

# **Acknowledgements**

# **Management Committee Members**

Wilmington Area Planning Council (WILMAPCO)

Delaware Department of Transportation (DelDOT)

New Castle County Department of Land Use

Delaware Transit Corporation (operating as DART First State)

**Delaware Greenways** 

### **Steering Committee Members**

City of Wilmington

Claymont Renaissance Development Corporation (CRDC)

Council of Civic Organizations of Brandywine Hundred (CCOBH)

Delaware Department of Natural Resources and Environmental Control (DNREC)

Delaware Office of State Planning Coordination

East Coast Greenway Alliance

New Castle County Chamber of Commerce

Land owners, businesses, civic entities, and elected officials

# Consultant

Whitman, Requardt & Associates, LLP

Endorsed by WILMAPCO on January 14, 2021

The preparation of this document was financed in part with funds provided by the Federal Government, including the Federal Transit Administration and the Federal Highway Administration of the United States Department of Transportation.

**Governor Printz Boulevard Corridor Study** 

# Who is WILMAPCO?

Wilmington Area Planning Council or WILMAPCO is the metropolitan planning organization (MPO) for Cecil County, Maryland and New Castle County, Delaware. As the federally designated Metropolitan Planning Organization or MPO, WILMAPCO is charged with planning and coordinating transportation investments for the region based on federal policy, local input, technical analysis, and best practices. Bringing local government, state transportation agencies, and the public together into the transportation decision-making process, WILMAPCO develops a variety of plans and programs, including corridor plans like the Governor Printz Boulevard Corridor Study. These plans seek solutions that address current and future needs including improvements for driving, walking, bicycling, public transit, and freight travel.

# **Contents**

Introduction and Purpose of Study	I
Study Area	1
Existing Conditions	3
Land Use	3
Zoning	3
Potential Future Land Use	5
Demographics	7
Planning and Environmental Linkages (PEL)	8
Transportation Network	12
Prior Studies	22
Public Outreach	24
Advisory Committee Meeting 1	24
Advisory Committee Meeting 1Public Workshop 1 & Online Survey	
,	25
Public Workshop 1 & Online Survey	25 26
Public Workshop 1 & Online Survey  Advisory Committee Meeting 2	25 26 26
Public Workshop 1 & Online Survey	25 26 26 27
Public Workshop 1 & Online Survey	25 26 26 27
Public Workshop 1 & Online Survey	25 26 26 27 27
Public Workshop 1 & Online Survey	2526272727

	Constraints	28
Α	Iternatives Considered	29
	Alternative 1a and 1b	30
	Alternative 2a and 2b	32
	Alternative 3	34
	Additional Considerations	36
	Alternative Comparison	44
L	ocally Preferred Alternative	46
	Description	46
	Implementation	48

# **Appendices**

- Appendix 1 Public Workshop 1 and Public Feedback
- Appendix 2 Advisory Committee Meeting 2 and Minutes
- Appendix 3 Public Workshop 2 and Survey Results
- Appendix 4 Existing Site Constraints
- Appendix 5 Alternatives Travel Time Analysis
- Appendix 6 Locally Preferred Alternative Concept Plans
- Appendix 7 Planning and Environmental Linkages Checklist
- Appendix 8 Final Public Comments

# **Figures**

Figure 1. Study area map	2
Figure 2. Existing land use map	4
Figure 3. Delaware Strategies for State Policies and Spending a	anc
Delaware Opportunity Zones map	
Figure 4. Population and employment projections map	7
Figure 5. Environmental and cultural resources map	9
Figure 6. Forest, wetlands, and floodplain map	.10
Figure 7. Coastal inundation map	
Figure 8. Map showing average daily traffic (AADT) and Level	0
service (LOS) (on page 12 and 13)	.14
Figure 9. Map of existing sidewalks, trails, parks and open space.	.16
Figure 10. Bicycle Level of Traffic Stress (LTS) descriptions	
Figure 11. Bicycle LTS map	
Figure 12. Existing DART bus routes and stops map	
Figure 13. Portable Transit Score Map	
Figure 14. Management and Advisory Committee members dur	
the bus tour of the project area	. 24
Figure 15. Members of the public during the public worksh	
presentation	
Figure 16. Screenshot from online public workshop	
Figure 17. Rendering of improvements at the Gulftainer Port at east end of Edgemoor Road	the .27
Figure 18. Governor Printz Boulevard existing conditions typi	ica
section	
Figure 19. Alternative 1a and 1b pros and cons	.30
Figure 20. Alternative 1a and 1b typical section with existing sect	ior
for comparison	
Figure 21. Alternative 2a and 2b pros and cons	.32
Figure 22. Alternative 2a and 2b typical section with existing sect for comparison	tior .33
Figure 23. Alternative 3 typical section with existing section	
1	

Figure 24. Cross-street crossing example. Source: Small Town and
Rural Design Guide36
Figure 25. Mid-block crossing of the Jack A. Markell Trail at Boulden
Boulevard in New Castle, DE
Figure 26. Fox Point Park connection opportunities
Figure 27. Aerial photograph showing infrastructure in the vicinity of
Stoney Creek. Source: Google Maps
Figure 28. Norfolk Southern Bridge looking northwest up Stoney
Creek
Figure 29. Proposed trail connection between Bellevue State Park
and Fox Point State Park (shown by dotted line). Basemap source
Northern Delaware Greenways39
Figure 30. Trail approach to Route 26 underpass along Assawoman
Canal39
Figure 31. Trail under Route 26 along Assawoman Canal39
Figure 32. Photograph showing Lighthouse Road sidewalk and I-495
off ramp looking north toward Fox Point State Park entrance40
Figure 33. Proposed Fox Point State Park Connection at Edgemoor
Road41
Figure 34. Claymont Regional Transportation Center site rendering
showing shared use path42
Figure 35. Connectivity recommendations from the North Claymont
Area Master Plan43
Figure 36. Alternative cost and implementation comparison44
Figure 37. Morning travel time analysis between Princeton Avenue
and Edgemoor Road45
Figure 38. Evening travel time analysis between Princeton Avenue
and Edgemoor Road45
Figure 39. Diagram comparing alternatives to existing
conditions45

# **Introduction and Purpose of Study**

The Wilmington Area Planning Council (WILMAPCO) partnered with the Delaware Department of Transportation (DelDOT), New Castle County (NCC), Delaware Transit Corporation operating as DART First State (DART), and Delaware Greenways to conduct the Governor Printz Boulevard Corridor Study.

The purpose of the study was to improve multimodal mobility, safety, and travel choices while supporting sustainable economic development and enhanced neighborhood vitality. The study identified and assessed the feasibility of multimodal transportation projects that will accommodate current and future transportation and land use needs, including roadway, transit, and nonmotorized travel including the East Coast Greenway.

This study was informed by a number of previous efforts. Including the East Coast Greenway Plan (2003), the Claymont Transportation Plan (2003), the Claymont-Cauffiel Connector Memo (2017), and the North Claymont Area Master Plan (2017).

This report provides a description of the study process, existing conditions, anticipated future conditions, and transportation needs. It presents alternatives considered to address those needs, as well as recommendations for improving multimodal transportation along the Governor Printz Boulevard corridor. Lastly it provides guidance on implementation.

# **Study Area**

The study area, shown in **Figure 1**, extends 6.2 miles from US 13, Philadelphia Pike at the entrance to the Claymont Regional Transportation Center to East 35<sup>th</sup> Street and the Northeast Boulevard at the City of Wilmington Line.

Governor Printz Boulevard is a four-lane minor arterial that parallels I-495. Traffic volumes range from about 5,000 vehicles per day at the northern end to over 20,000 vehicles per day between Bellevue Road and Edgemoor Road.

Southern portions of the corridor are served by DART Route 4 and 14. The corridor is identified as the planned East Coast Greenway route between the current Claymont Train Station and the Northern Delaware Greenway near Cauffiel Parkway. Most of the corridor has shoulders or marked bicycle lanes. There are very few sections with sidewalks and very few crosswalks.

Overlooking the Delaware River, the corridor has a broad mix of residential, park, commercial, industrial, and institutional land uses. The northern section from south of Winding Lane to Philadelphia Pike and the south end south of Lore Avenue are designated as Opportunity Zones, an economic development designation described on page 5.



Figure 1. Study area map

# **Existing Conditions**

Understanding existing conditions along Governor Printz Boulevard allows for the identification of issues, opportunities, and constraints for potential transportation improvements along the corridor.

#### **Land Use**

As shown in **Figure 2**, the Governor Printz Boulevard corridor is lined by a mix of single and multi-family homes, as well as commercial areas including Merchants Square and numerous small businesses. Nearby Philadelphia Pike serves as the "Main Street" for the surrounding communities.

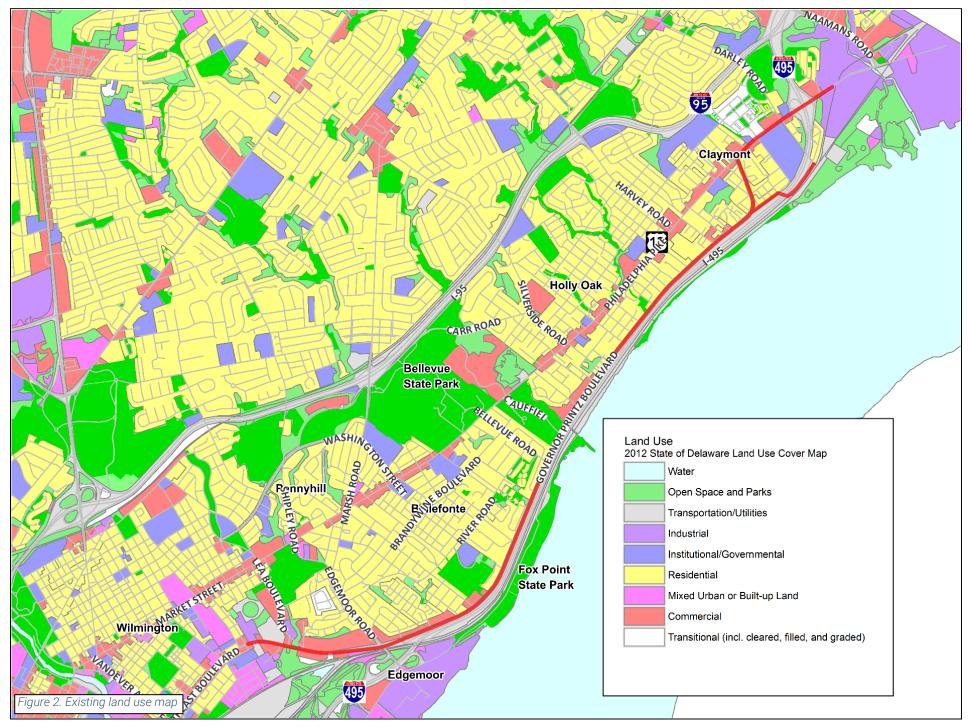
Redeveloping industrial areas in Edgemoor and north Claymont bookend the study area. State parks define the character of the corridor's center, with Fox Point to the southeast and Bellevue to the northwest.

# Zoning

Zoning northwest of Governor Printz Boulevard is primarily single family and multifamily classifications. Several parcels have commercial or office zoning classes. The ends of the study area have primarily industrial zoning.







#### **Potential Future Land Use**

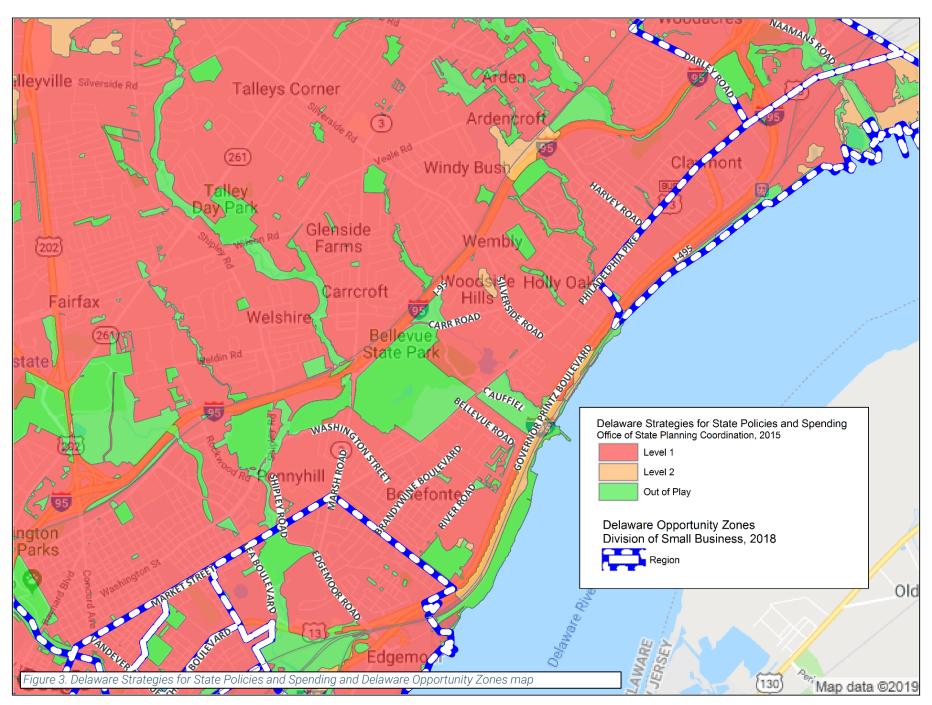
State policies promote growth and economic development activities along the corridor. Most of the corridor is designated as "Investment Level 1" by the Delaware Strategies for State Policies and Spending. Opportunity Zones have been designated in north Claymont and the greater City of Wilmington area, including Edgemoor, as shown in Figure 3.

# Strategies for State Policies and Spending

Required by Delaware Code, the Strategies for State Policies and Spending coordinate land-use decision-making with the provision of infrastructure and services in a manner that makes the best use of natural and fiscal resources. Investment Level 1 Areas are often municipalities or urban/urbanizing places in unincorporated areas. In Investment Level 1 Areas, investments and policies should support and encourage a wide range of uses and densities, promote a variety of transportation options, foster efficient use of existing public and private investments, and enhance community identity and integrity. Overall, it is the State's intent to use its spending and management tools to maintain and enhance community character, to promote well-designed and efficient new growth, and to facilitate redevelopment in Investment Level 1 Areas. These areas would be a prime location for designating "pre-permitted areas" to help steer development where the local government and citizens are most prepared to accept it.

#### **Opportunity Zones**

Opportunity Zones are an economic development tool designed as revitalization programs in economically distressed communities in Delaware by providing tax benefits to investors. In 2018, eight areas (with a total of 25 census tracts) were designated as Opportunity Zones across Delaware, including two in the Governor Printz Corridor Study Area: (1) the former DuPont Edge Moor site that will be part of the Gulftainer Port of Wilmington expansion, and (2) the former Claymont Steel site that is being redeveloped by Commercial Development Corporation as a mixed-use facility anchored by the new Claymont Regional Transportation Center built by DART. These Opportunity Zones were designated by the U.S. Department of the Treasury and the hope is that they will see additional private sector investment and redevelopment thanks to tax incentive available to developers.



# **Demographics**

# **Population Density**

Population in the study area is most dense at the southern end of the corridor adjacent to the City of Wilmington and at the northern end of the corridor at Claymont. Most of the neighborhoods along the corridor are single family houses, with a few condominium and apartment buildings scattered throughout.

#### Population and Employment Projections

A TAZ, or traffic analysis zone, is an area delineated by state and/or local transportation officials for tabulating traffic-related dates, especially journey-to-work and place-of-work statistics. A TAZ usually consists of one or more census blocks, block groups, or tracts. Residential population and number of employees by TAZ, both existing and projected for 2050, are noted in **Figure 4**.

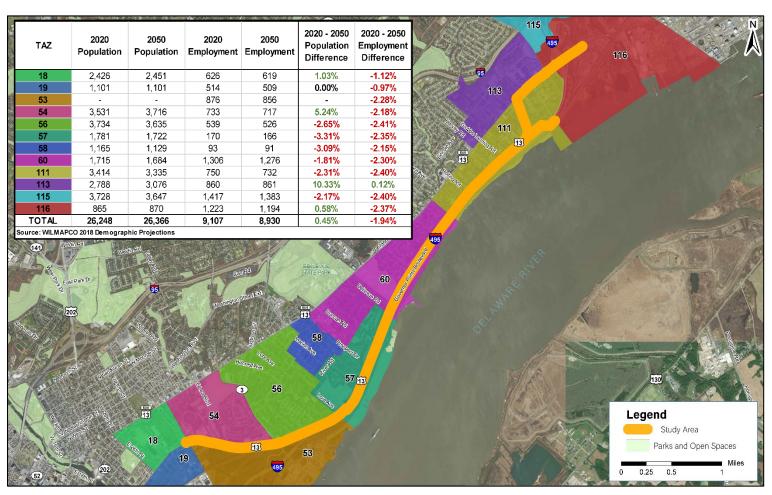


Figure 4. Population and employment projections map

# Planning and Environmental Linkages (PEL)

During the preparation of the existing constraints document, potential impacts to natural, cultural, and socioeconomic resources were also considered. This step helps ensure that projects recommended in this plan are eligible for future Federal funding under the National Environmental Policy Act (NEPA).

Two elements of this study will be directly applicable in the development of environmental documentation under NEPA: purpose and need and environmental inventory.

#### Purpose and Need

According to the Federal Highway Administration, "the purpose and need of a project is essential in establishing a basis for the development of the range of reasonable alternatives ... and assists with the identification and eventual selection of a preferred alternative."

The **purpose** of the Governor Printz Boulevard project is to provide improved safety, comfort, and connectivity for all modes of travel.

The **need** for the Governor Printz Boulevard project is based on the following elements:

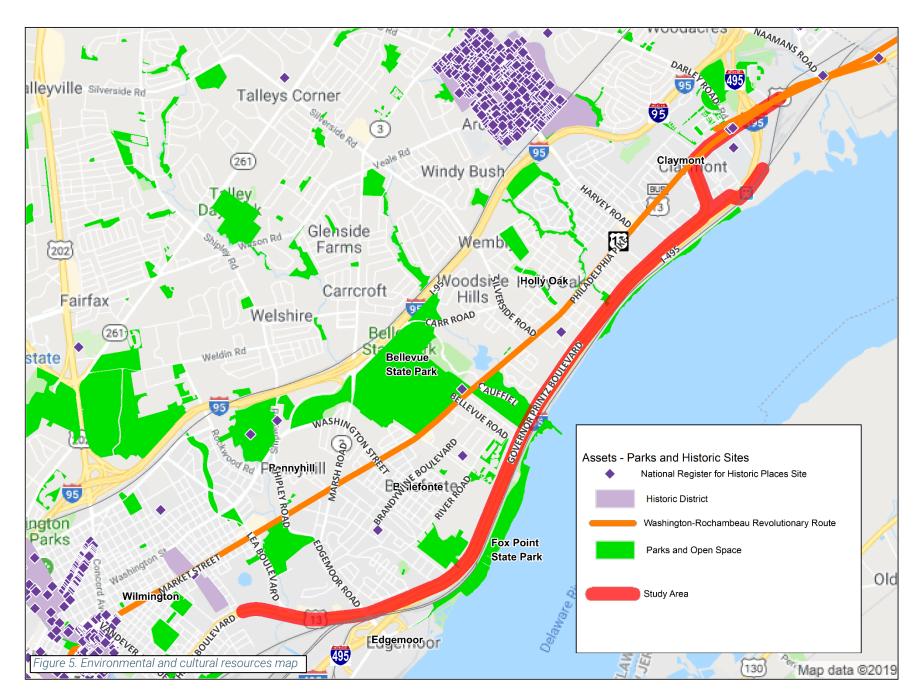
- Lack of low-stress bicycle facilities throughout the corridor
- Lack of sidewalks and crosswalks in most parts of the corridor
- Discontinuous walking and bicycling access to transit stops and to the proposed Claymont Regional Transportation Center at the north end of the study area
- Lack of multimodal access to Fox Point State Park

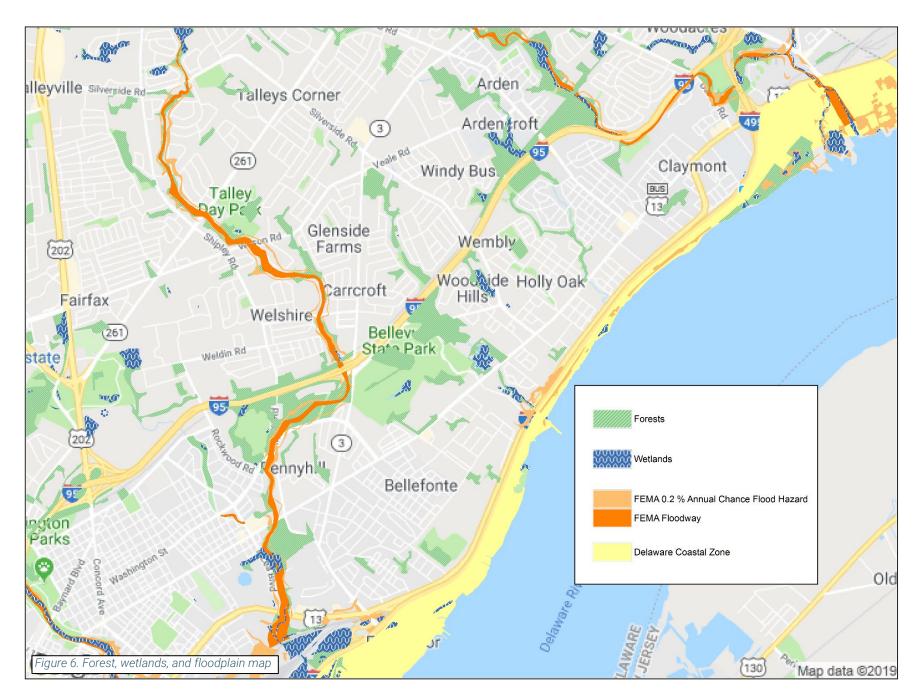
#### **Environmental Inventory**

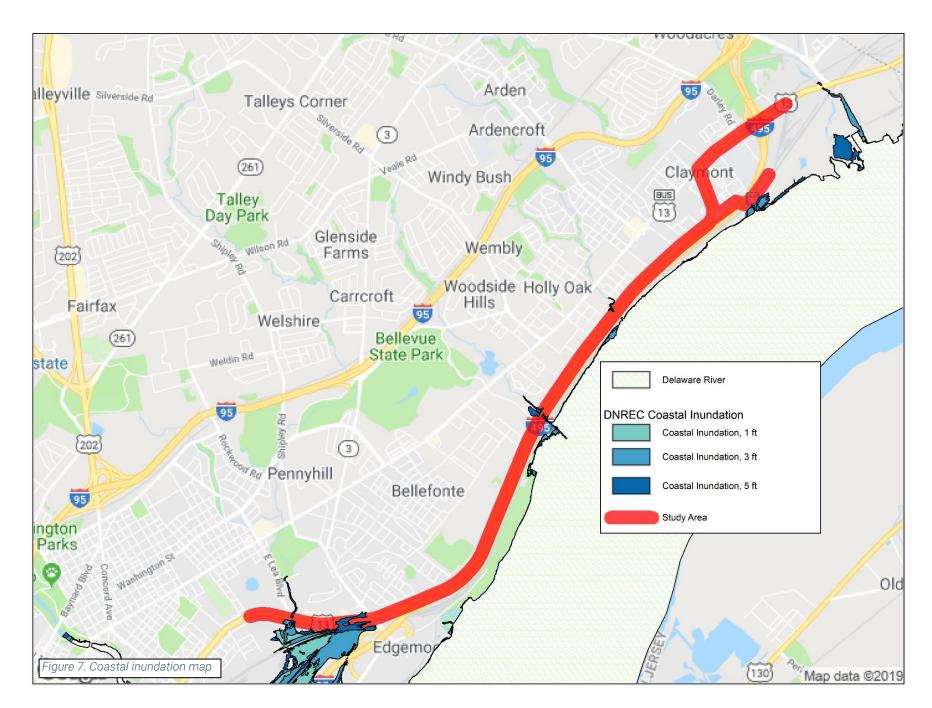
WILMAPCO compiled the following maps of resources in the study area to enable a cursory evaluation of potential impacts:

- Environmental and cultural resources map (Figure 5)
- Forest, wetlands, and floodplain map (Figure 6)
- Coastal inundation map (Figure 7)

Additional evaluation will be needed as the project is initiated and the NEPA process begins.







# **Transportation Network**

Governor Printz Boulevard has four lanes and a grass or concrete median, and generally lacks curbs. There are 25 median openings/crossovers within the limits of the study. There is limited lighting along the corridor with the exception of some intersection lighting at Cauffiel Parkway, the Ryder driveway, Holly Oak Road, East Delaware Avenue, Brookview Avenue, Forrest Avenue, Pyramid Avenue, and Chapel Avenue.

A fence along the east side of Governor Printz Boulevard separates the roadway from I-495. This fence is approximately eight feet from the edge of road at the southern limits, with that separation widening to approximately 16 feet between Holly Oak Road and East Delaware Avenue. The fence represents the denial-of-access line for I-495 and constitutes a critical constraint for development of a trail or sidewalk on the southeast side of Governor Printz Boulevard.





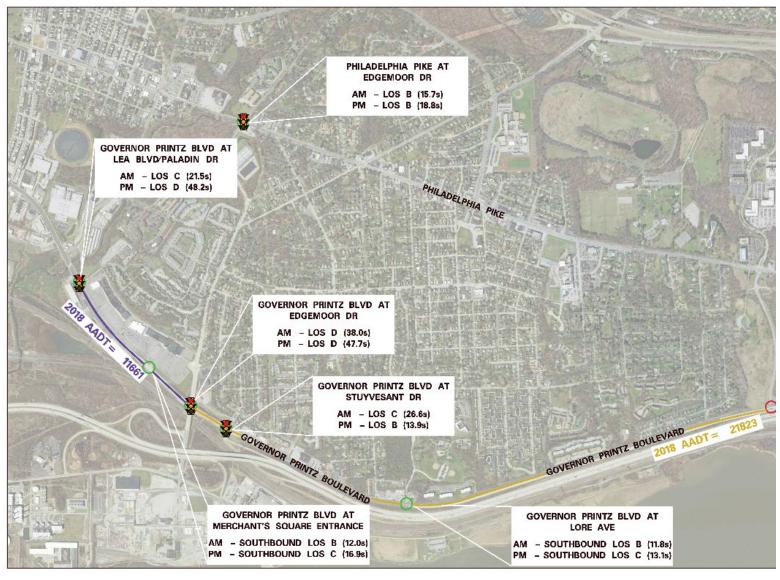
#### Vehicular Traffic

The speed limit on Governor Printz Boulevard is 50 miles per hour south of Yale Avenue and 40 miles per hour north of Yale Avenue. The segment of Governor Printz Boulevard north of where US 13 bears west towards Philadelphia Pike is posted at 25 miles per hour, but field observations suggest that this limit is routinely exceeded.

According to the 2018 DelDOT Traffic Summary, the annual average daily traffic (AADT) within the site limits is 6,378 south of Grubbs Landing Road and 5,027 north of Grubbs Landing Road.

The most travelled portion of the Governor Printz Boulevard study area is the southwest end, approaching the City of Wilmington. Here, the 2018 DelDOT Traffic Summary shows volumes ranging from 11,661 to 21,823 vehicles per day. This likely reflects the concentration of traffic to and from the I-495 ramps. The route is also envisioned as a potential detour in case of an incident on I-495.

Analysis done for this study generated level of service for signalized intersections along and adjacent to the corridor, as shown in **Figure 8** on pages 12 and 13 below. These figures were also used as the basis for the travel time impacts generated for each proposed alternative described on page 41.



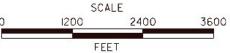
**LEGEND** 



Figure 8. Map showing average daily traffic (AADT) and Level of service (LOS) (on page 12 and 13)



SECONDS) AADT: ANNUAL AVERAGE DAILY TRAFFIC



### Pedestrian and Bicycle Facilities

There are existing sidewalks scattered along the corridor however there is not a continuous pedestrian connection, especially between Philadelphia Pike and Governor Printz Boulevard as shown in the map in **Figure 9**.

There is a 280-foot stretch of sidewalk on the east side of the Governor Printz Boulevard Extension immediately adjacent to the

Regional Transportation Center development.

Existing trails that are part of the adjacent park network are highlighted below in Figure 9 and Figure 11 in blue.

end of the Claymont station pedestrian bridge, running from

opposite Castle Avenue to opposite Chapel Avenue. Lighting is

provided along the Claymont station pedestrian bridge. This bridge

will tie into a planned shared use path that is part of the Claymont

The East Coast Greenway connects
15 states and 450 cities and towns
for 3,000 miles from Maine to
Florida using a planned route
protected from motor vehicle traffic.
To date, approximately 66 percent
of Delaware's planned route is
complete, including the Northern
Delaware Greenway. Governor
Printz Boulevard is envisioned as a
future link in the East Coast
Greenway. Learn more at

www.greenway.org.

The 10.4-mile Northern Delaware Greenway links Bellevue State Park and the City of Wilmington through a series of trails through some of the most beautiful landscapes in Delaware, currently ending shortly before the Governor Printz Boulevard. Designated a National Recreation Trail in 2013, it links 1,200 acres of valued green space and provides recreation and transportation for residents and visitors. Learn more at www.delawaregreenways.org.

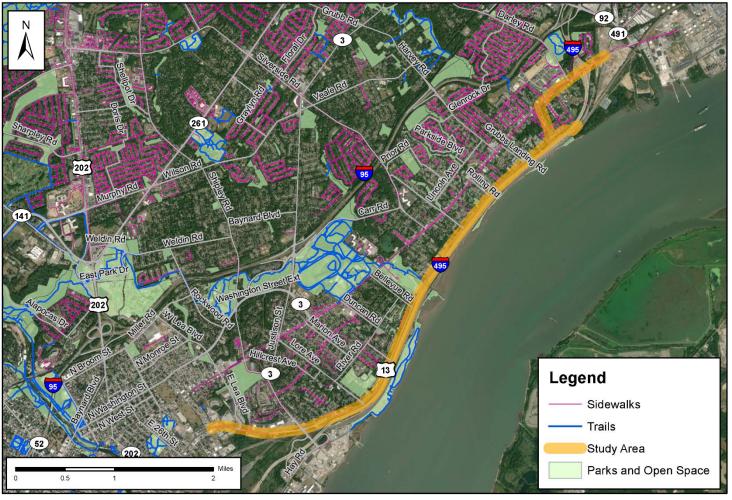


Figure 9. Map of existing sidewalks, trails, parks and open space

#### Bicycle Level of Traffic Stress

Level of Traffic Stress (LTS) 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. It analyzes the total connectivity of a network to evaluate how many destinations can be accessed using low-stress routes. **Figure 10** provides a description of each level

This explanation of LTS is from the *Blueprint for a Bicycle-Friendly Delaware: A Statewide Policy Plan*. The *Blueprint* requires that bicycle plans and projects seeking state funding be developed through a locally driven planning process to ensure that investment is driven by local needs and priorities. The state will prioritize locally-driven projects to ensure that they are cost-effective, feasible, and connected to regional and statewide networks. Using LTS analysis, we can identify how to best create an interconnected network.

Currently, the Northern Delaware Greenway Trail terminates north of Governor Printz Boulevard at Cauffiel Parkway. To continue north or south, cyclists must use the roadway shoulders, which are marked as on-road bicycle facilities. Due to high vehicular speeds, the entire corridor from Wilmington City limits to Philadelphia Pike is considered an LTS 4 as shown in the map in **Figure 11**.

The North Claymont Area Master Plan recommends providing lowstress bicycle facilities along Philadelphia Pike to improve connectivity to the future Claymont Regional Transportation Center. A future study should be considered to connect Claymont to north Claymont along Philadelphia Pike.

Closing this gap in the low-stress bicycle network to connect with area transit, businesses, residences, the City of Wilmington to the south, and trail investments north of the Delaware line is a priority for the partners in this study.

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 10. Bicycle Level of Traffic Stress (LTS) descriptions



#### **Transit Facilities**

As shown in the map in **Figure 12**, Governor Printz Boulevard is served directly by DART bus transit; DART Route 4 serving the southern end, and DART Route 14 serving a small area adjacent to Wilmington city limits. At the northern section of the study area, Routes 31 and 61 serve the Claymont Train Station and Routes 13 and 31 serve Philadelphia Pike.

The busiest stop along the corridor is on Kynlyn Drive near Prospect Drive, serving the Village of Fox Point Apartments off Governor Printz Boulevard. The bus stop at the Claymont Train Station is also heavily used.

Portable Transit Score assesses the appropriateness of various intensities of transit service throughout its planning region. The methodology was adapted by WILMAPCO to assess important requisites for various intensities of transit service and assigns a value or score to traffic analysis zones for current conditions and those expected in the future. A transit score for a particular zone is based on three factors—gross population densities, jobs, and zero-car households per acre. The City of Wilmington's conditions support the greatest intensity of transit services. Along the study corridor, most TAZs support moderate to frequent bus transit, as shown in the map in **Figure 13**.

Amenities provided at bus stops are determined by average daily boardings. For areas with a lower population density, the thresholds are lowered. The specific standards and guidelines are stated in DART's Bus Stop and Passenger Facilities Policy. Generally, if a bus stop has over 40 average daily boardings, it qualifies for a bus shelter. In medium population density areas (between 900 and 3,000 people per square mile) the threshold is lowered to 20 average daily boardings, and for low population density areas (less than 900 people per square mile) the threshold is lowered to 10 average daily boardings. Requirements for a bench at a bus stop are half the requirements for a shelter.

The existing Claymont Rail Station is located northeast of the Governor Printz Boulevard study area on the other east side of I-495. It is only directly accessible from Governor Printz by pedestrians using the pedestrian bridge over I-495. Vehicular traffic accesses the station from Philadelphia Pike via Myrtle Avenue. The station is situated on a curved section of the track, making full ADA compliance impossible. Parking is constrained and there are minimal passenger amenities. A new station site was made available as part of a new multipurpose industrial and commercial center to be known as First State Crossing. The new Claymont Regional Transportation Center, currently under development, is further described on page 40.



Figure 12. Existing DART bus routes and stops map



#### **Prior Studies**

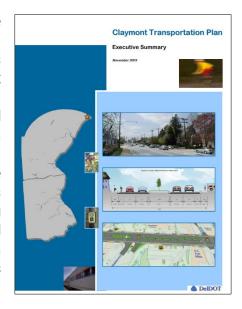
Several prior studies informed the project team's understanding of the area and the development of alternatives.

#### Claymont Transportation Plan - 2003

The Claymont Transportation Plan (CTP) was initiated in 2001 after DelDOT identified the intersection of Harvey Road and Philadelphia Pike in Claymont for safety improvements. The focus of the study was Philadelphia Pike from I-495 in the north to Rolling Road in the south.

The vision of the Claymont Transportation Working Group was to "...implement transportation improvements along historic Philadelphia Pike that will help transform it into a revitalized Claymont with a discernable center. A functional and attractive transportation system will allow people to safely and conveniently walk, bicycle, drive and ride transit to places where people live, work, shop, learn, worship and recreate in a vibrant compact mixed-use community."

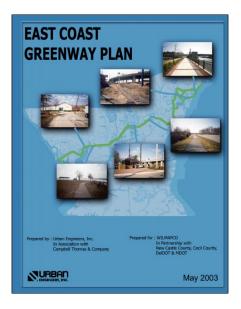
highlights This plan the importance of multimodal transportation improvements for the economic development of the Claymont community. Governor Printz Boulevard intersects with Philadelphia Pike in the heart of Claymont. Connectivity across the entire transportation network critical part of increasing transportation options and improving mobility for area residents and business patrons.



#### East Coast Greenway Plan - 2003

The East Coast Greenway Plan was developed by WILMAPCO to identify how to complete the East Coast Greenway Trail through the WILMAPCO region, which includes New Castle County, Delaware and Cecil County, Maryland. The plan calls for the following routes in the vicinity of the Governor Printz Boulevard study area:

- PA Line to Cauffiel Connector: sidepath on Route 13 will connect to a separated path between Governor Printz Boulevard and I-495
- Cauffiel Connector to Market Street Bridge: off-road path along Governor Printz will connect with the Northeast Boulevard to the Market Street Bridge



#### Claymont-Cauffiel Connector Memo - 2017

In 2017 a pro bono study explored the viability of the "Claymont-Cauffiel Connector" (CCC). The CCC is envisioned as a trail along Governor Printz Boulevard between the foot of the current Claymont train station bridge and Cauffiel Parkway. This work built on WILMAPCO's May 2003 East Coast Greenway Plan. This 2.25-mile segment is a key missing link in the East Coast Greenway, which is envisioned to continue north through the current Claymont station site (see the North Claymont Area Master Plan below) and along the Northern Delaware Greenway to the south.

The CCC study presented a range of East Coast Greenway route options for consideration. Six options provided for the Greenway, motor vehicle traffic, and the potential for green stormwater infrastructure within and along the right of way of Governor Printz Boulevard. These options included keeping the roadway as it is while adding a shared use path on one side and a sidewalk on the other, shifting the existing travel lanes, narrowing one shoulder, removing one lane from each direction of travel, and converting one direction of travel to a shared use promenade while retaining motor vehicle traffic on the other side. Planning-level cost estimates ranged from \$3.1 to \$9.2 million.

### North Claymont Area Master Plan - 2017

The North Claymont Area Master Plan (NCAMP) was developed in 2017 by WILMAPCO. Providing facilities for all modes of travel, including freight, was critical to the success of the NCAMP effort. This integrated land use and transportation plan created a preferred scenario that focused on mixed-use redevelopment of the vacant and underused sites in the study area - principally Claymont Steel and the Tri-State Mall. The organizing principle of the plan consists of two transportation corridors. The first is a new "spine road" that connects the Tri-State Mall, the Claymont Steel property, the existing Knollwood development, and a relocated Claymont train station (which is under development as of 2020). The second is a reimagining of Philadelphia Pike as an urban street. The East Coast Greenway would largely follow Philadelphia Pike from the Pennsylvania state line (where the Delaware Valley Regional Planning Commission, or DVRPC, is planning to reconfigure the roadway) to I-495. It would then continue on a new alignment along the edge of the new station property to the current station site.

Although Governor Printz Boulevard lies just outside the NCAMP study area, its long-term reconfiguration will be critical to the success of the East Coast Greenway. From the existing Claymont station side, the NCAMP envisioned the Greenway crossing the



NORTH CLAYMONT AREA MASTER PLAN FINAL REPORT JANUARY 2017

pedestrian bridge over I-495 to the Governor Printz Boulevard extension, from which it would continue southwest toward Wilmington.

### **Public Outreach**

The public's role in the development of this study was critical. Without public input and ideas, the planning partners cannot have a true understanding of a community's needs or develop a solution to fit those needs

All tasks in the study were performed in conjunction with a Management Committee composed of WILMAPCO, DelDOT, DART, the New Castle County Department of Land Use, and Delaware Greenways. An Advisory Committee comprised of community representatives including land owners, businesses, civic entities, and elected officials also provided input at key points in the study process as noted below.

The Management and Advisory Committees led the public outreach efforts for the Governor Printz Boulevard Corridor Study. The goal of the public outreach process was to elicit meaningful and useful input to establish ideas, opportunities, concerns and issues in the development of the corridor study.

# **Advisory Committee Meeting 1**

November 6, 2019

The goal for the initial meeting of the Management Committee and Advisory Committee was to foster understanding of the wide range of factors that impact land use and transportation decisions along the corridor.

To achieve that level of understanding the first meeting was dedicated to a bus tour of the study area. Participants met at Claymont Public Library. Stops on the tour included the following:

- Robinson House (northern limit of study area)
- Intersection of Philadelphia Pike and Governor Printz Boulevard
- Governor Printz Boulevard Extension at train station pedestrian bridge

- Intersection of Cauffiel Parkway and Governor Printz Boulevard
- Rysing Drive off Governor Printz Boulevard
- Merchant Square
- Intersection of E. 35<sup>th</sup> Street and Governor Printz Boulevard
- Fox Point State Park

The tour was effective at fostering a deeper level of understanding of the needs, challenges, and opportunities throughout the study area.



Figure 14. Management and Advisory Committee members during the bus tour of the project area

# Public Workshop 1 & Online Survey

January 29, 2020

The visioning workshop was held on Wednesday, January 29 from 5:00 to 8:00. Eighty-one people attended the workshop.

The goal for the visioning public workshop was to gather a diverse and representative group of stakeholders to identify ideas, opportunities, issues, and constraints that would lead to the development of priorities for the corridor.

The first hour of the workshop was an open house. Attendees had the opportunity to sign in and view information related to existing conditions along the corridor with project representatives. Areas of focus included:

- Land use
- Key resources
- Population and employment projections
- Existing infrastructure for people walking, bicycling, or taking transit
- Vehicular traffic

At 6:00 project representatives presented additional background information regarding existing conditions. Development planned in the vicinity of Governor Printz Boulevard was also reviewed.

At 6:30 participants broke into small groups to identify and prioritize goals for each user group – people who walk, bicycle, take transit, and drive. Major priorities identified included making a walking and bicycling connection to Fox Point State Park and providing protected facilities for people who walk and bicycle along Governor Printz Boulevard.

The majority of attendees at the public workshop were in favor of a road reconfiguration, or reducing the number of vehicular lanes to slow speeds and make more room for people walking or bicycling along the corridor.

After the workshop, the presentation and feedback received were posted on the project website, along with an online survey. During the month of February 75 people took the survey. Participants were asked to prioritize improvements identified at the public workshop.

The online survey affirmed that the majority of participants are interested in improved access to Fox Point State Park, along with improved facilities for walking and bicycling along Governor Printz Boulevard. A big difference was that online survey participants prioritized maintaining the capacity of the existing roadway.

The information from the first meeting including the presentation, boards, and feedback, and online survey results were made available on the project website. Workshop materials and results are available as Appendix 1 – Public Workshop 1 and Survey Results.



Figure 15. Members of the public during the public workshop presentation

# **Advisory Committee Meeting 2**

June 1, 2020

The second Advisory Committee Meeting was held on June 1, 2020. Due to the COVID-19 pandemic, the meeting was held via videoconference instead of in person.

Advisory Committee members were provided with a summary of existing conditions in advance of the meeting. The agenda included the following:

- Study background and purpose
- Public outreach overview
- Draft goals and objectives
- Draft evaluation criteria
- Existing conditions and constraints
- Concept development and alternatives

The meeting materials are included as Appendix 2 – Advisory Committee Meeting 2 and Minutes. Seven alternatives were presented to the group for review and comment. The main action item after the meeting was narrowing down the list of alternatives for consideration by the public at the second public workshop.

# Online Public Workshop 2 & Online Survey

September 21, 2020

The second public workshop was held on September 21, 2020. Due to the COVID-19 pandemic, the meeting was held via webinar instead of in person.

The online workshop began with introductions and a presentation at 7:00 and was followed by a moderated question and answer period. Attendees were able to enter questions into the questions box at any time during the presentation. The presentation included the following:

- Study background and purpose
- Public outreach overview

- Objectives
- Existing and future conditions
- Fox Point Park concept development
- Alternatives review and comparison

The public had a lot of questions for panelists, but all were able to be addressed during the question and answer period.

After the online public workshop, the recorded presentation was posted on the project website, along with an online survey. Participants were asked to rank the alternatives in order of their preference. Between the date of the workshop and October 21, 38 people took the survey. Meeting materials and the online survey results are available in full as Appendix 3 – Public Workshop 2 and Survey Results.

The online survey affirmed that the majority of participants are interested in improved conditions for walking and bicycling and are in favor of a path separated from motor vehicle traffic. It also confirmed that slowing speeding traffic is a priority. There was no single alternative preferred by the public.

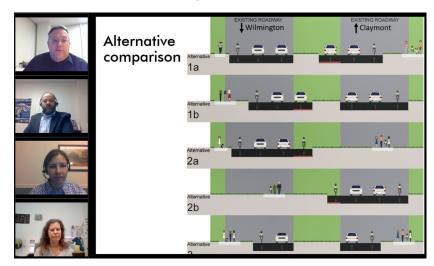


Figure 16. Screenshot from online public workshop

# **Anticipated Future Conditions**

### **New Castle County Future Land Use**

The 2012 New Castle County Comprehensive Development Plan provides a blueprint for future development and redevelopment. The Comprehensive Plan shows future land use as a mix of heavy industrial, commercial/office, and residential with a mix of densities. The Plan is updated every ten years, with the next update due in 2022. New Castle County has already begun the update process and will incorporate the results of this, and other recent corridor and area master plans, into the Comprehensive Plan.

### **Economic Development**

Future redevelopment through the First State Crossing and Gulftainer Port projects promise new jobs for the region. Improvements have been underway, and are expected to continue, at Darley Green and Merchants Square. Several of these projects will create new destinations and increased demand for alternative transportation options. While we know what the specific impacts to the corridor will be for some of these improvements, others such as the port development are still being planned.

These developments may result in increased vehicular traffic volume. Multimodal traffic operations at the closely-spaced signalized intersections at the I-495 ramps and Edgemoor Road will require careful consideration, as will the unusually-configured "triangle" intersection where Governor Printz Boulevard meets Lea Boulevard. Further southwest, Northeast Boulevard (as Governor Printz Boulevard is known after it crosses the Wilmington city line) is envisioned as part of the Coordinated Bike Route Network in the City of Wilmington Bike Plan, which was completed in August 2019.

Future redevelopment through the First State Crossing and Gulftainer Port projects promise new jobs for the region. Improvements have been underway and are expected to continue at Darley Green and Merchants Square.



Figure 17. Rendering of improvements at the Gulftainer Port at the east end of Edgemoor Road

# **Summary of Transportation Needs**

### **Objectives**

Objectives were developed based on the feedback received from the Advisory Committee, attendees at Public Workshop 1, and the first online survey. Because the purpose of the study is to improve mobility, safety, and travel choices for all modes, objectives were grouped by type of user.

#### People who walk:

- Provide continuous separated sidewalks or paths along the entire corridor
- Provide pedestrian access to Fox Point State Park
- Improve pedestrian access to nearby destinations

#### People who bicycle:

- Provide low-stress bicycle facilities (LTS 1-2) along the entire corridor
- Provide low-stress bicycle access to Fox Point Park
- Improve bicyclist access to nearby destinations

#### People who take transit:

- Provide additional bus stops along the corridor
- Provide shelters for bus stops along the corridor
- Improve access to Claymont Train Station for transit users

#### People who drive:

- Slow down speeding vehicular traffic
- Evaluate the best way to allocate roadway space to vehicular traffic

#### All users:

- Improve lighting
- Green the corridor
- Improve stormwater management

#### **Constraints**

To aid in the assessment of the corridor and preparation of evaluation criteria, a plan view diagram was developed that notes site constraints. This plan was developed using aerial photographs, GIS data, and measurements taken during site visits. Survey was not performed in the preparation of this report. Constraints noted include:

- Resources identified through the PEL study
- Guardrails/retaining walls
- Bridge crossings
- Culverts
- Drainage features
- Overhead utilities
- Intersections
- Private driveways
- Clearance from I-495

The resulting plans are available as **Appendix 4 – Existing Site Constraints**.

There are many planned projects adjacent to and directly within the corridor, which were also taken into consideration during the development of the alternatives.

# **Alternatives Considered**

Alternatives were developed based on input received during the visioning process and a broad initial search of past comprehensive planning efforts and studies undertaken by planning partner agencies including the 2003 East Coast Greenway Plan, the 2003 Claymont Transportation Plan, the 2017 CCC memo, the 2017 North Claymont Area Master Plan, and ongoing development of the Claymont Regional Transportation Center.

The alternatives are based on prevailing DelDOT and national guidance on configuration of roadways and multimodal facilities. This includes DelDOT's Road Design Manual, NACTO Urban Street Design Guide and Urban Bikeway Design Guide, AASHTO Guide for the Development of Bicycle Facilities, and various FHWA guidance documents.

All proposed alternatives meet the objectives described on page 26 and include a shared use path separated from vehicular traffic for people who walk and bicycle.

Governor Printz Boulevard is a four-lane divided highway with a right-of-way width varying between 100 and 120 feet. A typical section is shown in **Figure 18**. There are paved shoulders on both sides of the highway and a grass median that varies in width. Three alternatives were developed with variations that show improvements in both the northbound and southbound direction. Each proposed alternative can fit within the narrower 100-foot right-of-way width. Over the length of the corridor, the "typical" section shown below varies.

For the purposes of this study, the corridor was split up into multiple zones based on roadway character and traffic volumes for analysis. The north zone is located between Governor Printz Boulevard Extension and Cauffiel Parkway. The south zone is located between Cauffiel Parkway and Edgemoor Road. The northernmost and southernmost areas are described as connection zones, for which treatments will be considered after the preferred alternative is further designed.



Figure 18. Governor Printz Boulevard existing conditions typical section

#### Alternative 1a and 1b

Alternatives 1a and 1b, shown in **Figure 20**, are the only alternatives that maintain all four lanes of traffic, but do so by converting space from the wide center median to new roadway in order accommodate a shared use path outside the roadway. Both alternatives maintain two lanes of traffic in each direction, shoulders marked as bicycle lanes, and existing center turn lanes.

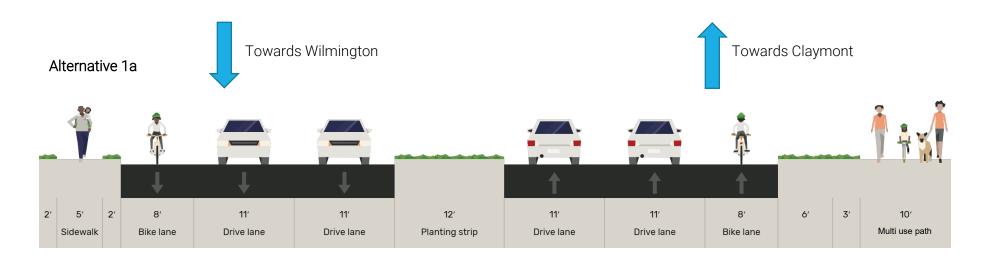
Alternative 1a features a shared use path on the east (northbound) side of the roadway. This alternative allows for a path that isn't interrupted by side streets and driveways, minimizing conflicts with vehicles. However, the trail will only be accessible via designated crossings (see "crossings" section on page 34). In addition to the path, a sidewalk connection on the southbound side would provide pedestrian connectivity.

Alternative 1b features a shared use path on the west (southbound) side of the roadway. Because the path is located on the southbound side it is more accessible to the adjacent residents and businesses. However, it also creates more conflicts between path users and vehicles due to the large number of cross streets and driveways.

Both Alternative 1a and 1b would have a high implementation cost but a low maintenance cost. There are pros and cons to each path configuration as listed in the chart in **Figure 19**.

East Pathway (Alt 1a)	West Pathway (Alt 1b)
✓ Direct access to Claymont Transportation Center and	✓ Direct access to neighborhoods and Bellevue State Park without
Edgemoor	needing to cross Governor Printz
<b>V.</b> D	Boulevard
X Requires crossing Governor	X Requires crossing 57 driveways
Printz Boulevard to access	and 26 unsignalized cross streets
pathway	

Figure 19. Alternative 1a and 1b pros and cons





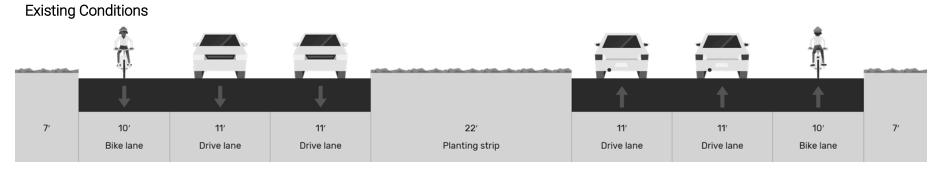


Figure 20. Alternative 1a and 1b typical section with existing section for comparison

### Alternative 2a and 2b

Alternatives 2a and 2b, shown in **Figure 22**, feature closing one side of the roadway to vehicular traffic, creating a "promenade" for use by people who walk and bicycle. Both alternatives would have one lane of traffic in each direction and shoulders marked as bicycle lanes. Each typical roadway section could be widened at cross streets to accommodate turn lanes.

Alternative 2a is a lane reduction alternative that relocates both travel lanes to the east (southbound) side of the road. Similar to Alternative 1a, the shared use path would be located on the west side with ample room for a large buffer between the path and relocated roadway. This large buffer creates opportunities for additional path amenities such as park features, landscaping, green infrastructure, or separated walking and bicycling facilities.

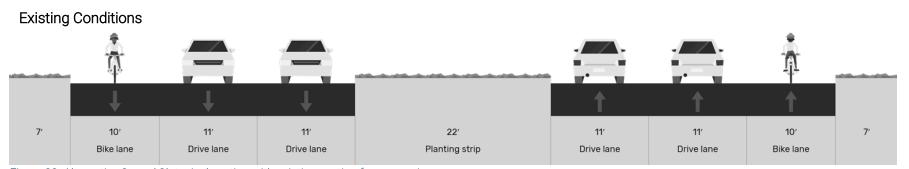
Alternative 2b is also a lane reduction, but the shared use path and potential pedestrian promenade would be adjacent to the west side of the roadway. Similar to Alternative 1b, because the path is located on the southbound side it is more accessible to the adjacent residents and businesses, however it also creates more conflicts between path users and vehicles at cross streets and driveways.

Alternative 2a and 2b offer similar accessibility and user conflicts as Alternatives 1a and 1b as shown in **Figure 21**. However, 2a and 2b would have a lower cost to implement because less new roadway construction would be required.

East Pathway (Alt 2a)	West Pathway (Alt 2b)
✓ Direct access to Claymont	✓ Direct access to neighborhoods
Transportation Center and	and Bellevue State Park without
Edgemoor	needing to cross Governor Printz
	Boulevard
X Requires crossing Governor	X Requires crossing 57 driveways
Printz Boulevard to access	and 26 unsignalized cross streets
pathway	

Figure 21. Alternative 2a and 2b pros and cons





8′

Bike lane

11′

Drive lane

11′

Drive lane

8′

Bike lane

20'

Planting strip

Figure 22. Alternative 2a and 2b typical section with existing section for comparison

10′

Multi use path

25'

Planting strip

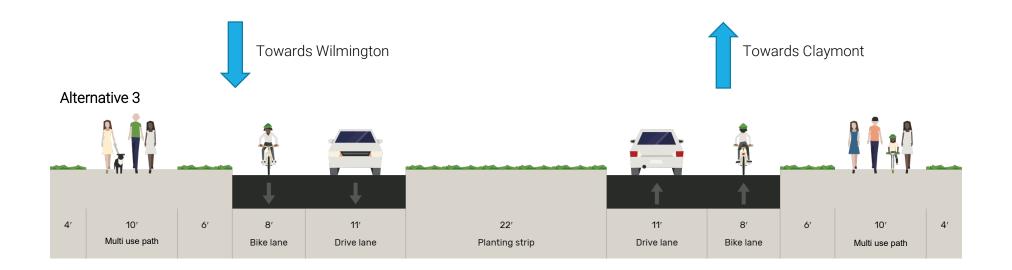
7′

### Alternative 3

Alternative 3, shown in **Figure 23**, also features a lane reduction in both directions, but it maintains the wide center median and existing left turn lanes. Similar to the other alternatives, the shoulders would be maintained to provide on-road bicycle facilities. This typical section could be widened to accommodate future bus stops or to accommodate more vehicular lanes at higher-volume intersections in the southern part of the corridor.

This alternative creates enough space for shared use paths on both sides of the roadway. This would allow for people walking and bicycling to use the west side path for shorter local trips and the east side path for through trips or recreational rides. Crossings would still be required at major intersections.

This alternative maintains the wide boulevard feel for all road users. This alternative is also the easiest alternative to implement and has a moderate cost to build, although it would also have a higher cost to maintain.



# **Existing Conditions**

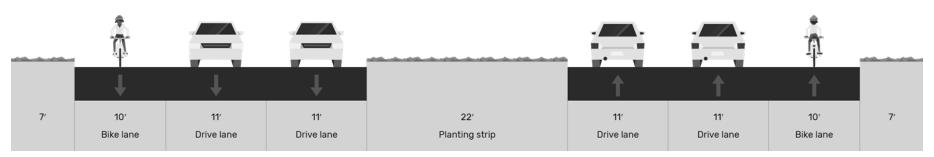


Figure 23. Alternative 3 typical section with existing section for comparison

## **Additional Considerations**

## Crossings

One of the benefits of a shared use path is the physical separation it provides from vehicular traffic for people walking and bicycling. However, conflict points with vehicles cannot be totally eliminated.

A path on the southbound (west side) of the roadway crosses over 26 unsignalized streets and 57 driveways. **Figure 24** is an example of what a typical shared use path crossing may look like in this situation. Offsetting the crossing would allow for vehicles to stop prior to the path, increasing the safety for path users.



Figure 24. Cross-street crossing example. Source: Small Town and Rural Design Guide.

Alternatives featuring a path on the northbound (east side) of the roadway require that people cross Governor Printz Boulevard to access the path. However, once on the path, users can travel uninterrupted by vehicular traffic. Figure 25 is an example of what an enhanced crossing at an unsignalized intersection could look like. Crossings should be spaced approximately every ½ to 1 mile depending on the density of adjacent land uses.

Identifying specific crossing locations and types of crossings will require further traffic analysis during the design process. Some potential crossing locations (listed from south to north) include the following, none of which are signalized unless noted otherwise:

- Paladin Drive/Lea Boulevard (traffic signal)
- Edgemoor Road (traffic signal)
- Haines Avenue
- Prospect Drive
- Cauffiel Parkway
- Walnut Lane/Holly Hill Trailer Park
- Grubbs Landing Road
- Governor Printz Boulevard Extension



Figure 25. Mid-block crossing of the Jack A. Markell Trail at Boulden Boulevard in New Castle, DE.

#### **Fox Point Connection**

One of the public priorities identified was providing a safe connection to Fox Point State Park for people walking and bicycling. All of the previously described alternatives could connect to improved access to Fox Point.

Fox Point State Park consists of 100 acres situated along the west bank of the Delaware River as shown below in **Figure 26**. The park offers scenic views, wildlife, picnic areas, and a playground. The park is an underutilized asset due to its remote location that is virtually only accessible by car.

Three ideas were suggested for further evaluation by members of the public and Advisory Committee:

- A new connection at the north side of the park at Stoney Creek
- An improved connection at Edgemoor Road
- A bicycle and pedestrian bridge over Governor Printz Boulevard, railroad tracks, and I-495

The third option, a bicycle and pedestrian bridge, would be a last resort due to numerous utility conflicts, right-of-way issues, railroad coordination, and very high cost.



Figure 26. Fox Point Park connection opportunities

### Stoney Creek Connection

Stoney Creek is a small tributary of the Delaware River that travels parallel to Cauffiel Parkway before passing underneath Governor Printz Boulevard, southbound I-495, northbound I-495, an Amtrak maintenance road bridge, two separate Amtrak high speed rail bridges, and one Norfolk Southern freight rail bridge as shown in **Figure 27**.



Figure 27. Aerial photograph showing infrastructure in the vicinity of Stoney Creek. Source: Google Maps.

The shared use path portion of the Northern Delaware Greenway Trail (NDGT) currently ends 1200 feet northwest of Governor Printz Boulevard. A gravel path connects the end of the shared use path to Governor Printz Boulevard between Stoney Creek and Cauffiel Parkway. This segment needs to be improved to shared use path standards to make an accessible connection between the NDGT to Governor Printz Boulevard.

To connect with Fox Point State Park, the trail would have to cross over Governor Printz Boulevard at grade and then travel under the six other bridges described above. Trail construction guidance recommends a 10-foot minimum overhead clearance. This would require significant excavation under the I-495 bridge spans.

The largest challenge to making this connection is due to the narrow opening at the mouth of the creek. Since the Delaware River is tidal, the area around the Norfolk Southern bridge opening floods twice daily at high tide. A trail in this location would require significant signage, possibly including digital flood monitoring stations to alert users of the potential hazard



Figure 28. Norfolk Southern Bridge looking northwest up Stoney Creek

Despite the challenges, a trail connection in this location could supplement the proposed connection to Fox Point State Park at Edgemoor Road (see page 38) for recreational users. The Delaware Department of Natural Resources and Environmental Control (DNREC) has developed conceptual plans to extend the Fox Point Park trail network further north and are currently exploring a connection between that trail and the NDGT that would link Bellevue State Park and Fox Point State Park, as shown in Figure 29.

DNREC recently installed a new trail that passes under Route 26 at Assawoman Canal that gets covered at high tide, shown in **Figure 30** and 31. This design is similar to what is envisioned for the Fox Point Connection.

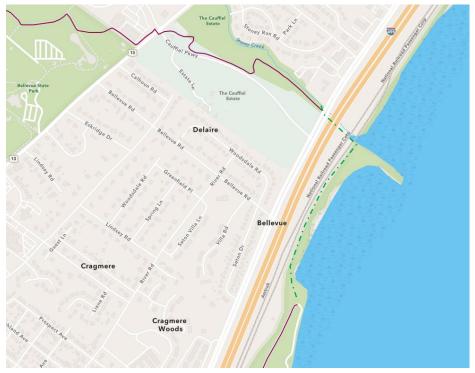


Figure 29. Proposed trail connection between Bellevue State Park and Fox Point State Park (shown by dotted line). Basemap source: Northern Delaware Greenways



Figure 30. Trail approach to Route 26 underpass along Assawoman Canal.



Figure 31. Trail under Route 26 along Assawoman Canal.

### **Edgemoor Road Connection**

Currently, the only way to access Fox Point State Park is by taking southbound Edgemoor Road and turning left on Lighthouse Road. The park entrance is less than 0.4 miles from the intersection of Edgemoor Road and Lighthouse Road.

Although there is an eight-foot-wide sidewalk on the east side of Edgemoor Road, the Governor Printz Boulevard intersection is not marked or signalized for pedestrians. That sidewalk continues 0.2 miles to Lighthouse Road. There is an existing sidewalk located on the south side of Lighthouse Road east of Edgemoor Road, shown in Figure 23. That sidewalk continues just 0.14 miles before turning into a shoulder which extends another 0.17 miles. The shoulder is frequently used by trucks queuing and turning into IKO Wilmington, a roofing manufacturing plant. The shoulder ends 0.1 miles before reaching the entrance to Fox Point State Park.

Proposed improvements connectivity for people walking and bicycling are shown in **Figure 33**. The wide existing sidewalks on Edgemoor Road and Lighthouse Road, shown in red, would be formalized as a path, supported by crossing improvements to the adjacent intersections.

Two possible path alignments are proposed to connect path users from the intersection of Edgemoor and Lighthouse Road to the entrance to Fox Point State Park.

The alignment shown in purple, along the west side of Lighthouse Road, is the most direct connection. Unfortunately, there is not enough space to widen the existing roadway to accommodate an atgrade path or separated bikeway and sidewalk. In order to avoid I-495 ramp conflicts, railroad right-of way conflicts, and truck movements, this alternative could be considered as an elevated structure.

Another possible configuration is less direct, looping along the back side of IKO Wilmington as shown in orange. This configuration would

be an at-grade shared use path which would make two railroad crossings at a perpendicular angle.

Both alternatives tie into the existing path network in Fox Point Park. Neither of these alternatives is ideal, but they are the only viable connections given current land uses along Lighthouse Road.

The best opportunity for a walking and bicycling connection to the park would come through redevelopment of the Gulftainer site on the south side of Lighthouse Road. This plan recommends that every opportunity be considered to ensure the Gulftainer site plan allows for a shared use path along the south side of Lighthouse Road.



Figure 32. Photograph showing Lighthouse Road sidewalk and I-495 off ramp looking north toward Fox Point Park State entrance



Figure 33. Proposed Fox Point State Park Connection at Edgemoor Road

## **Claymont Regional Transportation Center Connection**

The new Claymont Regional Transportation Center, shown in **Figure 34**, will increase accessibility for all users with improved roadways, paths, sidewalks, high-level platforms, elevators and a pedestrian walkway between platforms. It will also provide an intermodal connection for DART and SEPTA buses; increase parking for riders (over 800 spaces); and offer direct access to employers at First State Crossing.

The new Transportation Center is scheduled for completion in 2023. The project will include a pathway that will provide walking and bicycle access from the current location to the new site as shown in **Figure 35**. The current station is connected to Governor Printz Boulevard via a pedestrian bridge over I-495. In addition, the North Claymont Area Master Plan recommends pedestrian and bicycle improvements along Philadelphia Pike that would better connect people to the new station.



Figure 34. Claymont Regional Transportation Center site rendering showing shared use path

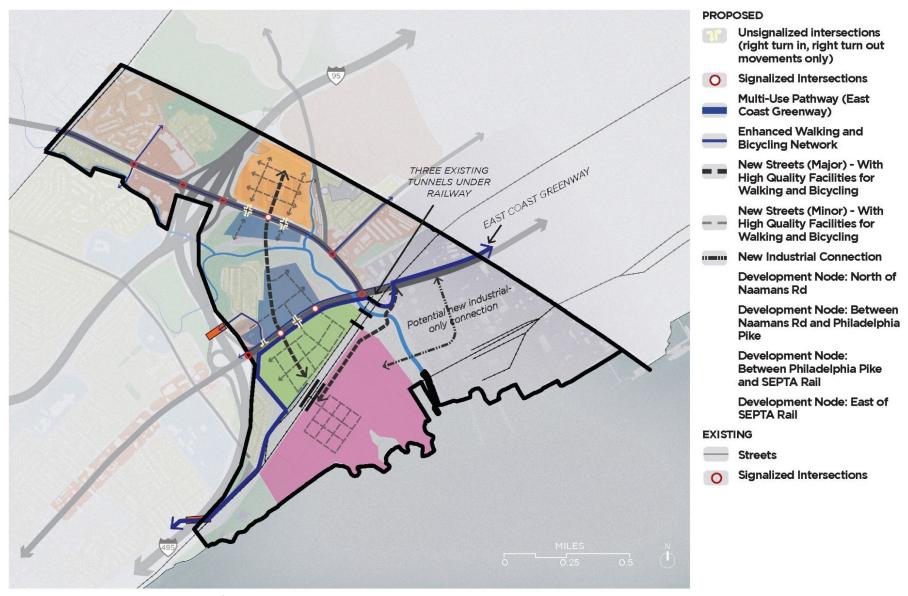


Figure 35. Connectivity recommendations from the North Claymont Area Master Plan.

## **Alternative Comparison**

Evaluation criteria were developed based on the stated objectives and to aid in the preparation and evaluation of alternatives. Potential impacts to and opportunities for multimodal connectivity, transit operations, traffic operations, land use, green stormwater infrastructure, and environmental resources were considered as the alternatives were developed. The cost of construction and ongoing maintenance were also considered.

The diagram in **Figure 39** shows how each alternative relates to the existing condition, which is shown in section view at the top of the diagram. The gray shading represents the approximate existing roadway pavement width, including shoulders. The green shading represents the existing median and unpaved areas within the right-of-way next to the shoulders. The red line in each of the proposed sections represents new full depth roadway construction within the median. The white shading represents a new pedestrian sidewalk or path. Generally, new roadway construction is more expensive than the demolition of existing roadway.

## Costs

The chart in **Figure 36** includes a magnitude of cost and implementation analysis for each alternative. Alternative 1a and 1b have a medium-high difficulty of implementation and are the highest cost of all the alternatives. Alternative 2a and 2b also have a medium-high rate of implementation difficulty, although 2a has a low implementation cost and 2b has a relatively high cost to implement. Alternative 3 is the easiest to implement and has a relatively low cost. It should also be noted that Alternatives 2a and 3 have the potential for a low cost interim implementation which would allow the project to be implemented on a faster track.

	1A	1B	2A	2B	3
DIFFICULTY OF IMPLEMENTATION	High	Medium	Medium	High	Low
COST OF IMPLEMENTATION	\$\$\$\$	\$\$\$\$	\$	\$\$\$	\$\$
COST OF MAINTENANCE	Low	Low	Medium	Medium	High
INTERIM IMPLEMENTATION POSSIBLE	No	No	Yes	No	Yes

Figure 296. Alternative cost and implementation comparison

## **Travel Time Impacts**

Although Alternatives 1a and 1b do not impact travel time, the other three alternatives reduce the number of vehicular travel lanes. Using existing traffic data and traffic intersection counts it is possible to estimate the travel times for morning and evening commute during the peak hours between Princeton Avenue and Edgemoor Road. Figure 37 and 38 show existing travel times through the corridor in orange and estimated travel times for each alternative in blue.

Existing morning travel times are approximately 4.5 minutes in each direction. Alternative 1 maintains all existing travel lanes and would have no impacts to travel times. Alternatives 2 and 3 both have relatively minor delays. The largest increase in travel time is 25 seconds in the northbound direction due to the lane reductions in both directions.

Existing evening travel times are also approximately 4.5 minutes in both northbound and southbound directions. For each of the alternatives there are relatively very minor delays. The largest increase in travel time is 24 seconds in the northbound direction due to the lane reductions in both directions.

Full travel time impacts are available as **Appendix 5 – Travel Time Alternative Analysis**.

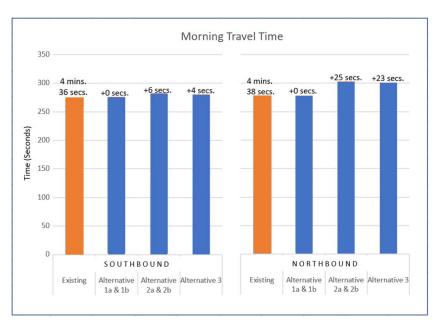


Figure 37. Morning travel time analysis between Princeton Avenue and Edgemoor Road



Figure 38. Morning travel time analysis between Princeton Avenue and Edgemoor Road

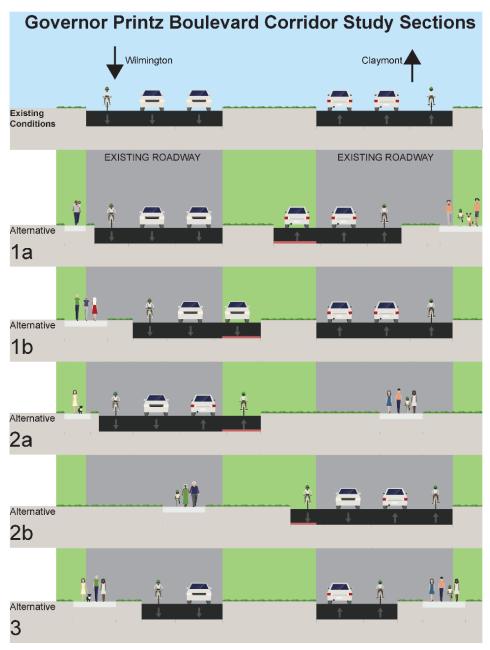


Figure 39. Diagram comparing alternatives to existing conditions

# **Locally Preferred Alternative**

## Description

The Locally Preferred Alternative (LPA) consists of both improvements to Governor Printz Boulevard and a connection to Fox Point State Park. This alternative was derived from the public and agency feedback obtained during the public and stakeholder engagement process.

#### **Governor Printz Boulevard**

The preferred option for Governor Printz Boulevard is **Alternative 3**. This alternative was selected for the following reasons:

- It provides the greatest flexibility in accommodating walking and bicycling
- It provides the greatest flexibility in accommodating transit operations
- It is the easiest alternative to implement
- It has a fairly low cost compared to other alternatives
- It has only modest travel time impacts
- It provides ample opportunities for landscaping and green infrastructure

Plan views illustrating the preferred alternative for Governor Printz Boulevard may be found in Appendix 6 – Locally Preferred Alternative Concept Plans.

The proposed typical cross section consists of a shared use path on both sides of Governor Printz Boulevard. The typical section maintains the existing median/left turn lane width and one 11-footwide travel lane in each direction with an 8-foot- to 10-foot-wide paved shoulder for emergency access and disabled vehicle pull off area. The shoulders will also be marked as on-street bicycle lanes.

A 6-foot-wide grass buffer strip is proposed between the shoulder and path to allow room for roadway signage, utilities, and vegetation, as well as to maintain recommended separation of the shared use path from vehicle traffic. The buffer width may be reduced in situations where the adjacent land use may cause unsafe user conflicts or at physical pinch points such as bridges or culverts. Both the east and west side paths are proposed to be 10 feet wide and paved, with a minimum 2-foot clearance from vertical obstructions. This typical section is proposed for the entire length of the corridor where traffic volumes allow for the reduction of general-purpose lanes. A speed limit reduction should be evaluated in consideration of the roadway reconfiguration.

A transition from the proposed two-lane roadway configuration to the existing four-lane configuration is required at high traffic volume areas including the I-495 interchange and the intersection of Edgemoor Road and Governor Printz Boulevard. The proposed typical section for this connection area maintains the existing four travel lanes and turn lanes extending from the I-495 interchange to the City of Wilmington municipal boundary. For this section of the corridor, the shared use path is proposed only on the southbound (west) side of the roadway extending to Wilmington city limits. This configuration allows for direct access to the Merchants Square shopping center and avoids vehicular conflicts at the I-495 interchange. The transition at city limits should be coordinated with the City and the nonprofit REACH Riverside, which has developed a master plan for this area.

At the northern end of the Governor Printz Boulevard corridor, a connection zone is required to transition Governor Printz Boulevard at Philadelphia Pike from four travel lanes to the proposed two-lane configuration. This transition is proposed to occur at the bend in the roadway near the Governor Printz Boulevard Extension.

The east side shared use path is proposed to extend along the Governor Printz Boulevard Extension to the pedestrian overpass over I-495. To continue to maximize access to the community, the west side shared use path is proposed to extend to Philadelphia Pike.

By providing a shared use path on both sides of Governor Printz Boulevard and on-street bicycle lanes, the locally preferred alternative provides a wide range of multimodal alternatives for people walking and bicycling. The east side shared use path adjacent to the northbound travel lanes provides a low stress option with minimal vehicular conflict points other than crossing Governor Printz Boulevard itself. The west side shared use path adjacent to the southbound travel lanes provides local connections to the community and allows for shorter trips without having to cross Governor Printz Boulevard. In addition to upgrading the crossings at existing signalized intersections, the preferred alternative recommends further investigating the following intersections to receive advanced warning pedestrian crossings of Governor Printz Boulevard:

- Haines Avenue
- Prospect Drive
- Cauffiel Parkway
- Walnut Lane/Holly Hill Trailer Park
- Grubbs Landing Road
- Governor Printz Boulevard Extension

Although the public expressed interest in including other amenities such as lighting, benches, vegetation to provide shade, and wayfinding signage, a responsible maintenance party and long-term maintenance plan will need to be established. Wayfinding signage could be used to direct pedestrians and cyclists to nearby destinations including the Claymont Transportation Center, the Northern Delaware Greenway, the entrance to Fox Point State Park, shopping centers, places to eat, and Downtown Wilmington. Signage could also highlight amenities like restrooms, bike repair stations, and sources of water, mileage, and travel times.

#### Fox Point State Park Connection

The preferred option for the Fox Point connection consists of **shared** use paths along Edgemoor Road and Lighthouse Road. The Lighthouse Road path will only be feasible if it can be accommodated through redevelopment of the adjacent Gulftainer site. For this reason, development coordination is one of the first steps in the implementation plan below.

## Planning and Environmental Linkages

The PEL analysis introduced on page 6 suggests that the LPA is likely to have minimal impacts to natural and cultural resources. This finding indicates that, if Federal funding is used for implementation, a Categorical Exclusion Evaluation (the simplest type of environmental document) may be prepared. This study provides information on project purpose and need, as well as existing resources, that may be used in the preparation of the Categorical Exclusion Evaluation. A summary of the PEL analysis can be found in Appendix 7 – Planning and Environmental Linkages Checklist.

## **Implementation**

The following steps should be taken to proceed with development of the Locally Preferred Alternative. This process assumes that DelDOT will be the lead agency for the project, working closely with WILMAPCO and the other members of the Management Committee during implementation.

Implementation step	Responsible party or parties	Timeframe
Adopt Governor Printz Boulevard Corridor Study	WILMAPCO Council	January 2021
Work with the developer of the Gulftainer site to facilitate construction of a shared use path along the south side of Lighthouse Road	New Castle County Department of Land Use, DelDOT Development Coordination Section, WILMAPCO	January 2021*
Submit project for consideration in WILMAPCO's Transportation Improvement Program (TIP)	DelDOT	March 2021
Consider project for the TIP through the approved prioritization process	WILMAPCO	Beginning in April 2021
Incorporate the project in the DelDOT Capital Transportation Program, beginning with the Project Development phase to develop a more detailed concept design and cost estimate	DelDOT	After project is included in the adopted TIP, subject to availability of funding

<sup>\*</sup> To the extent feasible, work on Gulftainer coordination prior to formal adoption of the study.