

25TH STREET TRANSPORTATION SAFETY STUDY

September 2022



Philadelphia
City Planning Commission
CITY OF PHILADELPHIA

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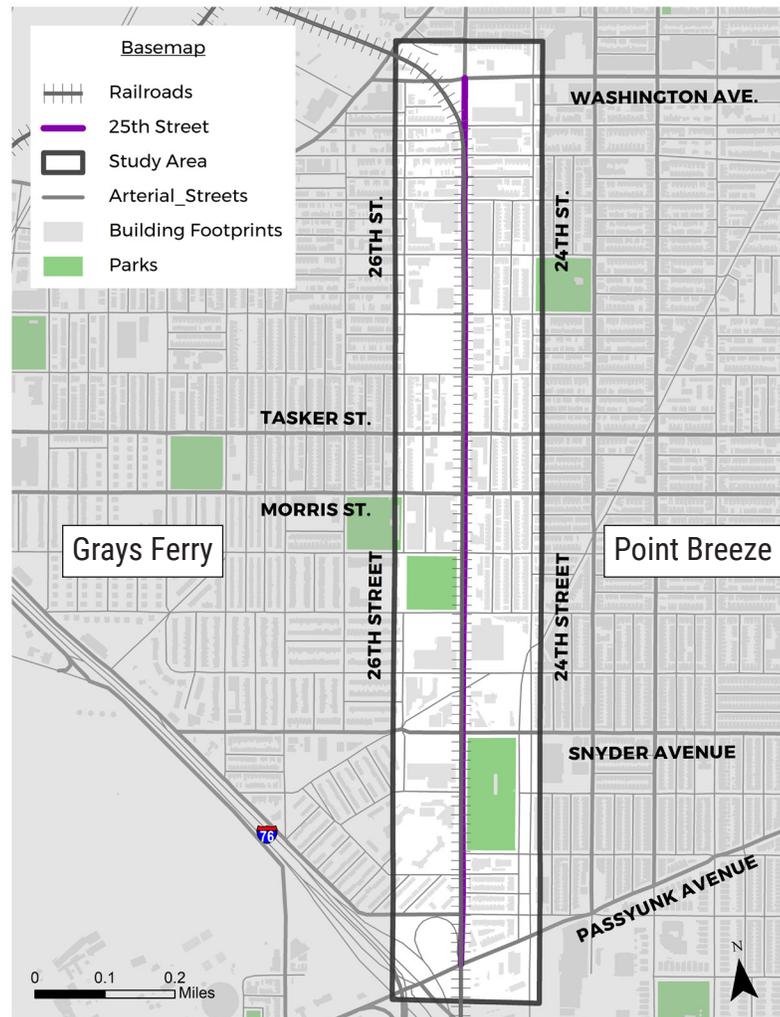
INTRODUCTION

PROJECT PURPOSE

Elevated in the 1920s, the CSX viaduct over 25th Street carries freight traffic going into and coming out of Greenwich Yard in South Philadelphia. There are a variety of safety concerns along 25th Street for drivers, pedestrians, and bicyclists, some of which are caused by the viaduct structure, while others are related to existing roadway design and infrastructure.

The goal of the 25th Street Transportation Safety Study is to develop conceptual designs and proposed improvements for intersections along 25th Street to enhance both short-term and long-term safety for the people of Point Breeze and Grays Ferry neighborhoods.

Through this planning study, the City of Philadelphia has identified design options to improve traffic and roadway conditions along the 25th Street corridor beneath the viaduct. Improvements will increase safety for residents in South Philadelphia while improving transportation connections between the Point Breeze and Grays Ferry neighborhoods. The study area is shown in the map to the right.



PROJECT APPROACH AND METHODOLOGY

The 25th Street Transportation Safety Study was conducted in three phases: (1) History & Current Conditions, (2) Roadway Design Options, and (3) Recommendations. This report follows the same structure. The study, and this report, were completed in collaboration with the planning consultant team at Michael Baker International Inc.

The first phase involved a deep dive into past and current conditions of 25th Street by analyzing transportation-related data, existing plans and studies, peer city case studies, and a thorough review of roadway conditions, opportunities, and needs. The second phase identified potential safety improvements for the corridor and several roadway design options. The third phase described conclusions and recommendations for next steps.

The planning process involved coordination with project partners, community engagement, research, and analysis. Findings from each phase influenced how the safety study progressed. The process for completing the study is described below.

COORDINATION WITH PROJECT PARTNERS

The 25th Street Transportation Safety Study is a continuation of the recommendations and findings from the Philadelphia2035 South District Plan (2015). The project team worked with the Philadelphia Streets Department; Philadelphia Water Department; Philadelphia Department of Commerce; Philadelphia Office of Transportation, Infrastructure, and Sustainability (oTIS); Southeastern Pennsylvania Transportation Authority (SEPTA); and other partners. These organizations shared feedback on potential improvements and design options to ensure concepts for the roadway would be feasible.

25TH ST (2021)



In addition, PCPC created a Steering Committee with representatives from neighborhood organizations

along with city representatives to guide this study. Steering Committee participating organizations are listed in the Acknowledgements section at the end of this report. The Committee held three meetings, one in each phase of the project. The first meeting was used to discuss existing conditions on 25th Street, including its characteristics, needs, and opportunities. The project team and the Steering Committee agreed on five main priorities for the corridor. These priorities were the basis to identify and evaluate potential roadway improvements. The second meeting focused on sharing results from a safety survey and discussing potential interventions on the corridor that generally improve safety, such as lighting and crosswalk

improvements. The project team also presented five roadway design options to gather general preferences and suggestions to improve or expand these options. The third meeting was used to improve or expand these options. Based on committee feedback and further evaluation, three of the roadway designs were carried into the final phase of the project. The third Steering Committee meeting was used to review results from a roadway design survey, which gathered community input on these three design concepts.

COMMUNITY OUTREACH

Residents and business owners in neighborhoods surrounding 25th Street guided the project in three ways:

- Concerns, questions, and requests raised by community members guided the study's research.
- Information collected from the community and stakeholders informed findings from the existing conditions analysis.
- Input and community preferences helped identify a range of improvement strategies and narrow down the list to several preferred options.

ROADWAY DESIGN OPTIONS SURVEY

	Design A	Design B	Design C
<p>For each of the lane designs, do you feel that they meet the priorities of the Steering Committee for 25th St?</p>			
	Yes	No	Maybe
Design A	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Design B	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Design C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



The project team published a safety survey at the beginning of the study to allow residents and other interested parties to submit general comments and suggestions. This first survey asked respondents how often they use 25th Street, the types of places they visit along the corridor, how users travel on the road, and how safe they feel walking, biking, or driving. Respondents provided suggestions for improvements that would make them feel safer or more likely to use 25th Street. The project team mailed and passed out over 2,000 postcards to residents with information about the project and instructions to fill out this survey. The team received over 580 responses between April and December of 2021.

The team conducted a roadway design options survey near the end of the project to gather preferences on three roadway design options. Respondents were asked if they felt each design met the five priorities established as evaluation criteria by the Steering Committee. They were also asked to rank the three designs based on preference. The team received over 240 open-ended comments and more details on preferences and suggestions for how to improve the designs. This roadway design options survey received over 600 responses while it was open in April of 2022.

The project team also visited neighborhood locations to gather feedback from residents and business owners, including:

- Smith Playground, Wharton Square Park, Grays Ferry Fresh Grocer, and along Point Breeze Avenue
- Wilson Park, area schools, and police and fire departments
- Queen Memorial Library and Vare Recreation Center
- 25th Street businesses

The project team visited a number of 25th Street businesses twice during the project and fourteen businesses submitted survey responses in the roadway design options survey.

25TH ST (2021)

A project website housed all materials related to the 25th Street Transportation Safety Study. This included general project information, links to public surveys, materials presented at Steering Committee meetings, and additional information on how to provide input on the project. The project team shared information about the project website through social media posts and emails to inform residents on ways to get involved. The project website can be accessed through the following link:

<https://www.phila2035.org/25thstreet>



RESEARCH AND DATA ANALYSIS

The team reviewed existing plans and studies related to 25th Street to identify visions and goals for the neighborhood and the corridor. Peer city case studies identified examples of similar roadway improvement projects that have taken place underneath elevated rail lines. These examples provided ideas for potential uses along 25th Street. Industry wide roadway standards were used to create initial roadway design options and evaluate their feasibility. These included the American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets (2018), the National Association of City Transportation Officials (NACTO) Urban Street Design Guide (2013) and Urban Bikeway Design Guide (2012), the City of Philadelphia's Complete Streets Design Handbook (2017), and other design guidance as applicable. As noted above, findings from community engagement activities also guided focus areas for the research and data analysis.

The project team conducted several site visits along 25th Street. In April 2021, the team conducted observations of lighting, visibility, and conditions for different users of the roadway. The project team returned to the corridor several times for additional outreach.





PHASE 1- HISTORY AND CURRENT CONDITIONS

STUDY AREA OVERVIEW

The 25th Street corridor in South Philadelphia runs under a CSX owned elevated rail line for 1.2 miles between Passyunk Avenue and Washington Avenue. The rail line was originally built at grade level. There were a number of other grade level rail lines in Grays Ferry and Point Breeze to bring materials to and from industrial sites in the area, as shown in the photo below. Construction to elevate the 25th Street rail line took place between 1926 to 1928. Elevating the rail line established a connection with the Pennsylvania Railroad on the west side of the Schuylkill River (PCPC, 2015). Today, the 25th Street viaduct brings CSX rail cars to and from Greenwich Yard in South Philadelphia. Trains in this yard travel to Jacksonville, Miami, Port Everglades, New Orleans, Chicago, St. Louis, and Houston, serving as an essential link to the national freight market (PhilaPort, 2022). CSX is currently the largest freight railroad operating in Philadelphia. Representatives from CSX note the 25th Street viaduct is overbuilt for its current use, having been designed to carry extremely heavy iron ore and coal trains. Current freight is much lighter than historical loads. An average of 20 trains travel over the viaduct per day (Saksa, 2015).

Train derailments in South Philadelphia in 2014 and 2015 increased public interest in repairing the 25th Street Viaduct, although the derailments did not occur on that stretch of the rail line. CSX announced their decision to restore the 25th Street Viaduct after conducting an “end-to-end” inspection of the structure in late 2014 (Saksa, 2015).

Referred to as the 25th Street Viaduct Improvement Project, this effort was planned in four phases. CSX completed the first phase in 2015, installing a debris shield

under the bridge deck to catch falling concrete. The next three phases have not yet been implemented. These planned phases would repair the drainage system and bridge decking to like-new condition, replace the parapet walls on either side of the bridge, and resurface the public-facing concrete columns and supporting structure (CSX, 2015). The City of Philadelphia conducted this transportation safety study to identify ways to improve safety along 25th Street beyond the bridge structure and support columns themselves. Both CSX’s 25th Street Viaduct Improvement Project and the City’s 25th Street Transportation Safety Study cover the stretch of 25th Street between Passyunk Avenue and Washington Avenue.



25th Street has four travel lanes, two going north and two going south. One northbound and one southbound lane run underneath the viaduct. Running on either side of the viaduct is an additional travel lane and a curbside parallel parking lane. The picture below shows what the roadway looks like with all four travel lanes open. After CSX installed the debris net on the viaduct structure, the city prepared the roadway for upcoming repair work by removing traffic signals, installing stop signs, and closing the two outer lanes to traffic. This temporary condition is still in place today; shown in the picture to the right.

INTERSECTION OF 25TH ST AND WOLF ST (2021)



25TH ST BETWEEN DICKINSON ST AND REED ST (MAULE, 2015)



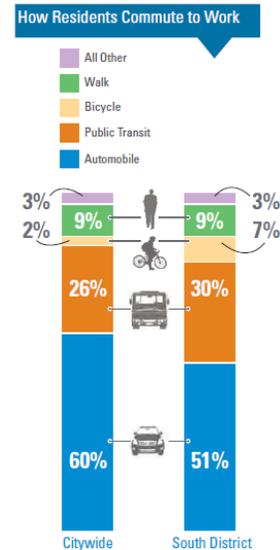
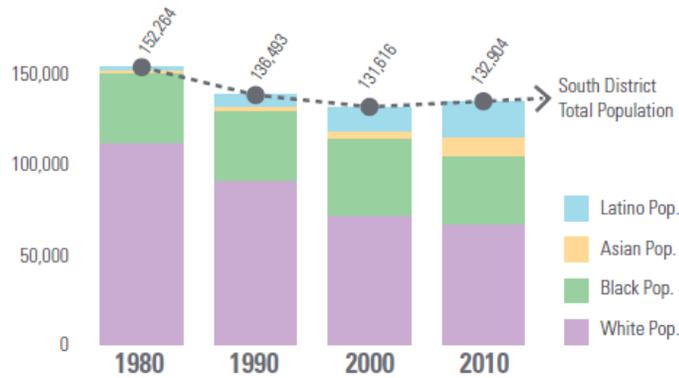
EXISTING PLANS AND STUDIES

The project team reviewed several plans related to the 25th Street Transportation Safety Study. These plans include the corridor in their study areas or identify specific opportunities for improvement along 25th Street. City-wide studies related to transportation planning and safety were also reviewed.

PHILADELPHIA 2035 SOUTH DISTRICT PLAN (2015)

Philadelphia2035 is the comprehensive plan for managing growth and development in the city of Philadelphia. The first phase of this plan is the Citywide Vision, which establishes broad planning goals and creates a foundation for the City's planning efforts. The second phase consisted of 18 District Plans which recommend specific physical improvements and zoning changes for each planning district in the city. The 25th Street viaduct is located in the South District; the South District Plan was adopted in 2015. Key findings in the District Plan include:

- The District experienced marginal population growth between 2000 and 2010 after 50 years of decline. It is expected the population will continue to increase.
- Foreign-born residents account for 15% of the population; 65.6% of this population emigrated from Asia.
- High poverty rate in the district (24%), but similar to that of the city as a whole (26%).
- Only 11% of the employed population in the South District works within the district itself; all other workers travel within or outside of the city for employment, including University City, Center City, the stadiums and Navy Yard, and the airport.
- Higher rates of residents in the South District commute to work by public transit or bike compared to the rest of the city. About the same rate of people walk in the South District and citywide.
- 40% of households do not have access to a vehicle.



Source: US Census Bureau, American Community Survey 2008-2012

- Walkability in Grays Ferry and Point Breeze is impacted by the 25th Street viaduct columns, which separate four traffic lanes for 13 blocks. These columns and the wide street create dangerous pedestrian conditions, inhibiting residents’ much needed access to amenities east of 25th street.

Recommendations in the plan are organized into three themes: Thrive, Connect, and Renew. The three plan recommendations that relate to the 25th Street viaduct are listed below.

PHILADELPHIA2035 RECOMMENDATIONS RELATED TO THE 25TH STREET	
STH8	Maximize access for all transportation modes to fresh food in lower Grays Ferry by improving bike and pedestrian connectivity beneath and across the 25th Street viaduct.
STH20	Build new or improve existing infrastructure for the safe and efficient movement of truck and rail freight through the District while minimizing impacts on residents.
STH36	Install beautification and safety improvements underneath major transportation infrastructure.

PHILADELPHIA BICYCLE AND PEDESTRIAN PLAN (2012)

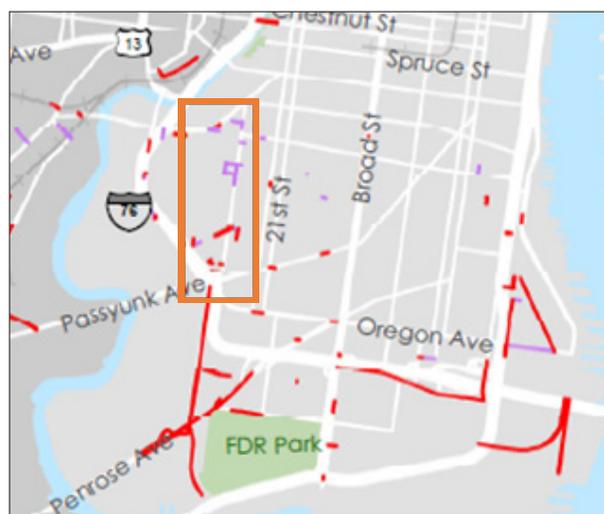
In 2012, the City of Philadelphia published its first Pedestrian Plan, incorporating it with an update to the City’s Bicycle Network Plan completed in 2000. The city published a progress report on this plan in 2015, and an updated bike map in 2022. The plan identifies strategies to increase the number and frequency of people walking and cycling in Philadelphia by improving the connectivity, safety, convenience, and attractiveness of the pedestrian and bicycle networks. Additionally, the plan presents a street classification system with design standards for sidewalks and a set of policies and programs to enhance pedestrian and bicycle facilities. These standards and policies will facilitate continued growth and improvement to pedestrian and bicycle infrastructure throughout Philadelphia.

Recommendations are made for each street type under the plan’s classification system. The 25th Street corridor in South Philadelphia would be classified as city neighborhood street. City neighborhood streets are described as “the majority of grid streets in older sections of Philadelphia. The fronts of buildings typically meet the street line (edge of sidewalk).” On city neighborhood streets, sidewalk width standards are as follows: 12’ total width, 6’ minimum walking zone or half the sidewalk width (whichever is greater), 4’ furnishing zone. Street classifications are intended to provide guidance when choices are made between vehicular and pedestrian needs. Full design guidelines are included in the City’s Complete Streets Handbook. Strategies are provided to address general issues and opportunities along pedestrian and bicycle networks, listed on the next page. These focus on how to encourage residents to use pedestrian and bicycle infrastructure. This plan included a proposal for a bike lane along the 25th Street Corridor, shown in the map on page 14.

The plan identifies blocks with sidewalks that are missing or in very poor conditions, shown in red and purple in the map to the bottom left. Several blocks along the 25th Street corridor are identified in this analysis. Additionally, the plan identifies low, medium, and high priority sidewalk improvement projects in purple, orange, and red in the map below. High and medium priority projects are identified along 25th Street.

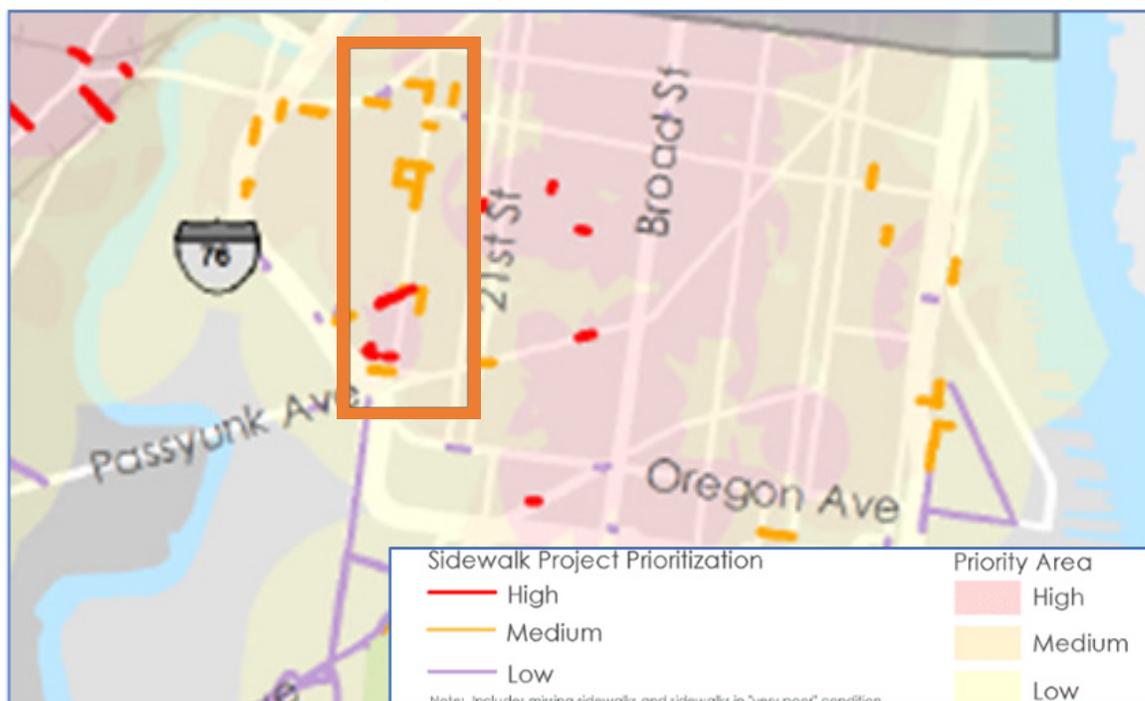
PEDESTRIAN NETWORK	BICYCLE NETWORK
Inadequate or missing crossing facilities	Intersection improvements
Insufficient time to cross intersection	Conflicts with on-street parking
Wide or diagonal intersections	Sidewalk bicycling
Complex intersections	Bike lanes on one-way streets
Excessive auto orientation	Bicycles and transit
Insufficient sidewalk capacity	Bicycle-specific signage

SIDEWALK CONDITIONS (PCPC, 2012)



— Missing Sidewalk — Sidewalk in Very Poor Condition

SIDEWALK PROJECT PRIORITIZATION (PCPC, 2012)



Sidewalk Project Prioritization

— High Priority Area

— Medium High

— Low Medium

Low

Note: Includes missing sidewalks and sidewalks in "very poor" condition.

VISION ZERO

Philadelphia adopted its Vision Zero policy in 2016, which aims to eliminate all traffic-related fatalities and serious injuries by the year 2030. Through this program, the city identified roadways that have the highest rates of deaths and severe injuries per mile. The city calls these roadways a High Injury Network and makes the roadways a priority for safety improvements (Vision Zero, 2022). Although 25th Street is not identified on the High Injury Network, it is still important to prioritize safety on all roads to work towards Vision Zero. The safety study was guided by principles of Vision Zero and will continue to support the City's Vision Zero in subsequent phases of planning and design.

The Neighborhood Slow Zone Program is one safety initiative related to Vision Zero. A slow zone is a clearly marked zone of residential streets in which speed limits will be posted at 20 MPH and traffic calming measures such as speed cushions will be installed.

Slow zones are a new technique being tested in Philadelphia; the first pilot neighborhoods were chosen in 2019 and projects were completed in Spring 2022. West Passyunk is one of the neighborhoods chosen for the second round of slow zone projects; the project area for the slow zone intersects with the southern end of the 25th Street corridor. This process kicked-off in Spring 2022, and construction of slow zones is anticipated to start in 2024. There are numerous touch points with community members before this is implemented (Harris, 2022). Initial planning phases for the West Passyunk slow zone project began at the end of the 25th Street Transportation Safety Study. As a result, there were no findings from the slow zone project to incorporate into this study. However, the slow zone project is an ongoing complementary effort to this study which will be referenced in subsequent phases of planning and design. Safety measures implemented in the slow zone will complement any safety measures that come from this 25th Street Transportation Safety Study.

RECOMMENDED BICYCLE NETWORK (PCPC, 2021)



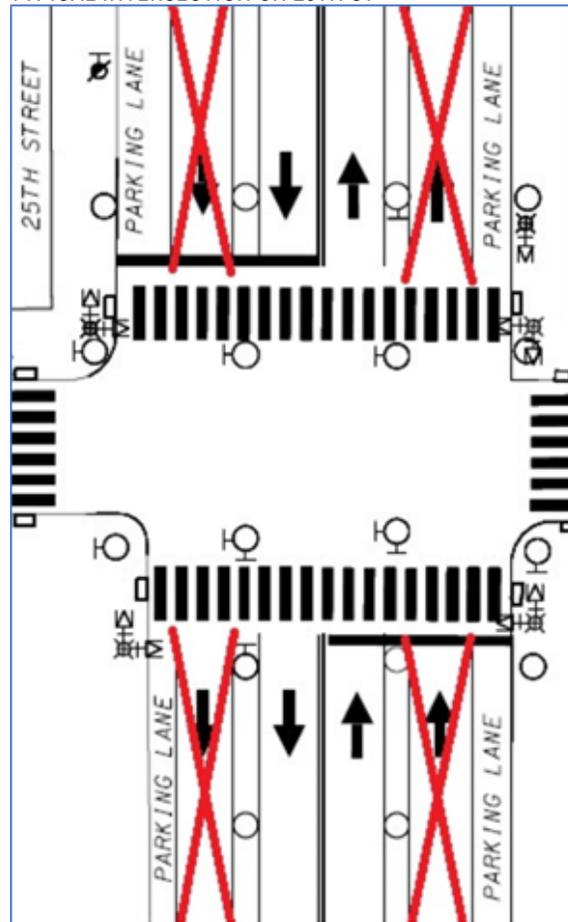
EXISTING ROADWAY CONDITIONS

ROADWAY LAYOUT

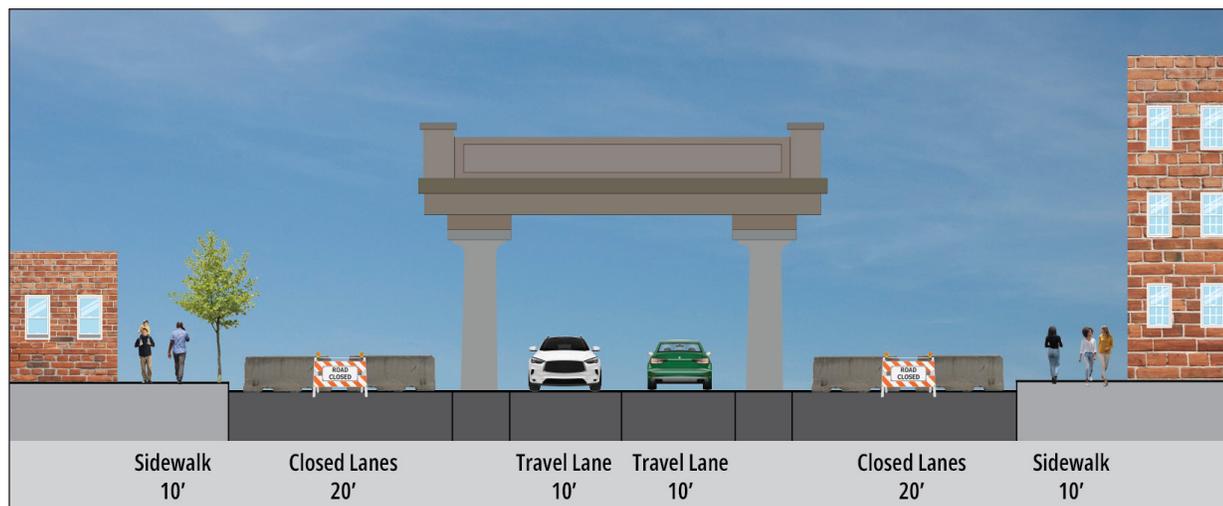
Most intersections in the study area are configured the same way, similar to the diagram to the right. There are four travel lanes, two going north and two going south. Parking lanes line both sides of the corridor. Circles identify the viaduct's support columns. Red 'X's show outer lanes that are currently closed to traffic. Most intersections along 25th Street intersect one-way, single direction streets. As shown in the photograph, intersections along the corridor have used stop signs rather than traffic signals since 2015.

All vehicle and parking lanes are approximately ten feet wide. The demarcated area around the viaduct support columns is five feet wide. Crosswalks across 25th Street span 70 feet.

TYPICAL INTERSECTION ON 25TH ST



TYPICAL CROSS-SECTION (EXISTING CONDITIONS)



UNIQUE INTERSECTIONS

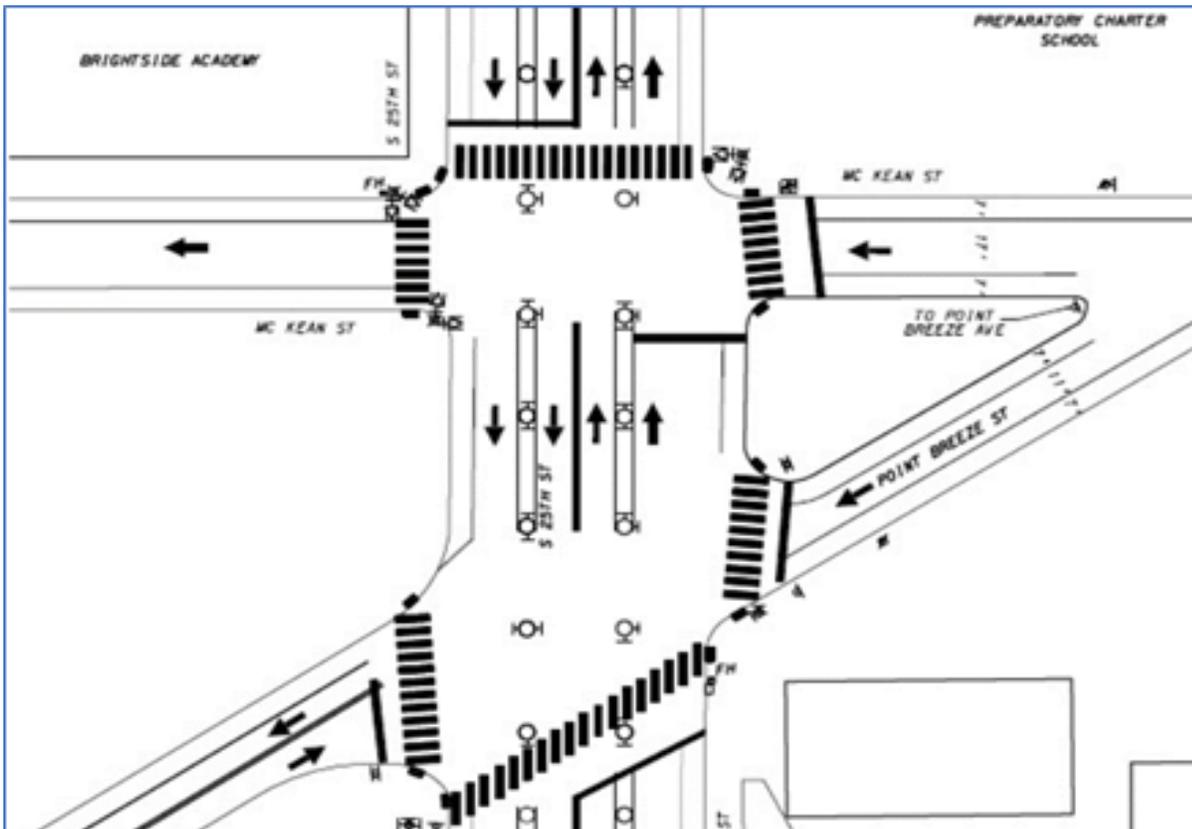
Some intersections in the study area have unique configurations and alignments. These unique intersections are abrupt (due to short sight lines) and vary significantly from traditional traffic patterns, often causing driver confusion and safety concerns. As seen in the photograph and diagram below, the intersection of Point Breeze Avenue and 25th Street is an example of a unique intersection with challenges associated with its configuration. Additional unique intersections with safety challenges along the corridor include McKean Street and 25th Street and Snyder Avenue and 25th Street.

These unique intersections create safety concerns for drivers, cyclists, and pedestrians along the 25th Street corridor. Factors contributing to driver confusion at these intersections include varied stop locations and path of travel through viaduct pillars, both when turning and proceeding straight. Driver confusion can lead to driver error and accidents, proving dangerous for drivers and exacerbating safety issues for bicycle riders and pedestrians.

INT. OF 25TH ST, POINT BREEZE AVE, AND MCKEAN ST



AERIAL DRAWING OF 25TH ST, POINT BREEZE AVE, AND MCKEAN ST



VIADUCT SUPPORT COLUMNS AND SIGHT LINES

The 25th Street corridor of the study area is shadowed by the CSX viaduct that runs directly overhead. The support columns or pillars for the viaduct run along the extent of the 25th Street corridor, creating large barriers on either side of the roadway. The support columns are a significant safety concern because they limit overall visibility and sight lines for drivers, bicyclists, and pedestrians.

Driver Perspective – Approaching 25th Street on Morris Street, Traveling East from Grays Ferry (1st Stop Sign)



Looking left (north) up 25th Street at Morris Street. Driver is stopped at the first stop sign near the outer lanes of 25th Street. Sight lines and visibility are drastically reduced by viaduct support columns, illegally parked vehicles, and signage.



Looking right (south) down 25th Street at Morris Street. Driver is stopped at the first stop sign near the outer lanes of 25th Street. Similarly, sight lines and visibility are drastically reduced by viaduct support columns and signage.

Driver Perspective – Approaching 25th Street on Morris Street, Traveling East from Grays Ferry (2nd Stop Sign)



Looking left (north) up 25th Street at Morris Street. Driver is stopped at the second stop sign near the inner lanes of 25th Street. Sight lines are drastically reduced by viaduct support columns and signage.



Looking right (south) down 25th Street at Morris Street. Driver is stopped at the second stop sign near the inner lanes of 25th Street. Sight lines are drastically reduced by viaduct support columns and signage.

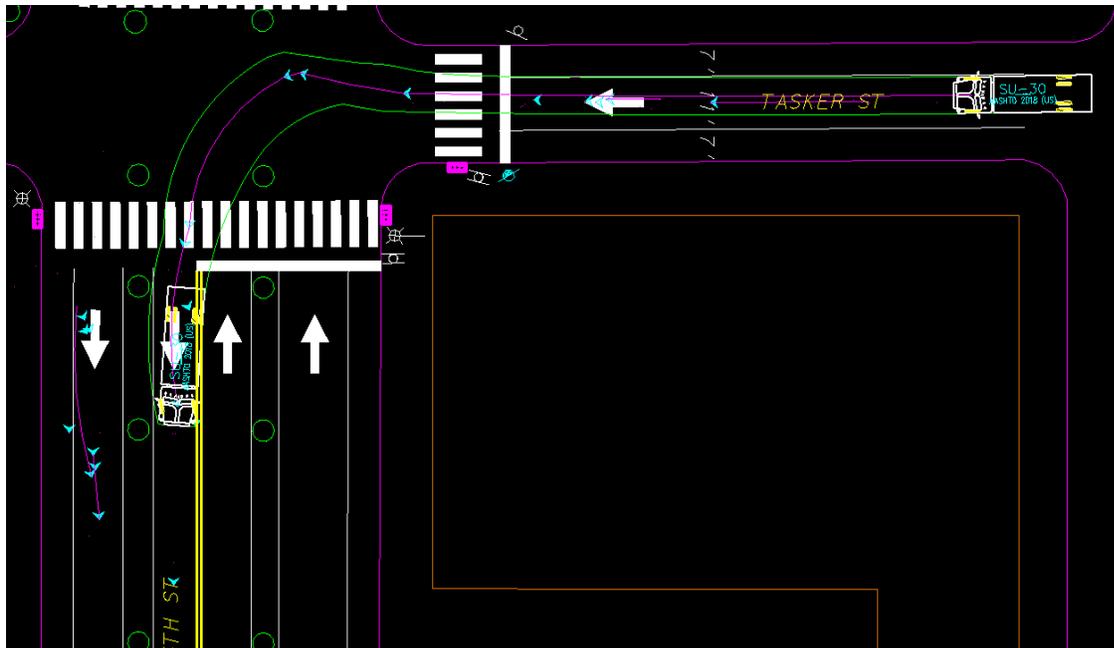
"There is zero visibility at intersections, coupled with people who completely disregard stops signs." – Safety Survey Respondent

"No line of sight due to the columns, it's very dangerous to cross the street." – Safety Survey Respondent

TRUCK TURNS

The support columns of the viaduct on 25th Street create large barriers and limit turning radii for vehicular traffic, especially trucks. Limited visibility and sight lines are the foremost safety challenge for truck drivers attempting to turn onto 25th Street. The graphic below shows the turning radii for an SU-30 truck, which is 30' long. 30' trucks and buses can make left turns onto 25th Street into the central driving lane. However, the pathway clips part of the stop bar on 25th Street under current conditions. Due to existing industrial land uses and buildings in the study area, trucks and truck traffic are an important consideration of this safety study.

TRUCK TURNS AT INTERSECTION OF 25TH ST AND WOLF ST



LIGHTING

Currently, there are no lights underneath the viaduct, but each block has approximately one to three overhead street lights mounted to the viaduct structure on each side, which illuminate the outer lanes. In addition, most intersecting streets have street lights near intersections with 25th Street, but there is no pedestrian scale lighting directly on 25th Street. The lack of lighting, particularly beneath the viaduct and on sidewalks, is a significant safety concern for all users of 25th Street. The lack of lighting makes visibility even worse on the corridor, where sight lines are already poor. Pedestrians and bicyclists also have low visibility in the dark and may be difficult for drivers to see, therefore putting these vulnerable roadway users more at-risk.

The lack of lighting on 25th Street, particularly under the viaduct, also creates security issues for pedestrians. The poor lighting and coverage of the viaduct can encourage criminal activity, such as illegal dumping and littering, drug use, violence, and other illicit activities. This is a significant concern for pedestrians.

SIGNAGE

After traffic signals were removed in 2015, stop signs were installed at every intersection along the corridor. In addition, signs were installed to note closure of the outer lanes. Combined with existing street signs and signs announcing the street name for the next intersection, there is an overabundance of street signage along the 25th Street corridor. This often leads to driver confusion from not being able to process and interpret all the signage while driving. Despite an overabundance of signs, there are very few speed limit signs posted along the 25th Street corridor in the study area. In addition, there are no signs or pavement markings to inform drivers which lanes to use for left and right turns. With only two lanes open to vehicle traffic now, this is not an issue; however, it was a source of confusion prior to 2015 when all four lanes were open to vehicle traffic. A lack of clear and concise signage on 25th Street creates a variety of safety issues for drivers, pedestrians, and bicyclists.

SIGNAGE ON 25TH ST (2021)



“The road signs on 25th are incredibly confusing and dangerous. I have turned off 25th Street into oncoming traffic multiple times.” – Safety Survey Respondent

“No one knows whether or not you’re supposed to turn before or after the pillars, so cars often whip around one or weave through them unexpectedly. Because people park wherever they want and the sidewalks are in such terrible condition, pedestrians don’t know where to walk and have to weave in and out of the side lanes and even the main lanes of the road.” – Safety Survey Respondent

DRIVING CONDITIONS AND VEHICULAR BEHAVIOR

Unsafe driving conditions and unpredictable vehicle behavior are primary safety concerns on 25th Street. As mentioned previously, the viaduct support columns create many roadway barriers that lead to driver confusion and incorrect driving behavior. The photograph below demonstrates the correct and incorrect ways to turn around the support column on 25th Street. Many drivers are confused about which path of travel to take around support columns, partly due to a lack of signage. Drivers may also try to switch lanes between support columns, causing unsafe conditions for other drivers as well as pedestrians and bicyclists.

Parking can also be a significant issue for driving conditions on 25th Street. Many instances of illegal parking can be seen on 25th Street where vehicles are parked in closed travel lanes or on sidewalks. Illegal parking can complicate traffic flow and create unsafe conditions for drivers, bicyclists, and pedestrians that may be blocked by a parked car and are forced to take an unsafe path around. A lack of signage and enforcement further complicates the parking situation on 25th Street.

Lastly, drivers failing to follow and comply with street signage on 25th Street creates unsafe roadway conditions. One of the most notable issues is driver failure to stop at a first stop sign when there are two proximal, successive stop signs. This issue is worsened due to the overabundance of signs and poor visibility caused by the columns. Another issue identified through the survey was the lack of signalized intersections as traffic signals have been shut off and temporarily replaced with stop signs since 2015. For some designs, having signals in key locations could help guide all users through the confusing intersections. Driver failure to follow path of travel signage is also a safety issue on 25th Street, however, signage and pavement markings could be clearer to limit driver confusion and help guide them through the intersections.

CORRECT AND INCORRECT TURNING APPROACHES ONTO 25TH ST (2021)



ILLEGALLY PARKED VEHICLES ON 25TH ST (2021)

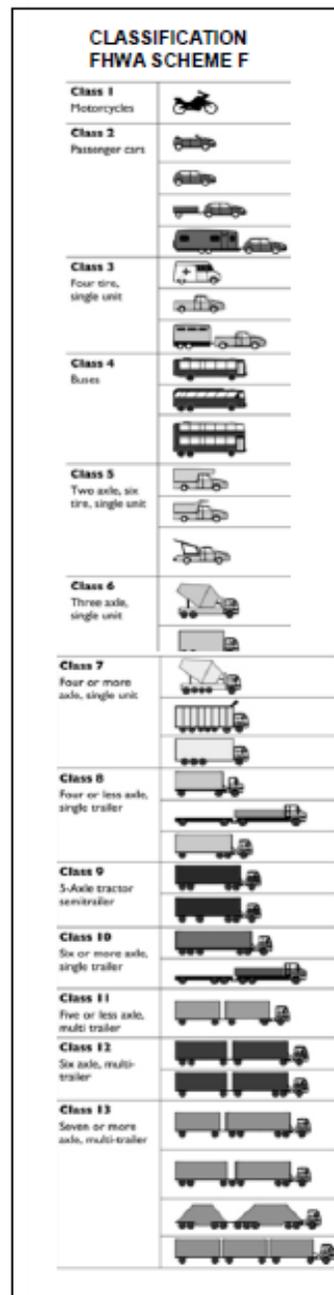


TRAFFIC VOLUMES

Traffic counts were conducted by Delaware Valley Regional Planning Commission (DVRPC) for 25th Street in May 2021 to measure travel volumes. As seen in chart below, average daily counts were collected for the intersections of 25th Street at Federal Street and 25th Street at Snyder Avenue. These daily traffic counts are further refined by vehicle classification to get a sense of what types and how many of these vehicles are traveling on 25th Street. Full vehicle classifications are shown in the graphic to the right from the Federal Highway Administration (FHWA).

Overall traffic volume on 25th Street is moderate but not substantial. Based on the existing conditions and infrastructure, paired with traffic counts, there are indications that the roadway has excess capacity (i.e., more travel lanes that needed). Reducing roadway capacity is typically accomplished through road diets, or roadway reconfigurations, to reduce four or more lane roadways to two or three lanes (FHWA, 2021). Supported by research and case studies, the FHWA indicates that roadways with a 25,000 or less average daily vehicles are prime candidates for road diets and could manage traffic well with only two or three lanes (FHWA, 2016). Benefits of road diets include traffic calming, speed consistency, better mobility and access, and safer roadway conditions for all users.

Road diets have been successfully implemented in Philadelphia, including recently on sections of Market Street and JFK Boulevard which increased mobility and safety while having no significant effects on traffic. The FHWA provides additional policy guidance on road diets that can help incorporate these concepts into existing planning processes and design guidance. A road diet for 25th Street would be a high impact solution that could be considered to improve safety and repurpose two travel lanes for other purposes. This finding influenced the range of improvements reviewed under this study, resulting in several design options that result in a reduction of travel lanes.



TRAFFIC VOLUMES on 25th Street			
Intersection	Average Daily Count	Average Count of Vehicle Classes 1-5	Average Count of Vehicle Classes 6-13
25th Street at Federal Street	3,013	2,995	18
25th Street at Snyder Avenue	4,025	4,001	24

VEHICLE CRASH HISTORY

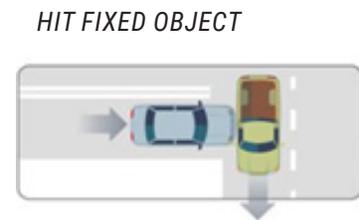
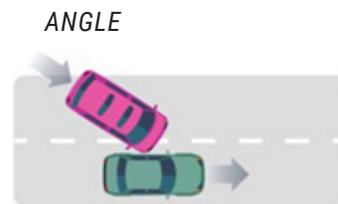
Unsafe conditions and crash incidents are characteristic of the 25th Street corridor. From 2010 to 2014, there were 135 crashes along the corridor. This decreased by approximately 50% to 63 crashes between 2015 and 2019, after the two outer travel lanes were closed and signals removed. There were no fatalities in this time period, and most incidents were minor, as shown in the first table below. Statistically speaking, safety greatly improved on the roadway as a result of lane closures and removal of signals. However, the roadway is still confusing and closing lanes and removing signals was not a final solution to improve safety. Additional safety interventions can be made to improve conditions for all users of the road.

The second table below lists the number of crashes between 2015 and 2019 by collision type. Diagrams showing four collision types are also included: angle, hit fixed object, rear-end, and sideswipe (same direction). The majority of crashes along the corridor were angle collisions, followed by hitting a fixed object.

COLLISION SEVERITY OF ALL CRASHES, 2015-2019			
Major	Moderate	Minor	Unknown
1	8	25	29

“Driving through it is lawless, walking through it is a test of will, and it completely ruins the feeling of a safe and thriving community.” – Safety Survey Respondent

COLLISION TYPES OF ALL CRASHES, 2015-2019	
Collision Type	Count
Angle	28
Hit Fixed Object	12
Rear-End	9
Sideswipe (same direction)	8
Hit Pedestrian	5
Sideswipe (opposite direction)	1
TOTAL	63



HIGH CRASH SITES

The following table lists the number of crashes on each intersection along the corridor. The largest number of crashes are at the three busiest intersections: Washington Avenue and 25th Street, Passyunk Avenue and 25th Street, and Snyder Avenue and 25th Street. These three intersections are identified with red 'X's on the map below.



TOTAL INTERSECTION CRASHES, 2015-2019	
Intersection	
Washington Ave and 25th St	11
Passyunk Ave and 25th St	11
Snyder Ave and 25th St	9
Mifflin St and 25th St	4
Ritner St and 25th St	4
Wharton St and 25th St	3
McKean St and 25th St	3
Ellsworth St and 25th St	2
Federal St and 25th St	2
Reed St and 25th St	2
Moore St and 25th St	2
Wolf St and 25th St	2
Fitzgerald St and 25th St	2
Manton St and 25th St	1
Tasker St and 25th St	1
Morris St and 25th St	1
Jackson St and 25th St	1
Durfor St and 25th St	1
Oakford St and 25th St	0
Dickinson St and 25th St	0
Point Breeze Ave and 25th St	0

WALKING CONDITIONS AND ILLEGAL DUMPING

Walking conditions are related to a series of roadway characteristics. Sidewalk conditions, illegal dumping, and lack of lighting are all deterrents to walking along 25th Street. Note that pedestrians must navigate six lanes to cross 25th street – two parking lanes and four travel lanes, two of which are closed as of May 2022. The width of the road itself is another deterrent using the corridor. As noted earlier, crossings over 25th Street are 70 feet wide.

25TH ST BETWEEN WHARTON ST AND REED ST (2021)



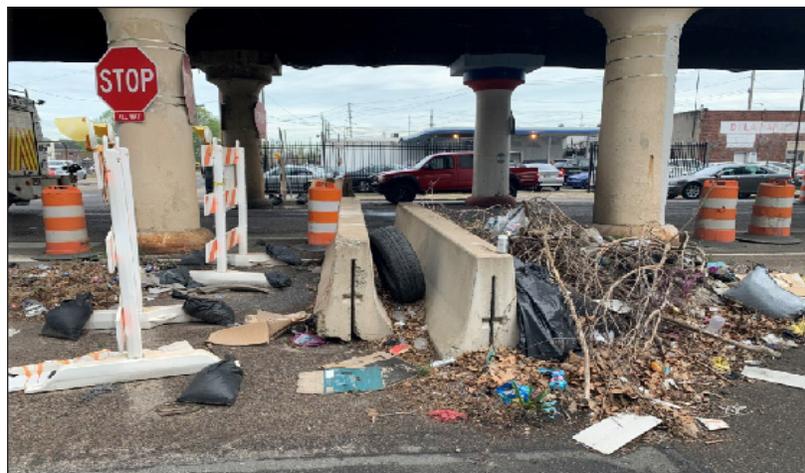
INT. OF 25TH ST AND MCKEAN ST (2021)



Sidewalk conditions vary throughout the study area. Some sidewalks have been recently replaced and are well-maintained, as shown in the first photograph. Other stretches of the corridor are characterized by crumbling or deteriorated sidewalks. Additionally, obstructions like cars and trucks parking on sidewalks act as barriers to walking, as shown in the photograph to the left.

Closure of the outer lanes has contributed to a dramatic increase in illegal dumping. Litter is more noticeable near the concrete barriers blocking the closed lanes. The third photograph shows illegal dumping at 25th Street and Snyder Avenue.

ILLEGAL DUMPING AT 25TH ST AND SNYDER AVE (2021)

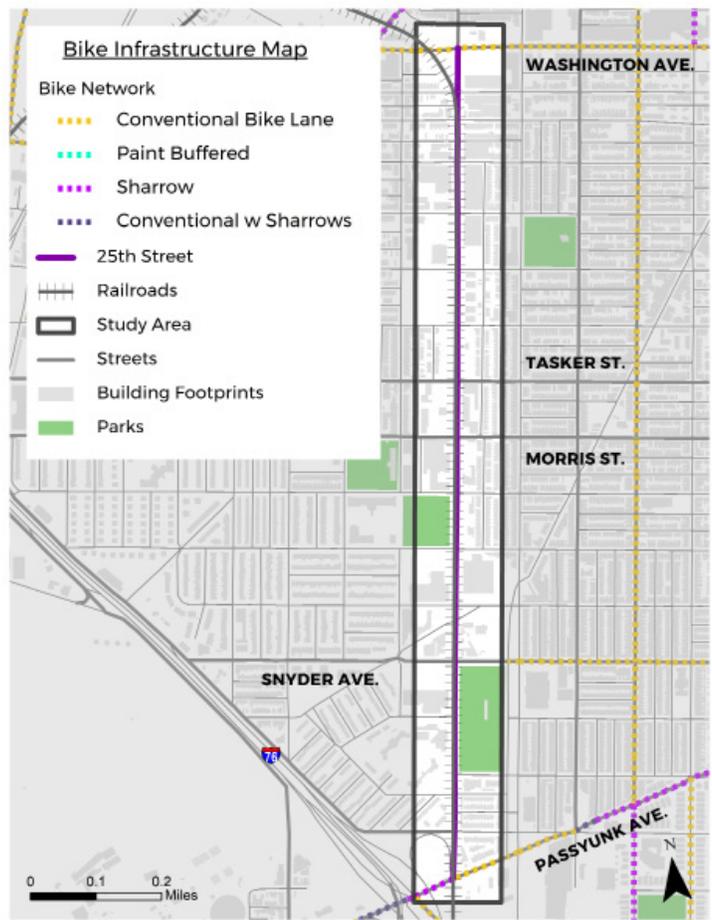


Data from Philly311 confirms this finding. A variety of issues can be reported to 311, including potholes and street damage, abandoned automobiles, graffiti, street light outages, and illegal dumping. The number of requests sent to Philly311 regarding illegal dumping along 25th Street are listed in the table below. The number of requests significantly increased after 2015 when the outer lanes were closed. In 2015 there were 9 requests, which jumped to 21 requests in 2016, and jumped again in 2018 to 52 requests. The number of requests decreased in 2020, potentially due to changes in patterns and behavior during the COVID-19 pandemic, especially during stay-at-home phases.

Philly311 Illegal Dumping Requests in the Study Area			
Year	Number of Requests	Year	Number of Requests
2013	5	2017	22
2014	9	2018	52
2015	9	2019	54
2016	21	2020	35

BICYCLING CONDITIONS

There is currently no dedicated infrastructure for bicycling on 25th Street. Combined with a lack of lighting and poor pavement condition, 25th Street in its current condition is not safe for bicyclists. The map to the left identifies bicycle infrastructure in and around the study area. Nearby, conventional bike lanes are identified on 22nd Street, Washington Avenue, and Snyder Avenue. A combination of bike lanes and sharrows are identified on Passyunk Avenue. There is a northbound conventional bike lane on 22nd Street, which is one of the primary bicycle routes in this part of South Philadelphia. Notably, there is no southbound bicycle route in this area.



"It is very unclear where it is safe to park, turn, stop, etc. It is terrible for cyclists because there is nowhere to bike that is visible to drivers." – Safety Survey Respondent

OPPORTUNITIES

FLEXIBILITY WITH LANE CONFIGURATION

25th Street is a wide street packed with potential. The four lanes (inner and outer viaduct lanes) of travel and parking lanes on 25th Street present ample opportunity for a variety of roadway configurations. This presents a great deal of flexibility in reconfiguring 25th Street to serve all users in a safe and efficient manner.

As presented in the traffic volume section of this report, traffic counts convey that fewer than four lanes would adequately serve current traffic volumes on 25th Street (based on FHWA guidance). There is a strong opportunity to repurpose and utilize two lanes for uses other than vehicular traffic. A road diet is a potential strategy to implement a roadway reconfiguration and repurpose the excess lanes. As stated by the FHWA, road diets provide opportunities for traffic calming, increased mobility and access, and safer roadway conditions for all users.

LIGHTING IMPROVEMENTS

Another area ripe with opportunity for safety is lighting improvements along the 25th Street corridor. The City has successfully installed a number of street lighting improvement projects, including near other underpasses and viaducts that could serve as models for 25th Street. This would not only improve roadway safety conditions for users, but it could also increase security

for travelers by averting criminal activity and other illicit activities.

25TH ST CORRIDOR (CYCLOMEDIA, 2015)



VIADUCT BEAUTIFICATION

Through both public surveys, the idea of viaduct beautification initiatives was identified and received strong support. Basic repairs to the viaduct to improve both safety and appearance as well as placemaking, attraction-based amenities, encouraging development, and adding green space and recreation opportunities were all recommended in the surveys. Examples of these ideas

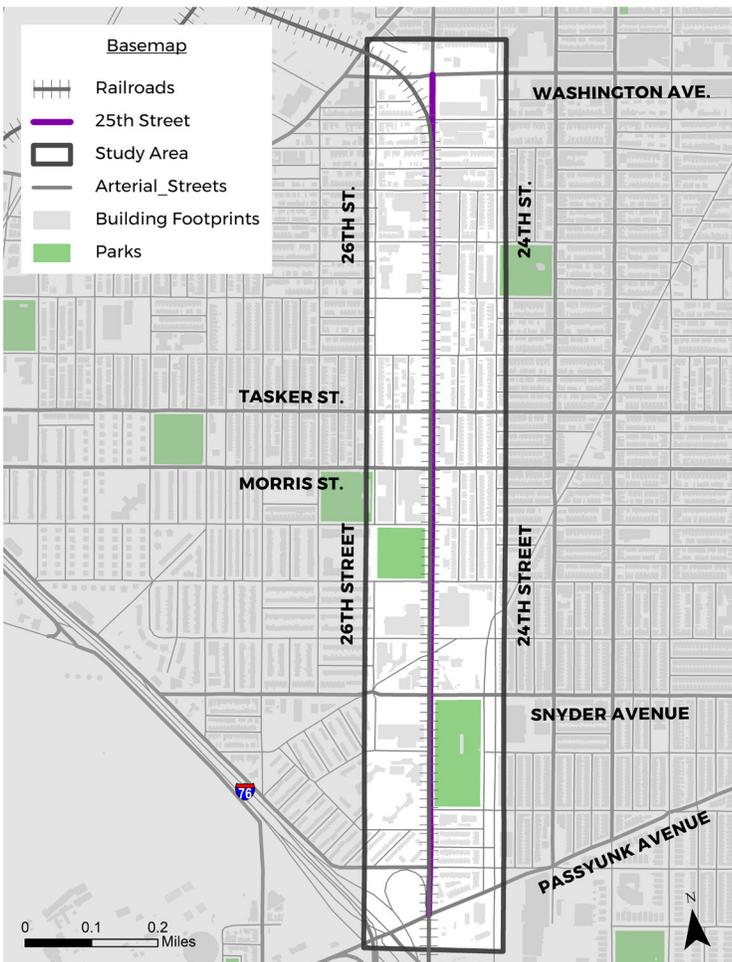
include adding benches and

planters along the corridor, or even closing the corridor to traffic periodically for street festivals. Viaduct and underpass beautification projects have been successful in other neighborhoods in Philadelphia and could be a consideration for future improvements to the 25th Street viaduct.

PEDESTRIAN GENERATORS

Pedestrian activity varies widely along the 25th street corridor. The Delaware Valley Regional Planning Commission (DVRPC) conducted pedestrian counts along the corridor in 2011 and 2021, as listed in the following table. Counts were generally higher on blocks on the northern end of the corridor. In 2011, 278 people were counted walking south on 25th Street from Reed Street to Wharton Street.

The number of people walking is higher areas near amenities and services near the corridor. Pedestrian generators include the Dollar Tree, Moore Street Fields, the Preparatory Charter School, Smith Playground, and Wilson Park Apartments; however, this is not an exhaustive list.



ANNUAL DAILY PEDESTRIAN COUNTS	
Location	Pedestrian Count
Reed to Wharton on 25th St (2011)	278
Wharton and 25th St (2021)	96
Wharton to Reed on 25th St (2011)	53
McKean and 25th St (2021)	33

TRANSIT STOPS AND RIDERSHIP

The map below identifies transit options near and on 25th Street. There are five SEPTA bus routes in the area, with eight total bus stops within one-block of 25th Street. Notably, the bus stops on Tasker and Morris have higher ridership one block away from 25th Street in both directions (24th or 26th Streets). This supports the idea that people would rather not travel on 25th Street or wait for the bus in its current condition. Bus stops along Snyder Avenue have the highest ridership in the area; Route 79 runs along Snyder Avenue.

At the time of preparing the 25th Street Transportation Safety Study, SEPTA is undertaking a three-year project to reimagine the region’s bus network. This process will offer SEPTA and its planning partners the opportunity to create a more frequent, interconnected, and east-to-understand bus system that better connects more people to more places. This effort will review bus routing, stop spacing, frequencies, span of service, and a variety of other elements related to SEPTA’s bus network. These elements are all subject to change during the lifespan of the Bus Revolution and the 25th Street Transportation Safety Study. The City of Philadelphia will continue to coordinate with SEPTA throughout the bus network redesign process to consider impacts of potential route changes along or near 25th Street.



ROADWAY PRIORITIES

After evaluating existing conditions of the study area and identifying opportunities and constraints, a roadway priority exercise was performed in collaboration with the project Steering Committee. The purpose of identifying priorities was to have a list of guiding principles to use as the basis for developing and evaluating alternatives roadway design options and inform recommendations for related improvements, including lighting, pedestrian safety enhancements, and beautification. The five priorities are listed and described below.

1. Make sure all users of the street are safe

2. Reduce illegal dumping and littering

3. Maintain or improve visibility and sight lines on the street

4. Maintain efficient vehicle movement and access to local businesses and other destinations

5. Provide enough legal parking for residents and businesses

MAKE SURE ALL USERS OF THE STREET ARE SAFE

After reviewing existing conditions and identifying opportunities for the study area, it was confirmed that improving safety for all users is an important need and priority for 25th Street. An overwhelming number of survey respondents conveyed their opinions of feeling very unsafe or somewhat unsafe along 25th Street, indicating a strong need for improvements in this area. This was a prominent guiding principle in developing alternatives, by seeking to enhance safety through design interventions.

REDUCE ILLEGAL DUMPING AND LITTERING

Another issue identified in the existing conditions assessment was that illegal dumping is a significant problem in the study area, particularly since 2015. Not only is it harmful to the environment and public health, but it can also create dangerous roadway and sidewalk obstructions for drivers, bicyclists, and pedestrians. Additionally, illegal dumping is detrimental to the appearance and appeal of the 25th Street corridor, deterring visitors, residents, and businesses.

MAINTAIN OR IMPROVE VISIBILITY AND SIGHT LINES ON THE STREET

One of 25th Street’s unique features is the overhead viaduct. The support columns of the viaduct present numerous challenges to roadway users, mostly creating restricting barriers to visibility and sight lines under and around the viaduct. Limited visibility and sight lines on the road create dangerous situations by hindering a user’s anticipation and reaction time. This affects drivers, cyclists, and pedestrians alike. Unique intersections caused by contrasting roadway alignments and configurations can also hinder visibility and sight lines along or near 25th Street. This is an important need to address along the 25th Street corridor to improve safety for all users.

MAINTAIN EFFICIENT VEHICLE MOVEMENT AND ACCESS TO LOCAL BUSINESSES AND OTHER DESTINATIONS

25th Street is an important roadway corridor in South Philadelphia that supports a variety of businesses and land uses. It is a critical need to maintain current car and truck movement patterns, allowing access to surrounding neighborhoods, businesses, and nearby destinations. Average daily traffic counts at 25th Street demonstrated that it carries a moderate amount of traffic, but not significant enough to justify current lane configurations.

PROVIDE ENOUGH LEGAL PARKING FOR RESIDENTS AND BUSINESSES

Parking is an important amenity for residents and businesses located on the 25th Street corridor. There is a need to ensure there is adequate parking to support the varying land uses and demand for services and amenities of the study area and its surrounding neighborhoods. Illegal parking was a prevalent issue uncovered in the existing conditions analysis, and limiting that behavior is also a key consideration for this overarching need.

*“This project should be a top priority of the city. It is **EXTREMELY** unsafe for all (pedestrians, bikers, and drivers). Also, there is an **EXTREME** amount of dumping, debris, and trash along the entire corridor, it is truly disgusting.” – Safety Survey Respondent*



PHASE 2- ROADWAY DESIGN OPTIONS

POTENTIAL ROADWAY IMPROVEMENTS

Some improvements are possible under most roadway designs, including road repairs, upgraded crosswalks, improved lighting, sidewalk enhancements, signaling key intersections, and curb extension. Timelines for implementation of these improvements depends on many factors, such as availability of funding, coordination with stakeholders, and phasing of improvement schedules.

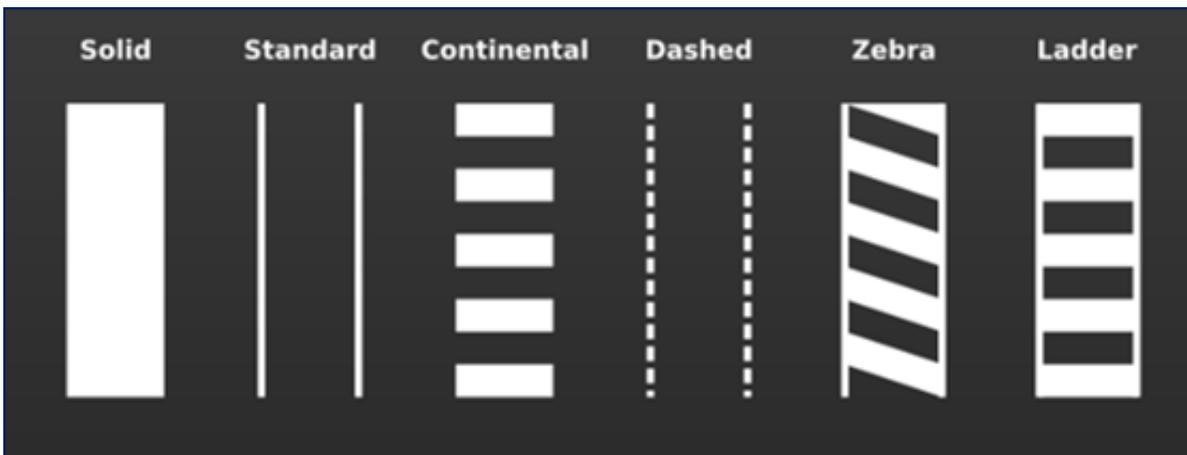
ROAD REPAIRS

When a final roadway design is implemented, sections of 25th Street within the study area may be repaved. This would address a number of issues including potholes and faded lane markings.

HIGH VISIBILITY CROSSWALKS

After repaving 25th Street, high visibility crosswalks can be painted at each intersection. The diagram below shows different types of high visibility crosswalk stripings that help alert drivers to slow down. The continental and ladder designs are most appropriate for 25th Street and are commonly used throughout Philadelphia. The picture on the top right shows an example of a high visibility crosswalk on 25th Street in fair condition, whereas the image on the bottom right shows an example of crosswalk that needs to be repainted. Repainting crosswalks and standardizing the striping will enhance safety for drivers and pedestrians along the corridor.

TYPES OF HIGH VISIBILITY CROSSWALK STRIPING



RECENTLY UPDATED CROSSWALK ON 25TH ST (2021)



FADED CROSSWALK ON 25TH ST (2021)



IMPROVED LIGHTING

Another potential improvement is lighting. Feedback from the Steering Committee and survey responses emphasized the need to improve visibility and lighting under the viaduct. Lighting will help improve both safety and security along the roadway. The picture below shows an example of improved lighting along Richmond Street beneath Conrail overpasses. Improvements to lighting should be included in any potential roadway designs and improvements.

LIGHTING ALONG RICHMOND ST – CONRAIL UNDERPASSES



SIDEWALK IMPROVEMENTS

Some portions of the sidewalk on 25th Street have recently been updated and are very good quality, as shown on the bottom left. However, most of the corridor has deteriorated sidewalks, as shown on the bottom right. In addition, there are often obstructions on the sidewalk such as construction sites and parked vehicles. Improvements along 25th Street could bring sidewalk quality up to a higher standard in key locations or throughout the entire corridor. Having safe and accessible sidewalks is important for all pedestrians traveling along the corridor, particularly individuals in wheelchairs or with strollers. Several respondents from both surveys noted the need for sidewalk improvements on 25th Street. Sidewalk improvements will require coordination between the City and private property owners, as sidewalk maintenance is ultimately the responsibility of property owners.

UPDATED SIDEWALK ON 25TH ST (2021)



CRACKED SIDEWALK WITH OBSTRUCTION (2021)



SIGNALIZING INTERSECTIONS

Signals on 25th Street have not been used since 2015. When CSX began viaduct repair work and installed netting beneath the viaduct, signals were removed or covered as shown in the picture to the top right. Stop signs have been installed at each intersection, which has caused confusion for some drivers. The project team heard from some stakeholder and survey respondents that they would like to see traffic signals return on 25th Street, at least in key locations. While reinstalling signals may increase project costs and is dependent on CSX cooperation and completion of repairs, signals could help improve safety and predictability for some of the design options and lane configurations explored in the study. Currently, poor visibility and the need to stop at two separate stop signs when crossing 25th Street makes navigating intersections confusing and creates conflicts. Traffic lights would help to direct vehicles through intersections, and signals could be timed to prioritize pedestrians.

Traffic signals could be accompanied by pedestrian signals with a Leading Pedestrian Interval (LPI) which would give pedestrians a few seconds head start crossing the road before vehicles. Pedestrian signals with countdown displays can also help pedestrians know whether they have enough time to cross the road. Several types of pedestrian signal indicators are shown in the graphic to the bottom right.

While signaling intersections on 25th Street would be required for certain design options and lane configurations, and may provide some safety benefits, there are also some downsides to reinstating signals. Due to the low amount of traffic on 25th Street, signals may not be warranted and could cause unnecessary queuing and delays. Similarly, they may encourage traveling at higher speeds than having stop controlled intersections throughout the entire corridor.

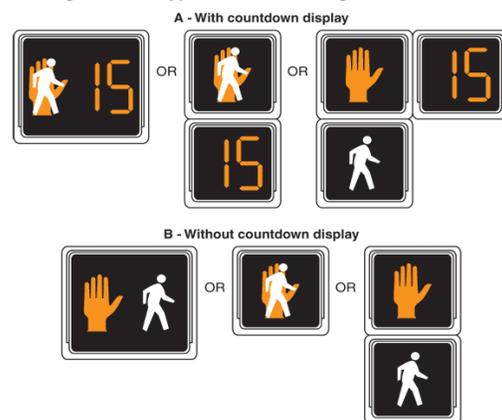
The number of intersections that would warrant traffic signals varies by roadway design and will be determined in the design phase of this project. All signal layouts will follow federal guidelines for traffic control and safety measures.

COVERED TRAFFIC SIGNAL ON 25TH ST (2021)



TYPICAL PEDESTRIAN SIGNAL INDICATORS (FHWA, 2020)

Figure 4E-1. Typical Pedestrian Signal Indications



CURB EXTENSIONS

Curb extensions are another design intervention that can improve safety, particularly for pedestrians. Also known as a ‘bulb-out’ or ‘bump-out’, this design treatment extends the curb into the roadway around crosswalks as shown in the images below and the diagram to the right. This shortens the distance that pedestrians must walk to cross the street, which reduces the time pedestrians are in the road and makes crossing safer. In addition, curb extensions help slow down vehicles making turns and prevent vehicles from illegally parking too close to the intersection or in the crosswalk.

BULB-OUT CURB EXTENSION (NACTO, 2022)



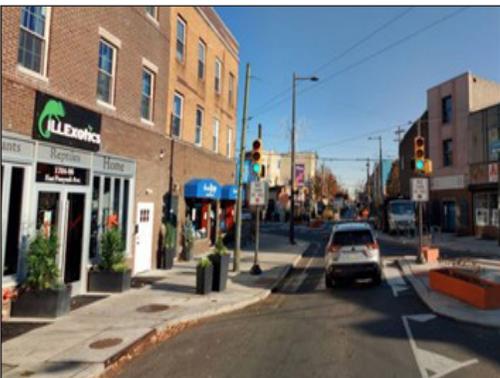
Curb extensions can be designed in a few different ways. Soft curb extensions with bollards and paint can be sufficient for slowing vehicle turns and shortening crosswalk lengths, as shown in the top right photo. Curbs can also be extended, bringing the sidewalk further into the roadway.

SOFT CURB EXTENSION IN THE CITY OF SEATTLE (SEATTLE, 2017)



There are costs related to hard and soft curb extensions; soft curb extensions are less expensive than hard extensions but are more expensive to maintain. Hard curb extensions are more costly to install but less expensive to maintain. Soft curb extensions can be piloted and removed if needed.

HARD CURB EXTENSION ON 12TH ST AND PASSYUNK AVE IN PHILADELPHIA (CYCLOMEDIA, 2021)



Curb extensions can be implemented on side streets along 25th Street in most lane configurations explored later in the report, but they may impact truck turns under some design options. However, implementing curb extensions to shorten the crossing distance on 25th Street (as opposed to on side streets) is greatly complicated by the presence of Philadelphia Water Department underground utilities approximately four feet to five feet from the curb in crosswalks on 25th Street. Therefore, curb extensions are not recommended directly on 25th Street.

“The signage along 25th Street is extremely confusing. Improved lighting, signage, and pavement markings would be a huge improvement.” – Safety Survey Respondent

PROCESS TO DEVELOP ROADWAY DESIGN OPTIONS

OVERVIEW OF PROCESS

Redesigning 25th Street presents an opportunity to explore current and potential lane configurations. As discussed in the existing conditions section of this report, the amount of traffic on 25th Street suggests that reducing the number of lanes dedicated to vehicle travel is feasible without negatively impacting traffic flow. The number of roadway lanes and the configuration are commonly evaluated during transportation planning and safety studies due to the impact lanes have on both safety and functionality of a roadway.

Lane configurations also impact elements like intersection improvements and traffic control. For example, having four lanes devoted to vehicle travel on 25th Street require traffic signals at nearly every intersection. Reducing the roadway to only two vehicle travel lanes would have different design considerations and requirements. Improvements discussed above, while possible in some form in any of the proposed roadway designs, may look slightly different in each design based on industry best practices and design standards.

The project team acknowledges that any changes from how lanes are currently used today will impact all users of the roadway. Even a return to pre-2015 conditions with four travel lanes will impact users because of how long the outer lanes have been closed. Potential roadway designs for 25th Street were developed with considerations for how residents, local businesses, cars, trucks, pedestrians, bicyclists, and more will be impacted.

The five priorities identified for 25th Street, and results from the safety survey, informed potential design options presented in this chapter. Eight design options were evaluated based on the five roadway priorities discussed with the Steering Committee. The project team narrowed the grouping down to five potential options, which were then presented to the Steering Committee to solicit feedback. The team refined the scenarios into three options for the second public survey. The roadway design options survey recorded opinions on these designs and suggestions for how to improve them. These three designs are analyzed in the next section. Pros, cons, community input, and other considerations for each option are presented.

EVALUATION CRITERIA

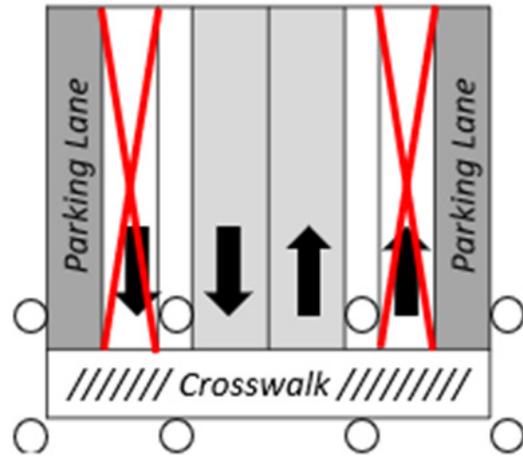
Evaluation criteria guided the process of narrowing potential roadway designs to three options. Options were rated as 'not meeting', 'meeting', and 'exceeding' each of the five roadway priorities. This framework helped the team identify trade-offs and options that support the community's vision and priorities for the 25th Street corridor. The following table describes how options were evaluated against each priority. Note that the five roadway priorities are weighted equally, and not listed in order of importance.

DESIGN OPTION EVALUATION CRITERIA	
Goal 1: Improve safety for all users of 25th Street, including cars, trucks, people walking, and people bicycling.	Exceeds: Design provides dedicated infrastructure for vulnerable roadway users (pedestrians and bicyclists) to reduce conflicts and improve safety.
	Meets: Design includes only two travel lanes for cars/trucks, which reduces potential conflicts between vehicles and other roadway users.
	Does Not Meet: Design increases potential for conflicts and decreases safety (e.g., return to four travel lanes increases number of conflict points and had historically higher crash rates).
Goal 2: Minimize illegal dumping and littering.	Exceeds: Configurations with active vehicles (cars, trucks, and buses) in all lanes are most likely to deter dumping.
	Meets: Configurations with active outer lanes and bike lanes/multi-use path/parking in the center are likely to deter dumping.
	Does Not Meet: Inactive lanes are not likely to deter dumping.
Goal 3: Reduce visibility and sight line issues.	<u>Configurations that reduce visibility and sight line issues</u> (if 2 are associated with a configuration then it exceeds, 1 it meets, 0 or less does not meet): <ul style="list-style-type: none"> - Road designs that reduce the number of lanes and limits vehicle travel to the outer lanes, where they are more visible to traffic on cross-streets and pedestrians. - Separating vehicle travel from other modes (bus, bike, etc.) urationsis
	<u>Configurations that may negatively impact visibility and sight lines</u> (-1 point for any of these) <ul style="list-style-type: none"> - Angled parking lanes may create new sight line issues when vehicles move in and out of the parking spaces around the viaduct columns. - Rerouting bus lanes to travel under the viaduct may create visibility barriers through the median/across the corridor depending on frequency of bus service.
Goal 4: Maintain efficient vehicle movement and access to local businesses and other destinations.	Exceeds: Efficient vehicle movement and access to businesses is at its highest with four lanes open to vehicles.
	Meets: Efficient vehicle movement and access to businesses is maintained with the outer lanes open to vehicle travel.
	Does Not Meet: Access to businesses is impaired by limiting vehicle travel to the center lanes.
Goal 5: Ensure adequate parking for residents and businesses while minimizing illegal parking.	Exceeds: Legal parking supply is increased.
	Meets: Legal parking supply is maintained while active uses deter illegal parking in other lanes.
	Does Not Meet: Design allows potential for illegal parking.

INITIAL EIGHT DESIGNS

The following table lists the initial eight roadway design options developed for 25th Street and notes how these were carried into the next phase or removed from consideration. The diagram to the right shows an aerial view of what typical section of 25th Street looks like today. The circles represent the viaduct support columns, while the arrows identify vehicle travel direction. The outer vehicle lanes have X's because they are currently closed to traffic. Note that the outer parking lanes shown in this diagram would still be in place under any of these eight design options.

DIAGRAM OF 25TH ST AS IT EXISTS TODAY



INITIAL EIGHT ROADWAY DESIGNS FOR 25TH STREET		
1	No build / no change (as shown in the diagram above)	Carried into next phase of options
2	Return to Pre-2015 conditions (four travel lanes)	Carried into next phase of options
3	Outer vehicle travel lanes, inner parking lanes	Combined with option 4 for next phase of options
4	Inner vehicle travel lanes, outer lanes redesigned for expanded parking	Combined with option 3 for next phase of options
5	Outer vehicle travel lanes, inner bike travel lanes	Combined with option 7 for next phase of options
6	Inner vehicle travel lanes, outer bike travel lanes	Removed due to potential conflict of having bike lanes next to business parking, loading zones, and driveways
7	Outer vehicle travel lanes, inner multi-use path	Combined with option 5 for next phase of options
8	Outer vehicle travel lanes, inner bus only lanes	Carried into next phase of options

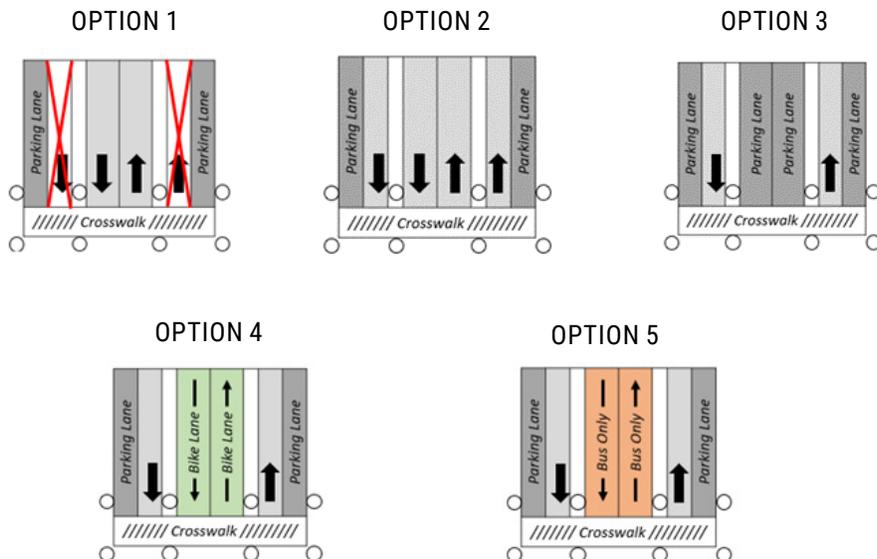
FIVE DESIGN OPTIONS PRESENTED TO THE STEERING COMMITTEE

The following table lists the five roadway design options presented to the Steering Committee in November 2021. Notes are provided to indicate which were carried into the next phase, consolidated with other options, or removed from consideration. These five options were consolidated from the list of eight options shared on the previous page. The graphic to the right shows how these five options were rated based on the evaluation criteria for the five identified roadway priorities. A symbol key is located to the right, and diagrams of each of the five potential options are shown below the table.

Alternative	Improve Safety for All Users	Address Illegal Dumping	Improve Visibility	Maintain Access/ Movement	Improve Legal Parking
No Build / Change	~	✘	✘	~	✘
Return to Pre-2015	✘	✓	✘	✓	~
Expanded Parking	~	~	✘	~	✓
Inner Bike Lanes or Shared Use Path	✓	~	✓	~	~
Inner Bus Lanes	~	✓	~	~	~

		
EXCEEDS CRITERIA	MEETS CRITERIA	DOES NOT MEET CRITERIA

FIVE ROADWAY DESIGN OPTIONS PRESENTED TO THE STEERING COMMITTEE		
1	No Build / No Change	Removed due to community interest in changing the roadway
2	Return to Pre-2015	Carried into next phase of options
3	Expanded Parking in Either Central or Outer Lanes	Central parking lanes removed due to visibility issues. Outer parking carried into next phase of options.
4	Inner Bike Lane / Multi-Use Path	Carried into next phase of options
5	Inner Bus Only Lane	Removed due to higher interest in other options



ROADWAY DESIGN OPTIONS

After collecting feedback from the Steering Committee and further exploring potential designs, the project team refined the number of options from five to the following three. These options were presented to the public in a Roadway Design Options Survey. This section includes a description of each the design, an analysis of pros and cons, a list of additional considerations, and a summary of comments received from the public and Steering Committee on each option.

- **Design A:** Keep driving in the center lanes under the viaduct, expand parking in outer lanes
- **Design B:** Add bike lanes and pedestrian path in central lanes, use outer lanes for vehicle travel
- **Design C:** Return to pre-2015 conditions with four vehicle travel lanes

DESIGN A: KEEP DRIVING UNDER THE VIADUCT, EXPAND PARKING OUTSIDE OF VIADUCT

The first of three options keeps two vehicle travel lanes under the viaduct. The lanes on the outside of the viaduct would be redesigned as back-in angled parking loading for businesses as needed. This concept also provides space for planters or other amenities to be placed behind viaduct support columns where parking is not feasible. The graphic shows what this design would look like on the street level.

DESIGN A: AERIAL GRAPHIC



PROS
Increases curbside parking.
Retains two lanes of traffic with no added congestion.
Requires fewer traffic signals.
Makes crossing intersections more predictable.
Inner Bus Only Lane
CONS
Requires increased regulations and enforcement of parking.
May not deter all dumping.
Angled parking creates potential traffic conflict from parking vehicles.

PROS AND CONS

This design allocates more space in the outer lanes for parking and loading. However, additional parking regulations, signage, and enforcement will be required to ensure parking is used appropriately. While parked cars may deter dumping in the outer lanes, empty parking spaces may not, so this design may deter dumping better along parts of 25th Street where cars park regularly. Back-in angled parking also has the potential to create traffic conflicts, as parking vehicles need to slow down, stop, and back into the parking space. Based on the average number of vehicles traveling on 25th Street every day, conflicts and increased congestion caused by parking movements is likely to be minimal. This design can also be implemented with fewer

traffic signals than the four lane option. In addition to ranking the design options, respondents were given the opportunity to include general comments about the corridor. These responses include many details about the different trade-offs and considerations associated with each design.

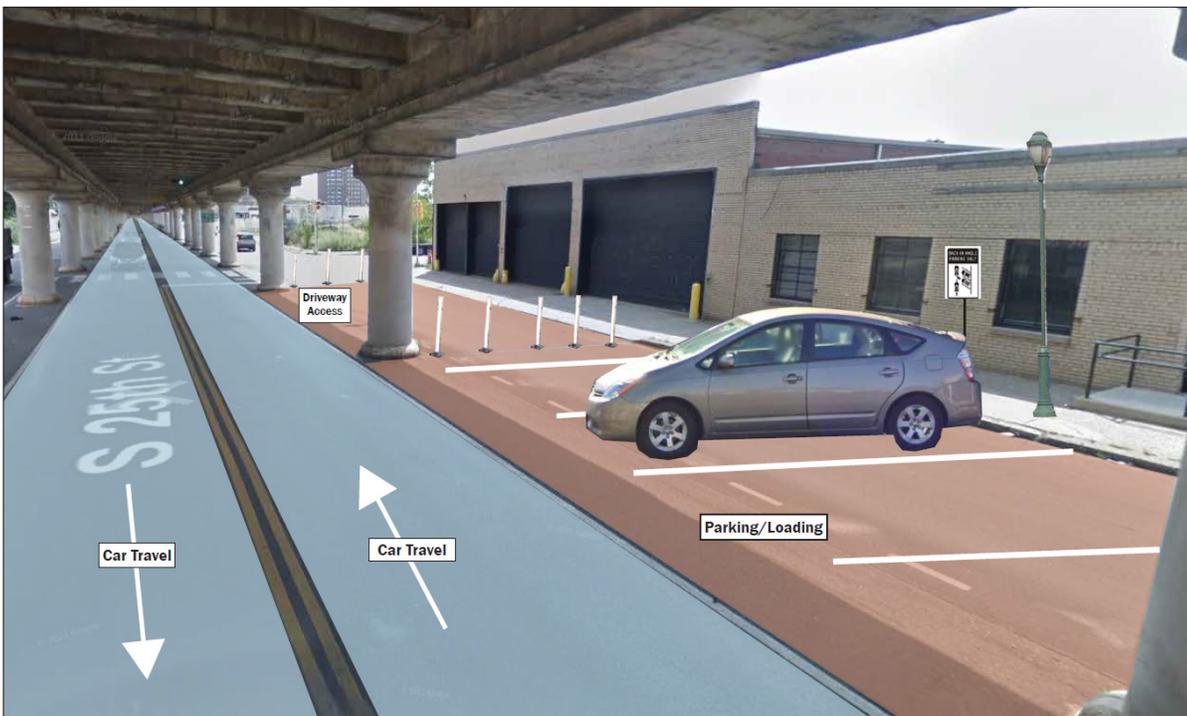
CONSIDERATIONS FOR DESIGN PHASE

There are several other considerations that should be explored in future design phases, such as:

- Evaluate parking regulations and potential impacts on design and enforcement. Survey respondents had mixed opinions about whether permit parking or timed parking zones are needed on 25th Street.
- Coordinate with the community, PWD, and other city agencies on the most beneficial uses of open space behind viaduct support columns where angled parking spaces cannot be placed.
- Explore feasibility of incorporating a bicycle lane as part of this design, such as between the curb and angled parking.
- Explore moving back stop bars in the center travel lanes on 25th Street to make turning movements from side streets onto 25th Street easier for trucks, buses, and other large vehicles.
- Determine whether traffic signals are warranted at certain intersections, or whether the entire corridor will remain stop controlled.
- Explore design solutions to prevent vehicles from passing in parking lanes in areas where parking may be underutilized and improve visibility for vehicles pulling out of business driveways, between angled parking, and into the center lanes.

"The parking in Design A will make frequent stopping common and completely congest traffic flow..." - Roadway Design Options Survey Respondent

DESIGN A: STREET VIEW GRAPHIC



DESIGN B: RETURN DRIVING TO OUTER LANES OF THE VIADUCT. ADD BIKE LANES AND A WALKING PATH UNDER THE VIADUCT

The second option moves driving to the outer lanes of the viaduct. The central lanes are transformed into bicycle lanes with a walkway for pedestrians. Curbside parking would be retained, so there would be the same number of parking spots as there are today.

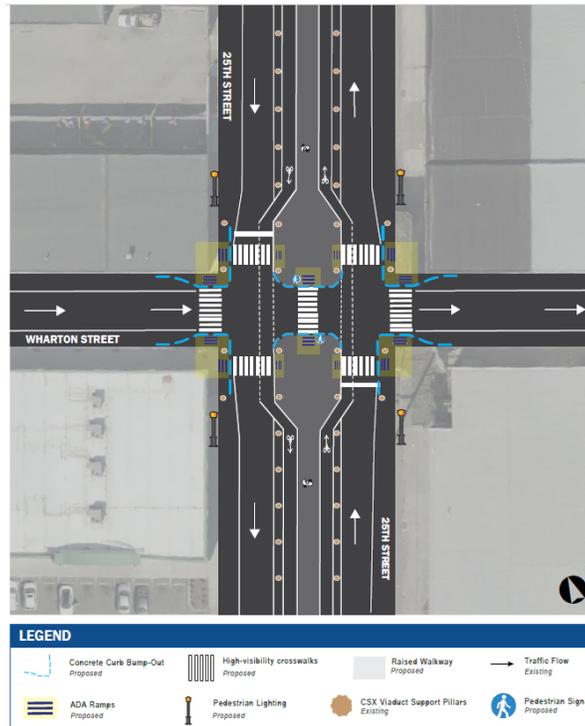
PROS AND CONS

Similar to Design A, reducing vehicle lanes from four to two can make crossing the street more predictable and safer, particularly for pedestrians. In this design, a central walkway also acts as a pedestrian refuge area for those crossing 25th Street (i.e., people cross one lane, have a safe place to stop in the center of the roadway, then cross the other lane). This option includes protected bike lanes to separate vehicle traffic from bicycles, making it the safest options for bicyclists. Bicycle lanes are designed to come to the outer edge of viaduct support columns at intersections to make bicyclists more visible to drivers. Dashed lines mark the bikeway through the intersection to prevent vehicle and bicycle traffic from mingling. A central crosswalk is also provided for people using the central walking path. Corner curb extensions are also provided on cross streets to shorten crossing distances for pedestrians.

PROS
Makes crossing intersections more predictable.
Provides safe bike lanes.
CONS
Requires a double-stop to cross 25th Street where there aren't traffic lights.

"The central bike/pedestrian walkway opens the interesting possibility of beautifying the space. It seems to remove dumping as an issue and regulates the speed of cars more. We should be putting pedestrians first in this design since there's already sufficient high-speed roads to commute north and south in that area off toward I-76" - Roadway Design Options Survey Respondent

DESIGN B: AERIAL GRAPHIC

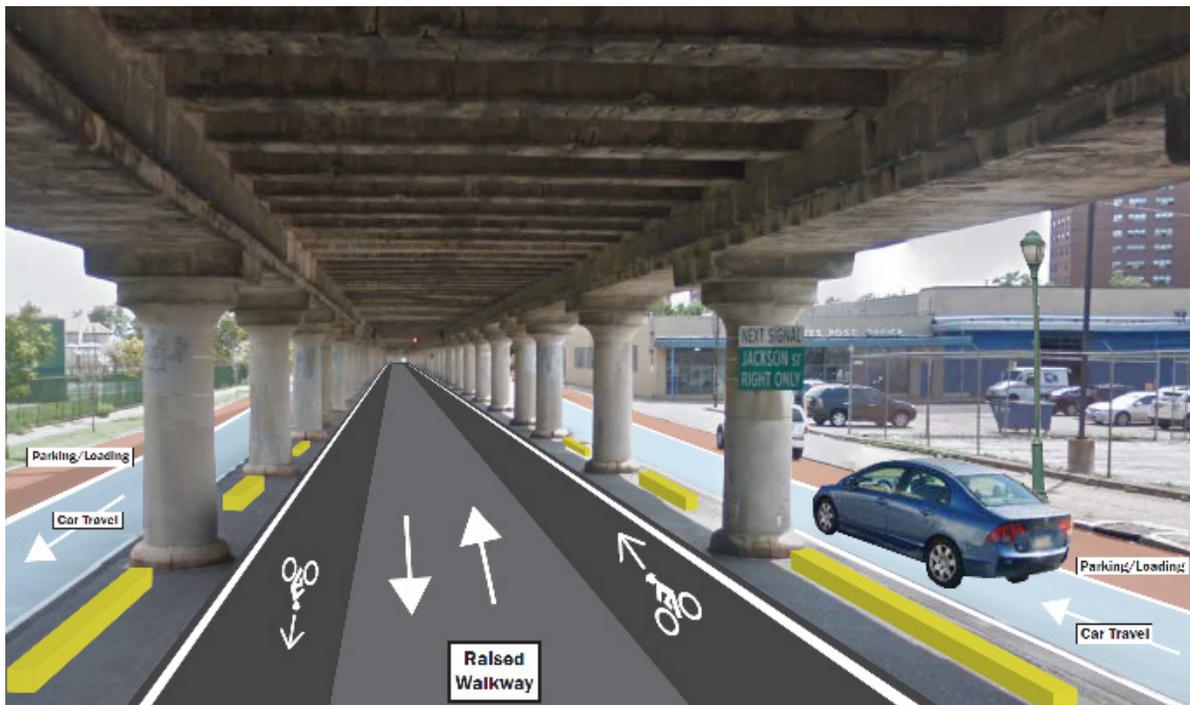


CONSIDERATIONS FOR DESIGN PHASE

There are many other considerations that should be explored in future design phases, such as:

- The safest way to incorporate a central walking path involves bringing traffic signals back to 25th Street and implementing pedestrian signals for the central crosswalk. Without bringing back signals, vehicles crossing 25th Street or turning left will encounter a double stop situation and block the central crosswalk. If the majority of intersections along 25th Street are to remain stop controlled, the central area may be better suited to accommodate solely bicyclists to prevent the conflict between the double stop and the central crosswalk.
- When trucks and other large vehicles turn from side streets onto 25th Street, they may encroach on the bicycle lane where they are brought to the outer edge of the columns. Removing the proposed bump outs from side streets for this design can help alleviate this issue.
- The central bike lanes and/or pathway could either be raised, similar to a sidewalk, or kept at street level with barriers to prevent vehicles from entering the area. These options should be further explored in the design phase.
- Potential traffic impacts of this design should be explored, such as whether trucks and cars may divert to nearby residential streets instead of using 25th Street.

DESIGN B: STREET VIEW GRAPHIC



DESIGN C: RETURN TO PRE-2015 CONDITIONS WITH FOUR DRIVING LANES

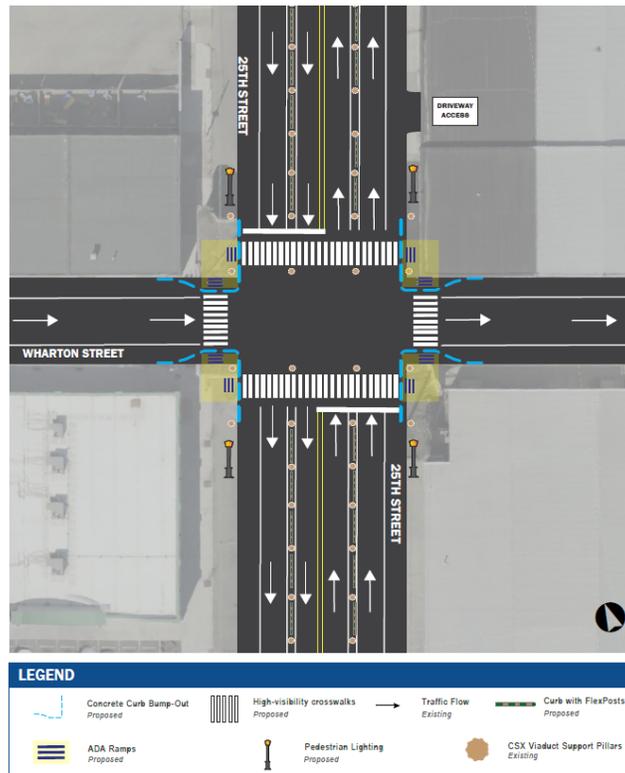
The third option returns 25th Street to its configuration before the outer lanes were closed in 2015, with four vehicle driving lanes. This option has two driving lanes under the viaduct, with an additional driving lane on either side. Curbside parking lanes would be retained, so there would be the same number of parking spaces on 25th Street as there are today. Lane separators between the inner and outer driving lanes are added in this design to reduce cars weaving between lanes. Previously when the roadway had four travel lanes, there were no design treatments to prevent vehicles from switching lanes between the columns.

PROS AND CONS

This design retains curbside parallel parking. However, a roadway design with four travel lanes requires traffic lights at most or all intersections. While signals may provide some benefits to reduce potential conflicts and improve predictability navigating intersections, they could cause unnecessary queuing at red lights. There were also more pedestrian safety concerns when people had to cross four lanes, which will return if the roadway reverts to this design. Crossing four travel lanes could be a deterrent to crossing 25th Street, and this design would continue limiting connectivity between the Point Breeze and Grays Ferry neighborhoods. Finally, a design with four travel lanes promotes higher speeds and increases the likelihood for potential conflicts and crashes.

PROS
Retain curbside parking.
CONS
Requires traffic lights at most or all intersections, which increases costs.
Does not fix the pedestrian issues that existed before the lanes were closed.
Design promotes higher traffic speeds and increases the chance for crashes.

DESIGN C: AERIAL GRAPHIC



CONSIDERATIONS FOR DESIGN PHASE

There are a number of other considerations that should be explored in future design phases if Design C is further investigated, such as:

- Determine the feasibility or reinstalling traffic signals throughout the majority of the corridor.
- Explore moving back stop bars in the center travel lanes on 25th Street to make turning movements from side streets onto 25th Street easier for trucks, buses, and other large vehicles.
- Identify signage, pavement markers, or other design treatments to inform drivers about proper turning etiquette: left turns must be made from the inner lanes, and right turns must be made from outer lanes.
- Identify whether vehicles will be allowed to switch lanes, and if so how and where (e.g., vehicle is in outer lane but needs to make a left hand turn from the inner lane).

“The columns create major visibility problems for all users: pedestrians crossing the street, drivers looking for crossing/turning traffic and pedestrians, and bike riders looking for cars and vice versa. Four lanes of car traffic was unsafe previously and will be worse with increased traffic in the neighborhood” - Roadway Design Options Survey Respondent

DESIGN C: STREET VIEW GRAPHIC



INTERSECTIONS CONSIDERATIONS

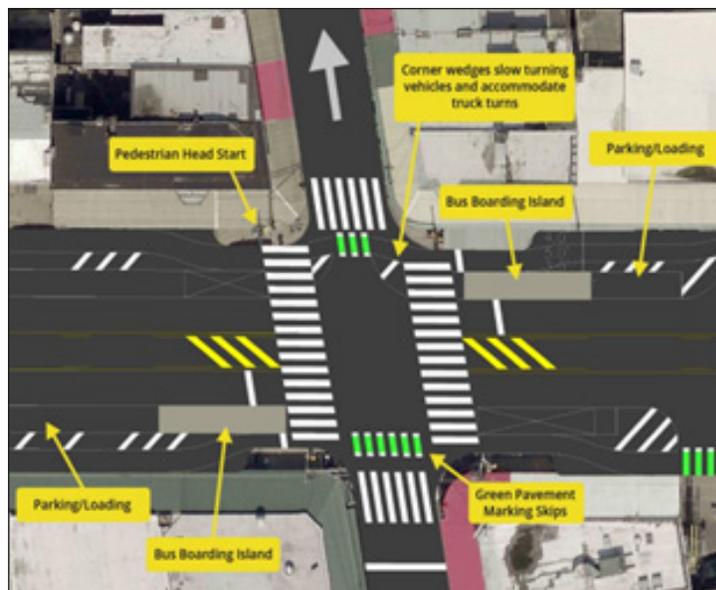
In addition to high-visibility crosswalks, curb extensions where feasible, and other possible roadway improvements identified earlier in this report, further design and implementation of any of the three design concepts will require special considerations at unique intersections throughout the corridor. Below is a list of several key locations and a summary of potential issues, considerations, and recommendations. Some are general considerations, while some are specific to the three roadway design options.

WASHINGTON AVENUE

The Washington Avenue repaving and improvement project will repave and restripe Washington Avenue from Grays Ferry Avenue to 4th Street in 2022. The project will include a new roadway layout from 11th Street to 4th Street that will include shorter effective pedestrian crossing distances, separated bike lanes, and traffic signal timing changes. Additional safety improvements on these blocks will speed cushions, centerline hardening, and corner wedges to slow vehicle speeds. The layout of Washington west of 25th Street will remain as today with four vehicle lanes. Speed cushions are also planned for 12th Street and 5th Street to deter cut through traffic at the locations where the roadway layout changes from four to three vehicle lanes.

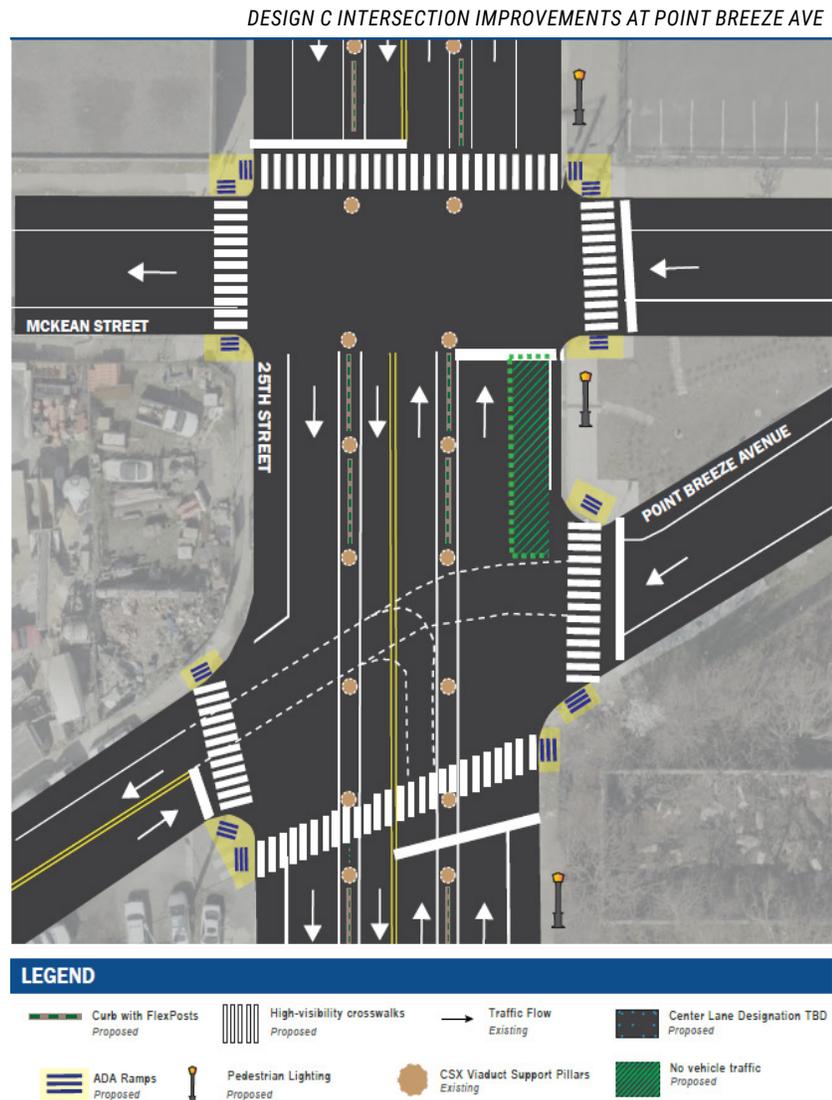
If Design B with bicycle lanes in the center is chosen for 25th Street, the design in the northern end of the study area approaching Washington Avenue must be configured to allow bicyclists to safely transition to bicycle lanes on Washington Avenue. Similarly, if a pedestrian path is also in the center, there must be a safe place for them to cross back to the sidewalk. This could be accomplished at the intersection of Washington Avenue and 25th Street, or potentially in the approaching block starting at Ellsworth Street where the overhead viaduct leaves 25th Street and veers northwest toward the Grays Ferry Avenue and the Schuylkill River.

WASHINGTON AVE EXAMPLE 3-LANE INTERSECTION



POINT BREEZE AVENUE

The intersection of Point Breeze Avenue and 25th Street presents challenges due to its proximity to McKean Street and the angle of the intersection. The graphic to the right shows options to improve the intersection under Design C. Improvements include better lane delineation to guide vehicles through the intersection and clear demarcation of areas where vehicles should not be allowed to park (particularly the area adjacent to the island between Point Breeze Avenue and McKean Street) using flex posts or similar design treatments. The design phase should also evaluate whether the segment of Point Breeze Avenue on the east side of 25th Street needs to remain open. This segment is separated from the rest of Point Breeze Avenue on the east side of 25th Street, there are no businesses or driveways on this small segment of roadway, and the same turning movements can be made from McKean Street. While this segment of roadway provides a direct connection across 25th Street to the western section of Point Breeze Avenue, the western segment of Point Breeze Avenue can still be accessed from 25th Street. Closing this portion of Point Breeze Avenue should be further evaluated as a way to improve safety and repurpose that section of roadway for beautification or other purposes.



SNYDER AVENUE

Snyder Avenue is a two-way street, with traffic traveling east-west across 25th Street. Because it has two lanes, it is wider than most other roadways intersecting 25th Street. While curb extensions are suggested in other locations throughout the study area, Snyder Avenue would be a priority location for this treatment due to the width of the roadway and the distances pedestrians need to cross. The Route 79 bus stops on Snyder Avenue are also the busiest on 25th Street, indicating there is pedestrian activity in this area before and after riders board and leave the bus.

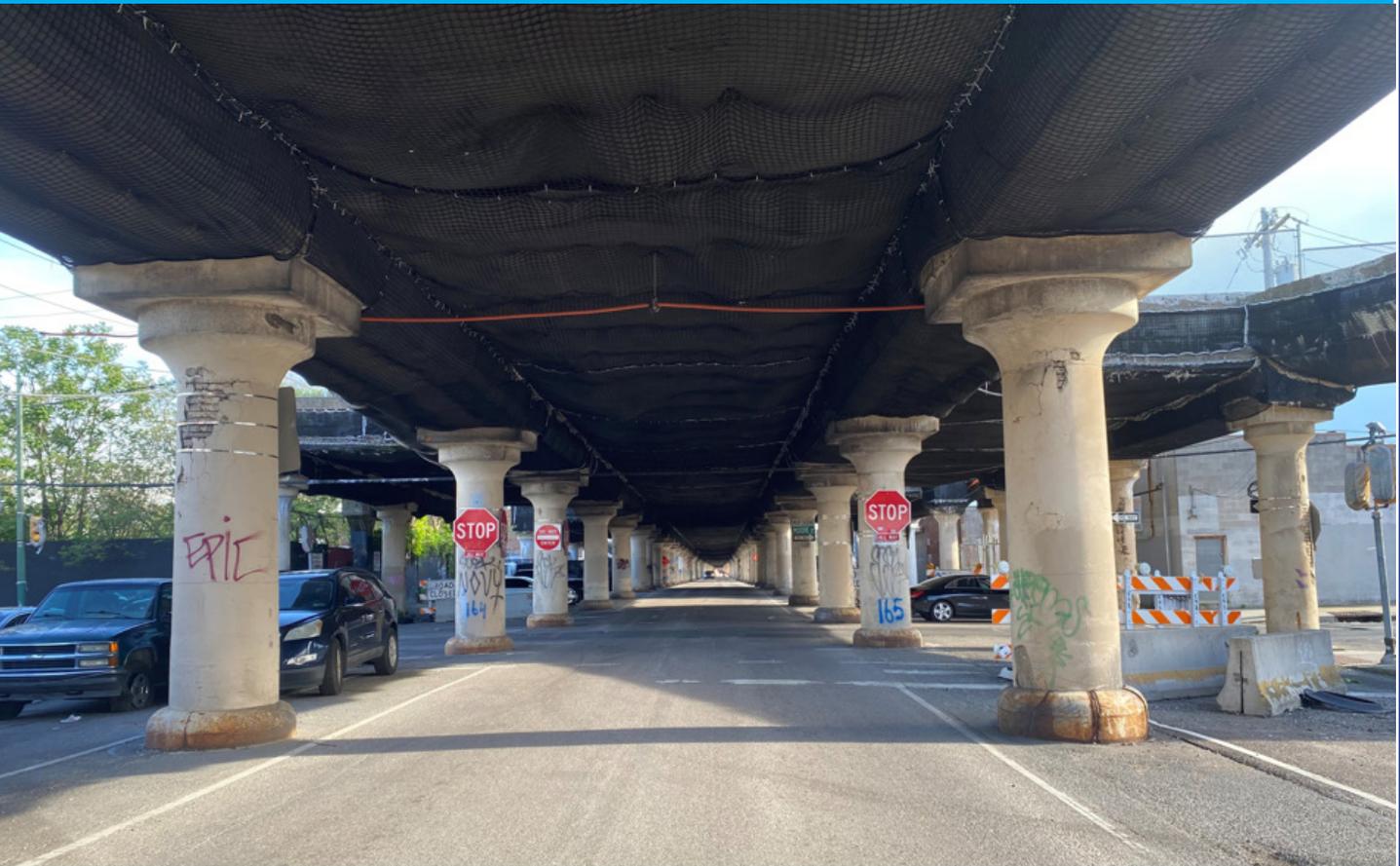
RITNER STREET TO PASSYUNK AVENUE

Vehicles traveling south on 25th Street (currently in the center lanes) are required to weave through the columns adjacent to an I-76 off-ramp between Ritner Street and Passyunk Avenue and merge into traffic in the outer lanes. Similarly, vehicles turning from Passyunk Avenue onto 25th Street traveling north are first brought into the outer lanes then are required to weave between the columns into the center travel lanes. Reopening the outer lanes and preventing vehicle travel in the center lanes in this section of 25th Street would eliminate the need to weave between columns and would enhance safety relative to the current condition, but a transition from the inner to outer lanes would need to occur earlier under Designs A and C. For Design A, back-in angle parking in the outer lanes should not be provided in this section of roadway. If Design B is implemented, designs must consider how to transition bicyclists and pedestrians out of the center lanes.

Additionally, Ritner Street provides access to an I-76 on-ramp in this area, but a viaduct support column obscures the approach crossing 25th Street as shown in the image to the right. Improving lane delineation, such as with dashed lines indicating where vehicles should travel through the intersection, could improve safety and reduce driver confusion at this location.

COST ESTIMATES

The project team explored cost estimates for two of the roadway designs, Option A (expanded parking) and Option B (protected bike lane). Option A is estimated, as of 2022, to cost \$12.5 million. This option includes milling, excavation, repaving and pavement markings. It also includes investments in pedestrian improvements like curb bump-outs and pedestrian-scale lighting. Option B adds additional infrastructure for separated bicycle access and is estimated to cost approximately \$17.5 million. Both option estimates include a 20% contingency, and both include the removal of existing outdated signals along 25th Street.



PHASE 3- RECOMMENDATIONS

RECOMMENDATIONS

The following recommendations are offered as next steps in the planning and design process to improve transportation safety on 25th Street:

- 1. Refine and further explore Designs A and B.** This effort should involve exploring suggestions offered by the community as well as the documented considerations for the design phase. Community suggestions and additional design considerations are documented on Pages 54-60.
- 2. Eliminate Design C (4 auto lanes) from further evaluation** for the following reasons:
 - It was the least popular option in the Roadway Design Options Survey.
 - Current traffic volumes do not justify the need for four vehicular travel lanes.
 - Nearly every intersection on the corridor must be signalized to accommodate the design.
 - Turning movements are greatly complicated with this design and creates the need for vehicles to switch travel lanes between the viaduct columns.
 - Crash rate was much higher with four lanes.
 - Design fails to meet safety and visibility priority criteria.
- 3. Pilot design concepts to evaluate impacts and collect community feedback.** Design A, B, or a variation on these designs could be implemented as a demonstration project using low-cost materials like paint, flexible bollards, and signage. The City of Philadelphia has piloted or tested other design concepts before committing to making the changes permanent. For example:

In 2018, the oTIS piloted parking protected bicycle lanes on Market Street and JFK Boulevard. Designs on both roadways involved removing one lane of traffic. oTIS identified goals and measures of success related to safety, mobility, and quality of life to help evaluate whether the project would be considered a success. oTIS also coordinated with stakeholders and the public to initially obtain support for the demonstration project and collected feedback on the new roadway configurations. The nine month pilot period proved that the roadway was successful – speeds were reduced, pedestrians felt safer, more bicyclists used the roadways, and traffic was not negatively impacted. As a result, the new roadway configuration was formalized and made permanent.

- 4. Implement short-term improvements that will work with any roadway design.** Any short-term improvements should help advance the five roadway priorities for 25th Street but must consider phasing. For example, repainting crosswalks could be a relatively low-cost, short-term enhancement for 25th Street, but if the entire corridor will be repaved as part of the larger redesign process it may be better to wait to avoid needing to paint crosswalks twice. Potential short-term improvements may include:
 - Repainting crosswalks
 - Restriping pavement markings, including stop bars and lane markers
 - Removing excessive signage (e.g., the signs announcing the name of the next street)
 - Planting street trees
 - Cleaning up trash and debris
 - Installing cameras to deter dumping and other illegal activity

5. **Continue community engagement efforts through the design phase.** It is critical to have support from neighbors in Point Breeze and Grays Ferry on the final design for 25th Street. Additional outreach should be conducted in the design phases of the project. Outreach should also focus on targeting businesses located on 25th Street since opinions on the three design options were more mixed among the businesses surveyed during this study than among members of the public.

6. **Continue coordinating with CSX to determine viaduct repair timeline.** While designs and recommendations from this study can help improve transportation safety on 25th Street, the current condition of the viaduct remains a safety concern. The City of Philadelphia must continue working with CSX to ensure the structure is repaired and work towards sharing a timeline for improvement to local residents and businesses.



COMMUNITY FEEDBACK

SAFETY SURVEY

The project team published a safety survey at the beginning of the study to allow residents and other interested parties to submit general comments and suggestions. This first survey asked respondents how often they use 25th Street, the types of places they visit along the corridor, how users travel on the road, and how safe they feel walking, biking, or driving. Respondents provided suggestions for improvements that would make them feel safer or more likely to use 25th Street. The project team mailed and passed out over 2,000 postcards to residents with information about the project and instructions to fill out this survey. The team received over 580 responses between April and December of 2021.

Survey respondents for the safety survey primarily lived in the surrounding neighborhoods, and had lived there for a range of times. Over 50% of respondents had lived in the neighborhood for 1 to 5 years, the next largest group having lived there for more than 10 years. When asked how they travel along or across 25th St, most respondents reported driving, but nearly 200 respondents reported walking on 25th St, and nearly 150 reported biking. Most survey respondents visited 25th Street at least 3 times per week.

The majority of safety survey respondents reported feeling “very unsafe” or “somewhat unsafe” when walking, biking or driving on 25th Street. Respondents generally felt more safe (or at least less unsafe) in a car than biking or walking. Nearly $\frac{3}{4}$ of respondents reported avoiding travel along or across 25th St due to safety or other concerns.

When asked “what would make you feel safer, or more likely to travel along or across 25th St,” respondents were generally supportive of “more/better lighting,” “functioning traffic lights” and “more/better signs,” in that order. More than 1/2 of respondents supported each of these proposed improvements, and more than 1/3 of respondents made suggestions for other safety improvements, including:

- Repairing/Replacing/Remediating the Viaduct
- Bike protections
- Cleaning up the street
- Road Repairs
- Traffic Calming
- Improved pedestrian Infrastructure

Safety survey respondents were also given an opportunity to mark a map of 25th St with areas of particular safety concern, and list the type of safety concern. Concerns ranged from lighting, road conditions, unclear signage, and driver behavior.

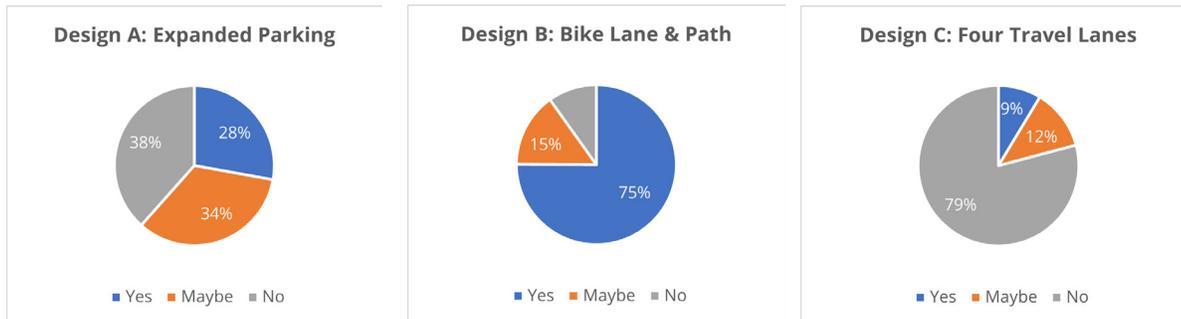
Last, a sample of business owners were surveyed with a version of the safety survey, with a focus on how the existing conditions, and the closure of the outer travel lanes had impacted their business operations. Business owners echoed resident concerns about the condition of the viaduct and the roadway. The impact was uneven and mixed regarding the closure of the outside lanes—some business types in some locations were using the closed travel lanes, for excess parking for staff or customers, while other businesses faced serious challenges with logistics of deliveries without access to outer lanes.



ROADWAY DESIGN OPTIONS SURVEY

The Roadway Design Options Survey asked people about their opinions on the three roadway designs and requested respondents comment on and rank the options. When asked if Design A meets the priorities for roadway improvements on 25th Street, 28 percent of respondents said yes and 34 percent of respondents said maybe. 75 percent of respondents said that Design B meets all of the roadway priorities and 15 percent said maybe. On the other hand, users are much less likely to think that Design C meets the roadway priorities. 79 percent of respondents said that Design C does not meet the roadway priorities.

DOES THIS DESIGN MEET THE 5 ROADWAY PRIORITIES?



Design B is the most popular option based on survey results. The following table lists how many respondents ranked each design as their first, second, or third option. In general, respondents that liked Design A and Design B most were most likely to rank Design C last. Respondents that liked Design C most were split in ranking Design A and Design B last. Overall, respondents were most likely to rank Design B as their first choice and Design C as their last choice.

SURVEY RESPONDENTS DESIGN RANKINGS							
Final Rank	Options	Chosen Ranking					
		1		2		3	
		#	%	#	%	#	%
1	Design B	417	72%	107	18%	53	9%
2	Design A	112	20%	390	68%	75	13%
3	Design C	48	8%	80	14%	449	78%

BUSINESS DESIGN PREFERENCES		
Option	First Choice	Last Choice
Design A	6	2
Design B	3	5
Design C	6	8

Preferences for each design were also reviewed by identifying respondents living within the neighborhood. When isolating responses to respondents living in the area or frequent visitors, the results remained very similar with 65 percent of respondents selected Design B as their first choice, followed by 22 percent for Design A and 10 percent for Design C.

Roadway design options were also reviewed with 15 businesses along 25th Street. Business owners were more

likely to pick Design A or Design C. Note that those that chose Design A as their first option chose Design C as their last option, while those that chose Design C as their first option were more open to Design A. One business noted the importance of having the outer vehicle lanes open to traffic to allow larger trucks to reach them; they are currently driving back and forth from meeting locations with smaller trucks to unload large truck deliveries. Two businesses noted that overflow

parking would likely be useful for their customers. Businesses also voiced concern about conflicts between bicycles and loading zones but note that keeping bikes in the central lanes would minimize this issue. According to business license data, there are approximately 25 businesses with addresses or driveway access on 25th Street, which indicates the need to conduct additional outreach with the remaining businesses.



*“The idea of a safe bike & pedestrian corridor is a great one. Lighting it properly will be very important.” -
Roadway Design Options Survey Respondent*

*“My primary concern with 25th Street is the visibility for both pedestrians and drivers. I’m torn between Design A and Design B, but I think cars being on either side of the viaduct offers better visibility, and bikes and walking being under offers shelter from the weather.” -
Roadway Design Options Survey Respondent*

DESIGN A - COMMUNITY INPUT

Expanded parking is a plus:

- The most popular aspect of Design A based on survey responses is the expanded parking on 25th Street.
- Survey respondents in favor of this option noted that parking is becoming more of a concern in their neighborhood, as residential development increases. This design can help alleviate pressure on the parking supply as a result of development.
- Respondents noted that this option is also flexible – lanes could be reopened if warranted or excess parking spaces could be converted into other uses.
- Several respondents noted that this design is the easiest to understand for drivers and pedestrians, which will allow for a smooth transition to the new roadway design.
- Respondents agreed that reducing the corridor to only two travel lanes could help reduce vehicle speeds and allow for safer turns on and off 25th Street.

Opinions diverge about back-in angled parking:

- There is disagreement about the back-in angled parking – some respondents prefer it, and some find it more difficult to use.
- Some respondents note that angled parking will be easier to get in and out of compared to parallel parking when considering the visibility issues on the corridor. Adding back-in angled parking would also force drivers to slow down for safety reasons.
- On the other hand, residents from other neighborhoods noted angled parking that has not been favorable in other locations, noting issues with driver confusion and conflicts with passing bicycles.
- Some respondents are concerned about the viability of back-in angled parking with the blind spots created by the viaduct support columns.
- There are also concerns that cars backing in and pulling out of the angled parking spaces will cause vehicle congestion.

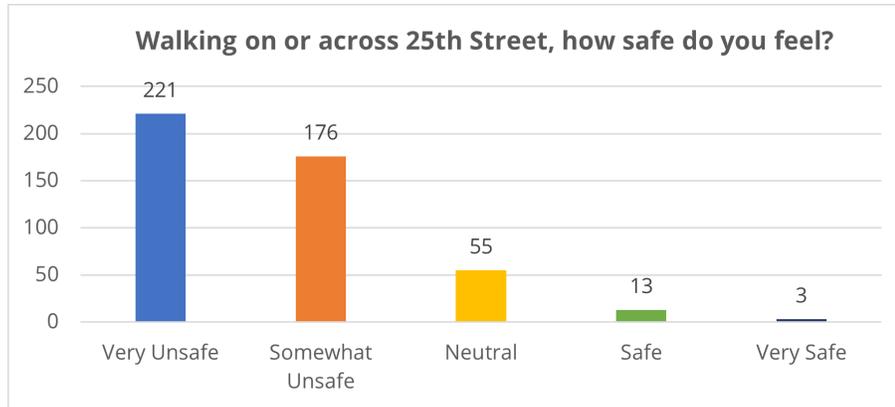
“Design A seems logical and a smooth transition since it is how we already drive on this road, and this parking is already happening between Wharton and Washington and seems to work.” – Roadway Design Options Survey

“...the angled parking option also seems like it creates visibility problems when crossing, but at least it only has one area of traffic to cross.” - Roadway Design Options Survey Respondent

Respondents also noted the possibility that delivery vehicles will double-park behind angled parking instead of using loading zones, which could also contribute to congestion.

Outer lanes may need more active uses:

- Respondents noted that parking spaces could potentially be occupied by abandoned vehicles. Similarly, expanding parking does not fully put the outer lanes into active uses, leaving an opportunity for continued illegal dumping.
- Respondents who do not like Design A note that this option does not meet the needs of all road users because it does not add any protections for bicyclists.
- Not all respondents agree that there are growing parking needs in this part of the city.



- Many respondents noted that there are already many unused parking spaces along 25th Street, and therefore parking should not be expanded.
- Several respondents reported that expanding parking is counter to the goal of making the corridor pedestrian-oriented.
- Other comments and suggestions:
- Explore opportunities for curbside dining and other beautification methods along the corridor.
- Use extra lane space creatively from block to block, putting parking and loading zones where most needed and adding other improvements to other blocks, such as planters that can provide stormwater catchment.
- Add a bike lane between the curb and angled parking.
- Redesign other nearby streets to complement this design. For example, replace one lane of parking on 23rd Street with a southbound bike lane, accounting for expanded parking on 25th Street.
- Increase police presence to ensure parking lanes not be used by cars as passing lanes and to deter illegal dumping in open parking spaces.
- Add safety measures such as cameras along the corridor.



DESIGN B - COMMUNITY INPUT

Protected bike lanes will be welcomed by many:

- There were many survey respondents in favor of this design because of its inclusion of bicycle lanes.
- There was not a clear preference for where the bike lane should be in the roadway, and many respondents said they would be happy with an added bicycle facility wherever feasible.
- This design brings a southbound bike lane below Washington Avenue (west of Broad Street, there is only one northbound bicycle lane on 22nd Street and southbound shared lane markings on 15th Street).
- Respondents also noted that these added lanes will create a new connection to Bartram's Garden, the Schuylkill River Trail, and areas in Center City.
- Respondents in favor of Design B also note that four vehicle travel lanes are not needed on 25th Street, and that adding bike lanes is a good reuse of the extra space.
- Additionally, this design provides overhead cover to the central lanes which could protect cyclists and pedestrians from harsh weather conditions.

There are several areas of improved safety:

- Many respondents agree that Design B will greatly increase safety along the corridor.
- Adding protected bike lanes and a central pedestrian walkway prioritizes the safety of these vulnerable roadway users more than any of the other options.
- Some noted that Design B is the only option that improves safety for all users of the road since it was the only option presented with a bicycle lane.
- Respondents also cited safety benefits previously described, such as the reduced number of travel lanes, separation between vehicles and bicyclists, and keeping bicyclists away from conflicts with parked cars.
- Respondents suggested that improving safety would enhance how people feel about 25th Street and could attract more people to walk and bike in the area.
- However, several people noted that lighting will need to be improved under the viaduct for safety to improve.

"If the center walkway/bike lane plan is implemented, please include physical barriers that prevent cars from accessing it. Too many bike lanes have cars parked in them, which defeats the whole purpose" - Roadway Design Options Survey Respondent

"There is plenty of space on this street and other parallel streets devoted to automobiles. However, there is almost no dedicated space for bicyclists, other than the nearby unprotected 22nd Street northbound bike lane. By having 25th Street act as a continuous protected bikeway, it will make a connection between the Schuylkill River Trail and Washington Avenue to FDR Park and the Navy Yard" - Roadway Design Options Survey Respondent

Reducing dumping:

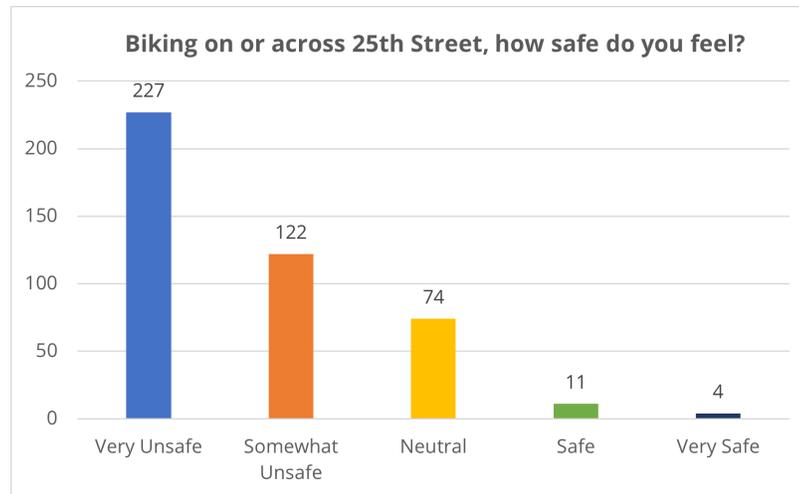
- Several respondents noted that they do not feel safe traveling on 25th Street now but would feel safe if Design B were implemented.
- Getting more people on the corridor daily was suggested as a way to help reduce issues like dumping, graffiti, and abandoned cars.
- Respondents also acknowledged

that this design activates the outer lanes, where dumping is currently most prevalent, and may help address dumping and littering elsewhere. Having more people traveling on 25th Street can help build a stronger sense of accountability and responsibility among those who use the corridor.

- Several respondents commented that without proper lighting, people may not want to use the walkway or bike lanes, which could lead to increased dumping issues in the center lanes under the viaduct.

Concerns from drivers:

- Those not in favor of Design B noted concerns with this option. The biggest is that the 25th Street corridor is not the right location for bike lanes because of its industrial character, with traffic, loading zones, and other uses.
- Some drivers do not like the idea of having a lane of people on foot in between two driving lanes. There is concern that auto accidents could be more deadly because of the design.
- Drivers asked how left turns will be impacted under this design.
- Additionally, some respondents want this design to account for more parking and loading.
- Concerns with visibility made some respondents hesitant to consider changes that would allow non-drivers on the road.



Other comments and suggestions:

- Install speed bumps or speed tables to help reduce vehicle speeds.
- Install reflective sticks on the walkway to help reduce conflict between bicyclists and pedestrians.
- Create clear barriers to block cars from being able to enter the central lanes at any point.
- Restrict left turns from 25th Street onto side streets.
- Use one of the central lanes for a two-way bike lane and the other central lane for the raised pedestrian path, instead of splitting the bike lanes with the pedestrian path in the center.
- Remove or redesign the proposed pedestrian path to allow cyclists to pass each other.
- Improve the condition of the viaduct before putting cyclists and pedestrians under the viaduct.
- Improve safety under the viaduct before creating bike lanes there.
- Those in favor of Design B noted that infrastructure that protects bikers and walkers is more equitable, citing a large portion of city and neighborhood residents not owning vehicles.
- Several respondents noted that this option will promote more walking and biking, which could reduce the amount of vehicle use on the corridor. This will reduce emissions in the surrounding neighborhoods, which will have positive human and environmental health impacts.

DESIGN C - COMMUNITY INPUT

Return to four lanes favored by some

- Some respondents do not want to see the roadway change from its original four lane design. Those that are in favor of this design note the need to prioritize traffic flow through the corridor.
- Some respondents think that having traffic lights to regulate traffic and pedestrians is the safest option, which is why Design C should be chosen.
- Respondents suggested that this design is more likely to reduce illegal dumping and abandoned vehicles than Designs A or B.

The case against a four-vehicle lane option

- Design C was the least popular option among survey respondents. Respondents that do not like Design C cite a series of safety concerns. For example, having four vehicle lanes could lead to more crashes since speeds will increase and drivers may weave between lanes.
- It was also suggested that adding vehicle lanes will not reduce traffic but could ultimately increase congestion through induced demand.
- Many respondents noted that there is not enough traffic right now to justify reopening all four travel lanes.
- Respondents cited poor visibility with the viaduct columns adding to safety issues, and several noted that having four lanes open is hostile to pedestrians and bicyclists.
- Some respondents also noted that 25th Street acts as a boundary between neighborhoods and that this design will make that worse.
- Note that Design C is the only option that did not receive any suggestions for how to improve it. This design received the most comments from respondents saying that it should not be considered at all.

“Visibility on 25th Street and the cross streets is already terrible. Four car travel lanes makes this more dangerous for all road users than it currently is.” - Roadway Design Options Survey Respondent

“Design C allows for potential growth and expanded use of the road, but Design A meets all the needs the road currently has.” - Roadway Design Options Survey Respondent

CONCLUSIONS

Based on results from the Roadway Design Options Survey, Design B received the most interest. It also ranked the highest based on how it helps advance the five priorities for 25th Street as shown in the table below.

Design Option	Safety	Dumping	Visibility	Vehicle Movement	Parking
Design A Angled Parking	Meets criteria	Meets criteria	Does not meet	Meets criteria	Exceeds criteria
Design B Bike Lanes & Path	Exceeds criteria	Meets criteria	Exceeds criteria	Meets criteria	Meets criteria
Design C Four Travel Lanes	Does not meet	Exceeds criteria	Does not meet	Exceeds criteria	Meets criteria

Design A is also a favorable option to many respondents and was well received by local businesses, so this option could be further explored. It also ranked well in all priorities except for visibility.

Design C was the least popular option and failed to meet safety and visibility goals for the project; however, it may be the most effective option at deterring illegal dumping by activating all four lanes.

Based on community input, analysis of pros/cons, and assessment of how each option meets the five priorities for 25th Street, Design B and A appear to be the most viable options but offer different benefits and tradeoffs for users of 25th Street.

ACKNOWLEDGEMENTS

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Councilmember Kenyatta Johnson's Office
Concerned Citizens of Point Breeze
Philadelphia Department of Commerce
Philadelphia Parks and Recreation
Philadelphia Streets Department
Point Breeze Community Development Coalition
Point Breeze Network Plus
Residents Organized for Advocacy and Direction (ROAD)
Southeastern Pennsylvania Transportation Authority (SEPTA)
Tasker-Morris Neighbors Association
West Passyunk Neighbors Association
Young Chances Foundation



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