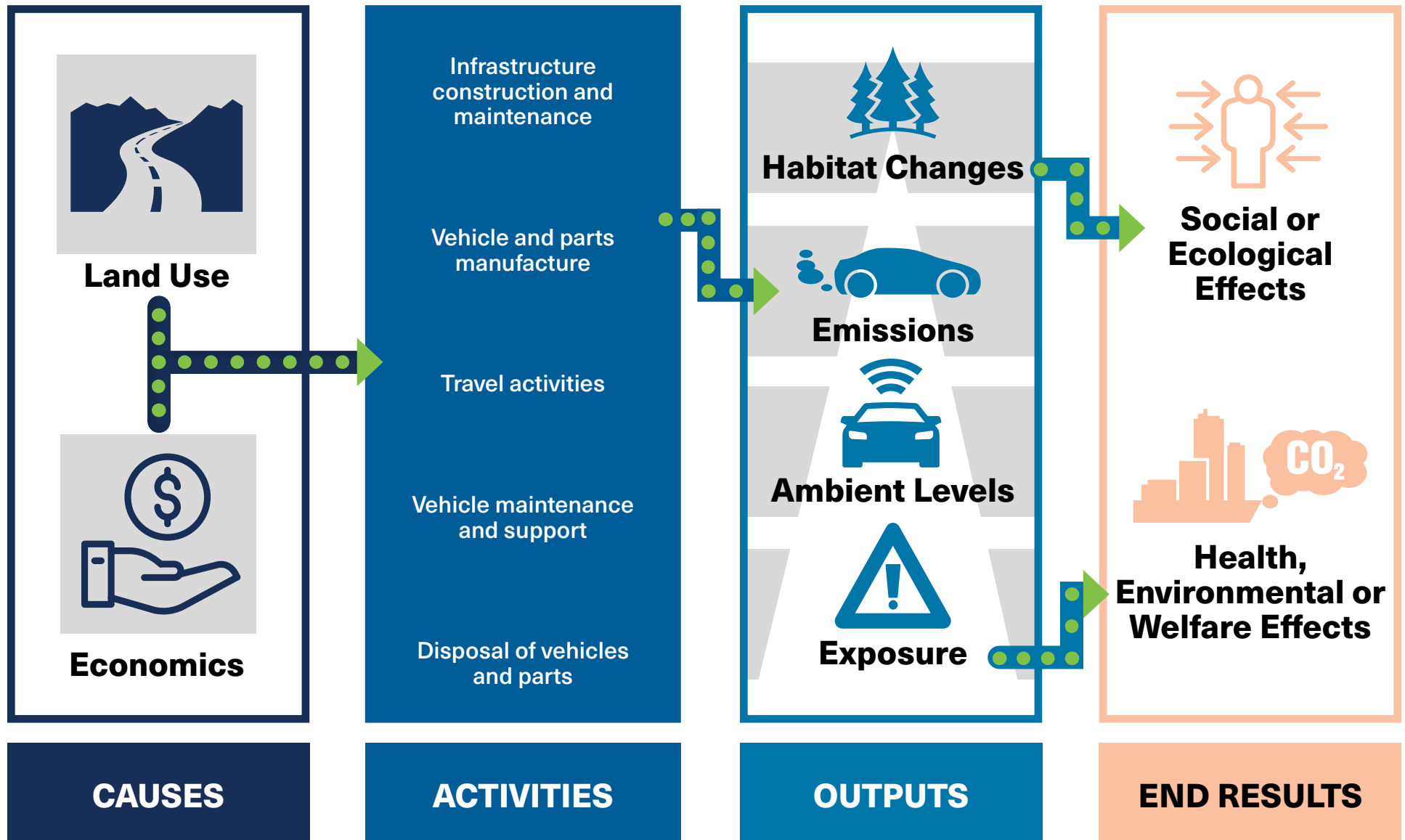
Figure 4.1 2020 Delaware Strategies for State Policies and Spending



Learn more about Delaware's strategies:

stateplanning.delaware.gov/strategies/documents/2020-state-strategies.pdf?ver=0806

HOW LAND USE DECISIONS AFFECT TRANSPORTATION NETWORKS?



Source: The Geography of Transport Systems
transportgeography.org/contents/chapter3/transportation-and-society/transportation-environmental-dimensions/

POTENTIAL IMPACTS TO QUALITY OF LIFE

- Increased infrastructure, monitoring, and maintenance costs
- Delays in emergency medical services response times
- Increased Air and Water Pollution
- Increased Water Consumption
- Loss in Open Space, Parks, Farmland and Wildlife Habitats
- Increases Risk and Damage from Floods
- Decreased neighborhood quality
- Increased Traffic Congestion and Traffic-Related Fatalities



DELDOT AND SUSSEX COUNTY COORDINATION

All roads outside of municipal limits that are not identified as being private fall under the jurisdiction of DelDOT.

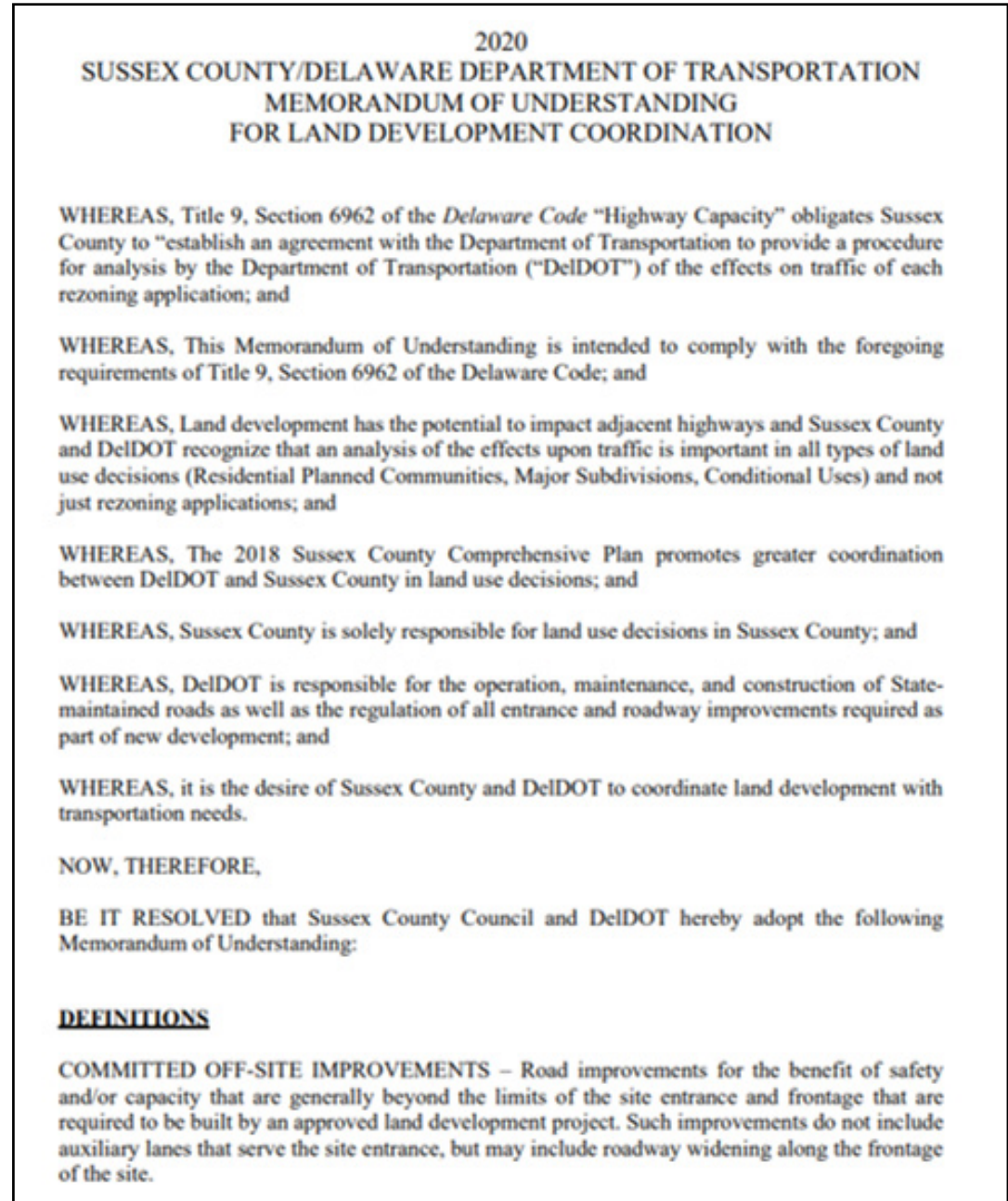
Memorandum of Understanding (MOU) in 1988

- The County agreed to commission a DelDOT traffic impact study for any re-zoning requests.

MOU in 2020

- Improve exchange of traffic data and the ability to address traffic issues as development seeks approvals.
- Coordinate conditions of approval related to road and traffic issues for incoming development.
- DelDOT may also provide input on land use decisions during public hearings at the request of Sussex County.

Figure 4.4 Sussex County DelDOT MOU for Land Development Coordination



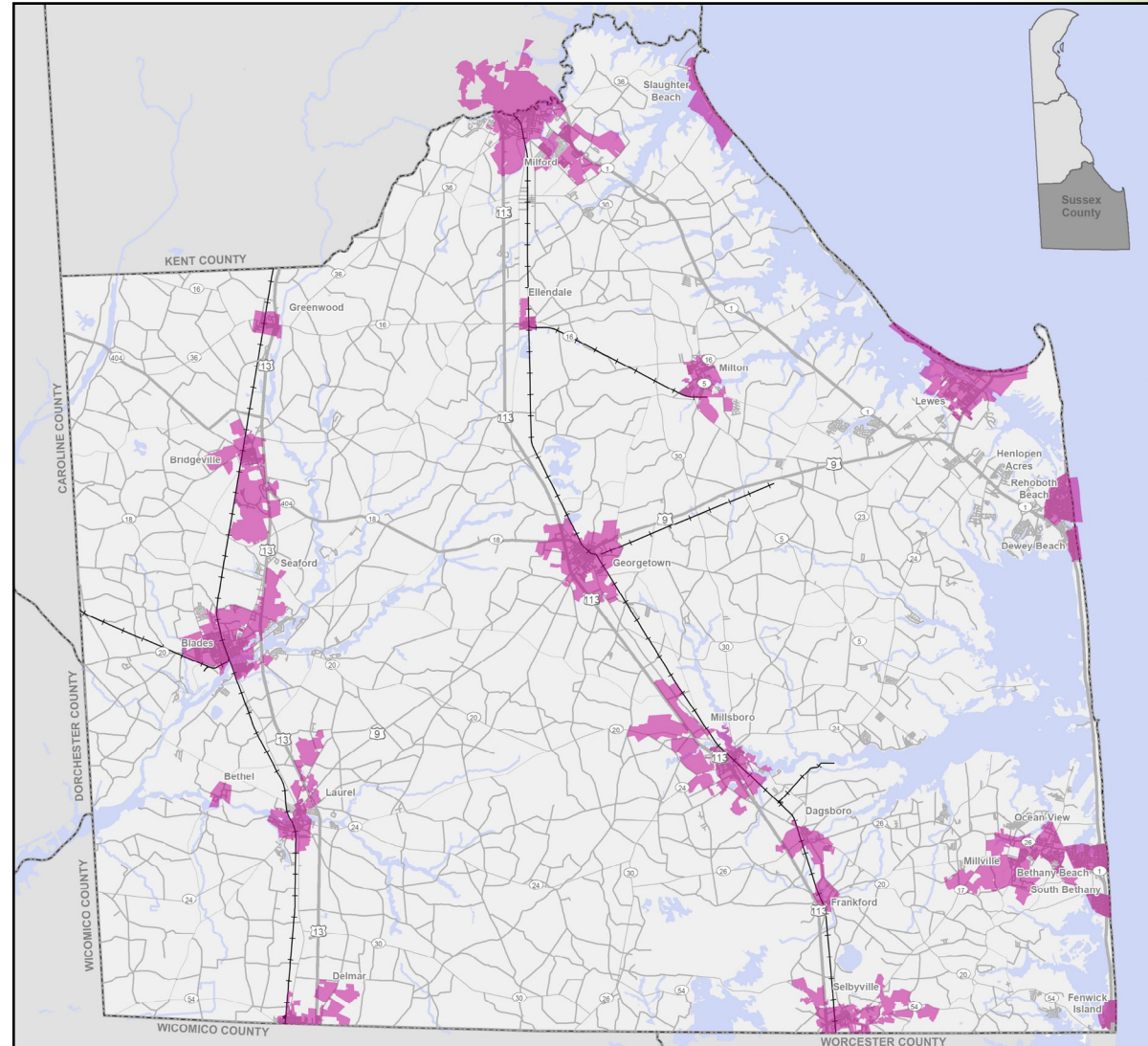
DELDOT, SUSSEX COUNTY, & MUNICIPAL COORDINATION

There are 25 municipalities in Sussex County. These municipalities vary in size and character beginning with the coastal towns along SR 1 in the east and stretching to the more rural and agricultural areas in the west.

Most municipalities have existing infrastructure ready for development. Municipalities play an important role in providing transportation connectivity across the County.

Municipal agreements, Municipal street aid, Municipal freight planning, and Comprehensive planning are all important tools that can assist municipalities with coordination, improvements and ensuring their transportation networks are sufficient for incoming development and growth.

Figure 4.5 Sussex County Municipals



5.0 | FUNDING OPPORTUNITIES AND FINANCIAL PLAN

- ***Capital Transportation Program***
- ***Funding Sources***

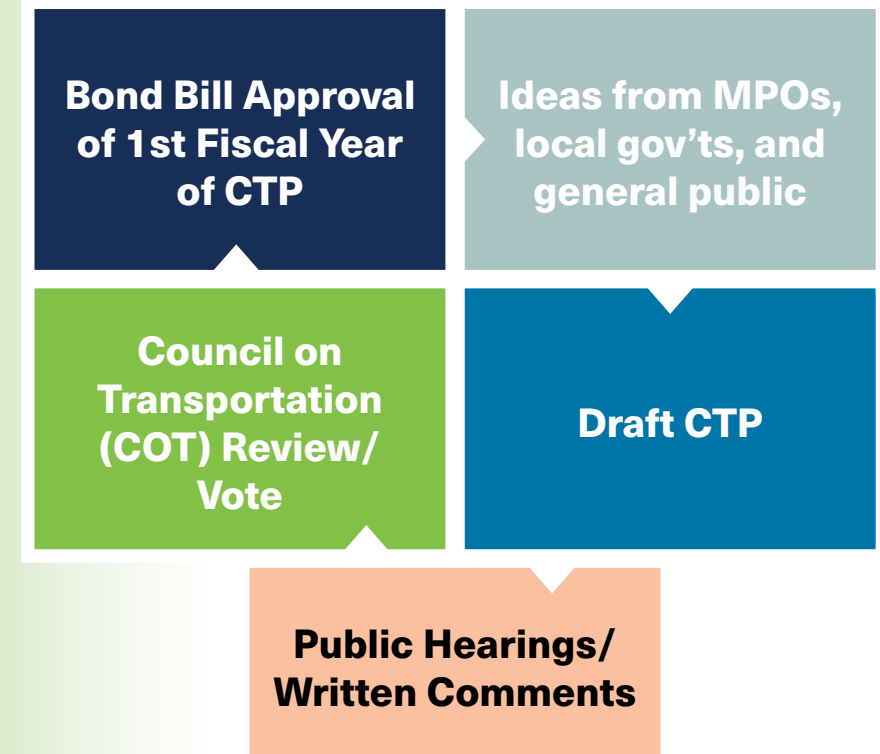


CAPITAL TRANSPORTATION PROGRAM (CTP)

DeIDOT prepares a biennial CTP, which identifies potential transportation capital investments. The CTP is developed in cooperation with the state's MPOs and with local officials in each County.

The CTP must be fiscally-constrained, meaning it must show that estimated revenues are sufficient to provide financing for all projects in the program.

Figure 5.1 Capital Transportation Program Process



Development

The program provides information on various DelDOT capital and maintenance programs and on the estimated cost expenditures for the project phasing of a capital project that are anticipated in each specific fiscal year.



Table 5.1 Capital Transportation Program



Capital Transportation Program (CTP)

Month	Fiscal Years (FY)		Operating	Development
March				Project Candidate Selection (PCS) Workshops
April				Draft Project Candidates List
May				Technical Scoring of Project Candidates
June			Bond Bill for State Funds Approved	Finance Prepares Draft CTP
July	State FY begins July 1	Federal FY begins Oct 1		Draft CTP Published
August				Public Workshops
September				Collect public comments
October				COT review of public comments
November				
December				Vote to adopt CTP/ Letter submitted to Governor
January				
February				

CTP Evaluation and Prioritization

The process for updating the CTP involves a project prioritization process including the following steps:

- Project evaluation and selection meetings.
- Technical scoring.
- Evaluation and prioritization.
- Submit projects to DeIDOT Finance.
- A Draft CTP is prepared for the COT who releases it to the public.
- Public workshops are then conducted in each county.

SUSSEX COUNTY CAPITAL PROGRAM PROJECTS FY23-28

\$1.2 billion for Sussex County

ctp.deldot.gov

Table 5.2 Sussex County Capital Program New Project FY23-28

Rank	PROJECT NAME	FY23	FY24	FY25	FY26	FY27	FY28
17	US 113 and Shortly Road/Bedford Road GSI					PE	PE
19	US 113 and Redden Road/E. Redden Road GSI					PE	PE
26	US 113 and Avenue of Honor/E. Piney Grove Road GSI					PE	PE
72	Postal Lane (Linden Lane to SR 1) Improvements						PE
79	Mulberry Knoll Road (Cedar Grove Road to US 9 at Old Vine Road) Extension						PE
88	Shady Road (Plantation Road to SR 1) Improvements						PE
97	Redden Road (Oak Road to Kings Crossroads) Improvements						PE
98	W. Line Road and SR 54 (Lighthouse Road) Intersection Improvement						PE
99	Falling Point Road and Vines Creek Road (SR 26) Intersection Improvement						PE

LEGEND

■ Updated Timelines

PE - Engineering Design

ROW - Right-of-Way Acquisition

C - Construction

■ Fast Track Fund Program w/ Sussex County

Table 5.3 Sussex County Capital Program Existing Project FY23-28

Rank	PROJECT NAME	FY23	FY24	FY25	FY26	FY27	FY28
5	US 9, Kings Highway, Dartmouth Drive to Freeman Highway	PE/ROW	PE/ROW	PE/ROW	C	C	C
7	US 9 Widening (Ward Avenue to Old Vine Boulevard)	PE	PE	ROW	ROW	C	C
8	US 113 and US 9 Grade Separated Intersection	PE	PE	PE/ROW	PE/ROW	C	C
10	US 113 Widening, Dagsboro Road to Hardscrabble Road	PE	PE	PE/ROW	PE/ROW	PE/ROW	PE/ROW
15	HSIP SC, SR 24 at Mount Joy Road and SR 24 at Bay Farm Road Intersection Improvements	C					
18	US 113 at SR 18/SR 404 (Georgetown) Grade Separated Intersection	PE/ROW	PE/C	C	C	C	
21	Dewey Beach Pedestrian and ADA Improvements (Anchors Way to Bayard Avenue) - Phase 1		PE	C			
24	SR 1 Fenwick Island Sidewalk (Lighthouse Road to Lewes Street)		PE	PE	ROW	ROW	
31	HSIP SC, 24 at SR 5 / SR 23 Intersection Improvements	C					
32	HEP SC, SR 1 and SR 16 Grade Separated Intersection	PE/C	PE/C	C			
33	SR 1 and Cave Neck Road Grade Separated Intersection	PE/ROW	ROW/C	C	C		
34	US 9 and Minos Conaway Intersection Improvement		PE	PE	ROW	C	C
44	HSIP SC, SR 24 at Camp Arrow Head Road & SR 24 at Robinsonville Road/Angola Road Intersection Improvements	C	C				
46	Realignment of Old Orchard Road at Westcoats Corner	PE/C	C	C	C		
50	North Millsboro Bypass, US113 to SR 24	PE/ROW/C	C	C			
52	SR 54 Multi-modal Improvements (Blue Beard Trail to Monroe Ave.)			PE	PE	ROW	ROW
53	SR 1, Minos Conaway Grade Separated Intersection	ROW	C	C	C		
56	Plantations Road Improvements, SR 24 to US 9	PE/C	PE/C	PE/C			
61	SR 24, Love Creek to Mulberry Knoll	C	C				
67*	Cave Neck Road, Hudson Road and Sweetbriar Road	PE/ROW	PE/ROW	C	C		
69	Discount Land Road, US 13A to US 13	PE/ROW	PE/ROW	C	C		
80	US 113, North/South Improvements						
84	Beaver Dam Road Widening (SR 1 to Dairy Farm Road)				PE	PE	PE
86	Old Landing Road and Warrington Road Intersection Improvement	PE	PE	ROW	C		
87	Park Avenue Relocation	PE/C	C	C	C		
89	New Road, Nassau Road to Old Orchard Road			PE	PE	ROW	C
93	Airport Road Extension, Old Landing Road to SR 24	PE	PE	ROW	C		
103	US 113 at SR 16 (Ellendale) Grade Separated Intersection	PE	PE	PE			

*Fast Track Fund Program w/ Sussex County

METROPOLITAN PLANNING ORGANIZATION (MPO)

A Metropolitan Planning Organization (MPO) is a **federally-designated and federally-funded transportation planning organization**. MPOs are required to provide a specific set of transportation planning functions in all urbanized areas (UZAs) with populations over 50,000, as determined by the U.S. Census every ten years. MPO's typically are made up of representatives from state, county, and local government transportation and land use agencies. MPO's prepare long-range (20-year) transportation plans outlining likely transportation investments needed, based on available funding resources, demographic trends, and growth projections. They also are required to provide coordination between land use and transportation agencies and conduct transportation conformity to ensure transportation investments support air quality improvements.

As of this date, Sussex County has no designated MPO because 2020 Census data did not meet the 50,000 population threshold. However, a small part of the Delmar area is contained in the urbanized area boundary of Salisbury, Maryland. Sussex County is referred to as a “non-metropolitan planning area”, thus DelDOT is the agency that conducts transportation planning studies to identify investments needed to improve mobility, support growth and economic development, and works continually with the public, other agencies, and interested parties to inform project development processes.



Click here for more details about
[2021 Non-Metropolitan Consultation Process Update](#)

DelDOT (and other agencies) anticipate that following the 2030 Census it is possible that the recent growth and land use trends that have been occurring in Sussex County, may reach the minimum population needed for an MPO. In the meantime, DelDOT will continue to work with Sussex County, its municipalities, and others, as needed, to provide effective transportation planning and develop transportation priorities.

TYPES OF PROJECTS

Highway Safety Improvement Program (HSIP) – Federal-aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned roads and roads on tribal land. Additionally, there are Hazard Elimination Program (HEP), Highway Rail-Grade Crossing Program (HRGX), and Strategic Highway Safety Plan (SHSP) that focus on safety projects.

State of Good Repair (SOGR) – Distributed to state and local governments in urbanized areas for repairs and upgrading of rail and bus rapid transit systems that are at least seven years old.

Transportation Alternatives Program (TAP) – Provides funding for a variety of generally smaller-scale transportation projects.

Safe Routes to School (SRTS) Program – Provides funding to elementary and middle schools to make walking or bicycling to school safe, convenient and fun for children.

Congestion Mitigation and Air Quality (CMAQ) – Provides funds to States for transportation projects designed to reduce traffic congestion and improve air quality in areas that do not meet national air quality standards.

Carbon Reduction Program (CRP) – Provides funds for projects designed to reduce transportation emissions, defined as carbon dioxide (CO₂) emissions from on-road highway sources.

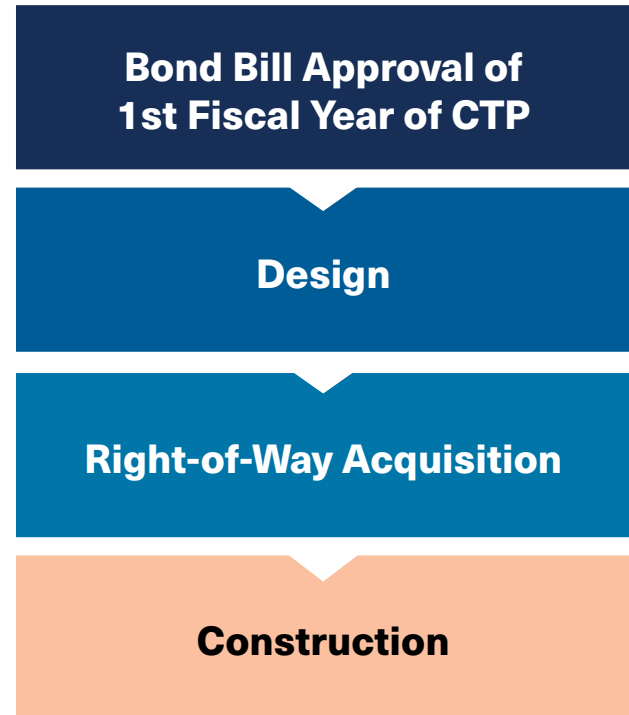
Bridge Rehabilitation and Replacement – Program Funds inspection and maintenance of bridges across the state to meet federal standards.

Financially-Constrained – Metropolitan Transportation Plans (MTPs), Transportation Improvement Programs (TIPs), and State Transportation Improvement Programs (STIPs) demonstrate fiscal constraint by including sufficient financial information to confirm that projects in those documents can be implemented using committed or available revenue sources, with reasonable assurance that the federally-supported transportation system is being adequately operated and maintained.

Project Development Process

- Once the CTP and Bond Bill are approved, the Project Development Process begins.
- Each project begins with Project Design. Based on the location, design concepts are developed. During this process, Public Workshops are conducted to ensure the design will address local transportation purpose and need.
- Once the final design is confirmed, ROW agents work with local residents, business owners, and others to acquire necessary property for the project.
- After all property is acquired and the design concept is finalized, the project is placed out for bid. Construction companies place bids on the project. Delaware law requires DelDOT to accept the lowest bid with the full build for the concept.
- Once the bid is accepted, construction is scheduled, and the project is built. DelDOT monitors the project during the full construction phase.

Figure 5.2 Project Development Process



PLANNING AND PROGRAMMING ACTIVITIES

State Transportation Improvement Program (STIP)

- A staged, multi-year, statewide intermodal program of transportation projects, consistent with the statewide transportation plan and planning processes as well as metropolitan plans, transportation improvement programs (TIPs), and planning processes.
- Developed in cooperation with the MPOs, public transit providers, and any Regional Transportation Planning Organizations (RTPO) in the state.

Transportation Improvement Program (TIP)

- A list of upcoming transportation projects – covering a period of at least four years.
- Developed in cooperation with the state and public transit providers and includes capital and non-capital surface transportation projects, bicycle and pedestrian facilities, and other transportation enhancements, Federal Lands Highway projects, and safety projects included in the State's Strategic Highway Safety Plan.
- Must be fiscally-constrained.

Long Range Transportation Plan (LRTP)

- An essential element of an agency's transportation planning process.
- Serves as the foundation for the development of the TIPs that are administered at the agency's regional level through a cooperative effort between the FLH Division offices and the various Federal Land Management Agencies (FLMAs).

SUMMARY OF AVAILABLE FUNDING

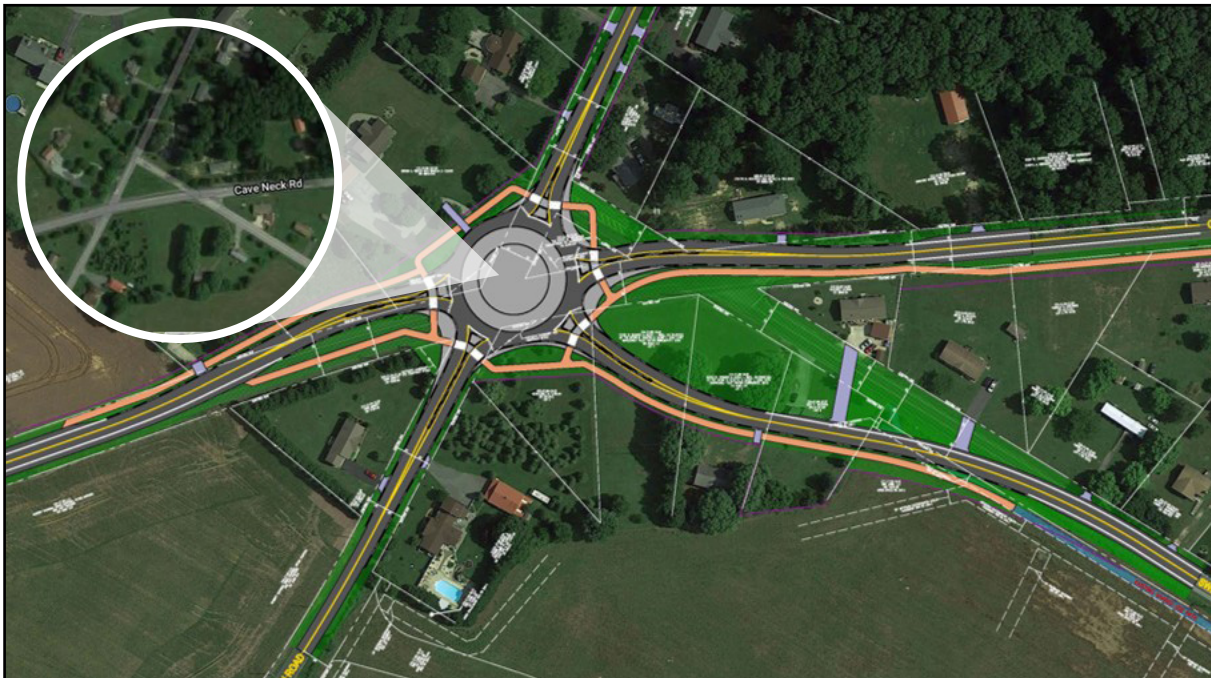
DeIDOT must balance planned transportation capital investment expenditures in Sussex County with anticipated available funding. The main revenue sources are federal funding and the state's Transportation Trust Fund.

DeIDOT estimates that about \$3.5 billion in capital funding will be available for Sussex County transportation projects between 2021 and 2050.

SUSSEX COUNTY FAST PROGRAM

- Approved by County Council on December 15, 2020.
- Partnership between Sussex County and DeIDOT.
- Expedites projects programmed in the Capital Transportation Program.
- County selects and funds project, which will advance the project timeline by four years.
- DeIDOT will reimburse the County once the project is funded by State/Federal funds.

Figure 5.3 Cave Neck Road, Hudson and Sweetbriar Roads Intersection Improvements



FAST =
Funding
Accelerating
Safety in
Transportation

Location: Outside of Milton

Public Workshop for this design was held in November 2021.

This preferred alternative was selected in April 2022. Construction may begin in 2024.

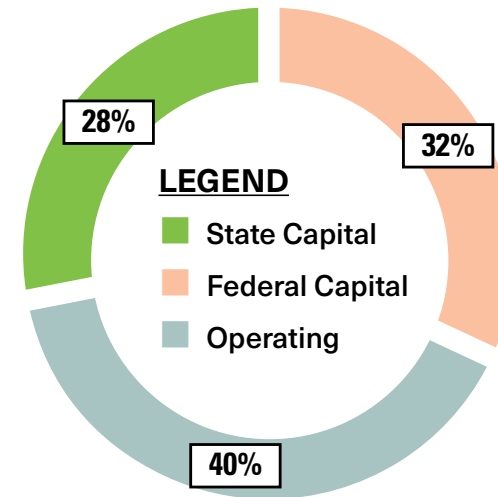
MAJOR FUNDING SOURCES

New federal infrastructure funding

In November 2021, Congress passed a \$1.2 trillion Bipartisan Infrastructure Law (BIL) known as the Infrastructure Investment and Jobs Act (IIJA). The IIJA is providing DelDOT an additional \$500 million over 5 years for several programs such as the "Safe Streets 4 All" Grant Program.

This new bill, succeeding the Federal **FAST Act**, increases federal-aid formula for core apportioned programs (the funds that are allocated annually to States and MPOs) by about 30% across the board, depending on the individual program.

Figure 5.4 FY23- DelDOT Budget - \$1,054.6M



6.0 | STRATEGIES FOR THE FUTURE

- ***Safety***
- ***Traditional strategies***
- ***Multi-modal strategies***
- ***Alternate strategies***
- ***Resiliency and Emerging Technology***
- ***Shorter Timeline for Implementation***



SAFETY STRATEGIES

Safety, eliminating fatalities and serious injuries are underlying goals for all transportation projects within the state of Delaware and Sussex County, which are aligned with the Safe System Approach.

Various strategies will be necessary to meet the **Vision Zero** goals laid out in the **Delaware 2021-2025 Strategic Highway Safety Plan: Towards Zero Deaths**. Types of strategies that may improve transportation system safety include, but are not limited to, the following:

- Explore access management projects
- Evaluate county and local road connectivity
- Remove bottlenecks
- Consider roundabouts
- Re-evaluate turn lane needs
- Assess intersection improvements
- Add general purpose lanes
- Upgrade road segments
- Add flex lanes/hard shoulders
- Improve street circulation patterns
- Provide grade-crossing separations
- Evaluate parking operations
- Explore upgrading of traffic signals
- Addition of frontage and service roads

Learn more about Delaware's Strategic Highway Safety Plan:
deldot.gov/Programs/DSHSP/index.shtml

Learn more about FHWA's Proven Safety Countermeasures initiative (PSCi):

highways.dot.gov/safety/proven-safety-countermeasures

- 2022 as one of the deadliest years for Delaware.
- The main factors in traffic deaths in 2022 were inattentive, distracted driving and speeding
- The state tied its record for traffic fatalities in 2022 with 165 deaths, a level not reached in more than 30 years (1988)

Table 6.1 Delaware Traffic Fatalities as of 1/1/2023

	2022	2021		2020	
		YTD	TOTALS	YTD	TOTALS
Fatalities	165	↑ 19%	139	↑ 41%	117
Delaware Residents	120	↑ 5%	114	↑ 29%	96
Person Types					
Vehicle Occupant	103	↑ 24%	83	↑ 37%	75
Pedestrian	33	↑ 10%	30	↑ 32%	25
Bicyclist	7	↑ 250%	2	↑ 133%	3
Motorcyclist	22	↓ -8%	24	↑ 57%	14
Crash Types					
Curve Related	19	↓ -17%	23	0%	19
Roadway Departure	57	↓ -3%	57	↑ 21%	47
Intersection Related	48	↓ -9%	53	↑ 50%	32
Median Crossover	8	↑ 14%	7	↑ 167%	3
Wrong Way	7	↑ N/A	0	↑ 600%	1
Work Zone	4	↓ -50%	8	↑ 33%	3

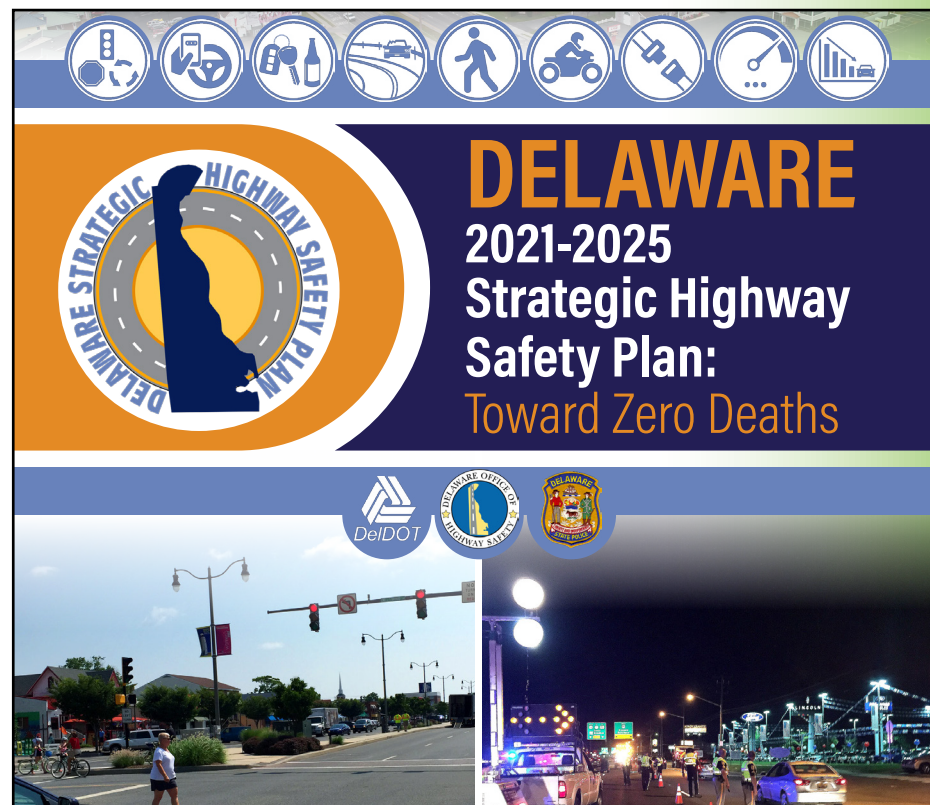


Table 6.2 Delaware Fatalities by County (2022)

TOTAL FATALITIES			PEDESTRIAN			BICYCLE			MOTORCYCLE		
New Castle	86	52.1%	New Castle	24	72.7%	New Castle	2	28.6%	New Castle	16	72.7%
Kent	32	19.4%	Kent	5	15.2%	Kent	4	57.1%	Kent	4	18.2%
Sussex	47	28.5%	Sussex	4	12.1%	Sussex	1	14.3%	Sussex	2	9.1%

TRADITIONAL CAPACITY IMPROVEMENT STRATEGIES

Traditional, capacity-focused approaches to address increasing traffic volumes and roadway congestions are:

- Building new roads
- Widening current roads
- Expanding roadway capacity

Impacts of capacity-focused approaches:

- Significant capital costs
- Additional land acquisition requirements
- Environmental impacts
- Longer implementation timeframes
- Typically lead to additional vehicle miles traveled (VMT) which can lead to congestion in the future

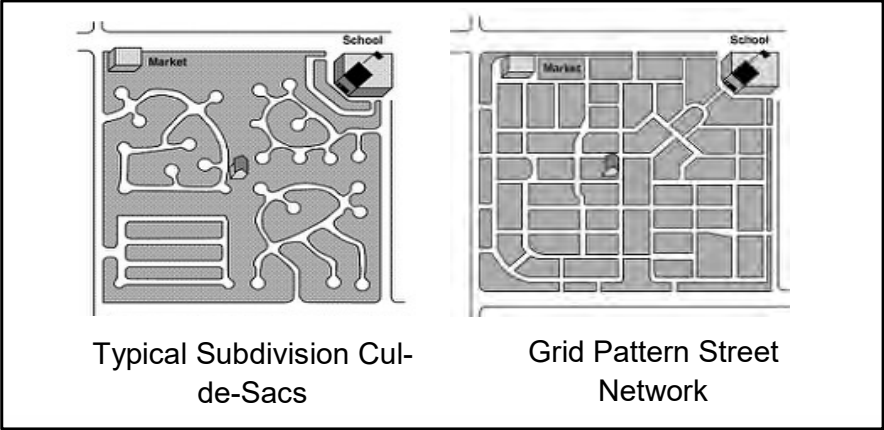
CONNECTED DESIGN OPPORTUNITIES

Recent development patterns have reflected auto-oriented designs with reduced street interconnectivity. This reduced connectivity results in an over-reliance of higher classification roads for local trips, longer travel distances and times, and more congestion.

Access management is a related strategy, which can help to improve safety and traffic flow and reduce congestion. One specific technique is to consolidate driveways for adjacent properties, particularly commercial businesses.

- Efficient transportation systems
- Local street interconnectivity
- Reduces travel distance and time for local trips
- Enables greater use of bicycling and walking
- Reduces emergency response time
- Reduces congestion along arterial roads

Figure 6.1 Design Opportunities



MULTI-MODAL STRATEGIES

Multi-modal strategies include expanding the availability and use of public transit, flex routes, walking, bicycling, and other non-motorized and micro mobility options.

Multi-modal strategies seek to reduce dependence upon automobiles, reduce traffic volumes and roadway congestion, and improve mobility and access for all users.

Types of multi-modal strategies include increasing transit service, improving transit facilities and amenities, increasing connectivity between multi-modal options, and providing more public information about the availability of multi-modal services.

Recent initiatives for improving public transit service in Sussex County include the DART Connect micro-transit service in the Georgetown /Millsboro area and the planned Lewes Line seasonal bus service.



ALTERNATE STRATEGIES

Transportation Systems Management (TSM)

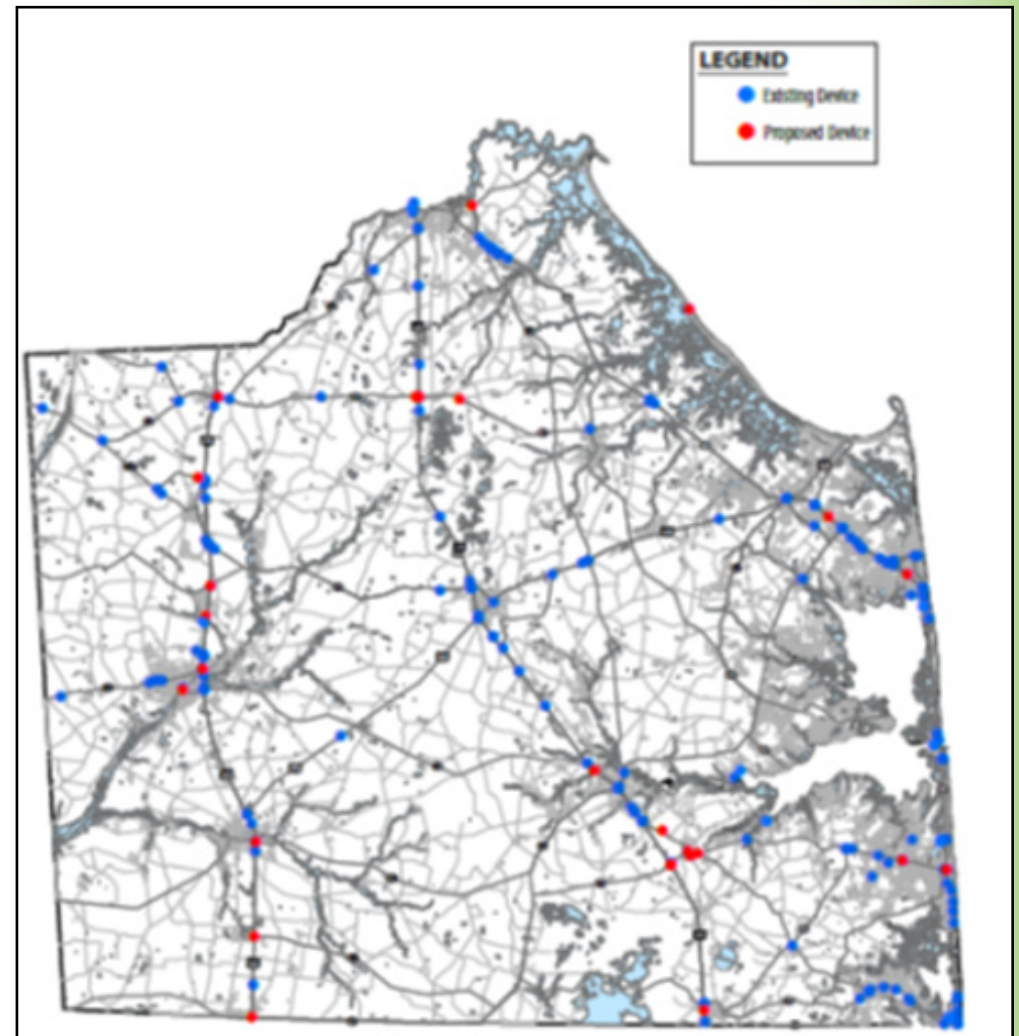
TSM optimizes use of current facilities through various methods, particularly including communications technology. Types of strategies include the following:

- Coordinated and adaptive traffic signal systems
- Traveler information/trip planning, including variable message signs and mobile apps
- Managed lanes, including reversible lanes adjusted in response to peak period traffic flows

DelDOT's Transportation Management Center (TMC) is a statewide 24/7/365 operation that manages traffic flows and coordinates DelDOT's response to incidents that impact the transportation system. The TMC features an integrated transportation management system and computerized traffic signal system. Data from the TMC also is available to travelers through a mobile app. The TMC currently monitors nearly 250 roadway miles in Sussex County.

The Sussex County Transportation Operations Management Plan (TOMP) assesses current and projected future traffic conditions in the County and recommends several TSM strategies.

Figure 6.2 Integrated Transportation Management System Monitoring in Sussex County (as of June 2017)



Learn more about the Transportation Management Center:

deldot.gov/Programs/itms/

Read the Sussex County Transportation Operations Management Plan:

deldot.gov/Publications/reports/ITMS/pdfs/ITMS-Sussex-County-TOMP.pdf

Learn more about Delaware Commuter Solutions:

delawarecommutesolutions.org/

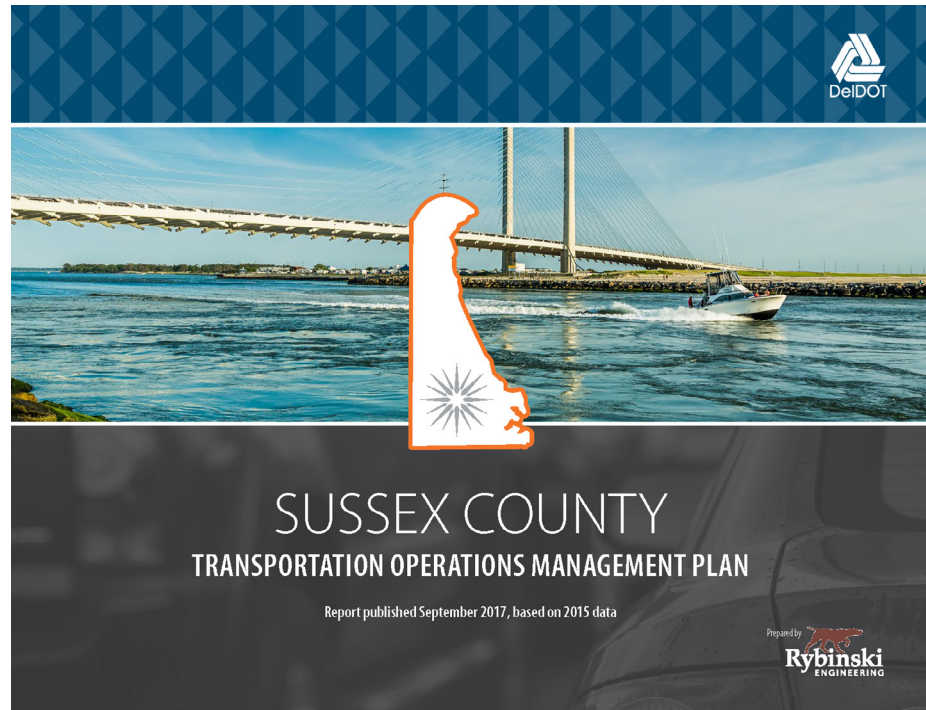
Travel Demand Management (TDM)

TDM refers to strategies that seek to reduce single occupant vehicle (SOV) travel, especially for peak hour commuting trips or special events.

Delaware Commuter Solutions is a statewide transportation management association (TMA), which works with travelers and employers to identify opportunities for alternative travel modes.

TDM strategies include the following:

- Ride matching
- Ridesharing
- Carpooling
- Vanpooling
- Telecommuting
- Alternative work weeks
- Guaranteed rides home
- Other employer incentives
- Local delivery service
- Bicycle to work
- Shift peak travel
- Telecommute
- Alternative work hours
- Car sharing and bike sharing



Land Use/Transportation Coordination

Land use/transportation coordination strategies focus on land use planning as it relates to travel demand and trip generation. The location, type, amount, and form of development all affect travel demand and its impact upon the transportation network. This is important because of the need to “keep up” with transportation improvement needs generated by new development.

In recent years, Sussex County has started utilizing this connection between land use and transportation coordination to maximize limited available transportation funds. Looking forward, DelDOT anticipates that more opportunities to use these strategies to coordinate with Sussex County and local municipalities will be possible.

Coordinated land use and transportation approaches encompass a variety of concepts, programs, and tools that encourage a holistic perspective for community planning.

Categories of coordinated land use/transportation approaches include the following:

- Intergovernmental coordination (MOU)
- Transportation Improvement Districts
- Complete communities
- Connected design

Transportation Improvement Districts (TID)

A TID is an area where land use and transportation needs are planned in detail in advance, allowing for a comprehensive approach to infrastructure investment coordinated with development.

A pre-determined fee for developer contributions ensures that transportation improvements occur as development happens and equitably distribute the cost of improvements.

TIDs allow for a more equitable share in improvement costs, rather than being borne entirely by taxpayers, while saving developers time and money as they advance their projects.

The Henlopen TID was approved by Sussex County in October 2020. Planned improvements include 12 new traffic signals, 13 roundabouts, 15 intersections with turning lanes, and four miles of new road connections.

The City of Milford and DelDOT are developing the Southeast Master Plan:

- Agreement signed May 16, 2019
- Transportation issues being identified and mapped
- Collaborating on updating the land use and transportation plan

Additional TIDs are under consideration.

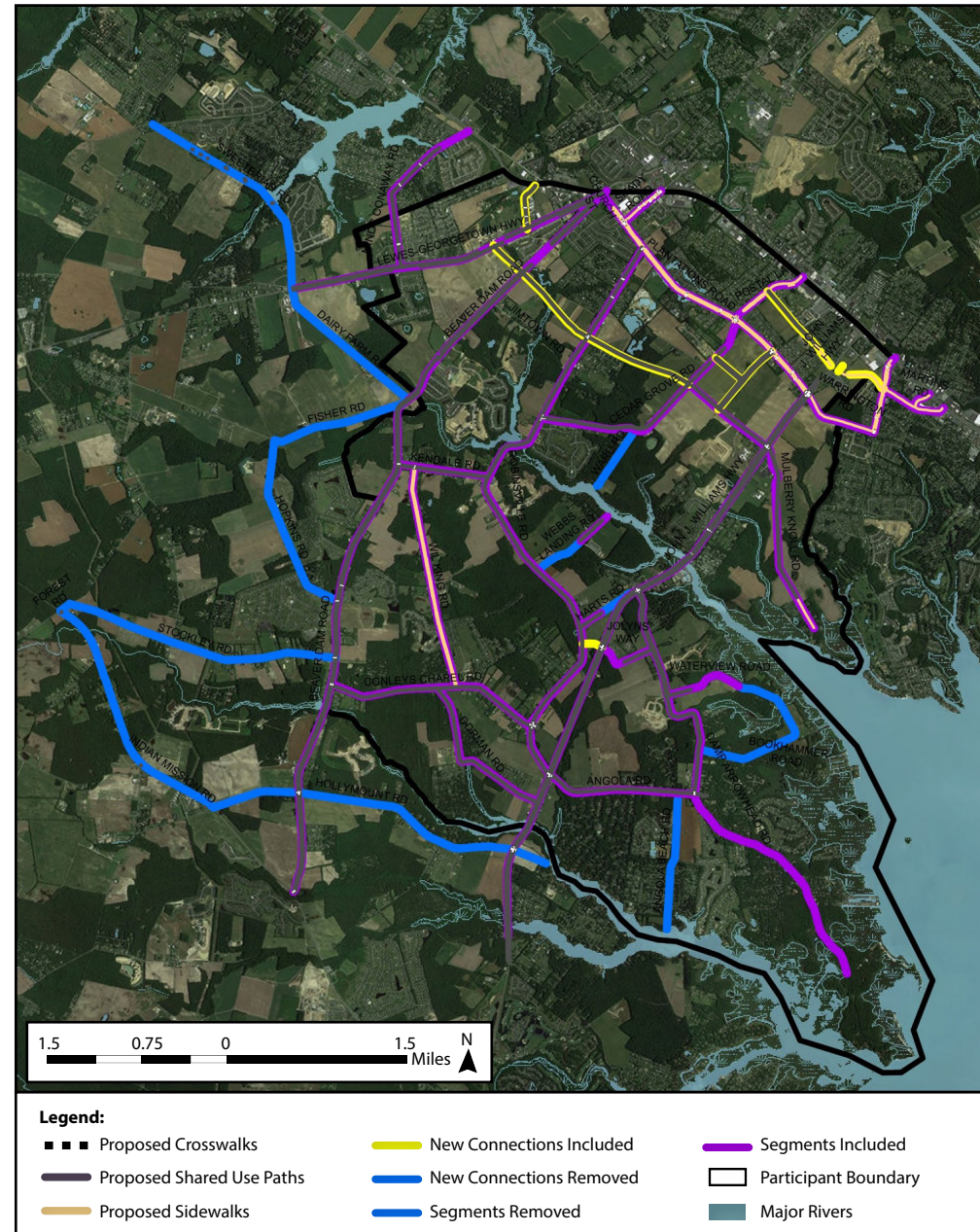
For information about TIDs in general, visit:

deldot.gov/Programs/transportation-improvement-districts/index.shtml

For more information on the Henlopen TID, visit:

sussexcountyde.gov/sussex-county-deldot-initiatives

Figure 6.3 Henlopen TID DelDOT Recommended Improvements

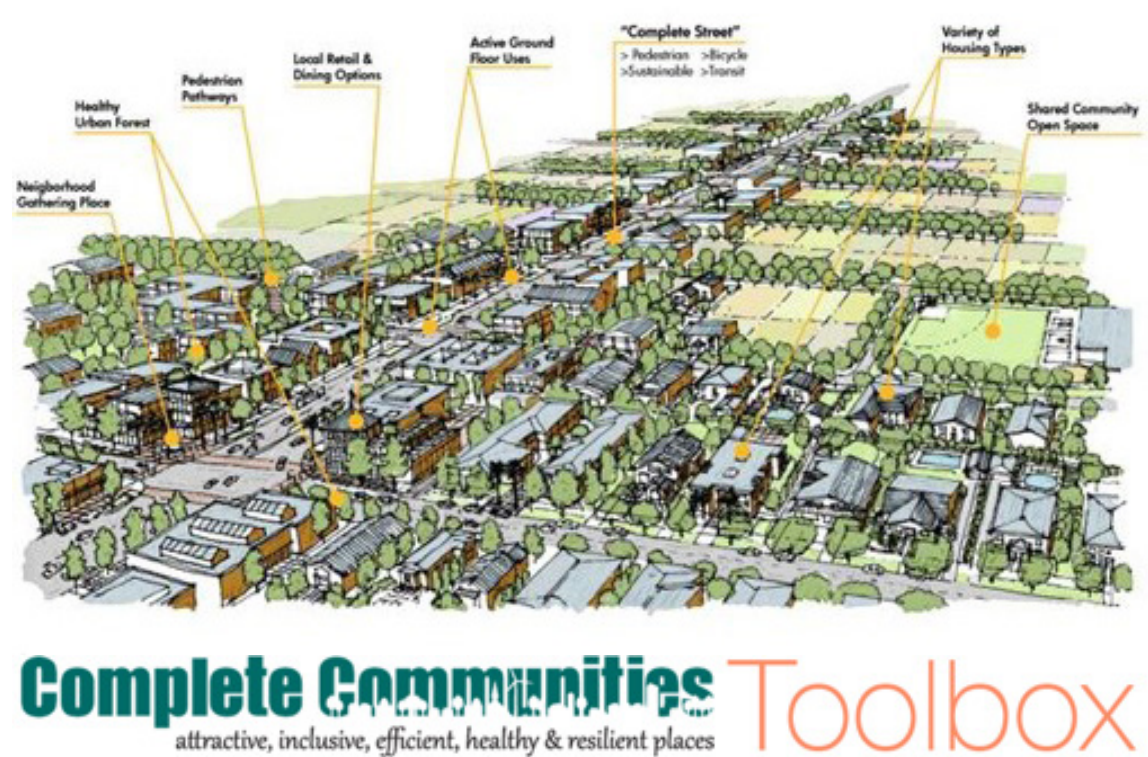


Complete Communities

The Complete Communities Toolbox is a product of the University of Delaware's Institute for Public Administration, with support from DeIDOT and OSPC. It aims to enhance local government capacity for comprehensive planning, community design, and public engagement. The planning tools include complete streets, placemaking, and efficient land use. The OSPC and DeIDOT will be working with specific municipalities to implement complete community planning.

Transportation-related issues are found throughout the Complete Communities Toolbox

Figure 6.4 Complete Communities Toolbox



Explore the resources in toolbox:
completecommunitiesde.org

Figure 6.5 Transportation-related Issues

Complete Streets

- Low Stress Bicycling
- Americans with Disability Act compliance
- Road Diets
- Streetscaping



Placemaking

- Parklets
- Pop-up Demonstration and pilot projects
- Transit-oriented development



Efficient Land Use

- Form-based codes
- Infill and Redevelopment
- Master Planning in Delaware
- Mixed-Use Development
- Transportation Improvement District
- The Comprehensive Planning Process



Inclusive and Active

- Delaware Byways
- Historic Preservation Tools
- Parks and Recreation Master Planning
- Planning for Aging-friendly Environments



Sustainable and Resilient

- Downtown Development District
- Economic Development
- Flood-ready Communities
- Green Building Practices
- Rural Land Management
- Green Infrastructures



Shared Communities

- Plan our cities and their mobility together by engaging with stakeholders
- Prioritize people over vehicles.
- Shared and efficient use of vehicles, lanes, curbs, land and seamless connectivity



TRANSPORTATION SYSTEM RESILIENCY IMPROVEMENTS

Between 1% and 5% of the state's 8,990 miles of roads and bridges are within an area that could be inundated by sea level rise by 2100, and the highest concentration of roadway exposure is in Sussex County.

This issue emphasizes the need to review and incorporate resilience measures throughout the transportation system in anticipation of sea level rise.

DeIDOT has participated in the **Delaware Department of Natural Resources and Environmental Control's Delaware Climate Action Plan**, which has identified several action areas for maximizing resilience, including updating facility design and operation to account for future climate conditions. Types of resiliency improvement strategies include the following:

- Identify vulnerable areas
- Identify and prioritize evacuation routes for road and bridge repair and rebuild
- Repair and rebuild roads and bridges with a focus on climate change mitigation, resilience, equity, and safety for all users, motorized vehicles, bicycles and pedestrians

Read the Delaware Climate Action Plan and related material:

dnrec.alpha.delaware.gov/climate-plan/

Read more of Preparing for Tomorrow's High Tide:

documents.dnrec.delaware.gov/coastal/Documents/SeaLevelRise/FinalAdaptationPlanPublished.pdf

Review Sussex County's Evacuation Annex:

deldot.gov/Programs/itms/pdfs/evacuation-plans/Sussex-County-Evacuation-Annex.pdf?cache=1644502002843

Figure 6.6 Transportation System Resiliency Improvements



TYPES OF STRATEGIES FOR INCORPORATING NEW TECHNOLOGIES

- Continue integrating multiple transportation, communication, and data systems.
- Prepare a plan identifying potential locations for EV charging stations throughout the county with a focus on the needs of resort visitors.
- Coordinate planning for EV charging stations to assure a network along major corridors that meets the demands of both local users and visiting travelers.
- Incorporate alternative fuels and the necessary infrastructure to support them into public transit planning.
- Encourage residents and businesses to utilize state and federal tools and resources available for reducing the use of petroleum, develop regional economic opportunities, and improve air quality.

In order to further support efforts by businesses and individuals to embrace new transportation technology, Sussex County and DelDOT should consider the potential for emerging transportation technologies, such as autonomous vehicles and electric vehicles, as part of any long-range planning efforts.

Various emerging technologies provide the potential for re-shaping the transportation system and travel demand. These technologies include connected and autonomous vehicles (CAV) and alternative fuels, particularly for electric and hybrid vehicles.

Clean Transportation Incentive Programs

Clean Cars

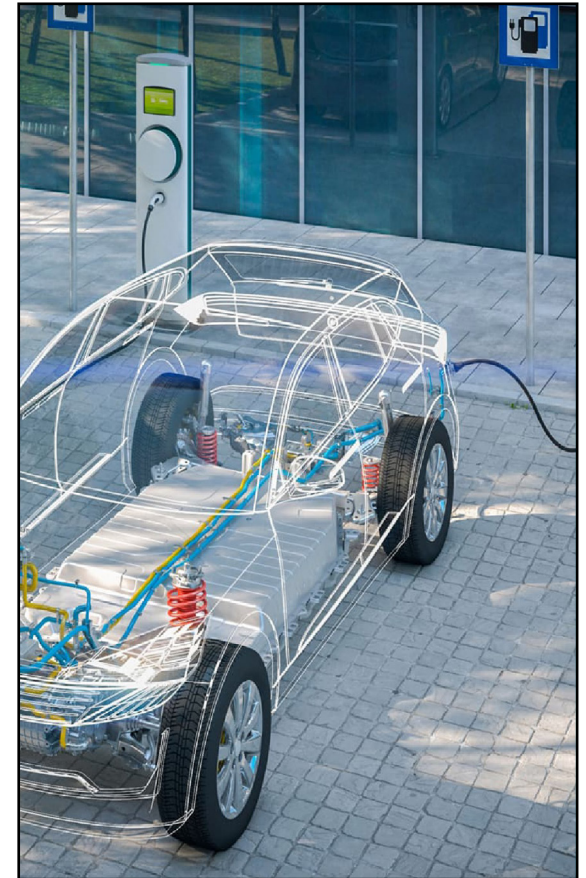
The Clean Vehicle Rebate Program provides incentives for Delawareans and Delaware businesses to buy or lease new alternative fuel vehicles.

EV Charging Station

Rebates to lower the cost of electric vehicle charging stations that can be installed at a workplace, outside a business, and in other public places.

Medium and Heavy-duty Vehicles

The Delaware Heavy-Duty Vehicle Rebate Program provides funds to help offset the costs of purchasing heavy-duty dedicated compressed natural gas (CNG) vehicles.



Read the The Delaware Clean Vehicle Rebate Program and related material

dnrec.alpha.delaware.gov/climate-coastal-energy/clean-transportation/vehicle-rebates/

SHORTER TIMELINES FOR IMPLEMENTATION

FAST Program Sussex County

- Approved by County Council on December 15, 2020
- Partnership between Sussex County and DelDOT
- Expedite projects programmed in the CTP
- County selects and funds project which will advance the project timeline by four years
- DelDOT will reimburse the County once the project is funded by State/Federal funds

Public-Private Partnership (P3)

P3s in transportation are contractual relationships typically between a state or local government, which are the owners of most transportation infrastructure, and one or more private entities.

There are three main potential benefits of P3s:

- P3s are a way to attract private capital to invest in transportation infrastructure,
- P3s may be able to build and operate transportation facilities more efficiently than the public sector through better management and innovation in construction, maintenance, and operation, and
- The public sector can transfer to the private-sector partner many of the risks of building, maintaining, and operating transportation infrastructure.

APPENDIX

Potential Strategies



POTENTIAL SAFETY STRATEGIES IN SUSSEX COUNTY

Intersection Safety Improvements

Specific Strategy

- Implement roundabouts

Benefits

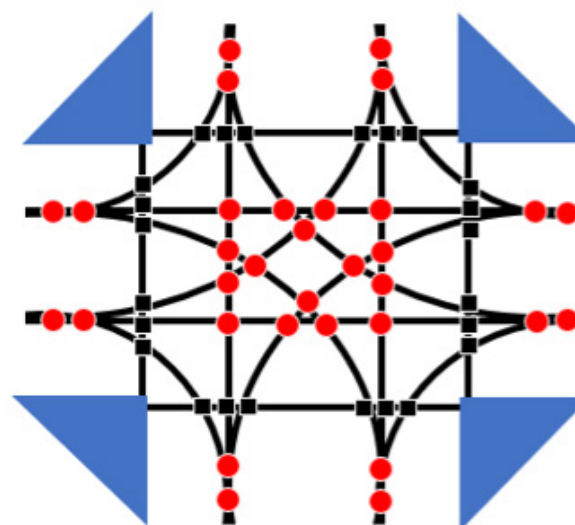
- Reduced crash severity, lower operating and maintenance costs than signals

Possible Locations

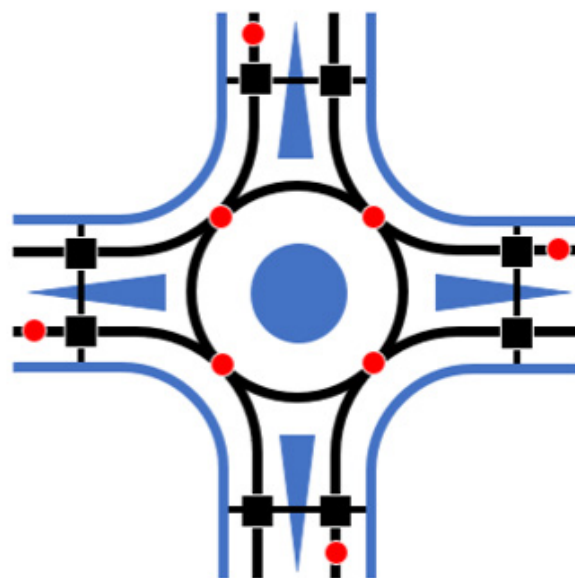
- Multiple locations across Sussex County
- Can be implemented with projects or incoming development

Roundabouts reduce

- Fatalities by 90%
- Injuries from crashes by 76%
- Pedestrian crashes by 30-40%



● 32 Vehicle Conflicts
■ 24 Pedestrian Conflicts



● 8 Vehicle Conflicts
■ 8 Pedestrian Conflicts

POTENTIAL TSM STRATEGIES IN SUSSEX COUNTY

Traveler Information/Trip Planning

Specific Strategy

- Variable message signs to provide real-time travel information to facilitate more informed travel decisions.

Benefits

- Mitigate increases in roadway congestion
- Fully utilize roadway capacity
- Enable travelers to avoid congestion and reduce travel time

Possible Locations

- DE 1 southbound approaching US 113 near Milford
- DE 404 eastbound approaching Bridgeville



Traveler Information/Trip Planning

Specific Strategy

- Promote greater use of the DeIDOT mobile app, especially by seasonal travelers.

Benefits

- Mitigate increases in congestion
- Fully utilize roadway capacity
- Enable travelers to avoid congestion and reduce travel time

Possible Locations

- Use throughout the County, especially along key arterials



DeIDOT App

Access Real-Time Traveler Information

Features

- Live video from over 150 traffic cameras
- Travel times for the heaviest-traveled roadways
- 24-hour real-time travel advisories (incidents)
- Traffic flow
- Roadway weather
- Travel restrictions and closures
- Snow plow movement during snow events
- Electric vehicle charging stations
- Flood monitoring

And more!

Download on the App Store

GET IT ON Google Play

Search for DeIDOT

DMV Pay Citations

Report An Issue

Managed Lanes

Specific Strategy

- Peak period Reversible Lanes

Benefits

- Fully utilize roadway capacity
- Reduce congestion
- Improve travel times

Possible Locations

- DE 1 between Lewes and Rehoboth Beach



Source: Famartin - Own work, CC BY-SA 4.0,
<https://commons.wikimedia.org/w/index.php?curid=120658237>

POTENTIAL BICYCLE/ PEDESTRIAN IMPROVEMENTS IN SUSSEX COUNTY

Trail Network

Specific Strategy

- Complete planned trails

Benefits

- Multi-modal access and safety
- Economic development
- Recreation and health benefits

Possible Locations

- Georgetown-Lewes and Ellendale-Milton



Trail Network

Specific Strategy

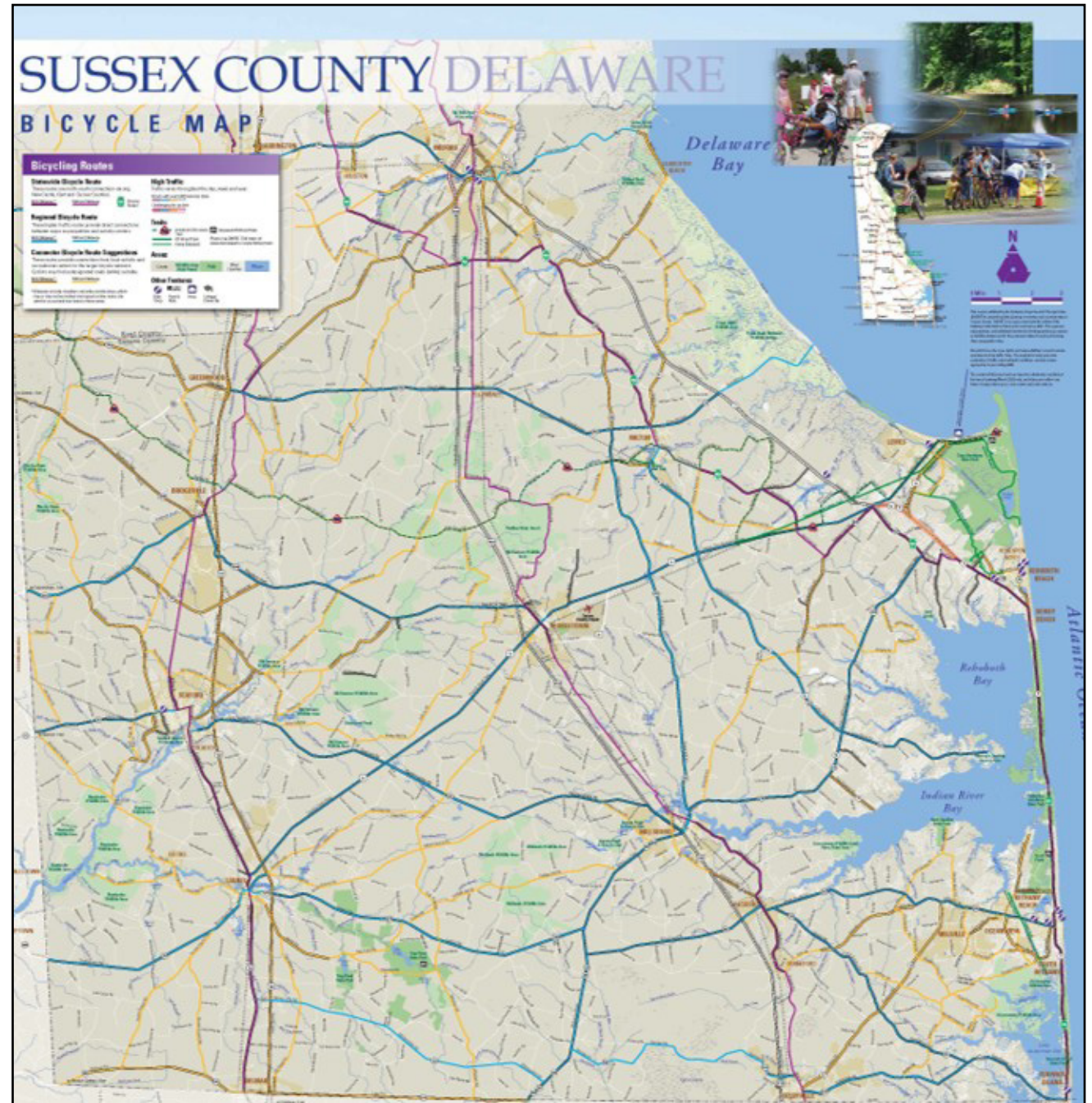
- Identify New Trail Opportunities

Benefits

- Multi-modal access and safety
- Economic development
- Recreation and health benefits

Possible Locations

- Georgetown-Lewes and Ellendale-Milton



Bicycle Accommodations

Specific Strategy

- Incorporate bicycle lanes into roadway design

Benefits

- Improved access and safety for bicyclists

Possible Locations

- DE 36, Double Bridges Road, DE 16, DE 30



Pedestrian Accommodations

Specific Strategy

- Implement Complete Streets design to improve access and safety for all modes

Benefits

- Multi-modal access and safety

Possible Locations

- Multiple locations across the county including, but not limited to, North Bethany, Fenwick Island, and Seaford.



Look carefully. Watch for cars coming from all directions

Be visible. When walking at night, carry a flashlight, avoid wearing dark clothing, wear reflective items.

Avoid distractions. Turn off handheld devices when crossing the street.

 www.DelawareCommuteSolutions.org
App: Delaware Commute Solutions

Specific Strategy

- Improve and add sidewalks, crosswalks, curb ramps, bus stops, and pedestrian signals

Benefits

- Increases multi-modal safety and access

Possible Locations

- Multiple locations across the county. Different types of treatments would be based on levels of bicycle and pedestrian volumes.



POTENTIAL TRANSIT STRATEGIES IN SUSSEX COUNTY

Public Information

Specific Strategy

- Increase marketing, outreach, and public information for available transit services

Benefits

- Increase travel options, reduce roadway traffic and congestion

Possible Locations

- Countywide, with focus on senior citizen communities, schools, shopping centers, et al.



DART Statewide Public Transit

How To Ride Guide



1-800-652-DART (3278)

DartFirstState.com



Level of Bus Service

Specific Strategy

- Expand Seasonal Bus Service in the beach resort areas

Benefits

- Increase travel options
- Reduce roadway traffic and congestion

Possible Locations

- Lewes
- Rehoboth Beach
- Dewey Beach



Park-and-Ride Capacity

Specific Strategy

- Identify and develop new park-and-ride areas

Benefits

- Increase travel options
- Reduce roadway traffic, congestion, and emissions

Possible Locations

- RT 24 west of Love Creek



Transit Facilities and Amenities

Specific Strategy

- Improve Bus Stop Facilities and access

Benefits

- Increase traveler safety, security, and convenience
- Promote use of transit as travel option

Possible Locations

- Designated high-frequency stop locations



Micro-Transit Service

Specific Strategy

- Explore Opportunities for Increasing Micro-transit Service

Benefits

- Increase travel options
- Reduce roadway traffic and congestion

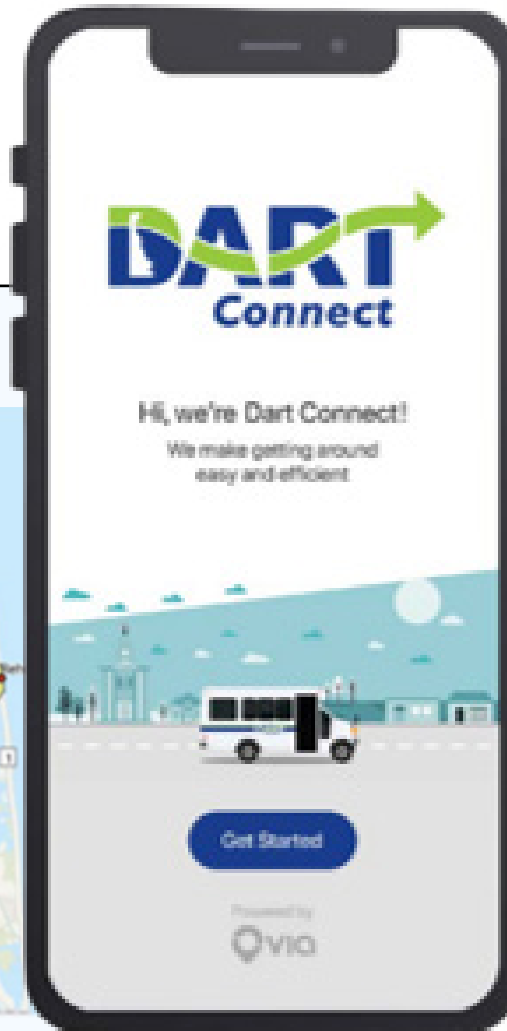
Possible Locations

- Milton to Lewes

Phase 2: Multi-Modal Trip Planning Rider Experience

Riders see fixed route line information in addition to imicrotransit proposals.

1. **Origin** can be anywhere in Sussex County
2. **Destination** can be anywhere in Sussex County
3. **Fixed-route schedule will be shown** with real-time vehicle location
4. **Pay for your ticket** and board



Shuttle and Paratransit Services

Specific Strategy

Explore opportunities for expanding services including:

- Private shuttle services run by local businesses, such as hotels or homeowner associations
- Paratransit services for senior citizens and persons with disabilities
- Senior Citizen Affordable Taxi (SCAT) program

Benefits

- Increase travel options for mobility-impaired population segments

Possible Locations

- Tanger Outlet shuttle



POTENTIAL TRAVEL DEMAND MANAGEMENT STRATEGIES IN SUSSEX COUNTY

Employer-Based TDM

Specific Strategy

- Establish a Countywide Transportation Management Association (TMA) that would focus on working with employers and employees to implement alternatives to single-occupancy vehicles for commuting.

Benefits

- Reduced commuting costs

Possible Locations

- Large employers and employment centers





How it works

1. Sign up **FREE** if you live, work, or attend college in Delaware.
2. Take a clean commute to work or school, like transit or a carpool.
3. Record your commute **HERE** or on our **app**.
4. You'll earn points for every clean commute.
5. Redeem your points for prizes, discounts, or entries for the \$100 monthly drawings!

Park & Pools

Lots are available to park your car and meet a carpool or vanpool.
Call RideShare Delaware for carpool matching services at 1-888-Ridematch.

- **First Baptist Church**
601 N. DuPont Hwy., Georgetown
- **St. Jude's Catholic Church**
DE 1 (north of Five Points), Lewes
- **Seaford Church of Christ**
US 13 & Rd. 532, Seaford



Regional/Local TDM

Specific Strategy

- Plan and implement transit or shuttle services from park-and-ride locations for seasonal or special events

Benefits

- Mitigated roadway congestion
- Reduced travel time

Possible Locations

- Freeman Stage
- Apple Scrapple event
- Sea Witch Festival
- Hudson Fields



POTENTIAL LAND USE/ TRANSPORTATION COORDINATION STRATEGIES IN SUSSEX COUNTY

Identify Priority Growth Areas

Specific Strategy

- Explore potential linkages between land use tools such as the Sussex County Comprehensive Plan and the Delaware Strategies for State Policies and Spending, to assist in guiding future development to areas best suited for development

Benefits

- Direct transportation investment to areas best suited for growth

Manage Development Impacts on Transportation System

Specific Strategy

- Continue to coordinate land use decision-making with traffic impact analysis. Use improved education efforts for residents so they better understand the benefits of interconnectivity and impacts on State maintained roads.

Benefits

- Quality of life
- Inter-county travel
- Connectivity

Possible Locations

- County-wide



Coordinated Transportation Investment with Planned Development

Specific Strategy

- Explore additional opportunities for Transportation Improvement Districts

Benefits

- Focused transportation investment to support development in priority growth areas



Roadway Design Compatible with Surrounding Land Uses

Specific Strategy

- Implement Complete Communities principles, including Complete Streets, road diets, and other transportation-related concepts

Benefits

- Improves multi-modal access and safety, promotes business development, improves quality of life

Possible Locations

- Municipal Downtown Areas



Complete Communities Toolbox
attractive, inclusive, efficient, healthy & resilient places

POTENTIAL RESILIENCY STRATEGIES IN SUSSEX COUNTY

Improve Resiliency of Transportation Infrastructure

Specific Strategy

- Raise roadways and bridges in critical areas

Benefits

- Reduce roadway closures and damage from flooding
- Maintain emergency vehicle access during flooding

Possible Locations

- Along key evacuation routes, including SR 1, SR 20, and SR 26

Protect Critical Transportation Infrastructure

Specific Strategy

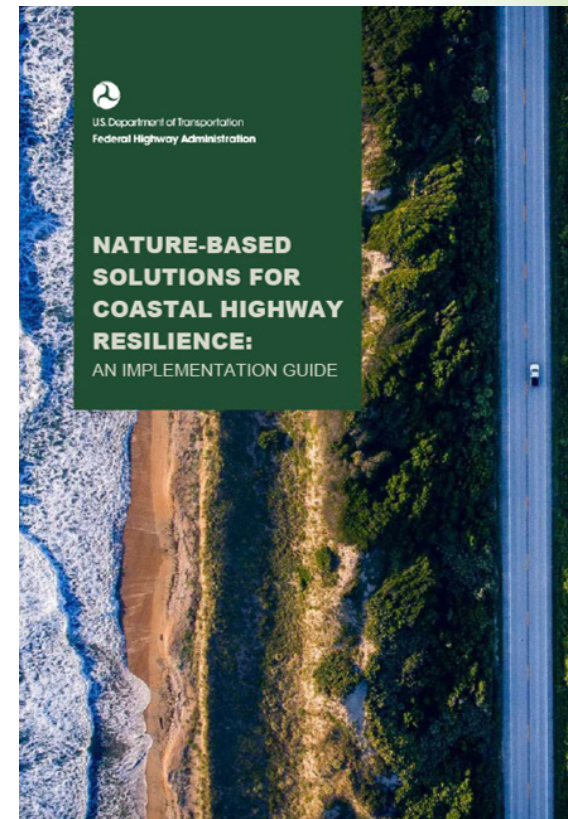
- Implement natural solutions in coastal areas; these strategies may include beaches, dunes, reefs, and wetlands.

Benefits

- Less costly than raising transportation facilities
- Will reduce roadway closures and damage
- Maintain emergency vehicle access during flooding

Possible Locations

- Along SR 1 between Dewey Beach and Fenwick Island and other roads in coastal areas



POTENTIAL TECHNOLOGY STRATEGIES IN SUSSEX COUNTY

Promote Use of Alternative Fuel and Hybrid Vehicles for those wishing to adopt this new technology

Specific Strategy

- Expand network of Alternative Fueling and Charging Stations

Benefits

- Reduced emissions

Possible Locations

- Along key corridors: DE 1, US 113, and US 13



Source: cleantechnica.com/2020/02/17/largest-ev-fast-charging-station-in-the-us-opens-in-pasadena-california/

Promote Use of Alternative Fuel Vehicles

Specific Strategy

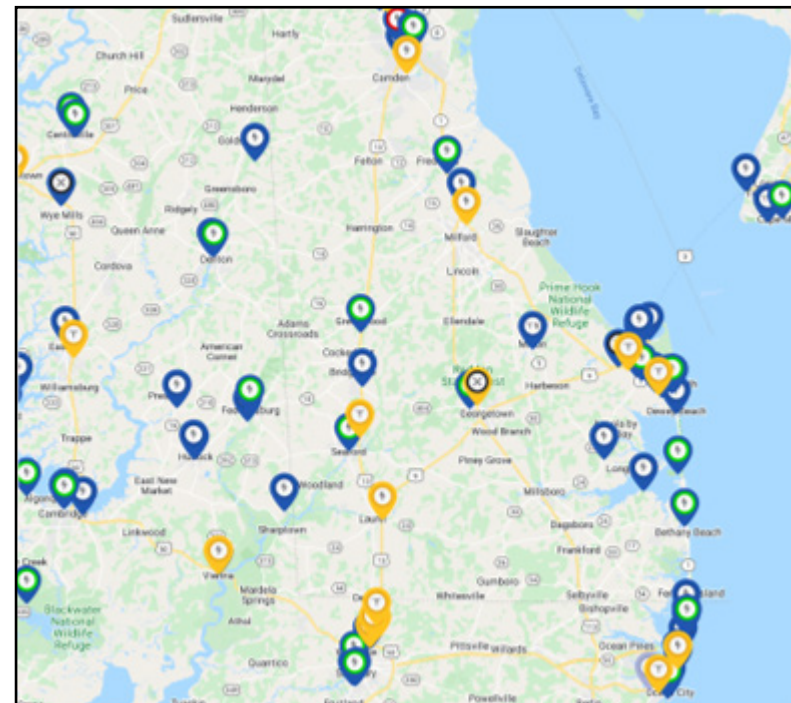
- Identify locations for EV Charging Stations

Benefits

- Reduced emissions

Possible Locations

- Parks, shopping centers, et al.



POTENTIAL FREIGHT MOVEMENT STRATEGIES IN SUSSEX COUNTY

Increase Truck Parking Capacity

Specific Strategy

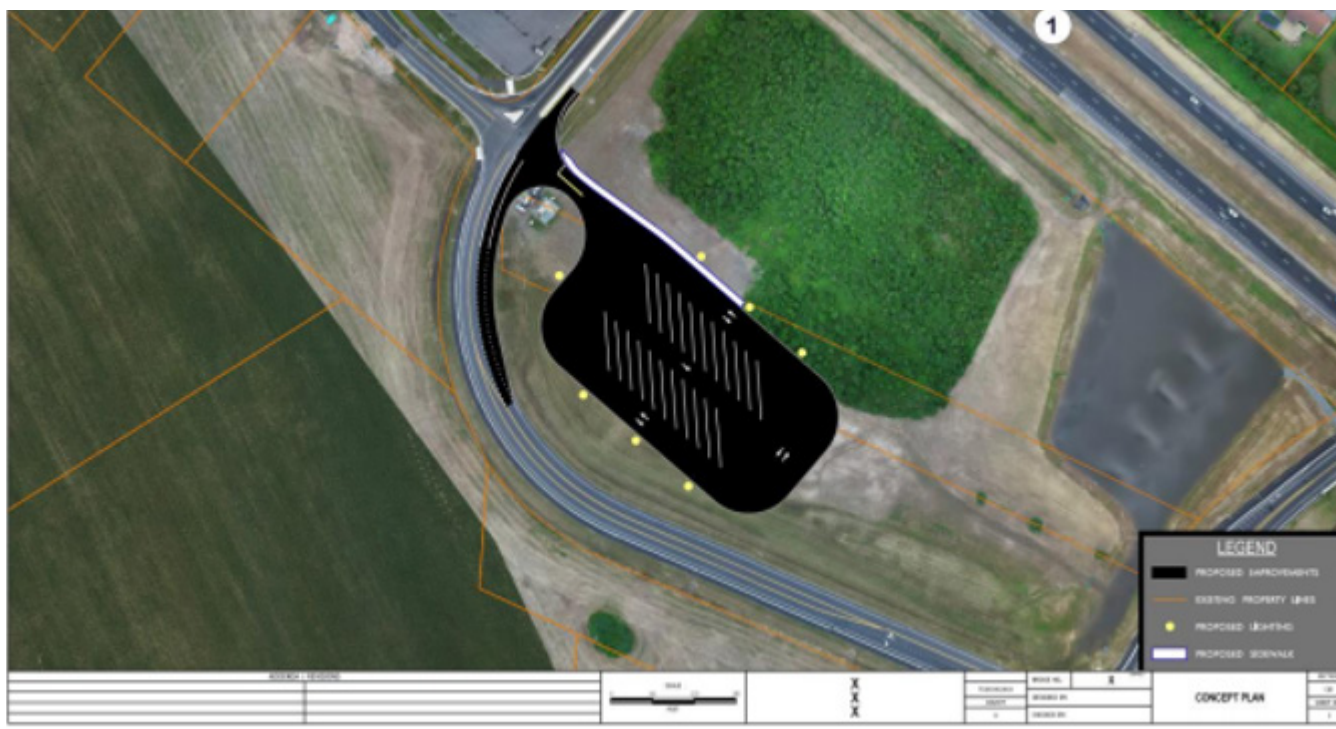
- Identify new locations for truck parking

Possible Locations

- US 113

Benefits

- Increased safety for truckers and other motorists
- Reduced impacts of trucks parking on local streets



Concept graphic for Truck parking capacity expansion opportunity at intersection of SR1/Bay Rd./Milford Bypass and NE Front St.

First Mile, Last Mile

Specific Strategy

- Identify new truck routes. Municipal freight planning efforts are underway through DeIDOT Statewide & Regional Planning.

Benefits

- Reduced impacts of trucks on local streets
- Improved travel times for truckers

Possible Locations

- Around downtown areas

Develop Freight Centers/ Intermodal Facilities

Specific Strategy

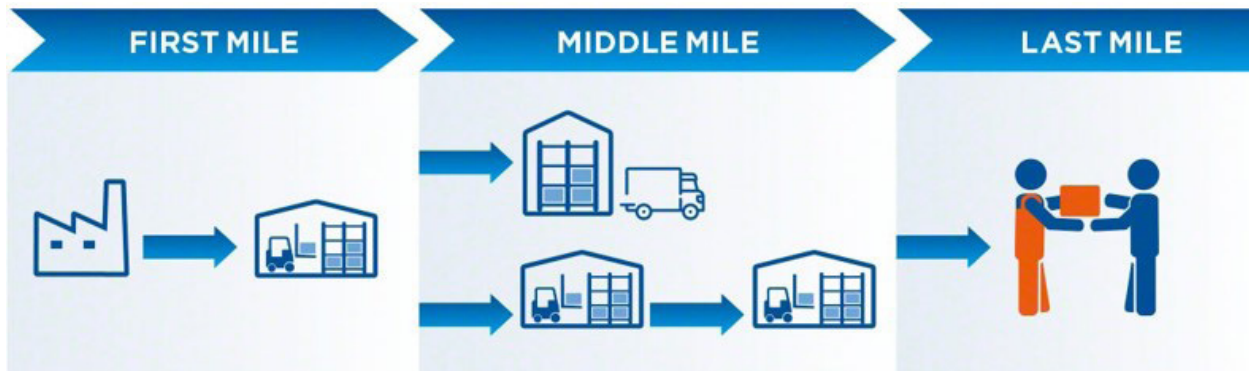
- Design employment centers to expedite freight movement and sustain economic development

Benefits

- More efficient freight movement by truck or rail
- Reduced roadway congestion

Possible Locations

- Seaford Area



Source: interlakemecalux.com/blog/middle-mile-logistics

Increase Rail Freight Opportunities

Specific Strategy

- Maintain and expand short line use
- Assess business development opportunities

Benefits

- Reduced truck traffic, roadway congestion, and vehicle emissions
- Increased economic development

Possible Locations

- Indian River Secondary/former DCLR lines, MDDE

