

Safety Improvements

US 13 and SR 9 in New Castle County

April 17, 2024

OUR MISSION – 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

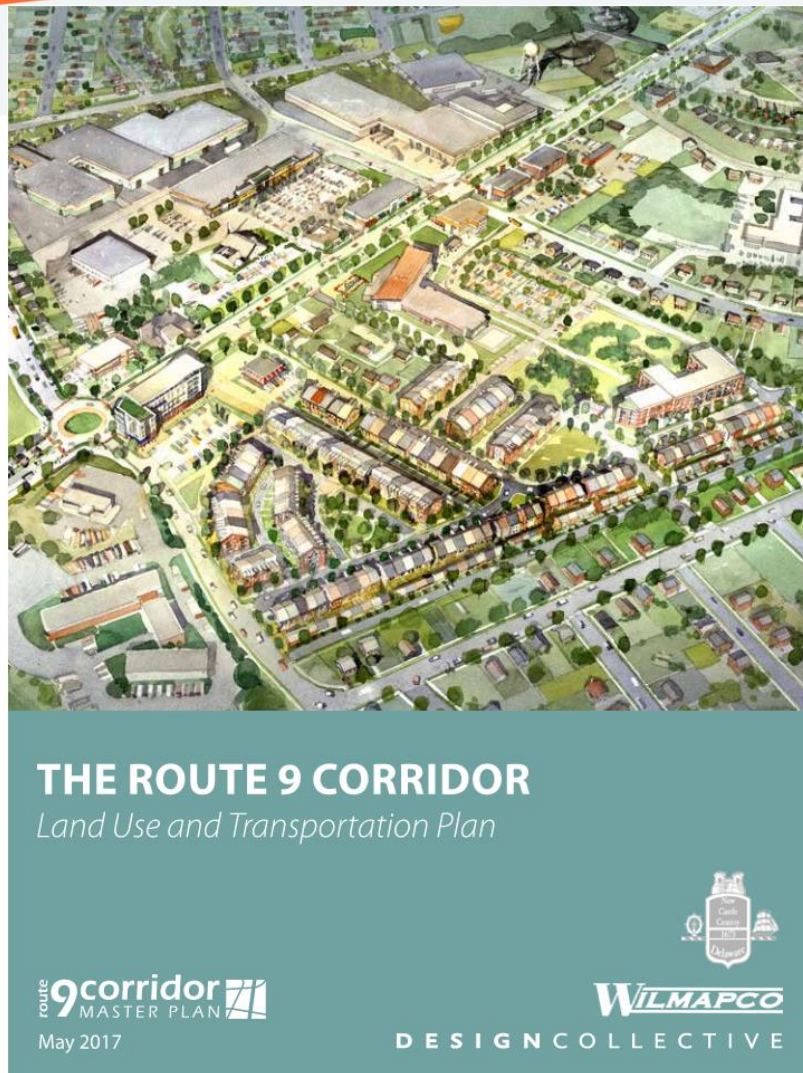
- We seek the best value for every dollar spent for the benefit of all.

■ Everyone

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



Route 9 Redefined



Transportation Project Prioritization Process and Results

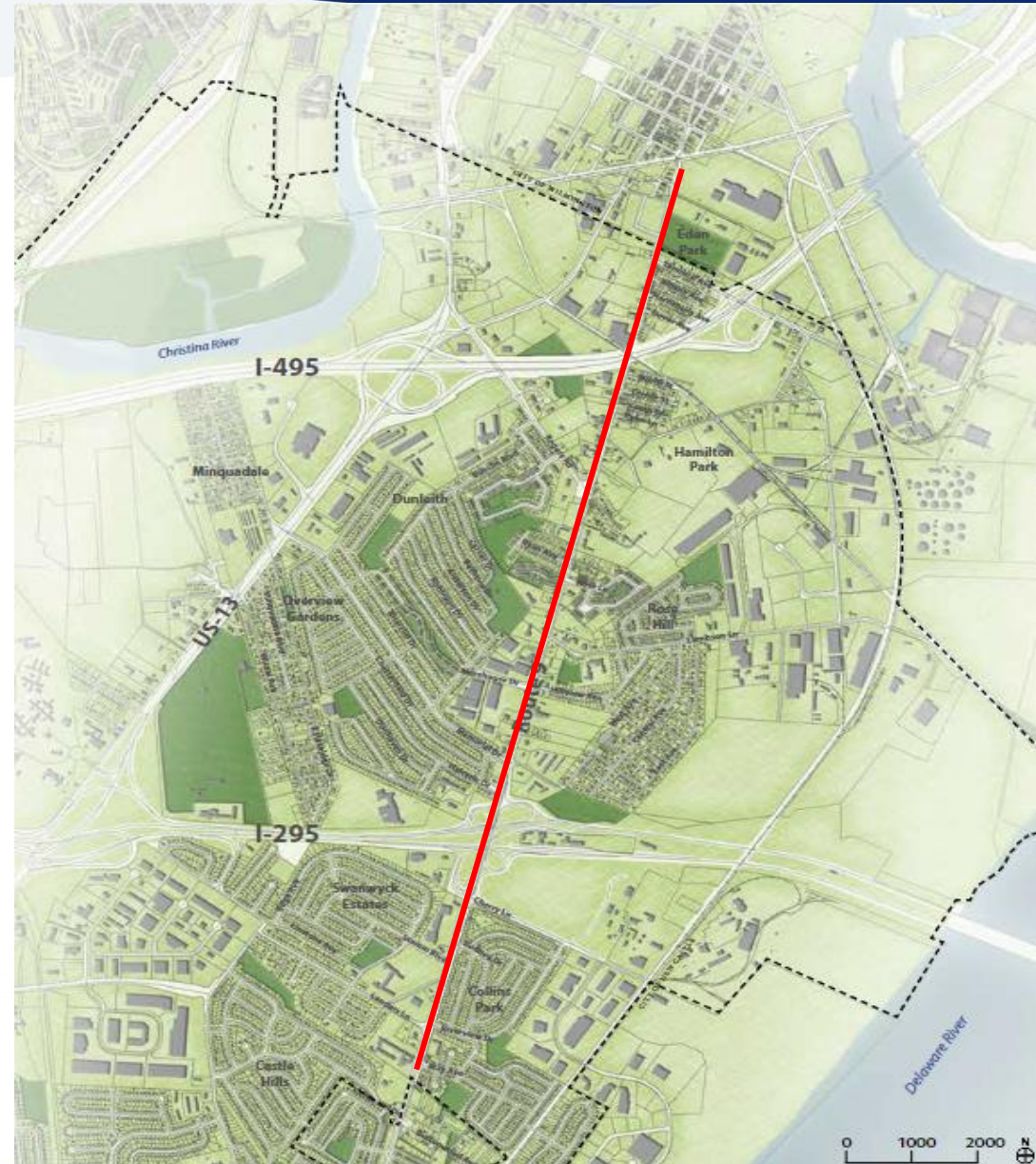
| Name |
|--|
| SR 9 Road Diet/Streetcape: Memorial Dr to Lambson Ln |
| Memorial Drive at SR 9 Roundabout |
| SR 9 Road Diet/Streetcape: Lambson Ln to Rogers Rd |
| Rogers Rd at SR 9 Intersection Rebuild |
| Cherry Ln at SR 9 Roundabout |
| Multiuse Center Lane Pathway: I-295 at SR 9 |
| Memorial Drive Road Diet: Full Build |
| Terminal Avenue at SR 9 Roundabout |
| SR 9 Road Diet/Streetcape: Buttonwood Ave to Cherry Ln |
| Karyln Drive at Memorial Drive Intersection Rebuild |
| SR 9 Road Diet/Streetcape: Rogers Rd to Terminal Ave |
| Stamm Blvd at SR 9 Intersection Rebuild |
| Memorial Drive Road Diet: Interim Build |

Route 9: It's About Time

<http://www.wilmapco.org/route9/>



Route 9 Redefined



- RAISE Grant awarded: \$6 Million
- Recommendations from WILMAPCO's *Route 9 Corridor Master Plan* are being vetted by Pennoni for design

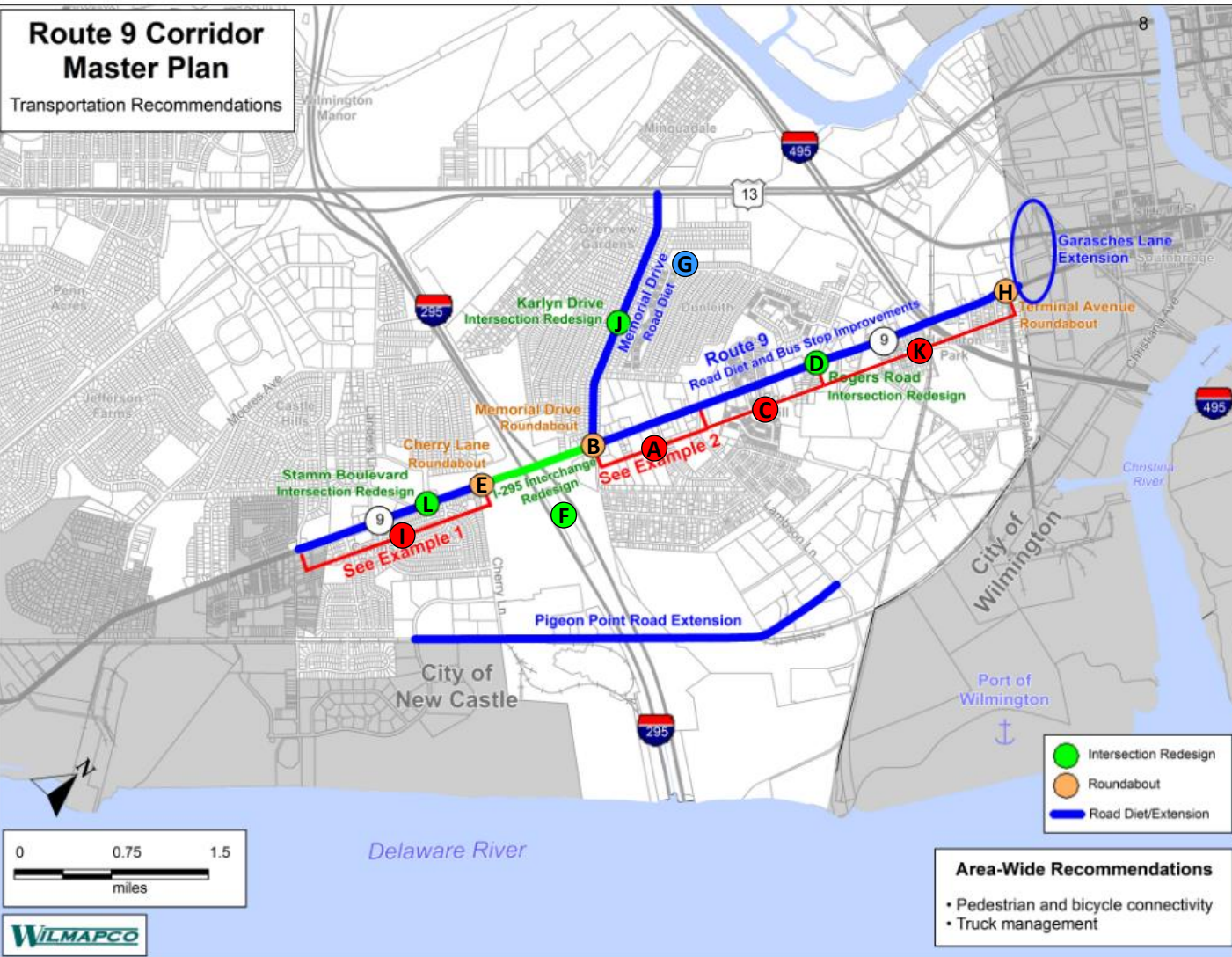


Route 9 Redefined

SR 9 CORRIDOR MASTER PLAN Transportation Project Prioritization Multimodal Projects

| | Name |
|--------------|---|
| A | SR 9 Road Diet/Streetscape: Memorial Dr to Lambson Ln |
| B | Memorial Drive at SR 9 Roundabout |
| C | SR 9 Road Diet/Streetscape: Lambson Ln to Rogers Rd |
| D | Rogers Rd at SR 9 Intersection Rebuild |
| E | Cherry Ln at SR 9 Roundabout |
| F | Multiuse Center Lane Pathway: I-295 at SR 9 |
| G | Memorial Drive Road Diet: Full Build |
| H | Terminal Avenue at SR 9 Roundabout |
| I | SR 9 Road Diet/Streetscape: Buttonwood Ave to Cherry Ln |
| J | Karyl Drive at Memorial Drive Intersection Rebuild |
| K | SR 9 Road Diet/Streetscape: Rogers Rd to Terminal Ave |
| L | Stamm Blvd at SR 9 Intersection Rebuild |
| M | Memorial Drive Road Diet: Interim Build |

Note: Project M was completed October 2019.



Recommended Safety Improvements

- Protect nonmotorized travelers
 - *Multimodal paths relocate non-motorized travel further from roadway*
 - *Enhanced crosswalks*
- Reducing fatalities and serious injuries
 - *Installation of roundabouts reduces fatal and injury crashes 78%*
 - *Road diet reduces speed to minimize risk/impact of crashes*
- Mitigating systemic safety issues
 - *Roundabouts improve air quality by reducing idling*
 - *Multimodal paths eliminate need for non-motorized travel to cross multiple highway ramps*
 - *Lighting installation improves visibility and safety for all methods of transportation*

Example Cross Section from Route 9 Master Plan



US 13 Corridor-Project Location

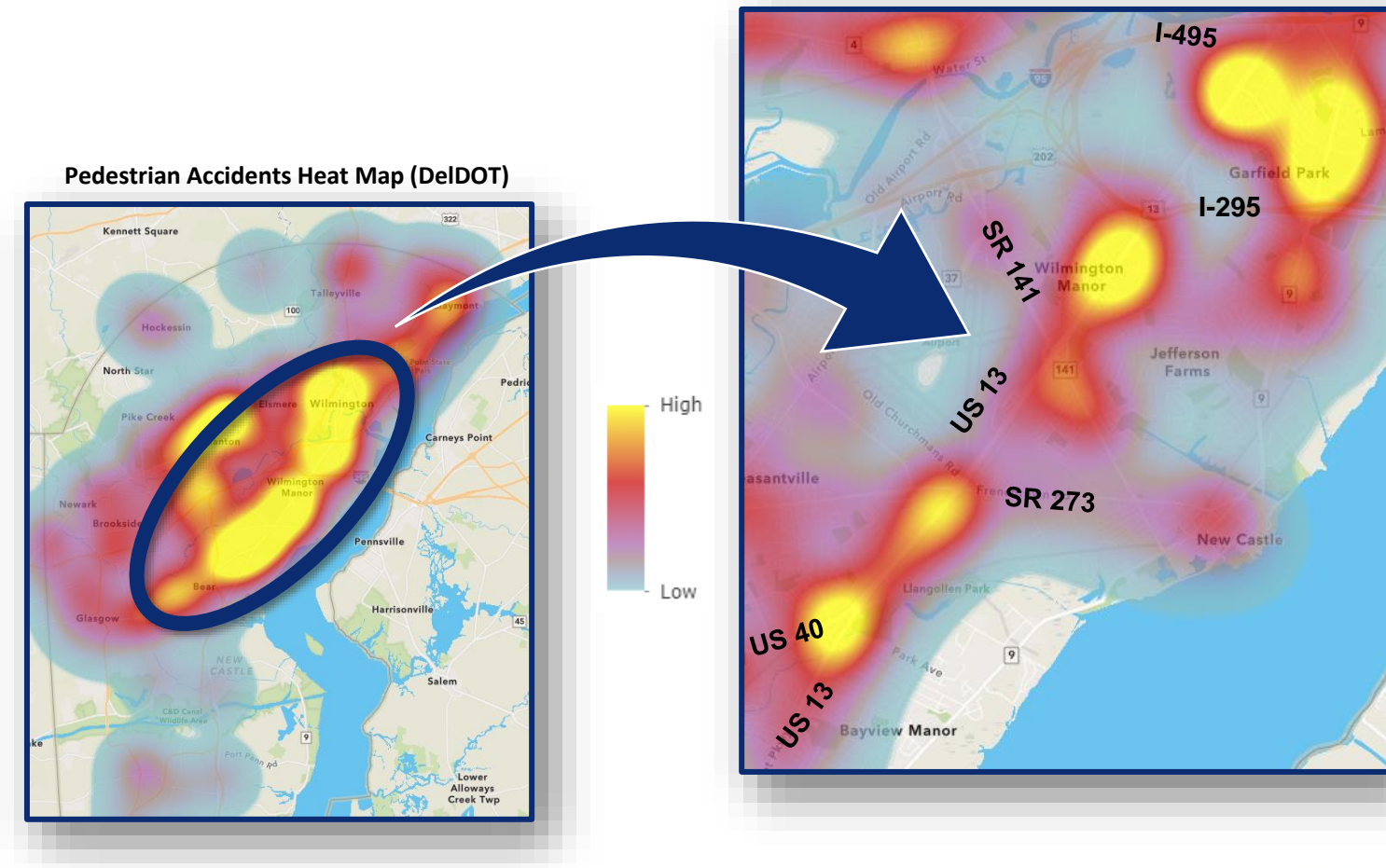


6+ miles

Delaware Department of Transportation



- Delaware in the top 10 for pedestrian fatality rates 2016-2019
- Delaware Strategic Highway Safety Plan (2015 to 2019)
 - Pedestrian fatalities: 25% of fatalities
 - Pedestrian Injuries: 9% of serious injuries
- Pedestrian Fatalities accounted for 64% of Traffic Fatalities within the US 13 corridor project limits between 2007-2020.



Recent & Current DelDOT Projects

-  • T201606121 Pavement & Rehabilitation North XXI, FY 2016 US13 (DuPont Parkway)
-  • T201904105 US13 and SR 273 Bus Bike Right Turn
-  • T201901103 US13 Median Lighting – Llangollen Blvd to I-495
-  • T201901102 US13, Paving and Pedestrian Improvements, Llangollen Blvd to Bacon/Boulden Blvd
-  • T201901104 US13 Median Treatments – US40 to I-495
-  • T202201102 US13 Southbound BBRT Lane



Proposed Improvements



- Signal & Crosswalk Upgrades (38)
- ADA curb ramp upgrades (350+)
- Provide missing sidewalk links (3.5+ miles)
- Enhanced Pavement, Signing, & Striping
- SR 141 Interchange ramps realignment
- Bus / Bike / Right-Turn (BBRT) Lane (10+ miles)
- Relocate/consolidate transit stops (4 new)
- Corridor Lighting (350+)
- Median Treatments (6+ miles)
- Removal of 6 unsignalized median crossovers
- 2 New Traffic Signals

A detailed roll plan is available to view on the project website:

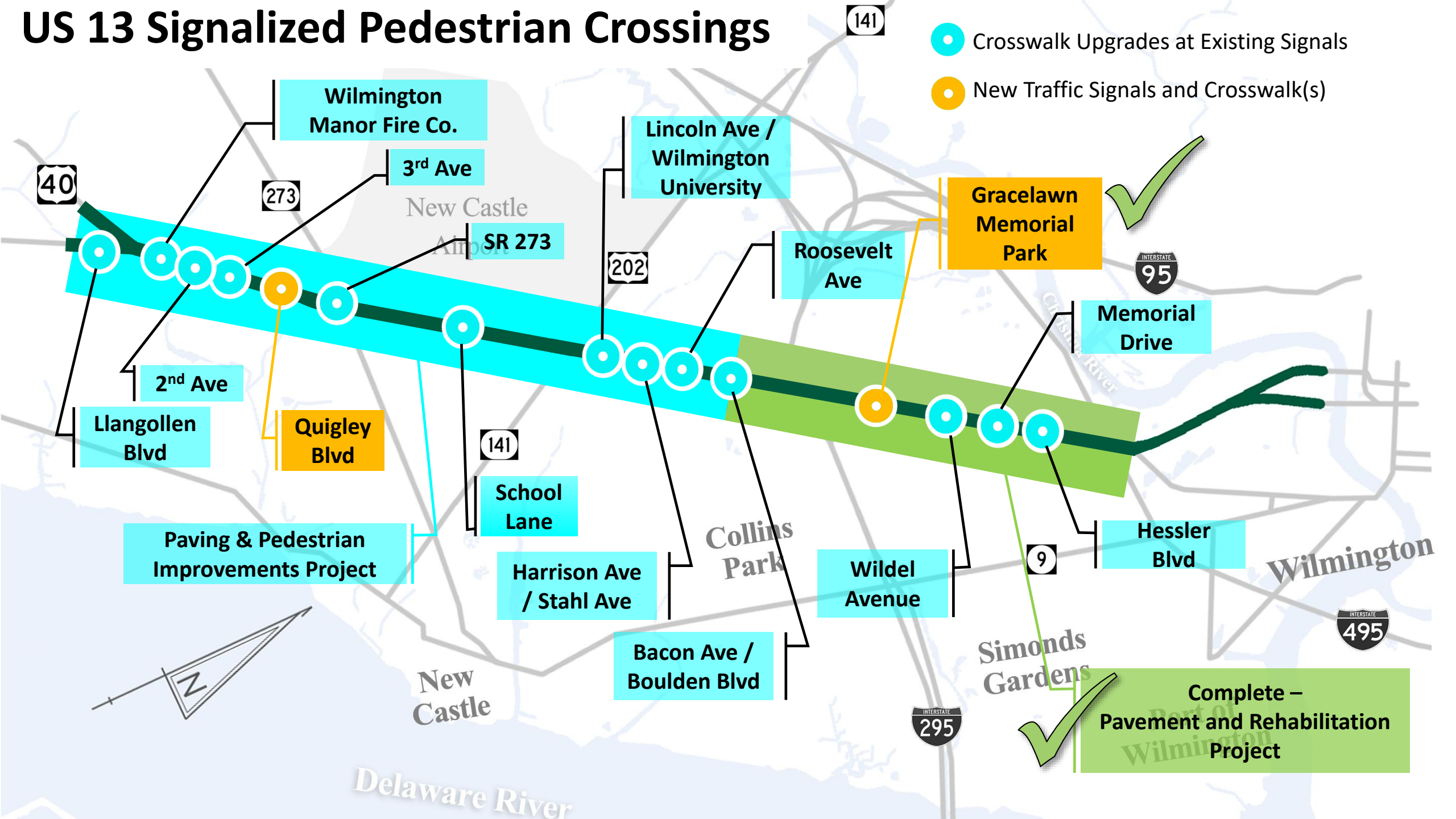
<https://deldot.gov/projects/index.shtml?dc=details&projectNumber=T201601102>



Project Website

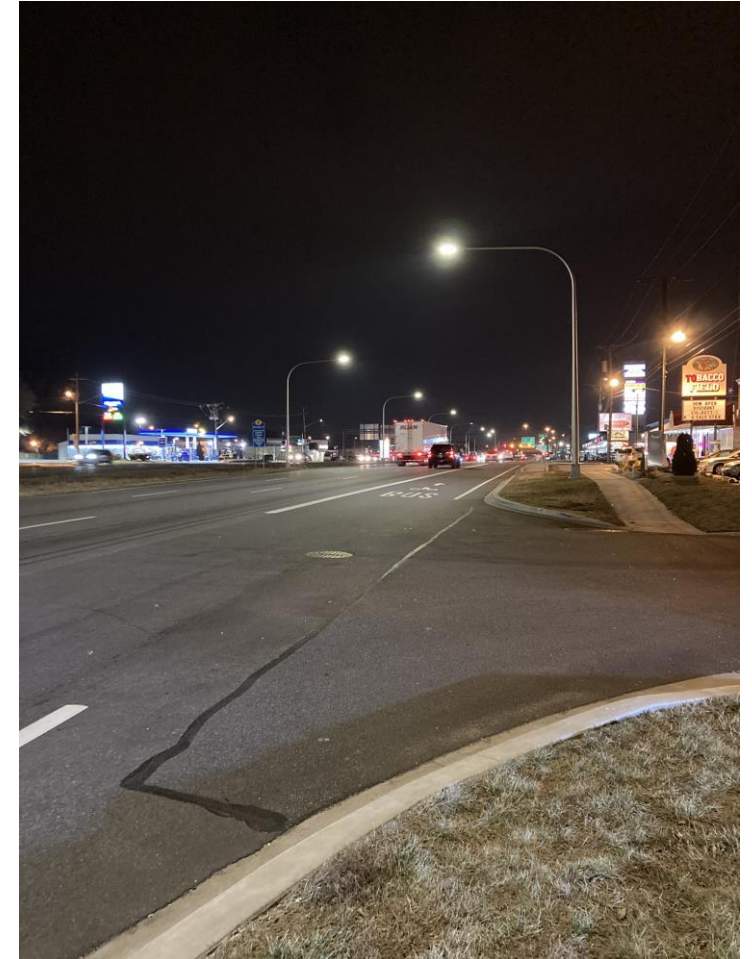


US 13 Signalized Pedestrian Crossings



US 13 Median Lighting

- **Photometric Analysis completed along entire corridor**
- **350+ lights installed**
 - DeIDOT Lighting Standards
 - Leased Lighting (Delmarva)
- **Median Lighting installed at locations to avoid underground utilities**
 - Twin Arm Design between New Castle Farmers Market & SR 141
- **Designed & Installed as part of an Open-End Contract with DeIDOT (T201901103) & as part of Pave & Rehab (T201606121) project**



COMPLETED

US 13 Median Treatments

- **Median treatments consisting of 6' high decorative fence or concrete barrier with fence**
 - Wide Median - Decorative Fence (4+ miles)
 - Narrow Median - Concrete Barrier with Fence (0.5 miles)
- **Existing constraints**
 - Underground Utilities
 - Light Poles
 - Vehicular Movements
 - Turn Lanes
 - Signal Equipment
 - Sight Distance



IN CONSTRUCTION

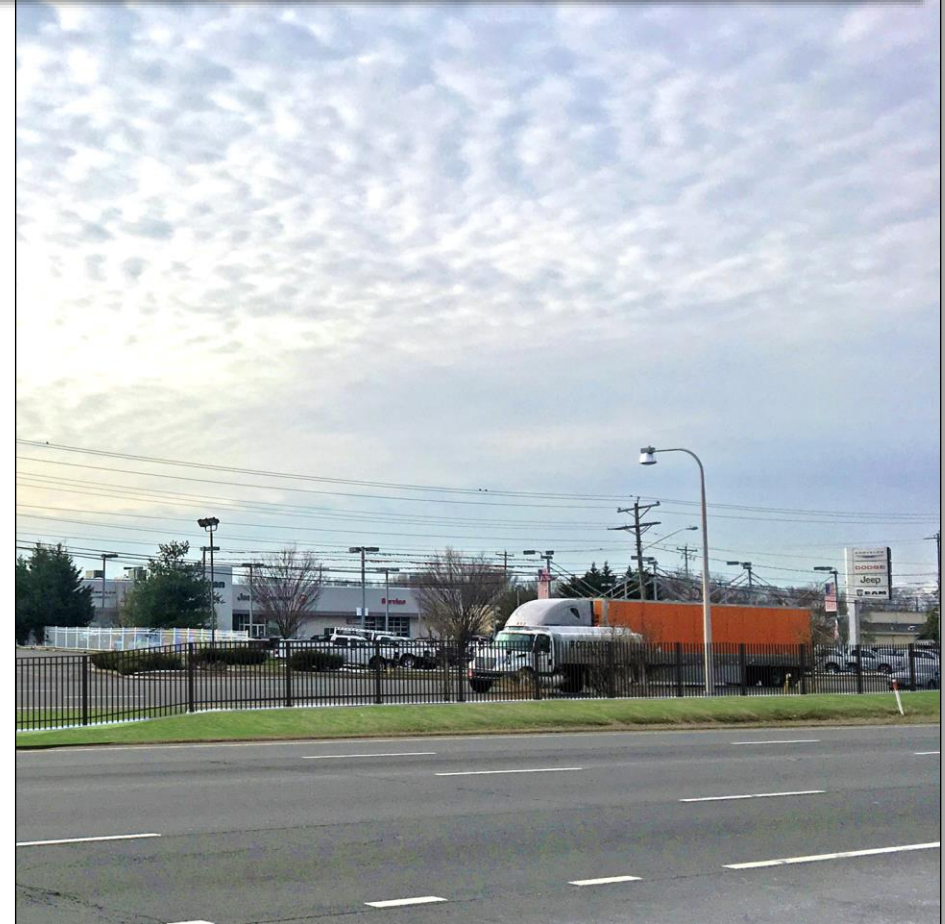
US 13 Median Treatments

Barrier with Fence (Locations with Narrow Median)



Delaware Department of Transportation

Decorative Fence (Locations with Wide Median)



Median Crossover Removals

- **Six Crossover removals**

- North of School Lane – Southbound
- North of School Lane – Northbound
- Franklin Avenue
- North of Bacon Avenue / Boulden Boulevard
- Lovelace Avenue
- South of Wildel Avenue

- **Removal of Crossovers evaluated on several factors:**

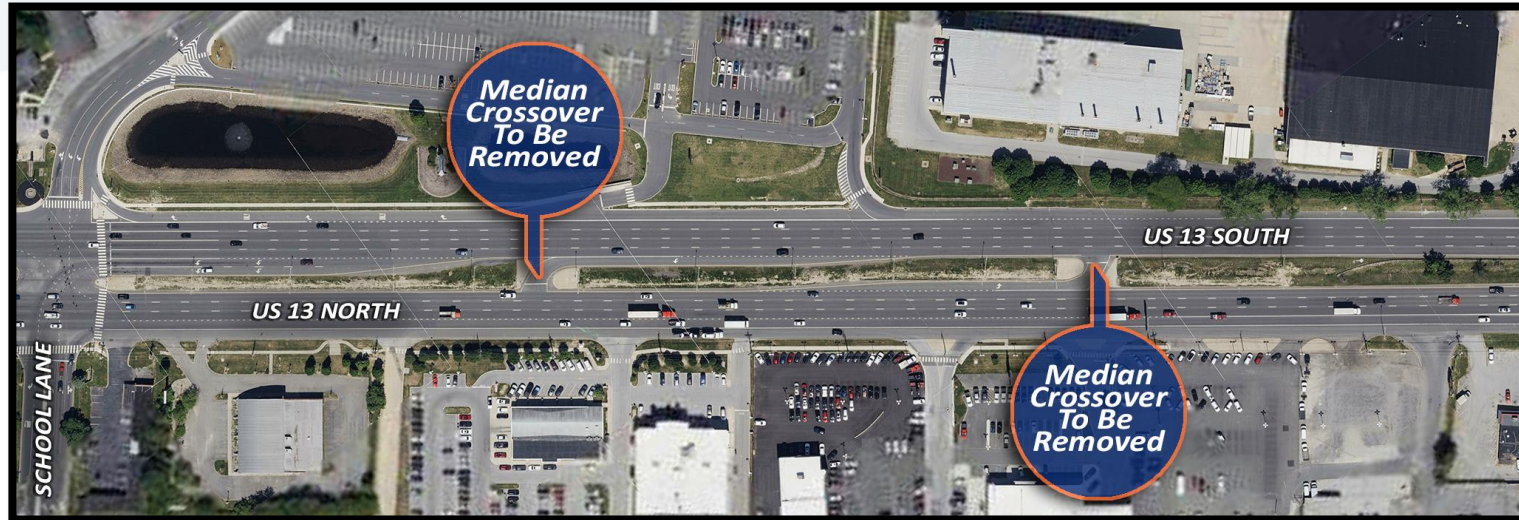
- Safety
- Pedestrian activity
- Operation
- Traffic Volumes
- Emergency Vehicles
- Transit / School Buses
- Location Transportation Network
- Utility Impacts

IN CONSTRUCTION

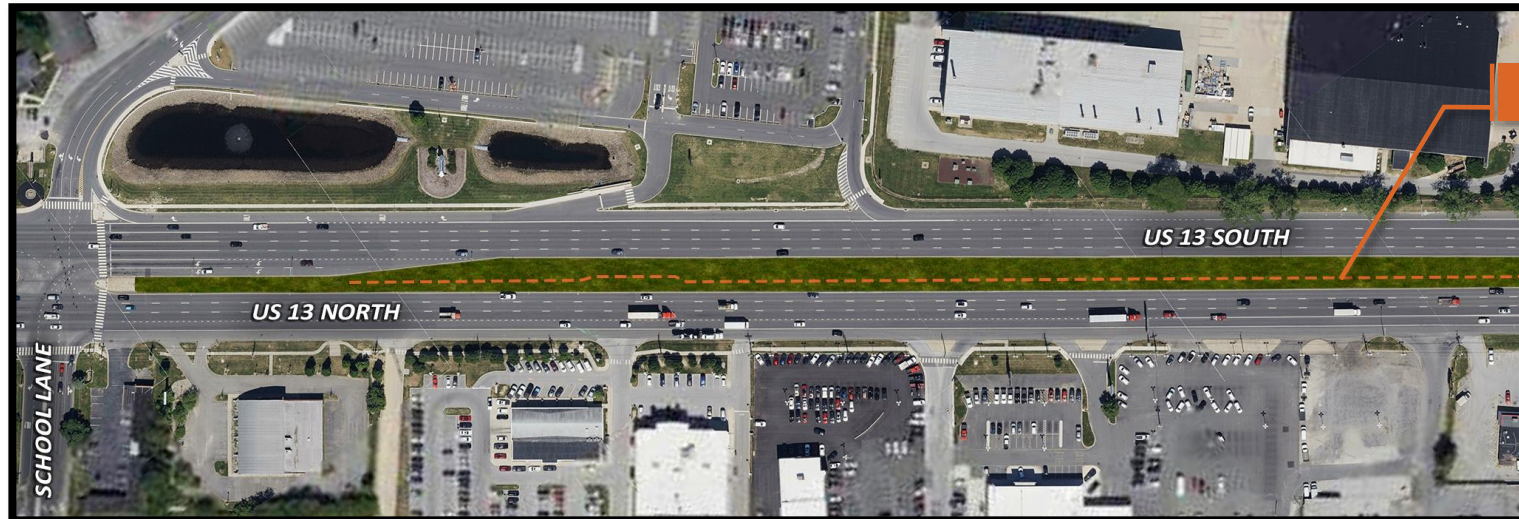


Median Crossover Removals

**EXISTING
CONDITIONS**

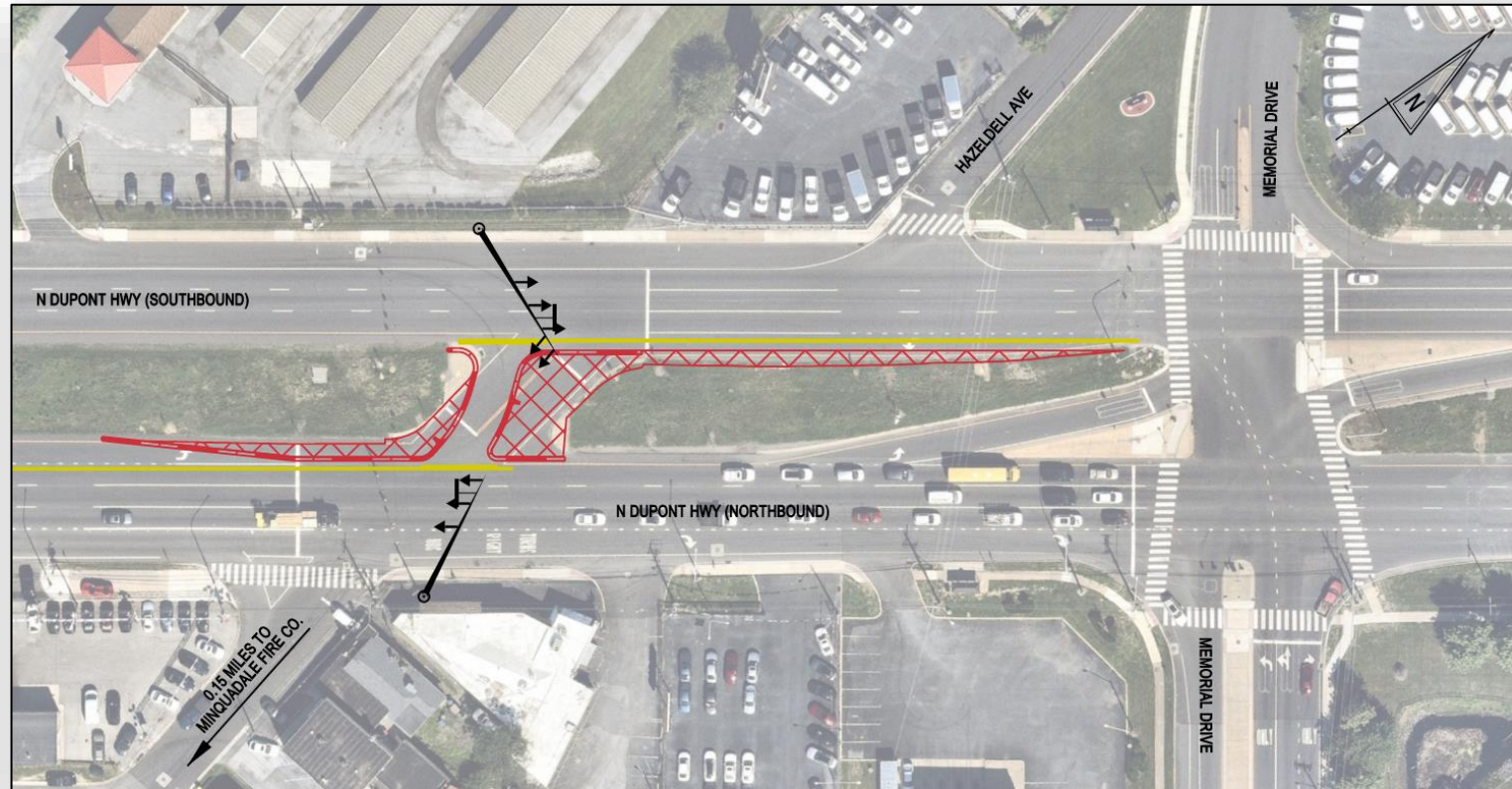


**PROPOSED
CONDITIONS**

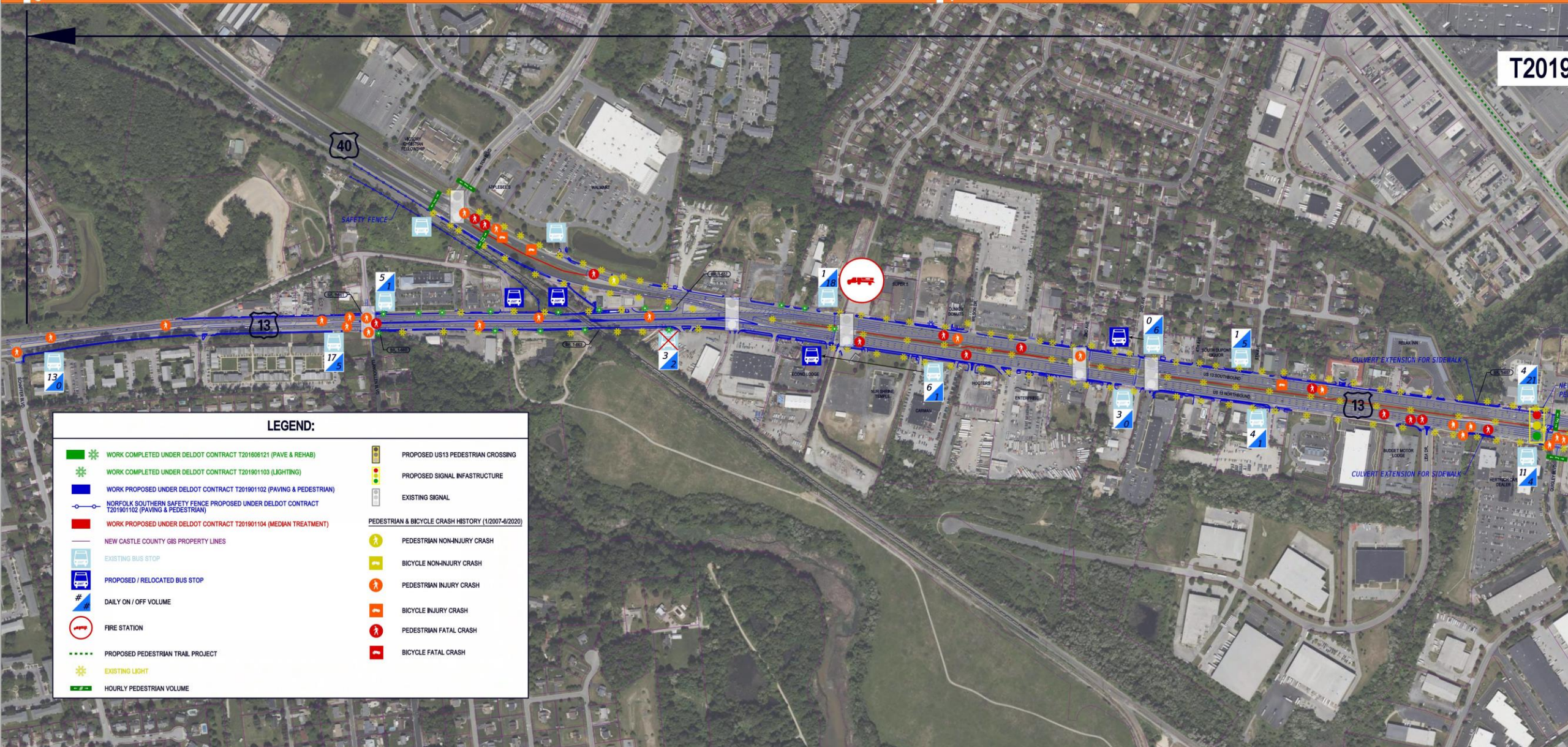


Hazeldell Ave Modifications

- **Hazeldell Ave Crossover to be converted to Emergency-Use Only (closed to public access)**
 - To remain open to Minquadale Fire Company
 - Meetings held with Minquadale Fire Co.
- **Convert Signal from Span Wire to Mast Arm Design**



IN CONSTRUCTION



Transit (DART) Improvements

- **DART Routes within the project corridor:**
 - **47** (DuPont Hwy / Christiana Mall Middletown)
 - **40** (Glasgow / Wilton)
 - **25** (Wrangle Hill-Wilmington Miller Rd Shopping Center)
 - **14** (Baylor – DHSS Campus Miller Rd Shopping Center)
 - **13** (Philadelphia Pike / DuPont Hwy)
- **Existing Stops: 41**
- **Relocated/Consolidated Stops: 6**
- **Removed Stops: 4**
- **New Stops: 4**
- **US 13 Northbound BBRT**
 - Lincoln Ave to I-495 implemented
 - Llangollen Blvd to Lincoln Ave to be installed as part of Pedestrian Improvement project
- **US 13 Southbound BBRT**
 - Boulden Blvd to US 40 to be installed as part of Pedestrian Improvement project
 - I-495 to Boulden Blvd to be installed as future project



What is a BBRT Lane?

- **Bus / Bike / Right-Turn (BBRT) Lane**

- Existing Locations in Delaware:
 - US 13 Northbound: Quigley to SR 273 (Recently Installed)
 - US 13 Northbound : Lincoln Avenue to I-495 (Recently Installed)
 - SR 1 Northbound & Southbound (in Sussex County)
- Reduces run times for DART vehicles
- Pavement Markings installed throughout limits of BBRT Lane
- Bus Queue-Jump Signals installed at 4 intersections along US 13 to permit DART buses to “jump ahead” of traffic.





- **Contract T201901104: US 13 Median Treatments**

- US 40 to I-495
- In Construction
 - *Began August 2023*
 - *Anticipated Completion Summer/Fall 2024*



Project Website

- **Contract T201901102: US 13 Paving & Pedestrian Improvements**

- Schafer Blvd to Boulden Blvd
- Anticipated Construction: 2024 – 2026
 - *Construction to follow US 13 Median Treatments*



Thank You!

QUESTIONS?