

# Delaware Highway Safety Summit

April 17, 2024



## *Excellence in Transportation.*

### **Every Trip.**

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

### **Every Mode.**

We provide safe choices for travelers in Delaware to access roads, rails, buses, airways, waterways, bike trails, and walking paths.

### **Every Dollar.**

We seek the best value for every dollar spent for the benefit of all.

### **Everyone.**

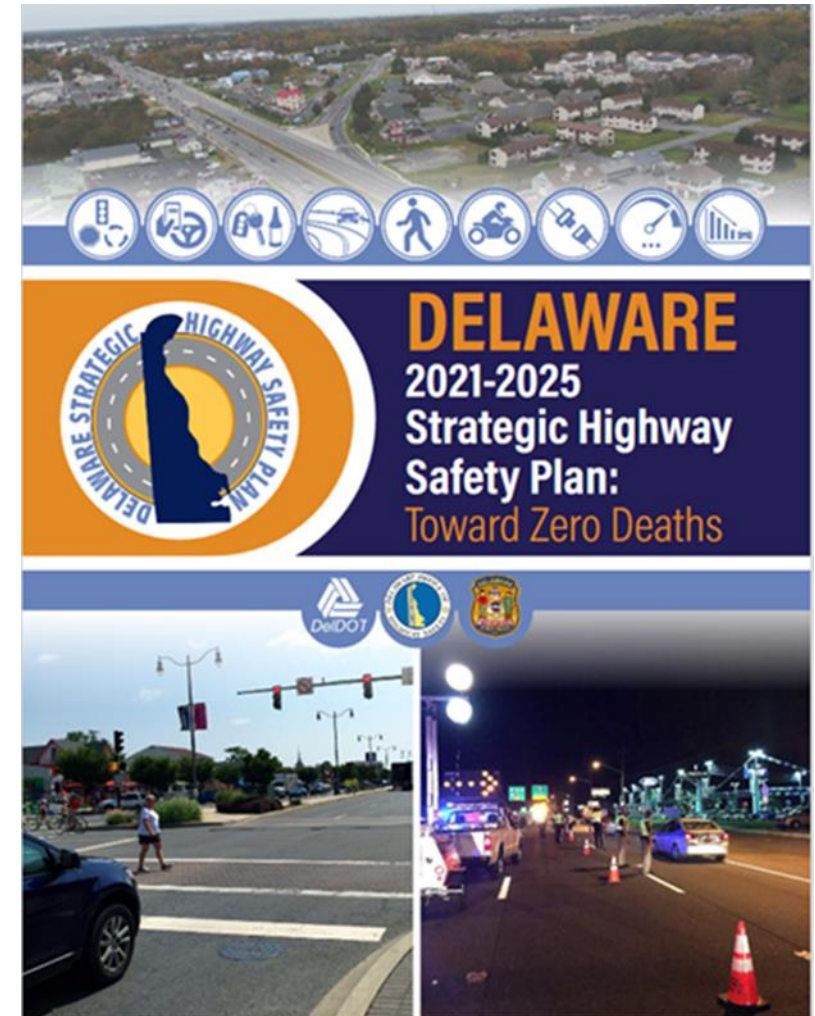
We engage our customers and employees with respect and courtesy as we deliver our services.



# Safety

## 2024 Delaware Traffic Fatalities as of 3/18/2024

	2024	2023		Totals	2022		Totals
		Year-to-Date			Year-to-Date		
Fatalities	21	29	↓ -28%	137	36	↓ -42%	164
Delaware Residents	18	23	↓ -22%	120	27	↓ -33%	119
Person Types							
Vehicle Occupant	15	20	↓ -25%	89	25	↓ -40%	103
Pedestrian	4	6	↓ -33%	28	8	↓ -50%	32
Bicyclist	1	2	↓ -50%	5	1	0%	7
Motorcyclist	1	1	0%	15	2	↓ -50%	22
Crash Types							
Curve Related	3	7	↓ -57%	28	6	↓ -50%	19
Roadway Departure	8	15	↓ -47%	69	12	↓ -33%	55
Intersection Related	7	6	↑ 17%	37	9	↓ -22%	50
Median Crossover	0	1	↓ -100%	8	2	↓ -100%	8
Wrong Way	1	0	↑ N/A	1	1	0%	7
Work Zone	1	3	↓ -67%	9	0	↑ N/A	4





# Vision

*DelDOT continues to strive toward zero deaths to eliminate fatalities and serious injuries for all modes of travel. Everyone in Delaware should have access to a network that is safe, comfortable, and conveniently connected to places people want to go. Working together with local agencies and communities can ensure safe, accessible, connected and equitable network that encourages a culture where people can walk or bicycle in their daily lives for transportation, recreation, and improved health.*





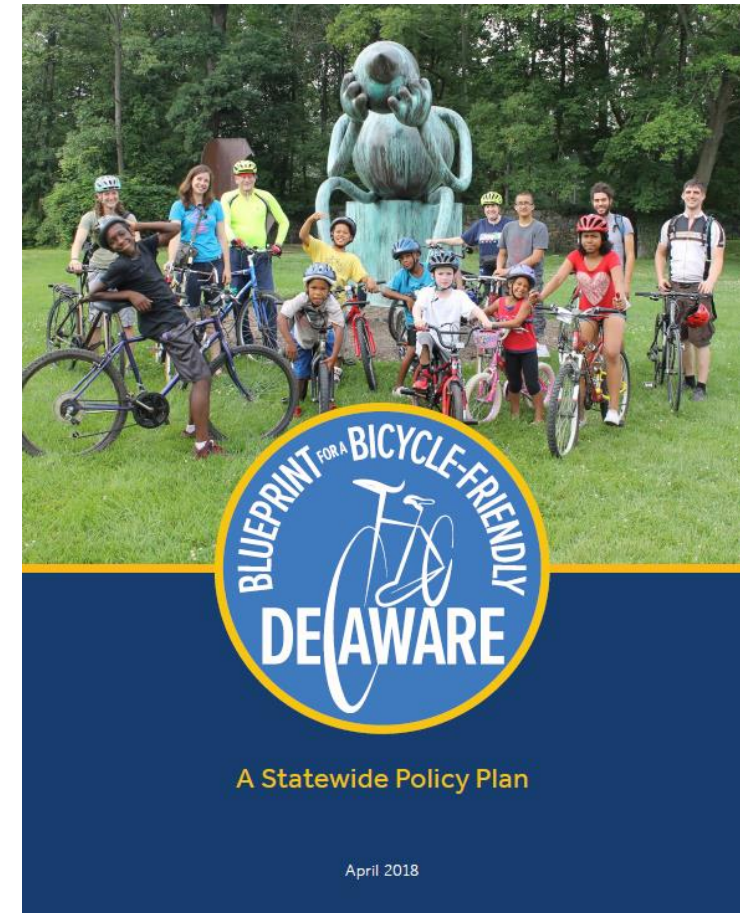


# Delaware Bicycle Plan

## I. Introduction

Delaware is consistently ranked as one of the most bicycle-friendly states in the nation. Thanks to significant investments in bicycle infrastructure, as well as the adoption of supportive policies, programs and public information campaigns (Figure 1-A), Delaware has been among the top of the League of American Bicyclists' Bicycle Friendly States program since 2009, rising as high as #3 in 2015 and 2016. This is a successful foundation upon which to build.

The Blueprint for a Bicycle-Friendly Delaware lays out a series of innovative strategies for planning, design, coordination and communication tools to continue this important work.





# Planning Framework—Goals

Goal 1: Develop a Complete, **Comfortable**,  
Connected Bicycling Network

Goal 2: Improve Bicyclist Safety and Confidence  
(beyond engineering interventions)

Goal 3: Foster a Culture of Bicycling that Broadly  
Benefits Delawareans

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# Key Strategies

## 6 Framework Categories

The recommended strategies are organized based on their corresponding *Blueprint* Goal and Objective. They are listed on page 19. Each one also falls into one or more of the following framework categories, useful for organizations to identify strategies associated with their work:

1. Network Development
2. Prioritization and Funding
3. Project Development and Design
4. Data and Evaluation
5. Land Use and Transportation Integration
6. E3 - Education / Training, Enforcement, and Encouragement

*A spreadsheet of the Blueprint recommendations is available for sorting by these framework categories as well as other characteristics.*

- ★ **Network Development:** Creating local plans that identify the desired bicycle network.
- ★ **Project Prioritization and Funding:** Identifying and prioritizing projects that expand the low-stress bicycle network.
- ★ **Project Development and Design Guidance:** Designing and constructing facilities that extend the bicycle network and produce a safer, more comfortable experience for bicyclists and other users.





# Delaware Bicycle Plan

## Level of Traffic Stress (LTS)

### How Traffic Stress Is Measured

Level of Traffic Stress analysis uses factors such as the speed of traffic, volume of traffic, and the number of lanes to rate each roadway segment on a scale of 1 to 4, where 1 is a low-stress place to ride and 4 is a high-stress place to ride (see Figures 3-H and 3-I). It analyzes the total connectivity of a network to evaluate how many destinations can be accessed using low-stress routes.

Additional tables addressing level of traffic stress across a variety of traffic facilities can be found in the Appendix starting on page 123.

*"Traffic stress... is a combination of perceived danger and other stressors... associated with riding a bike close to motor traffic."*

- Northeastern University Professor Peter Furth, 2012.

Figure 3-H. Definition of Levels of Traffic Stress.

Level of Traffic Stress	Description	Example
1	Safe for children to use; Usually completely separated from auto traffic	
2	Tolerated by most mainstream adult populations of cyclists; Roads with low volume and low speed auto traffic	
3	Tolerated by riders who are enthused and confident; Heavy traffic with separated bike facility	
4	Only tolerated by strong and fearless riders; cyclists must interact with high volumes or speeds of auto traffic.	

Figure 3-I. Characteristics (number of lanes, volumes of traffic, and speed of traffic) that impact bicycle comfort.

Number of Lanes	Average Daily Traffic	<25 mph	30 mph	35 mph	40 mph	45 mph	50+ mph
2-way street (no centerline)	0-750	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4
	751-2000	LTS 1	LTS 2	LTS 3	LTS 3	LTS 4	LTS 4
	2001-3000	LTS 1	LTS 2	LTS 3	LTS 4	LTS 4	LTS 4
	3001+	LTS 2	LTS 2	LTS 3	LTS 4	LTS 4	LTS 4
1 through lane per direction (1-way street or 2-way street with centerline)	0-750	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4
	751-2000	LTS 1	LTS 2	LTS 3	LTS 3	LTS 4	LTS 4
	2001-6000	LTS 2	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4
	6001+	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4
2 through lanes per direction	0-6000	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
	6001+	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4
3+ through lanes per direction	any ADT	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4







# Multi-Modal Implementation



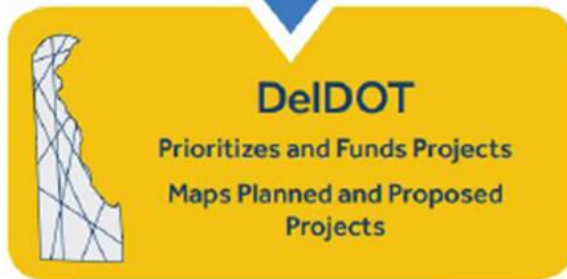
## Local Municipalities

Project Identification - Projects are identified as part of a planning process by the local land use agency.



## Regional Agency

Project Incorporation - Metropolitan Planning Organizations (MPOs) and Sussex County incorporate locally-identified projects into regional plans.



## DeIDOT

Meets with MPOs and Sussex County to discuss preliminary regional project priorities.

Conducts initial feasibility screening.

Prioritizes projects.

Announces funded projects.



# What DelDOT is Looking for in a Project



***A project will score well if it:***

- 1. Connects people to destinations,*
- 2. Provides separation from traffic,*
- and*
- 3. Turns a stressful route into a comfortable, one.*



# Multi-Modal Program Funding sources

Bike/Ped Pool

PAR –  
Pedestrian  
Access Routes

CTP Projects

TA –  
Transportation  
Alternatives

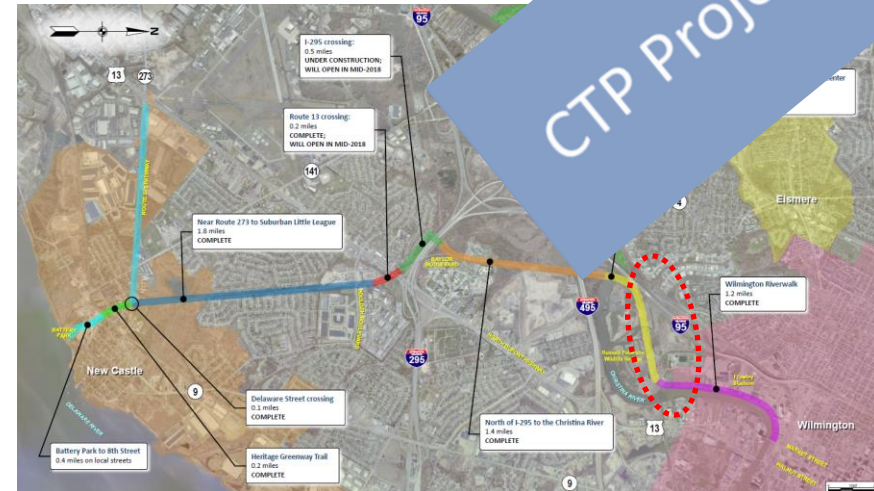
Developer  
Projects

SRTS – Safe  
Routes to  
School



# Jack A. Markell Trail (JAM)

- Named after former Governor Jack A. Markell, the 5.5 mile “JAM” trail connects the Wilmington Riverfront with the City of New Castle
- The trail was completed in September 2018. This included a final segment phase for a new bridge over the Christina River and an elevated boardwalk path through sensitive marshlands.







# Jack A. Markell Trail (JAM)

- Other sections of the JAM converted an abandoned freight rail line into a shared-use pedestrian and bicycle path (SUP).
- Construction cost for the Bridge and Elevated Boardwalk under the Bike/Ped program was \$18.5M

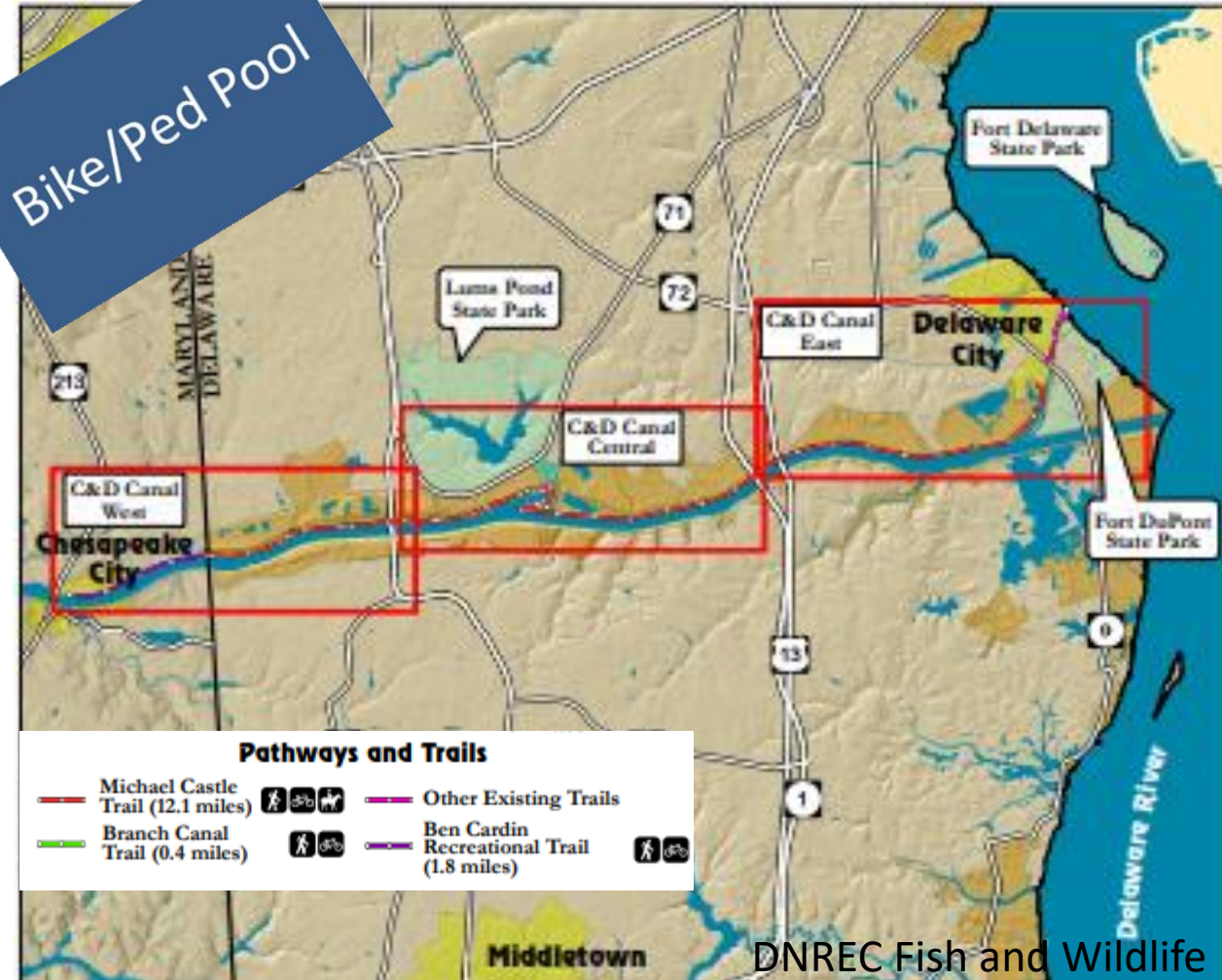




# Chesapeake & Delaware Canal Trail

- Also known as the Michael N. Castle Trail, the effort offers a scenic walking and biking route along the northern shore of the Chesapeake and Delaware Canal in northern Delaware
- In Delaware, this includes 12.1 miles of paved surface, three trailheads, and amenities including benches, informational kiosks, comfort stations, and landscaping

Bike/ped Pool

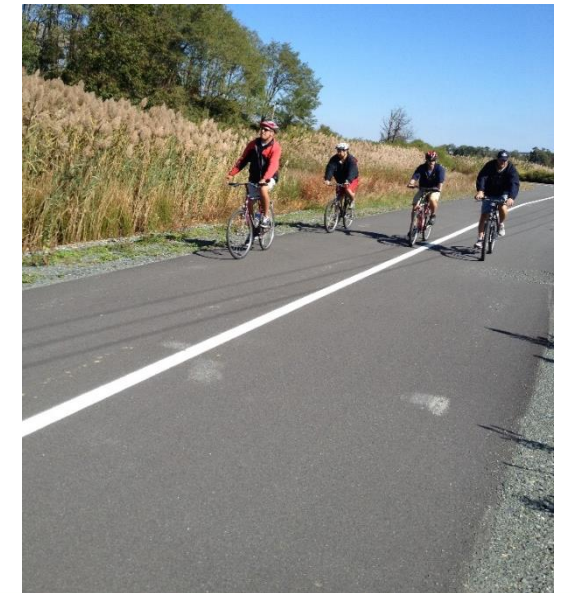






# Chesapeake & Delaware Canal Tail

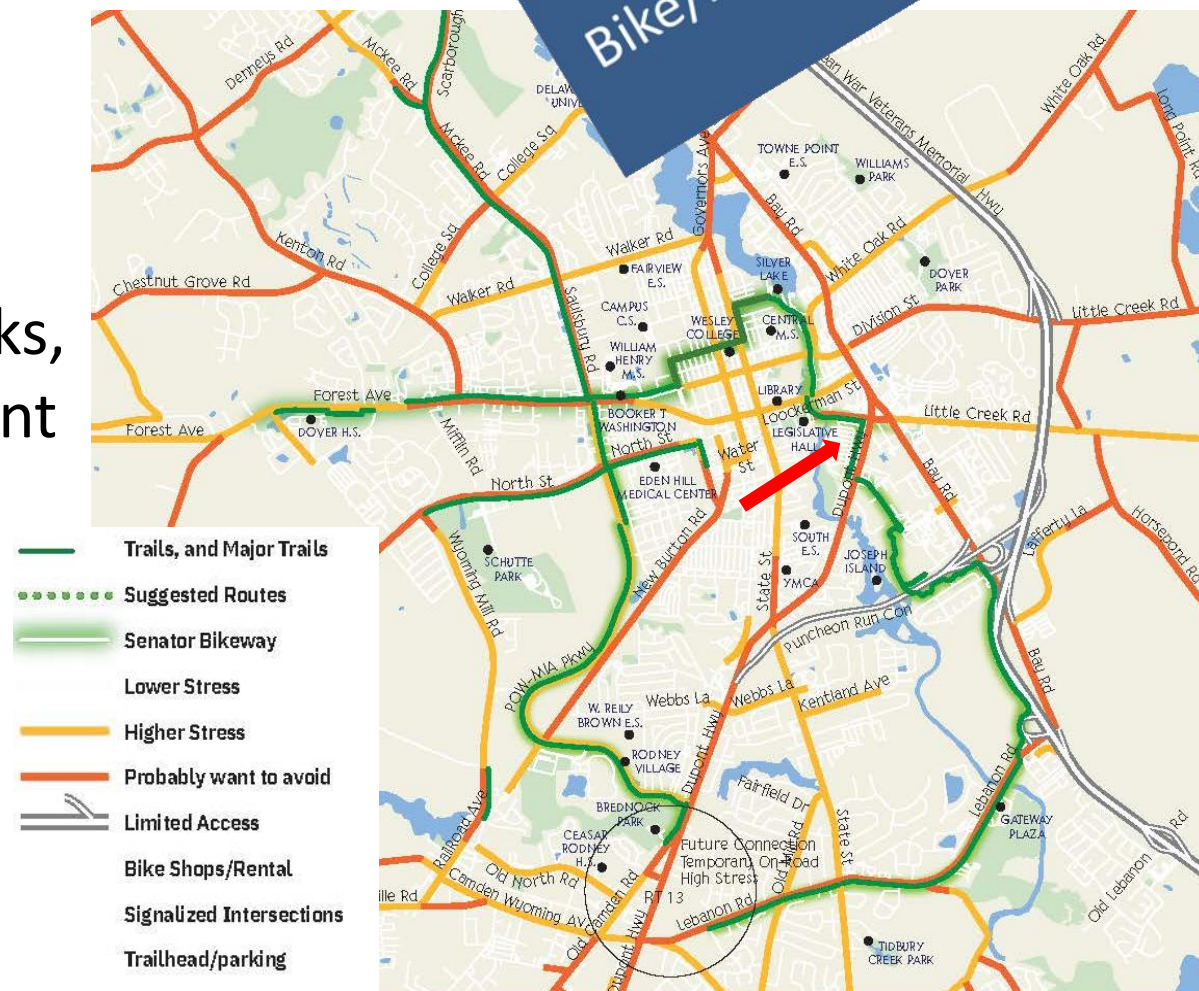
- Construction in five phases began in summer 2012 and was completed in summer 2019
- Trail connects Delaware City to Chesapeake City
- Total construction costs under the Bike/Ped program was \$11.6M





# Capital City Trail

- Located in Dover, the Capital City Trail provides a walking, biking, and running route through Delaware's State Capital
- The 14.7-mile trail (total) connects to parks, downtown historic attractions, government offices, and the Dover Air Force Base
- The trail joins the Silver Lake Trail at Division Street, continuing to Legislative Hall and along Court Street to the Public Safety Boulevard Pathway and the Isaacs Branch Trail

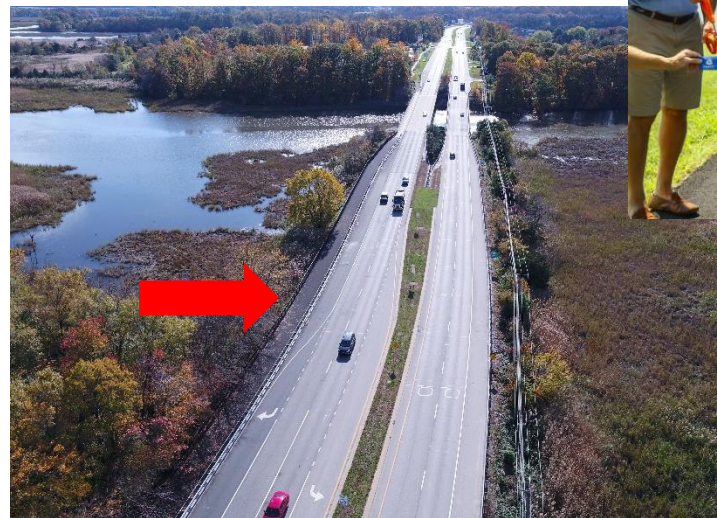






# Capital City Trail

- The entire railway system had multiple construction phases & under different funding programs
- The Bike/Ped program construction started April 2020 and ended Nov. 2022
- Total construction cost was \$5.1M under the Bike/Ped Program



Delaware.gov August 24, 2021





# Georgetown and Lewes Tail

- Nearly complete, the 17-mile paved trail will link Georgetown (central) and Lewes (east) in Sussex County
- The Trail is accessible and continues to the beach resorts. The trail provides access to the Junction and Breakwater Trail from downtown Lewes to Rehoboth Beach, and from Lewes into Cape Henlopen State Park.

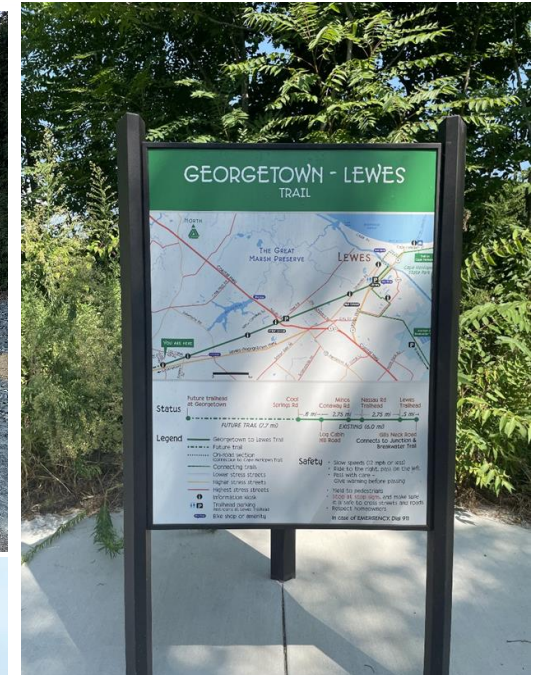






# Georgetown and Lewes Trail

- Effort is hot mix trail next to rail and rail to trail conversion
- The Bike/Ped program construction started February 2015 and expects to be complete Spring 2026
- Total construction cost is anticipated at \$35M







# Educational Programs

## BICYCLE RODEOS

A bicycle safety clinic and skills event which provides an opportunity for young bicyclists in 3<sup>rd</sup> 4<sup>th</sup> and 5<sup>th</sup> grades, to practice and develop skills to become better bicyclists and to avoid typical collisions

School instructors teach the bicycle safety curriculum and as an award, DeIDOT visits schools to conduct the rodeo.

In 2023, conducted 10 rodeos with 900 children attending.







# Educational Programs

## J1 BIKE LOAN PROGRAM

In 2022, the DelDOT Bicycle Program took responsibility for a bike loan program from the Lewes-Rehoboth ISOP.

DelDOT holds bicycle safety seminars explaining the rules and laws of cycling in the state.

All J1 Students must attend the safety seminar where after a satisfactory completion, will be loaned a bike for the summer.

In 2023, DelDOT Bicycle Program loaned bikes to 460 students.

For more information, go to <https://deldot.gov/Programs/bike/isop/>





# Educational Programs

## BICYCLE SAFETY CHECKPOINTS

DelDOT conducts multiple bicycle safety checkpoints from June through August at various locations around Lewes and Rehoboth Beach,

Provides bicycle safety information, trail maps, general bicycle repairs, installing lights and providing helmets.

All events are free and include lights, helmets, bike repairs, tire pressure checks, seat and handlebar adjustments.

In 2023, conducted 16 checkpoints for a total of 450 contacts.

For complete schedule, go to  
[https://deldot.gov/Programs/bike/biking\\_in\\_delaware/](https://deldot.gov/Programs/bike/biking_in_delaware/)





# THANK YOU!

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