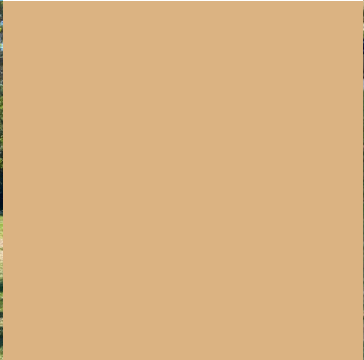
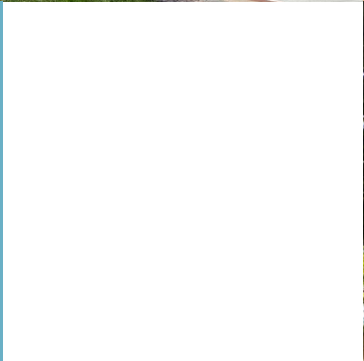
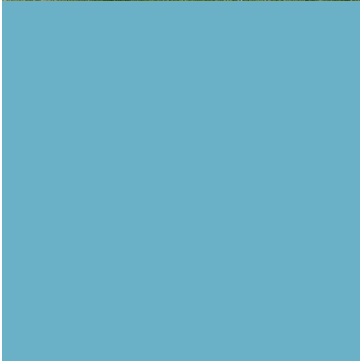


City of Long Branch Complete Streets Implementation Plan

August 2023



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Long Branch Boardwalk

1. Introduction

The New Jersey Department of Transportation's Bureau of Safety, Bicycle and Pedestrian Programs (NJDOT-BSBPP) provides interested and qualified communities with technical assistance as part of the Local Technical Assistance (LTA) Program. The City of Long Branch (Long Branch) requested technical assistance to develop a Complete Streets Implementation Plan (the Plan) which will detail recommendations to improve access to the downtown, waterfront, schools, transit, and recreational facilities. NJDOT-BSBPP has assigned a consultant, Sam Schwartz Consulting, LLC (Sam Schwartz), to provide technical planning, engineering, and outreach assistance in developing the Plan.

1.1 Why Develop a Complete Streets Implementation Plan

Long Branch is committed to improving the quality of life for both residents and visitors by providing walking and bicycling as safe, practical, and efficient modes of transportation and recreation. As a community with a diverse population and roadways that serve as direct routes to the New Jersey Shore, the city draws many visitors from across the state and beyond.

Long Branch has adopted multimodal policies through its previous transportation planning documents, including the Complete Streets Policy and Policy Guide and the city's Master Plan, which was reexamined in 2020. In addition, the Monmouth County Master Plan provides additional guidance and support for Long Branch as they work to improve multimodal safety and connectivity.

This plan will serve as a critical tool for guiding city staff and the community in building a balanced transportation system that is pedestrian and bicycle-friendly and encourages residents to use these modes of transportation. The goal is to encourage less driving of single occupancy vehicles and promote walking and biking as means of daily transportation.

1.2 Purpose

The purpose of the Plan is to identify opportunities to enhance the existing bicycle and pedestrian network through improved signage and infrastructure. The result will be a data- and community-driven Plan that serves as a roadmap for reducing walking and bicycling fatalities and serious injuries throughout Long Branch and improves multimodal infrastructure and connections. The Plan will focus on the development of specific active transportation improvements and an implementation plan.

As part of this effort, a bicycle compatibility assessment, sidewalk inventory and assessment, bicycle and pedestrian crash analysis, intersection assessments, and creation of maps of existing and proposed regional bicycle facilities have been performed. In addition to these typical phases, Sam Schwartz also reviewed the City of Long Branch Master Plan reexamination in 2020 and has identified recommendations from that document that have been implemented. Those recommendations which have yet to be implemented will be reevaluated for potential inclusion in this Plan. The Complete Streets Implementation Plan will focus on the selection of specific active transportation improvements and a plan for implementing the improvements.



Van Court Park






Long Branch High school

1.3 Equity Analysis

Signed into law by Governor Phil Murphy on September 18, 2020, New Jersey’s groundbreaking Environmental Justice Law, N.J.S.A. 13:1D-157, required the New Jersey Department of Environmental Protection (NJDEP) to evaluate the contributions of certain facilities to existing environmental and public health stressors in overburdened communities when reviewing certain permit applications.

An Overburdened Community, as defined by the law, is any Census block group, as determined in accordance with the most recent US Census, in which:

-  at least 35% of the households qualify as low-income households
-  at least 40% of the residents identify as minority or as members of a tribal community
-  at least 40% of the households have limited English proficiency (without an adult that speaks English “very well” according to the US Census Bureau)

The majority of Long Branch is identified as an Overburdened Community, which does not allow for a meaningful comparison between the Overburdened Communities and the remainder of the city. As a result, the equity analysis for this report will focus on individual elements of the Overburdened Community analysis, specifically low-income households and minority residents. **Figure 1** displays which Census tracts in Long Branch are designated as having a concentration of low-income and/or minority residents.

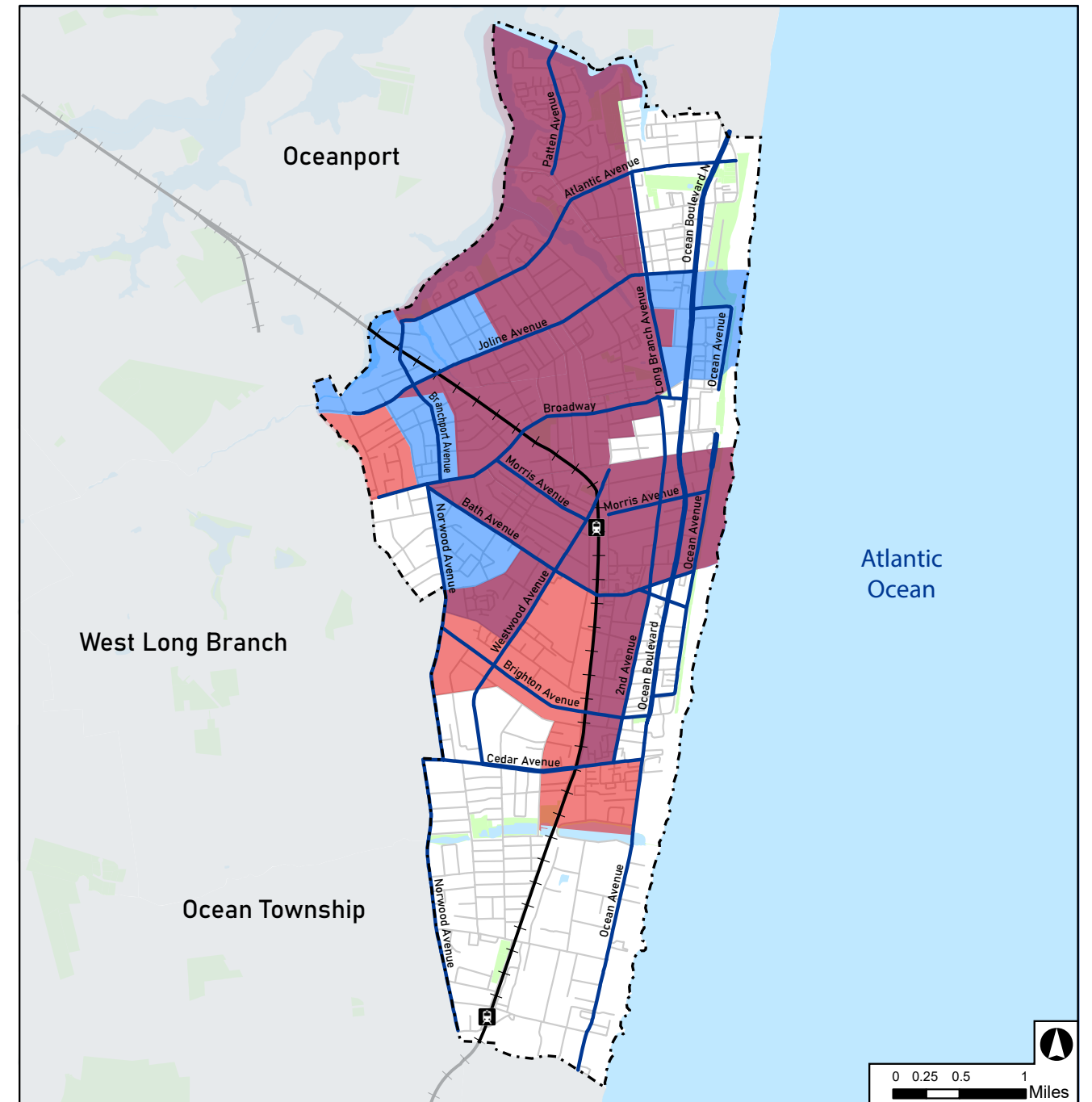











Figure 1. Long Branch Overburdened Communities

	Priority Corridor		Bodies of Water
	NJ TRANSIT Rail		Parks
	Municipal Boundary		Low-Income Community
	NJ TRANSIT Station		Minority Community
			Low-Income & Minority Community

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2. Long Branch Today

Long Branch located in Monmouth County, New Jersey is a beachside city of approximately 30,000 residents. Long Branch was one of many shore communities that were devastated by Hurricane Sandy. The city is extremely popular in the summer with its residential beachside condos, premier shops, and restaurants at Pier Village along the northern shore.

According to the U.S. 2020 Census, the City of Long Branch has a population of 30,424. **Table 1** summarizes demographic and socioeconomic characteristics for Long Branch and compares the city to its surrounding county and state, as well as the United States overall. Long Branch is more diverse than surrounding Monmouth County, and it has a higher portion of Hispanic or Latino residents than both the county, state, and nation. The median income in Long Branch is not dissimilar from the national measure, but it is far below the county and state median incomes.

Table 1. Demographic and Socioeconomic Characteristics – Comparison to County, State and Nation

Demographic and Socioeconomic Characteristics		Long Branch	Monmouth County	New Jersey	United States
Age	Under 20	25%	24%	24%	25%
	20 - 64	59%	59%	59%	59%
	Over 64	16%	18%	16%	16%
Race	White	68%	82%	66%	70%
	Black	14%	7%	13%	13%
	Asian	2%	5%	10%	6%
	Some other race	11%	3%	7%	6%
	Two or more races	5%	3%	5%	5%
Ethnicity	Hispanic or Latino	28%	11%	20%	18%
Median Income		\$62,030	\$103,520	\$82,250	\$65,000
Zero Vehicles		11%	7%	11%	9%

2.1 Existing Planning Studies and Proposed Projects

The *Complete Streets Implementation Plan* should not exist alongside, but rather enhance and incorporate elements of existing plans, visions, and goals for the community. A review was performed of existing plans, planning studies, and proposed projects that may impact or share goals and objectives with the Plan. Available documentation for existing and proposed plans, studies, and projects are included in **Appendix B**.

City of Long Branch Complete Streets Policy and Policy Guide

Adopted in 2014, the Long Branch Complete Streets Policy resolves that new construction and reconstruction of all public roads shall be constructed to safely accommodate travel by pedestrians, bicyclists, public transit, and motorized vehicles, with a special priority given to pedestrian safety. The accompanying Complete Streets Policy Guide outlines suitable roadway elements – such as sidewalks, crosswalks, curb extensions, bike lanes, transit stop amenities, and street trees – for different roadway types, ranging from neighborhood streets to principal arterials.

City of Long Branch Master Plan

The current master plan for the City of Long Branch, which was most recently updated through a reexamination in 2020, includes several relevant sections on transportation and mobility goals and policies. The 2020 reexamination reaffirms the objectives identified in the 2010 plan, and it identifies additional objectives as well. The new objectives include:

- The creation and development of a north-south and east-west bike path network, which would include wayfinding and bicycle facilities throughout.

- The installation of bicycle amenities such as parking, at both public and private destinations/locations.
- Addressing general pedestrian and vehicular connectivity issues within the sidewalk and roadway network.
- The proper assessment of the ability for roadway, parking, and other transport infrastructure to handle summer peak periods.
- The creation of better accessibility to all venues.
- The exploration of new funding sources through grants and other mechanisms to finance new infrastructure projects.
- The identification of locations where frequent vehicular speeding occurs and how to reduce it through calming methods.
- The identification of new locations for additional commercial parking in dense areas.

Furthermore, the plan highlights key areas that the city would like to see improved. These include sections of Broadway, Joline Avenue, Northeast Liberty Avenue, and the adjacent roadways and blocks around the Long Branch train station. Each location has been identified for its development potential, to become areas of commercial activity and residential development and infill.

Monmouth County Master Plan

Monmouth County updated their master plan in 2016, it contains a transportation section that details the specific recommendations that the county will promote to its member municipalities. These focus on the maintaining of long-term county strategies and plans; greater collaboration with regional, state agencies, and federal agencies; and the creation of accessible user interfaces and methods such as mapping and online information tools. The plan promotes the use of alternative energy sources and transportation modes through the adoption of and use of policies and programs such as complete streets, transit-oriented development, sustainability initiatives, and the creation of regional bikeways and transit



Broadway

networks. The county currently has developed several programs and organizations to reach these goals, including:

- The Monmouth County Transportation Council: An advisory board to the Monmouth County Planning Board, that focuses on transportation related issues and supports planning efforts across the county.
- Subregional Transportation Planning Program: A program that is part of NJTPA's Unified Planning Work Program, that outlines the work of NJTPA and its subregions. Through the program Monmouth County receives funding based on population for county projects.
- Jobs Access Reverse Commute Program: A grant program administered through the FTA that addresses the challenges faced by those

who are low income and/or on public assistance in attaining and maintaining adequate employment. The program currently supports the operation of bus services through the county between inland and shore communities.

In addition to these programs and organizations, the county also supports a range of partnerships with NJDOT, Together North Jersey, NJ TRANSIT, NJTPA, and smaller local entities such as Monmouth County, Brookdale Community College, and the Meadowlink Transportation Management Association. Through these partnerships the county both maintains its own interests and priorities, while helping to develop institutional progress through collaboration and coordination.

2.2 Existing Conditions

Development of the Plan will include data collection of the existing conditions. As part of this effort, Sam Schwartz performed a bicycle compatibility assessment, sidewalk inventory and assessment, bicycle and pedestrian crash analysis, intersection assessments, and developed maps of existing and proposed regional bicycle facilities.

The Existing Conditions Technical Memorandum was reviewed by the Steering Committee and finalized in June 2023. The existing conditions analysis included a review of pedestrian and bicycle conditions, crash history, and local and regional connections. Several analyses are summarized through an equity lens, documenting where there is a disparity in existing conditions for low-income and minority residents of Long Branch relative to other residents.

Priority Corridors

Based on the existing street network, the locations of schools, transit stops and stations, and the downtown area along with feedback from the Steering Committee and the public, 18 priority corridors were identified for this plan. These corridors are:

Table 2. Priority Corridors

Priority Corridor	Extents
2 nd Avenue	Broadway to Cedar Avenue
Atlantic Avenue	Branchport Avenue to Ocean Avenue
Bath Avenue	Norwood Avenue to Ocean Avenue
Branchport Avenue	Atlantic Avenue to Broadway
Brighton Avenue	Norwood Avenue to Ocean Avenue
Broadway	Myrtle Avenue to 2 nd Avenue
Broadway, South	2 nd Avenue to Ocean Boulevard
Cedar Avenue	Norwood Avenue to Ocean Avenue
Joline Avenue	Myrtle Avenue to Ocean Avenue
Long Branch Avenue	Atlantic Avenue to South Broadway
Morris Avenue	Broadway to Westwood Avenue; 3 rd Avenue to Ocean Avenue
Norwood Avenue (North)	Broadway to Cedar Avenue
Norwood Avenue (South)	Cedar Avenue to S Lincoln Avenue
Ocean Avenue (North)	Seaview Avenue to Avenel Boulevard; Laird Street to West End Avenue
Ocean Avenue (South)	Brighton Avenue to Lawrence Avenue
Ocean Boulevard	Riverdale Avenue to West End Avenue
Patten Avenue	Monmouth Boulevard to Renwick Place
Westwood Avenue	3 rd Avenue to Cedar Avenue

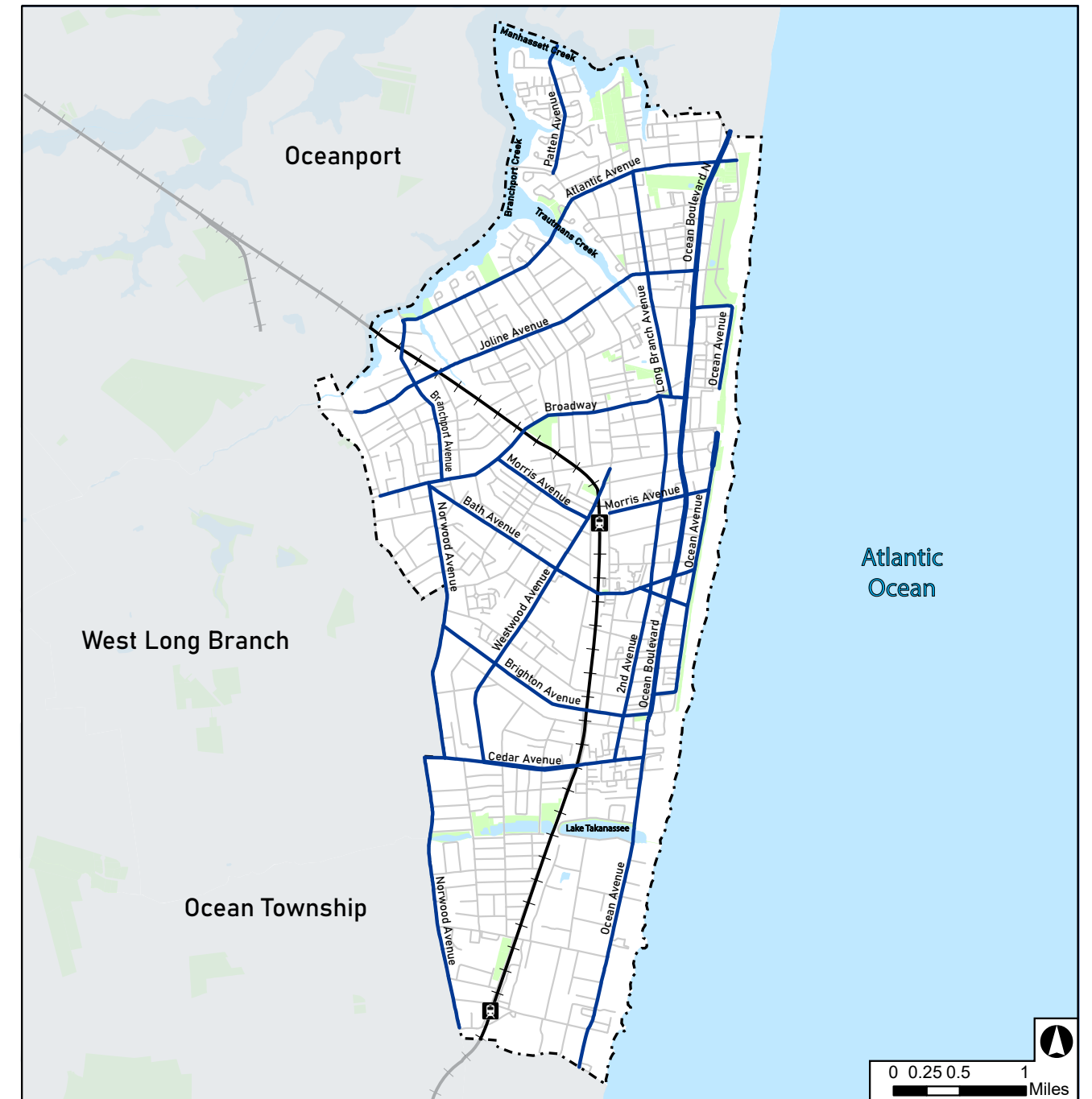
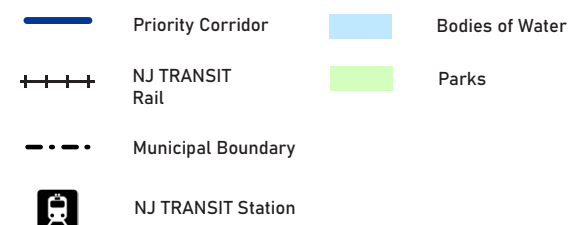


Figure 2. Priority Corridors



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Cedar Avenue

It is important to note that County Roads are under the jurisdiction for maintenance and improvements by Monmouth County, while municipal roads are the responsibility of Long Branch. However, for the implementation of bicycle facilities that require pavement markings an agreement could be made between Monmouth County and Long Branch in which the municipality is responsible for the installation and maintenance of those markings.

To identify potential deficiencies that need to be addressed during the development of the Complete Streets Implementation Plan, the project team performed an assessment of the existing conditions of Long Branch’s key corridors and intersections. The data collected includes sidewalk conditions and widths, bicycle compatibility, intersection geometry and signal timings, road widths, and speed limits. For the inventory, an initial desktop review was performed, followed by a field visit by the project team.

Roadway elements were inventoried along these corridors which included roadway width, lane and shoulder width, sidewalk width and condition, median and buffer presence and width, speed limit and presence of bicycle facilities. This data was utilized during the existing conditions analysis to provide a bicycle level of traffic stress analysis, identify safety concerns, and determine appropriate improvement treatments.

Existing Pedestrian Conditions

The pedestrian experience is generally comprised of conditions along roadways, as well as at crossings. This section summarizes the pedestrian conditions along roadways through a summary of sidewalks, and it addresses pedestrian crossings through a review of crosswalks, curb ramps, channelized right turns, and pedestrian signal heads. This analysis uses the New Jersey Complete Streets Design Guide as the design standard for pedestrians, and it generally evaluates pedestrian conditions relative to that guiding document.

Sidewalks

The sidewalk assessment evaluates both sidewalk width and sidewalk quality. The American with Disabilities Act (ADA) standards specify a minimum 5-foot clear path width to accommodate two wheelchairs passing each other. In addition to providing a more accessible facility, this minimum width also creates a more comfortable environment for pedestrians to walk side-by-side and pass each other, and for families with strollers. As a result, the sidewalk assessment uses 5-foot-wide sidewalk as a benchmark for an adequate sidewalk width. Sidewalk width is displayed in five categories: no sidewalk, sidewalk missing on one side, less than 5 feet on both sides, 5 feet or wider on one side, and 5 feet or wider on both sides. Figure 3 depicts sidewalk width by street segment.

As shown in **Table 3**, 35% of sidewalk mileage along Priority Corridors has sidewalks that are 5 feet or wider on both sides, and 26% of sidewalk mileage along Priority Corridors has a 5-foot sidewalk on one side of the street. Only a small portion of mileage along Priority Corridors is missing sidewalks all together (1%) or missing sidewalks on one side of the street (9%).

Table 3. Percent of Priority Corridor Mileage by Sidewalk Conditions

	Priority Corridors	Priority Corridors in Low-Income Communities	Priority Corridors in High-Minority Communities
Sidewalk Width			
5' or Wider on Both Sides	35%	25%	32%
5' or Wider on One Side	26%	34%	27%
Less than 5' on Both Sides	29%	38%	32%
Sidewalk Missing on One Side	9%	3%	7%
No Sidewalk	1%	0%	1%
Sidewalk Quality			
Good	61%	58%	59%
Fair	35%	34%	33%
Poor	4%	8%	7%
No sidewalk	1%	0%	1%

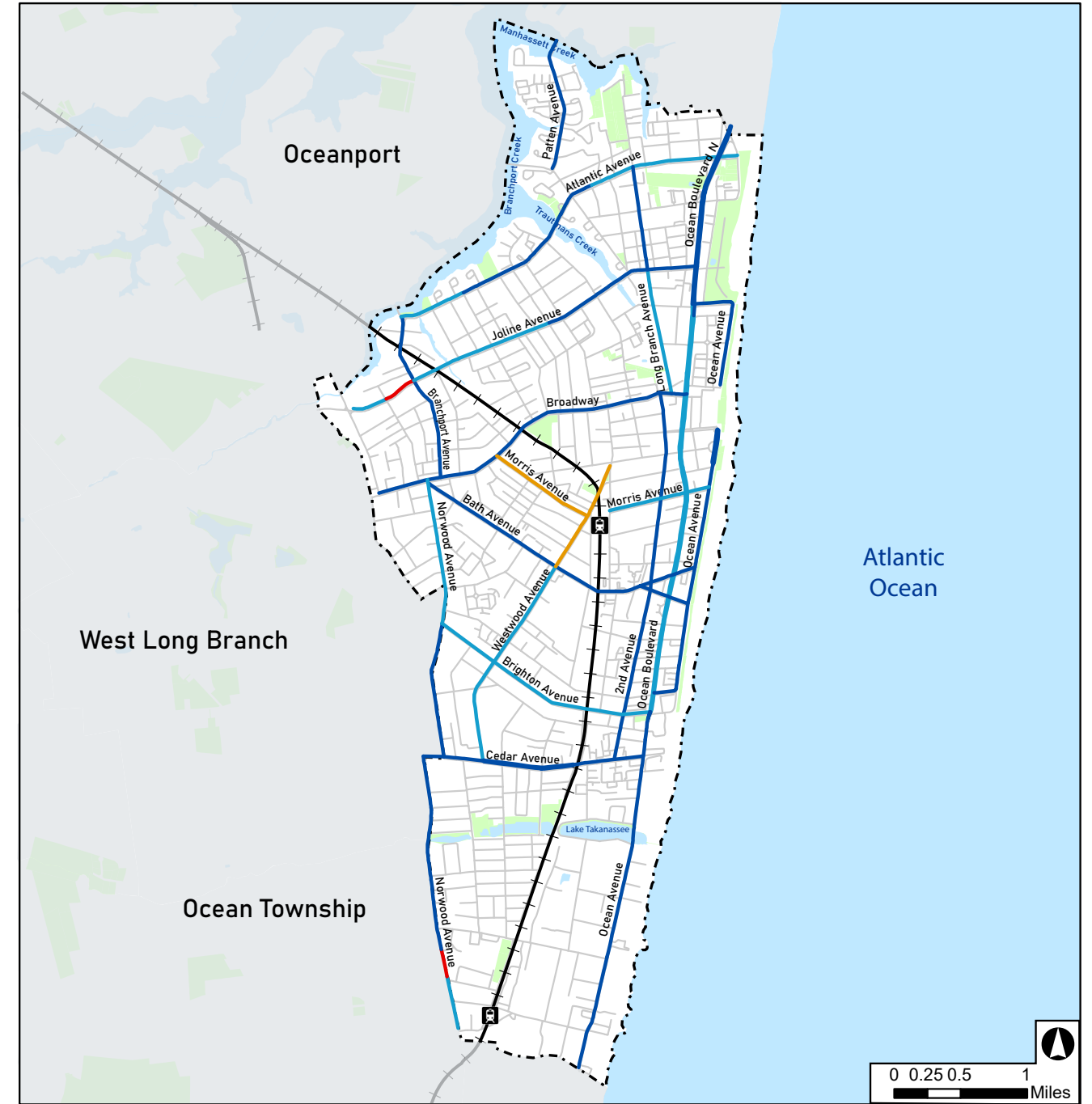
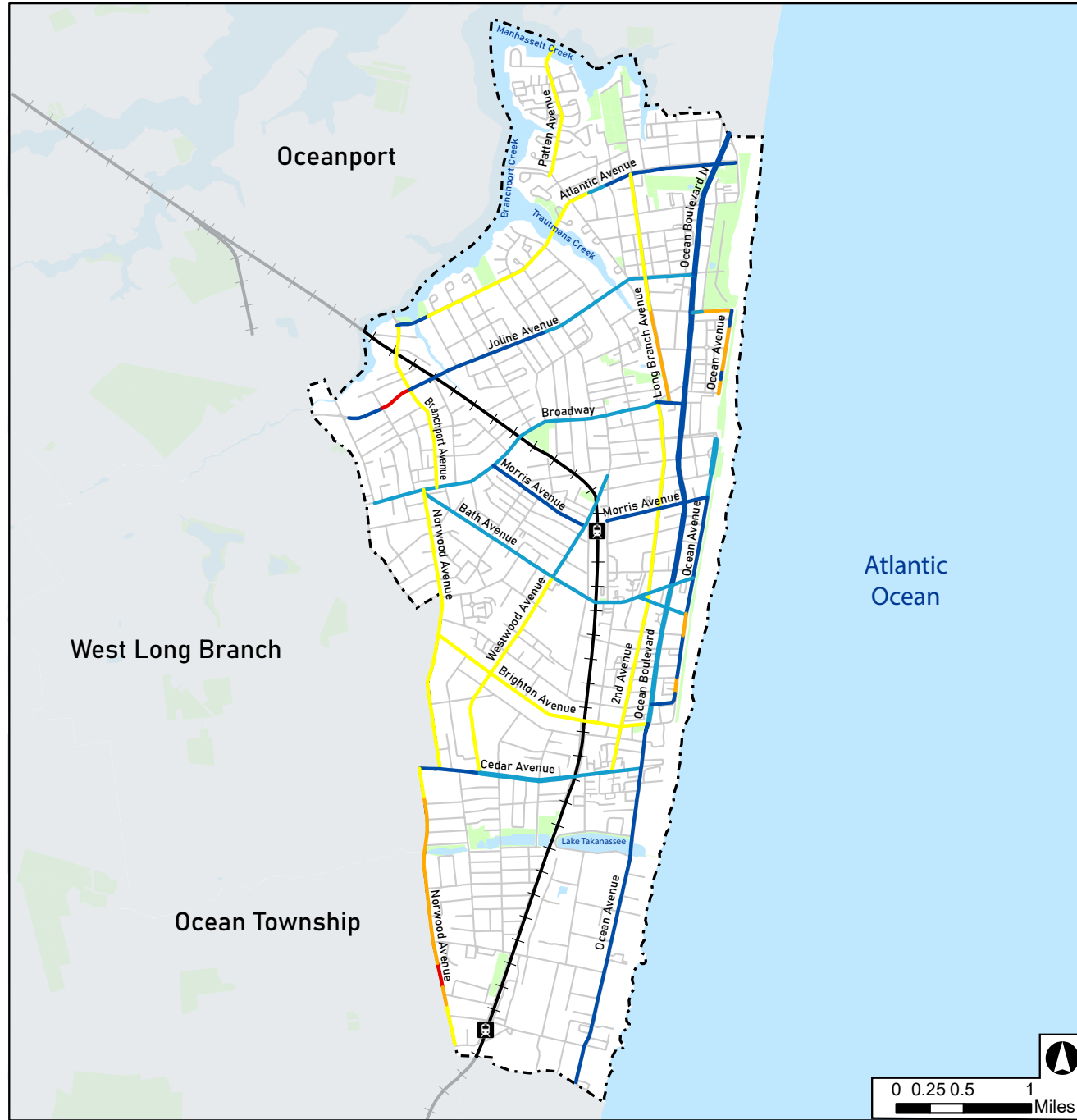


Figure 3. Priority Corridor Sidewalk by Width

Figure 4. Priority Corridor Sidewalk by Quality

- NJ TRANSIT Rail
- Municipal Boundary
- NJ TRANSIT Station
- Bodies of Water
- Parks
- 5' or Wider on Both Sides
- 5' or Wider on One Side
- Less than 5' on Both Sides
- Sidewalk Missing One Side
- No Sidewalk

- NJ TRANSIT Rail
- Municipal Boundary
- NJ TRANSIT Station
- Bodies of Water
- Parks
- Good Sidewalk
- Fair Sidewalk
- Poor Sidewalk
- No Sidewalk

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In addition to sidewalk width, the assessment reviews sidewalk quality. **Figure 4** depicts the sidewalk quality by street segment. The majority of sidewalk mileage along Priority Corridors is in good condition (61%), and much of the remaining sidewalk mileage is in fair condition (35%). Only a small portion of sidewalk mileage is in poor condition or lacking sidewalks.

Equity Analysis

The equity analysis reviews the breakdown of Priority Corridor mileage by sidewalk width and quality, and it compares that breakdown to the breakdown of Priority Corridor mileage by sidewalk width and quality specifically in low-income and minority communities. Sidewalk widths are generally pretty comparable between all Priority Corridors and mileage of those Priority Corridors within low-income and/or high-minority communities. While low-income communities have a lower portion of sidewalk mileage that is 5 feet or wider on both sides, these communities have a lower proportion of sidewalk mileage with a sidewalk missing on one side.

There are several elements of pedestrian crossings that create a safe, comfortable, and convenient environment for people walking and traveling via wheelchair or other mobility-assistive devices. This summary of pedestrian crossings addresses sidewalks, curb ramps, channelized right turns, and pedestrian signal heads.

Crosswalks

Based on the New Jersey Complete Streets Design Guide, crosswalks should be marked at all crossings of a signalized intersection. Of the 42 signalized intersections along the Priority Corridors (depicted in **Figure 5**), 36 intersections (86%) have marked crosswalks across all crossings, while 6 intersections (14%) are missing a crosswalk at one or more crossings.

Crosswalk coverage is higher at signalized intersections than intersections with another form of traffic control. The majority of intersections along Priority Corridors have side-street stop

control. Of the 171 side-street intersections along the Priority Corridors, 20 (12%) have marked crosswalks across all crossings, 92 intersections (54%) are missing a crosswalk at one or more crossings, and 59 (35%) have no marked crosswalks.

Curb Ramps

ADA guidelines require curb ramps at all pedestrian crossings. Curb ramps provide easy access to crossings for pedestrians of all ages and abilities, benefiting not only those with mobility or visibility disabilities, but also children, seniors, or those with strollers, carts, bicycles, etc. Curb ramps enable a smooth transition from the sidewalk level to street level at intersections and mid-block crossing locations. At intersections along the Priority Corridors, 110 intersections (41%) have curb ramps on all corners, 141 (52%) have curb ramps on some corners, and 19 (7%) have no curb ramps. For the most part, intersections without curb ramps are also lacking marked crosswalks.

Channelized Right Turns

Channelized right-turn lanes, also referred to as slip lanes, facilitate right-turn movements for motorists. Channelized right-turn lanes can improve the operation of an intersection for motorists, particularly where there is a high volume of right-turn movements, but they generally create a less inviting environment for bicyclist and pedestrians. They are therefore best suited for contexts that need to prioritize truck movements and auto-centric corridors, and should be avoided in areas with higher levels of bicycle and pedestrian activity.

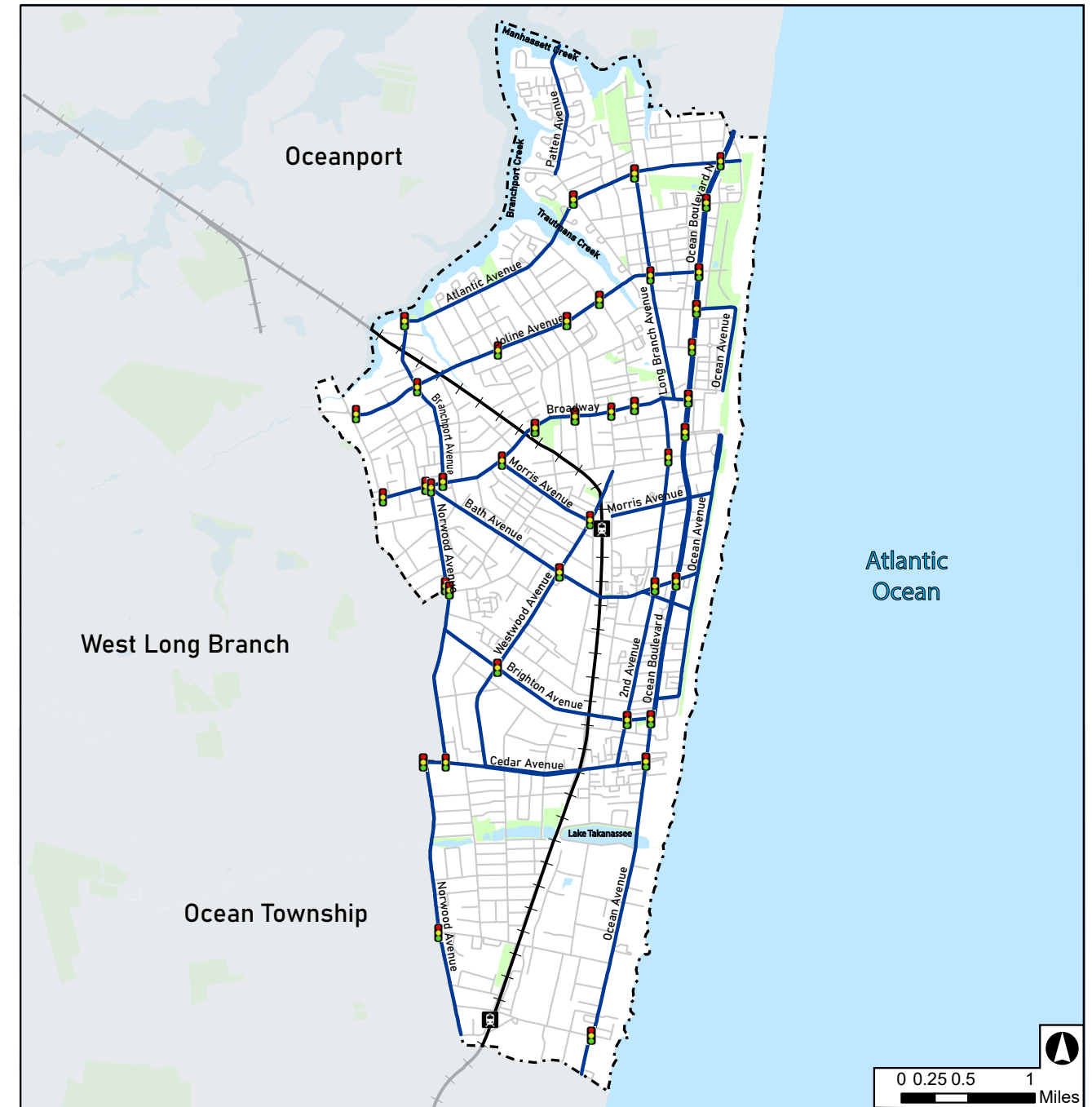


Figure 5. Signalized Intersections Along Priority Corridors

	Priority Corridor		Bodies of Water
	NJ TRANSIT Rail		Parks
	Municipal Boundary		Traffic Signal
	NJ TRANSIT Station		

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Pedestrian Signal Heads

Per MUTCD requirements, signalized intersections should include pedestrian signal heads with countdown timers. These accommodations provide clarity to pedestrians and increase safety by clearly indicating when it is appropriate to cross the intersection and how long they have to do so. Of the 42 signalized intersections along Priority Corridors, 38 (90%) have pedestrian signal heads, while 4 (10%) do not. The signalized intersections without pedestrian signal heads are listed below:

- 2nd Avenue at Chelsea Avenue
- 2nd Avenue at Brighton Avenue
- Atlantic Avenue at Long Branch Avenue
- Joline Avenue at Liberty Street

Existing Bicycling Conditions

Bicycling conditions are often evaluated through the lens of Level of Traffic Stress (LTS). LTS analysis is a tool used to quantify a cyclist’s comfort level given the current conditions of the roadway. The LTS metric, developed by the Mineta Transportation Institute, is based on the Dutch concept of low-stress bicycle facilities, which has proven influential in the advancement of bicycle planning in the United States. Because different bicyclists have different tolerances for stress created by volume, speed, and proximity of automobile traffic, the LTS method identifies four levels of stress:

	Level of Stress 1 The level most users can tolerate (including children and seniors)
	Level of Stress 2 The level tolerated by most adults
	Level of Stress 3 The level tolerated by “enthusiastic” riders who might still prefer dedicated space
	Level of Stress 4 The level tolerated by the most experienced riders

In general, lower stress facilities have increased separation between cyclists and vehicular traffic and/ or have lower speeds and lower traffic volumes. Higher stress environments generally involve cyclists riding near traffic, multi-lane roadways, and higher speeds or traffic volumes. The LTS methodology is described in more detail in **Appendix A**.

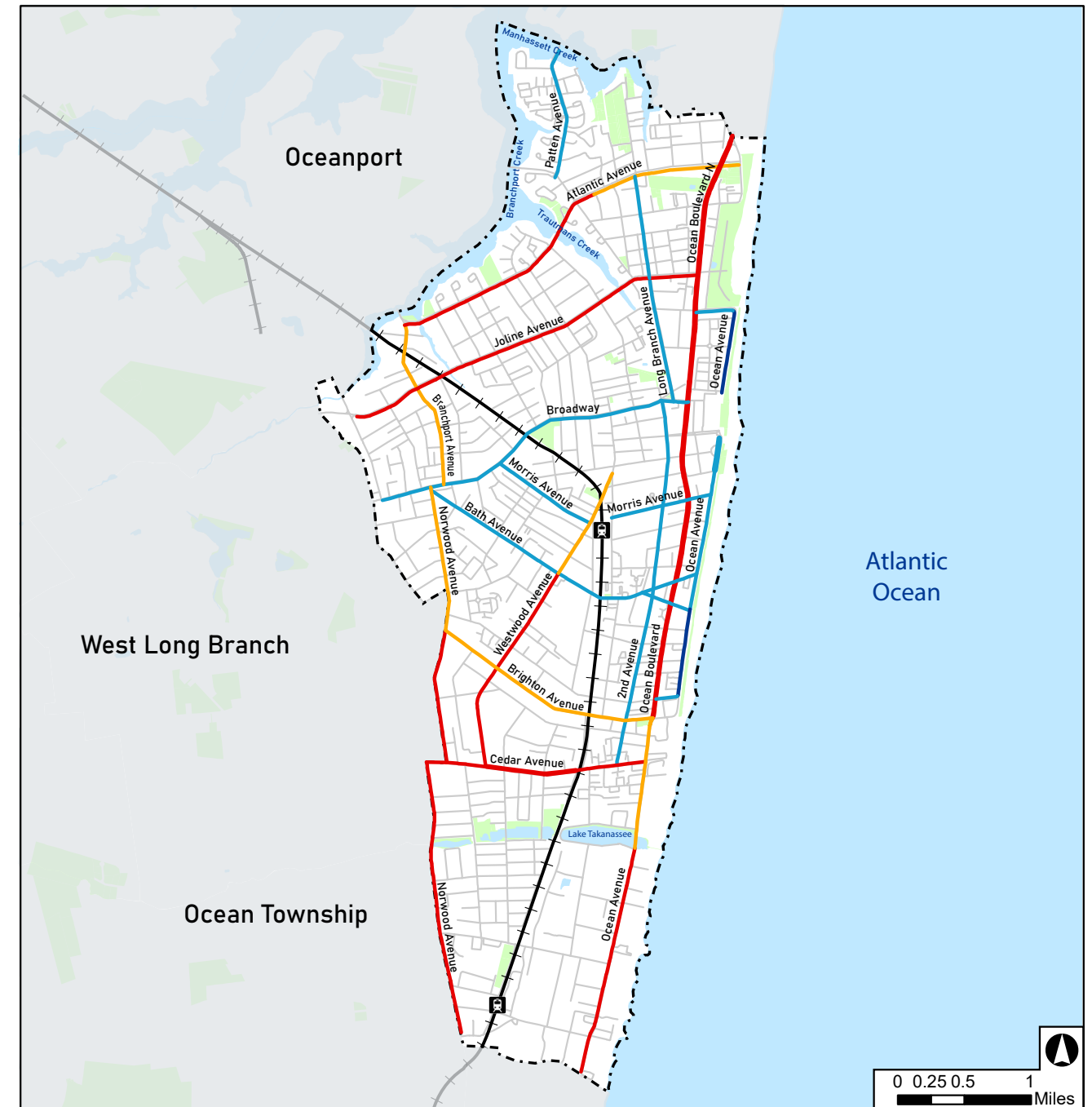











Figure 6. Bicycle Level of Stress Along Priority Corridors

	NJ TRANSIT Rail		LTS 1
	Municipal Boundary		LTS 2
	NJ TRANSIT Station		LTS 3
	Bodies of Water		LTS 4
	Parks		

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Figure 6 depicts the LTS along Priority Corridors in Long Branch. As summarized in **Table 4**, a very small portion of Priority Corridor mileage is LTS 1 (3%), but nearly a third of Priority Corridor mileage is LTS 2 (32%). The remainder of the jurisdiction's Priority Corridors are categorized by LTS 3 and 4 (16% and 50%, respectively). This is unsurprising given the limited presence of bicycle facilities, as well as corridors with speed limits greater than 25 miles per hour and/or more than 2 lanes of vehicle traffic.

Equity Analysis

The equity analysis reviews the breakdown of Priority Corridor mileage by LTS, and it compares that breakdown to the breakdown of Priority Corridor mileage by LTS specifically in low-income and high-minority communities. Overall, low-income and high-minority communities have slightly better LTS than the Priority Corridors overall. The combined mileage for LTS 1 and 2, which would be comfortable for most adults, is 35% for all Priority Corridors, but 51% and 48% in low-income and high-minority communities, respectively.

Table 4. Percent of Priority Corridor Mileage by LTS

Bicycle Level of Traffic Stress	Priority Corridors	Priority Corridors in Low-Income Communities	Priority Corridors in High-Income Communities
LTS 1	3%	0%	2%
LTS 2	32%	51%	48%
LTS 3	16%	16%	12%
LTS 4	50%	33%	37%

Crash Analysis

Out of the 1,664 crashes that occurred in Long Branch from 2015-2019, 52 crashes (3%) involved bicyclists or pedestrians. There were 30 pedestrian and 22 bicycle crashes. The number of annual bicycle and pedestrian crashes fluctuated from year to year as depicted in **Figure 7**. **Figure 8** depicts all crashes in Long Branch between 2015 and 2019, while **Figure 9** depicts only bicycle and pedestrian crashes during that time period.

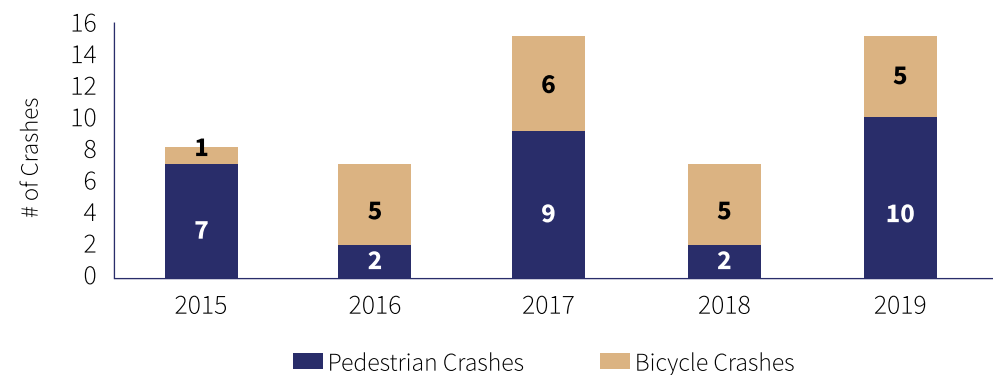


Figure 7. Annual Pedestrian and Bicycle Crashes

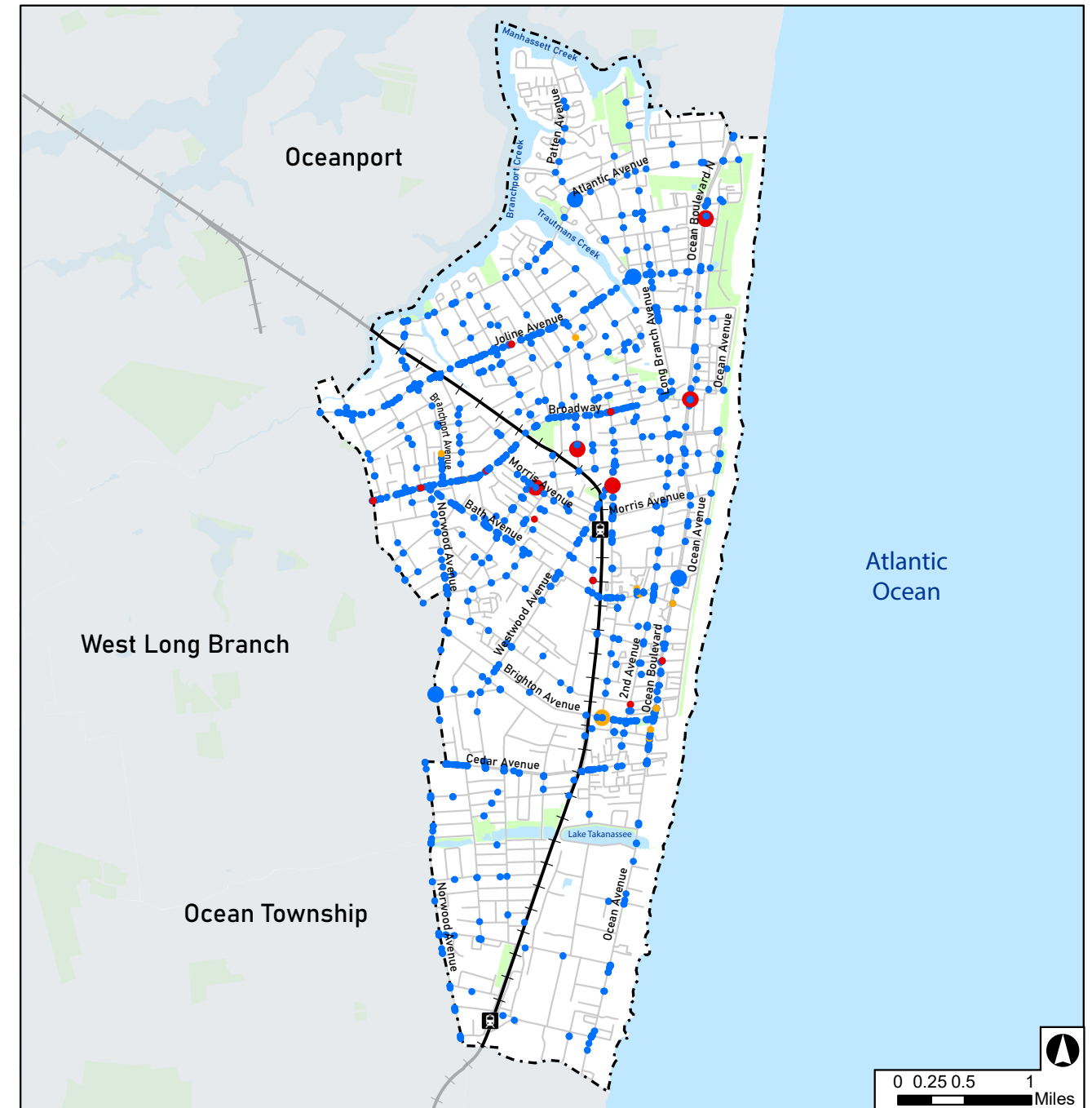
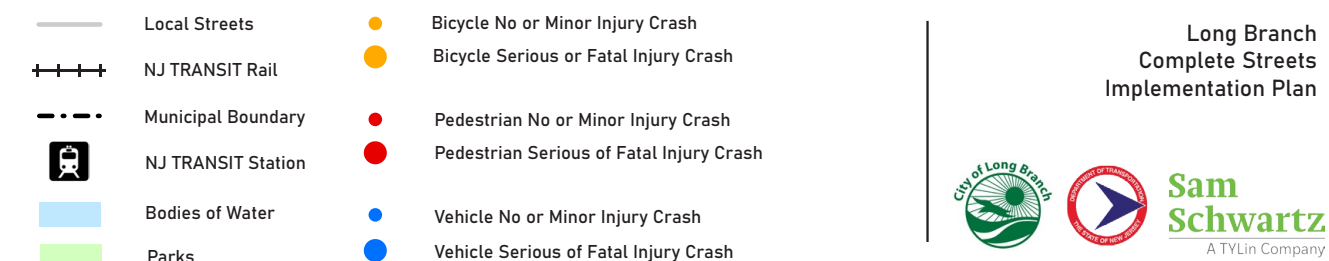
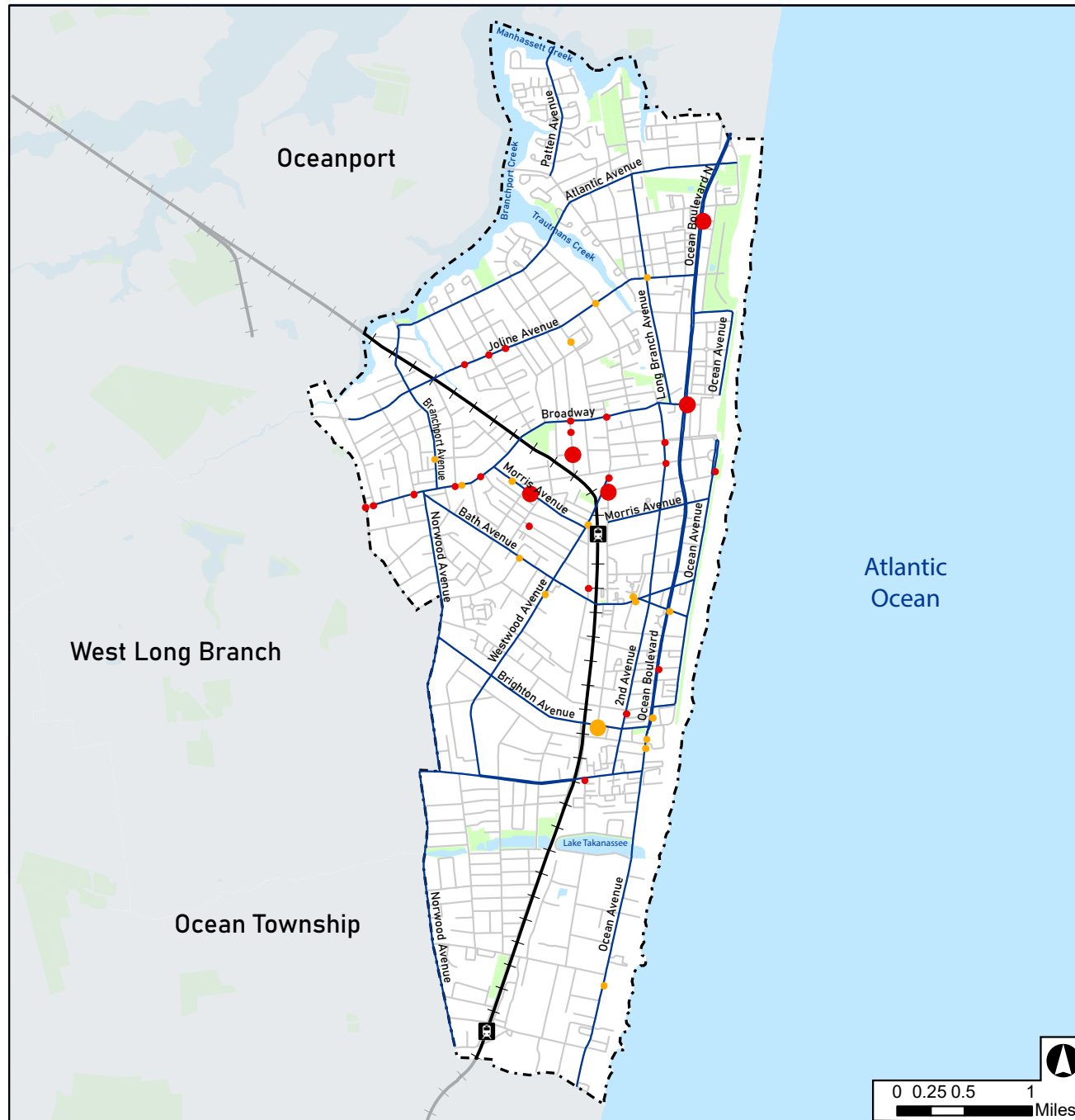


Figure 8. All Crashes (2015-2019)



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A total of six crashes that resulted in serious injuries or fatalities to bicyclists and pedestrians occurred between 2015 and 2019, representing 12% of pedestrian and bicycle crashes. Of the six fatal and serious crashes, five were pedestrian related while only one was bicycle related. Given the small number of serious injuries and fatalities, the remaining analysis focuses on all bicycle and pedestrian crashes.

Equity Analysis

A substantial portion of the crashes in Long Branch occurred in areas identified as Overburdened Communities based on their race and income, as shown in **Table 5**. Overall crashes and pedestrian crashes are slightly overrepresented in Overburdened Communities, yet bicycle crashes are underrepresented in these communities.

Table 5. Crash History Equity Analysis

	Low-Income Community	High-Income Community
% of Area	59%	61%
% of Population	62%	67%
Total Crashes	67%	68%
Pedestrian Crashes	70%	63%
Bicycle Crashes	55%	59%

Figure 9. Bicycle and Pedestrian Crashes (2015-2019)

- Local Streets
- NJ TRANSIT Rail
- Municipal Boundary
- NJ TRANSIT Station
- Bodies of Water
- Parks
- Bicycle No or Minor Injury Crash
- Bicycle Serious or Fatal Injury Crash
- Pedestrian No or Minor Injury Crash
- Pedestrian Serious or Fatal Injury Crash

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Crashes on Priority Corridors

A total of 1,126 out of 1,664 crashes (68%) occurred on a road identified as a Priority Corridor, including 63% of pedestrian crashes and 73% of bicycle crashes. From those crashes identified on a Priority Corridor, 1,091 (97%) were vehicle crashes, 19 (2%) involved pedestrians, and 16 (1%) involved bicyclists. **Table 7** (next page) documents the number of crashes on each priority corridor. It should be noted that several priority corridors intersect. Crashes that occur at the intersection of two priority corridors have been captured in the table multiple times, once for each corridor approach at the intersection.

Intersections along Priority Corridors

A total of 21 bicycle or pedestrian crashes occurred at a Priority Corridor intersection. Over the past five years, no intersection has seen more than one bicycle or pedestrian crash. However, some locations were hot spots for vehicle crashes. Intersections with 10 or more vehicle crashes between 2015 and 2019 are listed in **Table 6**. Cedar Avenue and Norwood Avenue had 14 vehicle crashes, which is the highest number of crashes on a priority corridor intersection.

Table 6. Priority Corridor Intersection Hotspots

Priority Corridor	Intersection	Pedestrian Crashes	Bicycle Crashes	Vehicle Crashes	Total
Ocean Boulevard	S Broadway	1	0	9	10
Bath Avenue	S Bath Avenue	0	0	10	10
Joline Avenue	Washington Street	0	0	10	10
Joline Avenue	Edwards Avenue	0	0	10	10
Joline Avenue	Liberty Street	0	1	9	10
Joline Avenue	5th Avenue	0	0	12	12
2nd Avenue	Broadway	0	0	12	12
Joline Avenue	Long Branch Avenue	0	1	12	13
Cedar Avenue	Norwood Avenue	0	0	14	14

Table 7. Priority Corridor Crashes

Priority Corridor	Extents	Pedestrian Crashes	Bicycle Crashes	Vehicle Crashes	Total
2nd Avenue	Broadway to Cedar Avenue	3	0	78	81
Atlantic Avenue	Branchport Avenue to Ocean Avenue	0	0	54	54
Bath Avenue	Norwood Avenue to Ocean Avenue	0	3	106	109
Branchport Avenue	Atlantic Avenue to Broadway	0	1	56	57
Brighton Avenue	Norwood Avenue to Ocean Avenue	0	1	44	45
Broadway	Myrtle Avenue to 2nd Avenue	6	2	171	179
Broadway, South	2nd Avenue to Ocean Boulevard	1	0	26	27
Cedar Avenue	Norwood Avenue to Ocean Avenue	1	0	88	89
Joline Avenue	Myrtle Avenue to Ocean Avenue	3	2	236	241
Long Branch Avenue	Atlantic Avenue to South Broadway	0	1	40	41
Morris Avenue	Broadway to Westwood Avenue; 3rd Avenue to Ocean Avenue	1	1	36	38
Norwood Avenue (North)	Broadway to Cedar Avenue	0	0	73	73
Norwood Avenue (South)	Cedar Avenue to S Lincoln Avenue	0	0	29	29
Ocean Avenue (North)	Seaview Avenue to Avene Boulevard; Laird Street to West End Avenue	1	0	22	23
Ocean Avenue (South)	Brighton Avenue to Lawrence Avenue	0	3	62	65
Ocean Boulevard	Riverdale Avenue to West End Avenue	3	2	123	128
Patten Avenue	Monmouth Boulevard to Renwick Place	0	0	6	6
Westwood Avenue	3rd Avenue to Cedar Avenue	1	2	64	67

Figure 10 summarizes crashes at intersections along Priority Corridors by intersection control. While pedestrian crashes most commonly occurred at intersections with traffic signals (45%), bicycle crashes were most common at intersections with side-street stop control (60%).

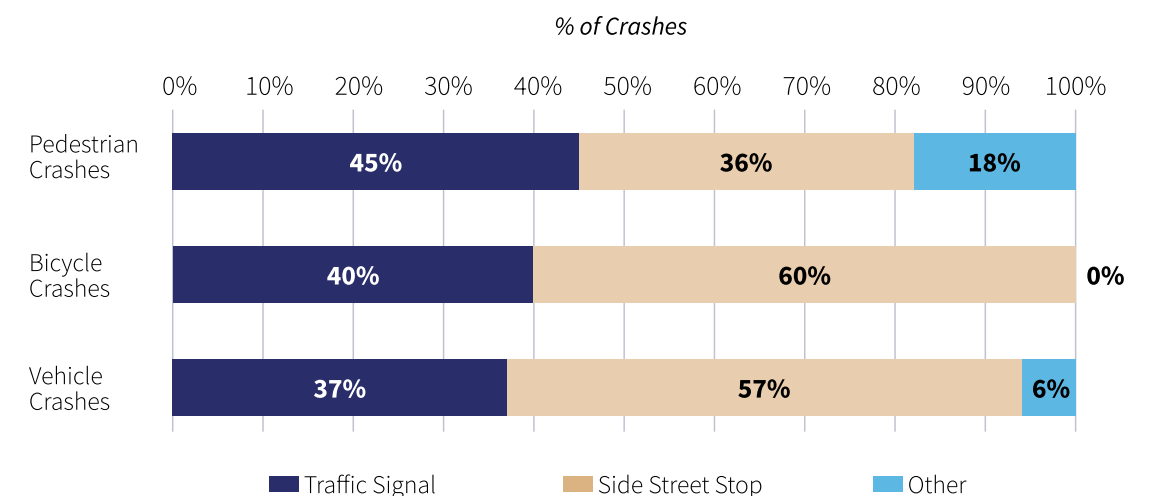


Figure 10. Priority Corridor Intersection Crashes by Traffic Controls

Pedestrian crashes at intersections along Priority Corridors most commonly occurred where all crosswalks were marked (55%), while bicycle crashes more commonly occurred at intersections along Priority Corridors with only some marked crosswalks. **Figure 11** summarizes the crosswalk conditions associated with crashes at intersections along Priority Corridors.

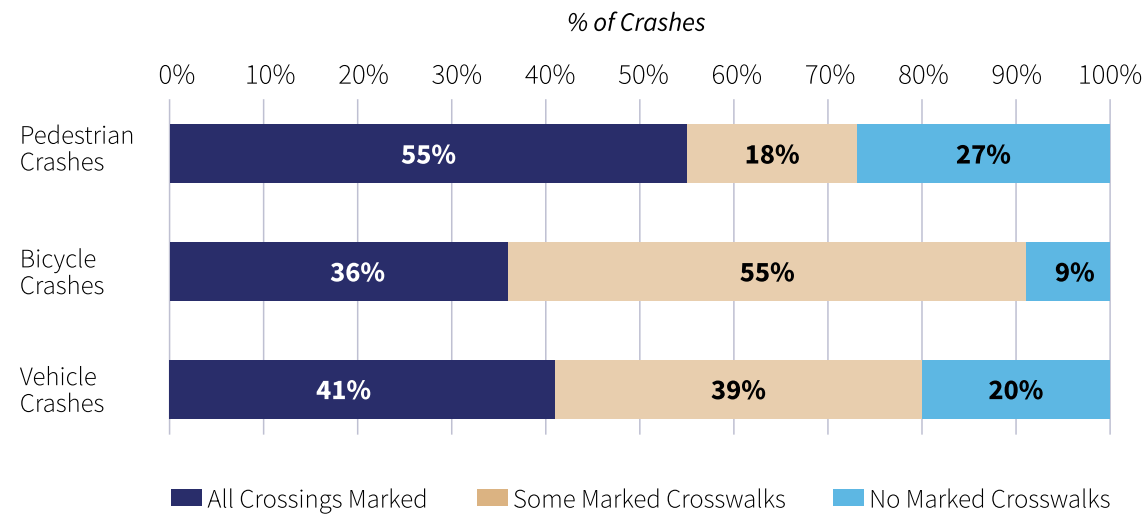


Figure 11. Pedestrian and Bicycle Crashes by Crosswalk Type

When Crashes Occur

Pedestrian and bicycle crashes occur more frequently in the summer and fall – relatively to the winter and spring – which is unsurprising, as Long Branch is a shore town. During the warmer weather, there are more visitors to Long Branch causing both vehicular traffic, as well as more pedestrian and bicycle activity. Thirty-eight percent of bicycle and pedestrian crashes occurred in the summer, 32% of the crashes occurred in the fall, 18% in the spring, and 0% in the winter. The total number of crashes per season below in **Figure 12**.

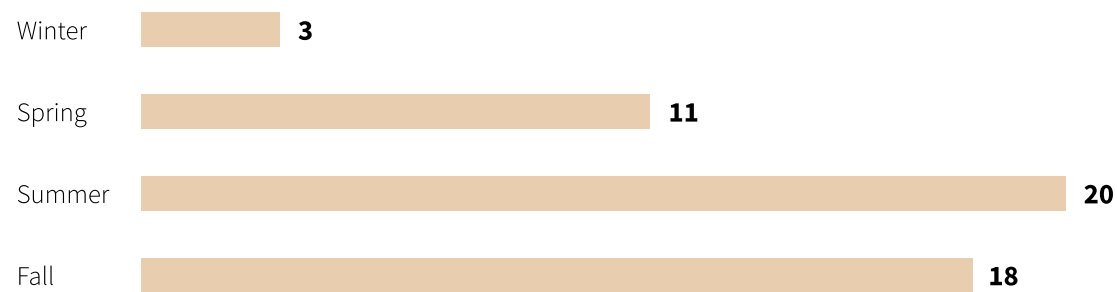


Figure 12. Pedestrian Crashes by Season

When Crashes Occur

By Day of the Week

58% of bicycle and pedestrian crashes occurred on a weekend

42% took place during a weekday

By Lighting Conditions

73% of bicycle/pedestrian related crashes took place during the daylight

27% occurred during the dark, some even when streetlights were present

Eleven out of the 14 crashes that occurred in the dark involved pedestrians (rather than bicyclists). This could show a general trend of fewer bicyclists out in the evenings. Community members may be more likely to walk than bike at night.

Other Crash Findings

13% of bicycle and pedestrian crashes involved a driver impaired by alcohol consumption, a total of seven crashes

10% of total bicycle and pedestrian crashes (five crashes) were “hit and runs,” where the motorist left the scene of the crash before the police arrived

71% of bicycle and pedestrian crashes occurred on roads with a speed limit of 25 miles per hour (mph). Most of the roads within Long Branch are local roads that are 25 mph, so a high percentage is unsurprising

Local and Regional Connections

There are few existing bicycle facilities Long Branch and the surrounding communities. Bicycle facilities are provided along a few adjacent segments to the Boardwalk and within existing parks, and they do not connect to one another to create a network.

Existing On-Street Bicycle Facilities

- Ocean Avenue North in Long Branch: Bike facilities on Ocean Avenue North extend from South Bath Avenue to Riviera Drive in Long Branch. Northbound sharrows run between Riviera Drive to West End Ave, this changes to a bidirectional protected share use path between West End Ave and Howland Avenue. The protected barrier is comprised on metal posts and cobble stonework. A shared use path created through the closure of Ocean Avenue, runs between Howland Avenue and South Bath Avenue. At each intersection there are pedestrian and bicycle connections to the Long Branch Boardwalk which runs parallel to these facilities.
- Ocean Avenue in Deal: Bike lanes on Ocean Avenue extend from South Lake Drive in Long Branch to Neptune Avenue in Deal. The lanes are bidirectional on both sides of the avenue, with white boundary striping and irregular bike lane markers. These are absent in the segment in Long Branch. At intersections the lanes become shared lanes with right-turning vehicles, this exists at both sides of the intersection, with shorted segments on opposing corners.
- Port Au Peck Avenue in Oceanport: Bike lanes on Port Au Peck Avenue extend from Monmouth Park Station to East Main St in Oceanport. The lanes are bidirectional on both sides of the avenue, with white boundary striping and bike lane markers. These lanes having varying widths, with a slight narrowing occurring at intersections in favor of vehicles. The lanes connect with the shared use trail at



Ocean Boulevard Bike

Maria Gatta Community Park.

Existing Shared-Use Paths

- Monmouth University in West Long Branch: The Monmouth University campus in West Long Branch has multiple shared use paths that interconnect much of its campus. These are used by pedestrians, bicycles, and small campus service vehicles. They do not have markings to delineate use. At key points of convergence, there are bicycle racks and stand posts.
- Franklin Lake Park in West Long Branch: A shared-use trail follows the general circumference of Franklin Lake in West Long Branch and forms a .9-mile loop. There are access points on Locust Avenue, Franklin Parkway, Shore Regional High School, and Lakeview Ave. There are no public bicycle racks or parking locations for bicyclists. The route is used by the local high school for recreation and athletics.
- Maria Gatta Community Park in Oceanport: A shared-use trail follows the border of the park's main field area. It mostly a crushed rock path with several paved segments. It is accessible via bike lanes on Port Au Peck Avenue and the Red Birch complex. There are no public bicycle racks or parking locations for bicyclists. The route is used by the local middle schools for recreation and athletics.
- Joe Palaia Park in Ocean Township: Several shared-use trails follow the border of the park's larger non-athletic fields. These routes also support small park service vehicles. There are no public bicycle racks or parking locations for bicyclists. The route is used by the local high school for recreation and athletics. Low speed roads are used by bicyclists in combination with trails, as the roadways have low operating speeds and traffic.

Master plans of surrounding communities do not outline specific planned bicycle facilities that could connect to Long Branch.

2.3 Outreach

Engaging with the Long Branch community was a priority throughout the plan development process. A variety of outreach opportunities were used to seek input from Long Branch residents and community members. Ongoing outreach ensured a continuous feedback loop that informed the final implementation matrix and overall goals. This chapter presents an overview of the format and approach for each outreach opportunity, along with a summary of feedback received. Public outreach efforts were conducted both in-person and virtually. A hybrid approach was utilized in an effort to reach as much of the Long Branch population as possible.

Steering Committee

A Steering Committee was formed of local, county and state officials, as well as other stakeholders identified by the NJDOT-BSBPP and Long Branch. The Steering Committee assisted with identifying deficiencies and opportunities for active transportation facilities within Long Branch and provided feedback on potential improvements. Representatives of the following offices, organizations and constituencies were invited to participate:

- Mayor of Long Branch
- Assistant to the Mayor
- Long Branch Police Department
- Long Branch Planning Director
- City Council Member
- Environmental Committee Member
- Monmouth County Engineering
- NJTPA Representative
- EZ Ride TMA
- The Peddler Bike Shop
- Portuguese Club
- Long Branch Bike Committee
- NJ TRANSIT

Three Steering Committee Meetings were held. The first was a kick-off meeting with the purpose of presenting the scope, goals, and final deliverables of the project, as well as, identifying stakeholder roles and responsibilities. This meeting was held on September 15, 2022. The second meeting, held January 18, 2023, presented the Steering Committee with initial data collection efforts and analyses, and the third meeting, held June 7, 2023, reviewed the draft recommendations.

Public Information Centers

Throughout the project, a total of two public information centers were held to present results to the public and receive additional input. The first Public Information Center was held on Saturday, April 29, 2023, at Long Branch’s Arbor Day event. This event was used to publicize the project to members of the community by participating in interactive feedback activities and advertise the online and hard copy

community survey. The second Public Information Center was held on Saturday, June 17, 2023, at Long Branch’s Juneteenth event. This event had a great turnout gaining helpful input on the draft recommendations.

Project Webpage

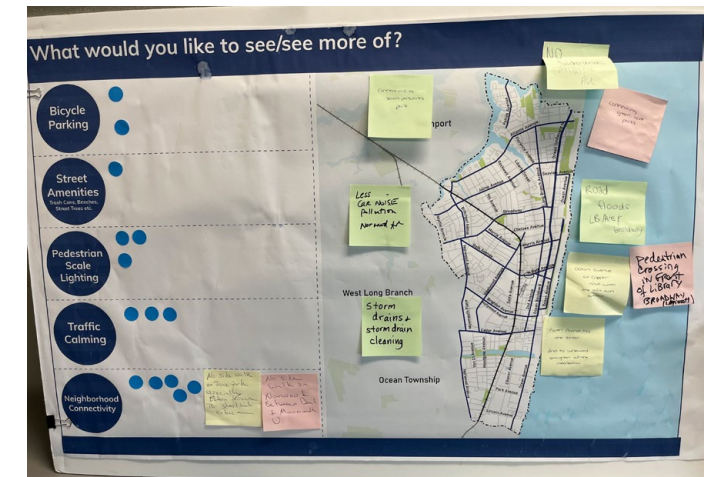
The project website is a one-stop-shop for all information about the Long Branch Complete Streets Implementation Plan, including a project summary, overview of the project status and timeline, a definition and description of Complete Streets (including some Complete Streets resources), a list and map of Priority Corridors, links to the community survey and crowd sourcing map, and calendar of upcoming meetings, and an opportunity to join the project newsletter. The project website is posted in English, and it includes instructions for translation into Spanish. As of March 20, 2023, the website had received over 530 views.

Community Survey

The Community Survey was developed to solicit the public’s feedback about their walking, bicycling, transit, and driving experience throughout Long Branch. The survey solicited comments about their perceptions of existing infrastructure, as well as what could be improved about travel in the city.

The survey was available online. The link to access the survey was posted on the project website and advertised throughout Long Branch. A shorter, paper copy of the survey was also developed for in-person distribution. A two-sided handout, the survey was translated into both Spanish and Portuguese. A total of 561 completed responses were received by May 9, 2023.

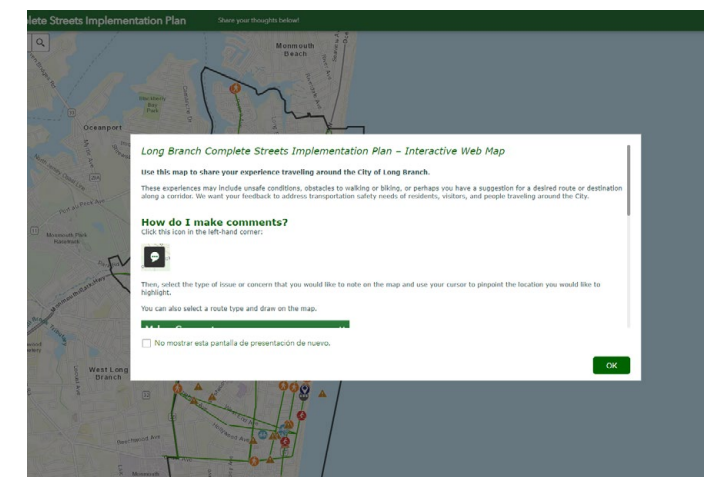
Respondents were asked how frequently they travel by different modes of transportation. Over half of survey participants reported they walk multiple times a week (59%), while rates for bicycling and transit use were far lower. Unsurprisingly, nearly all respondents reported driving or traveling by car several times a week (90%).



Public Engagement at the Public Information Center



Public Engagement at the Public Information Center



Long Branch Interactive Map



Elberon Station

Those who completed the survey shared their trip purpose when walking, bicycling, taking transit, and driving or traveling by car, and they were given the option to select all applicable trip purposes. Nearly everyone who walks or bicycles indicated that they sometimes do so for exercise (85-92%), while only a small portion of pedestrians and bicyclists travel to work by those modes (6-7%).

Survey participants shared an overall rating, on a scale of 1 to 5, of their experience and perceived safety traveling by each mode. While there is room for improvement across all modes, the ratings were generally lower for bicycling (3.0) and taking transit (3.4) than for walking (3.6) or traveling by car (3.6).

Respondents weighed in on how they'd like to see the pedestrian and bicycle environment improved, both through the pre-determined options below, as well as more qualitative feedback. The highest number of respondents requested more sidewalks, drivers yielding to pedestrians correctly, and more bike lanes.

The survey included several questions about the respondents themselves, to provide insight into the representativeness of the survey participants of the Long Branch population overall. The survey responses experienced some of the common demographics among outreach efforts, with a skew towards older, whiter, and more affluent respondents. For example, 34% of survey respondents were over 65 years old, relative to just 16% of Long Branch residents. Similarly, there was a lower response rate among Hispanic residents (12%) relative to the city overall (28%).

3. Long Branch Tomorrow

3.1 Planned Capital Projects

Long Branch Station Pedestrian Tunnel

In 2023, NJ Transit was awarded \$13.2 million through the federal Reconnecting Communities Pilot Program to remove an at-grade rail crossing and construct a pedestrian tunnel at Long Branch Station to provide access from multiple directions to the station and eliminate a problematic crossing for passengers and pedestrians. There is currently no access to the station from the western side, where a retaining wall on the outbound platform acts as a barrier. Those seeking to access the west side of the station must exit the station and travel via Third Avenue to the north or south around the station and yard complex to reach their destination or the shops, restaurants, and medical services there. Likewise, east side residents and workers struggle to access neighborhood services and other daily destinations on the west side of the station area.

This project will replace a portion of existing parking with a green station plaza that includes stairs and ADA-compliant ramps to provide access to all parts of the station. The pedestrian tunnel project will improve local connectivity, address safety challenges and inequitable access to transit, while making the station more resilient long term. The project enhances bicycle and pedestrian accommodations, with the installation of bike racks and a bus shelter, which will make transportation modes other than driving more accessible and is in line with the vision and priorities identified by the Long Branch Master Plan.

Key design integrations in the project will include green spaces, illuminated art installations, and a mural and mosaic panel in the tunnel station connection that create an opportunity to celebrate local culture through visual art. Additionally, there will be a new plaza that will offer a community space to residents. A project labor agreement will ensure the creation of good-paying union jobs and workforce development initiatives focused on underrepresented groups will also be utilized.

Ocean Boulevard

Monmouth County received \$1,480,000 through the Transportation Alternatives Program (TAP) Grant to improve Ocean Boulevard (CR 57) between Passey Gardens and Joline Avenue (SR 36). The purpose of these improvements is to promote safety and mobility along county roads.

Cedar Avenue

Long Branch received \$4.7 million from the county through the Local Safety Program (LSP) Grant to install buffered bike lanes along Cedar Avenue between Norwood and Ocean Avenues. Other improvements funded by this grant include pedestrian and traffic signal upgrades at 15 intersections along Cedar Avenue, dedicated left-turn lanes, and high-visibility crosswalks.

Monmouth County Park System Plan

The intention of this plan is to improve pedestrian circulation and recreation opportunities for the public by implementing a shared-use path, linking the existing municipal sidewalks and the boardwalk/promenade promoting safe travel with separation from the roadway. The sidewalk adjacent to Seaview Avenue, Ocean Avenue, and Avenel Avenue will enable people to safely exit their vehicles and unload beach gear.

3.2 Pedestrian Facility Recommendations

Inventory of the existing sidewalk was conducted on the priority corridors. The inventory included determining if there were areas of missing sidewalk, and areas where sidewalks are not compliant with the Americans with Disabilities (ADA) Act. Based on the sidewalk condition inventory, Long Branch has an extensive sidewalk network. However, some sidewalks have missing connections. The inventory collected locations of missing sidewalks, sidewalk width, and sidewalk conditions.

A list of recommended locations for sidewalk improvements can be found next page in **Table 8**.

3.3 Bicycle Facility Recommendations

The implementation of bicycle facilities is a critical step towards encouraging cycling in an area as an essential form of transportation. However, it is important that bicycle facilities are properly designed to ensure that they are safe, comfortable and useful to most people. According to the New Jersey Complete Streets Guidelines there are five guiding principles to achieve effective implementation:

- **Continuous:** many bicycle lanes disappear at intersections and other stressful locations. To be successful, bicycle lanes must be continuous through these locations.
- **Connected:** Gaps in a bicycle network can discourage potential riders. Bicycle routes should be interconnected to create a robust network that connects where people live and where they want to go.
- **Convenient:** Bicycle network must conveniently and directly connect cyclists to key destinations to encourage higher rates of cycling.

- **Complete:** A successful network considers what happens when a bicycle ride ends. This means considering how complete a street is, including the presence of sidewalks, bicycle parking, and access to transit.
- **Comfortable:** A bicycle network should be comfortable and inviting for riders of all ages and abilities, providing the sense that bicycling is a safe and convenient activity. The *New Jersey Complete Streets Design Guide* outlines types of on-road bicycle facilities.

Table 8. Sidewalk Recommendations

Priority Corridor	Deficiency	Recommendation
Joline Avenue between Rockwell Avenue and Ocean Boulevard	Poor sidewalk	Replace sidewalk
John Street by Anastasia School	No sidewalk	Add sidewalk
Laurel Street	No sidewalk	Add sidewalk
Norwood Avenue between Overturn Pl and Broadway	Poor sidewalk	Replace sidewalk
High Street between Eastborne Avenue and Bath Avenue	Sidewalk drops and picks back up from house to house	Add continuous sidewalk
Atlantic Avenue at the entrance of Jackson Woods	Poor sidewalk	Replace sidewalk
Avenel Boulevard and Ocean Boulevard	Overgrown shrubbery makes it difficult to walk on sidewalks	Maintain shrubbery
All sidewalks near the rail station	Littered with trash and obstacles	Maintain trash-free sidewalk
Norwood Avenue at Park Avenue	No sidewalk	Add sidewalk
Norwood Avenue at Kirby Avenue	No sidewalk	Add sidewalk
Pavilion Avenue at 2nd Avenue (EB)	No sidewalk	Add sidewalk
Pavilion Avenue at 2nd Avenue (WB)	No sidewalk	Add sidewalk
Norwood Avenue at Cedar Avenue	No sidewalk	Add sidewalk
Morris Avenue at Villa Drive	No sidewalk	Add sidewalk
Norwood Avenue at Highland Avenue	No sidewalk	Add sidewalk
Norwood Avenue at Hollywood Avenue	No sidewalk	Add sidewalk

The recommended bicycle facilities are proposed to improve bicycle compatibility and accessibility in Long Branch. They include a variety of bicycle facility treatments such as “sharrows,” bicycle lanes, buffered bicycle lanes, and shared-use paths. The recommendations are intended to be implemented within the existing cross-section of the roadway as part of a re-surfacing, restriping or other roadway reconstruction projects.

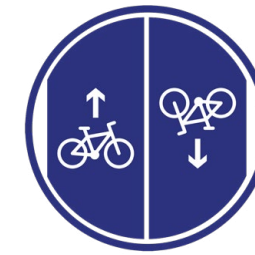
Bicycle lanes are a common on-road facility and there are several opportunities to install them on roadways in Long Branch. In locations where sufficient roadway width is available, a buffer could be included between the bike lane and the parking lane or between the bike lane and the travel lane. A buffer may be preferred by less skilled bicyclists when higher traffic volumes and speeds are present.

In locations where space is constrained, and bicycle lanes cannot be accommodated, “sharrows” are proposed. Sharrows may be used to indicate a shared environment for bicycles and automobiles. Under these conditions, it is recommended that “Share the Road” signage and Shared Lane Markings be incorporated to reinforce the shared lane concept.

The following table outlines the recommended bicycle facilities and roadway conditions necessary for the recommendation. These recommendations follow the guidelines in the New Jersey Complete Streets Design Guide. Additional bicycle facilities with design guidance can be found in the Guide.

Table 9. Bicycle Facility Types

Facility Type	Facility Width	Roadway Speed Limit (MPH)	Average Daily Traffic (ADT)
Bicycle Lane	5'	25 - 35	≤ 10,000
Buffered Bicycle Lane	5' Bike Lane 1'-3' Buffer	25 - 45	≤ 15,000
Separated Two-Way Bike Lane	10'-12'	≤ 45	Any
“Sharrows”	-----	≤ 25	≤ 10,000
Advisory Bike Lane	5'	≤ 25	≤ 6,000
Shared-Use Path	10' - 14'	Any	Any



“Sharrows”:

Also known as shared lane markings, are used on roadways when it is not feasible to have a dedicated bicycle facility. Shared lane markings are used to show that the roadway environment is to be shared between bicycles and automobiles. These markings should not only show that the roadway is shared but should also suggest exactly where on the roadway the bicyclist should ride. This helps motorists to anticipate the presence of bicyclists.

Bike Lanes:

According to the New Jersey Complete Streets Design Guide, bicycle lanes provide an exclusive space for bicyclists using pavement markings and signage. It is the preference to paint these lanes green to draw awareness to them and further increase bicycle safety. Bicycle lanes are meant for one-way travel and typically are located on both sides of two-way streets and one side of one-way streets. Bicycle lanes can enable bicyclists to ride at their preferred speed, without interference from motorists. The minimum bicycle lane width with no on-street parking is 5' when adjacent to a curb.

Buffered Bike Lanes:

Buffered bicycle lanes follow the same guidelines as typical bicycle lanes, plus they include a marked buffer space that separates the bicycle lane from the adjacent travel lanes or parking lanes. Buffers decrease the risk of conflict between bicyclists and motor vehicles. The preferred width of a buffered bicycle lane is 5' with a 1-3' buffer.

Two-Way Separated Bike Lanes:

Two-way separated bicycle lanes are physically separated bicycle lanes that allow bicycle movement in both directions on one side of the road. Two-way separated bicycle lanes share many of the same design characteristics as one-way buffered bicycle lanes but might require additional considerations at driveway and side street crossings. The preferred width of two way separated bicycle lanes is 12', the minimum permitted is 10'.

Shared Use Paths:

Shared use paths are similar to bike lanes however, they can be used by other modes of non-motorized transportation such as walking, running, or skateboarding. They are also more distinctly separated from the roadway. Shared-use paths should be located outside of the roadway pavement width, separated from traffic by either open space or a barrier. Unlike bike lanes, shared-use paths are designed for two-way travel. The width for a shared-use path can range from 10'-14'.

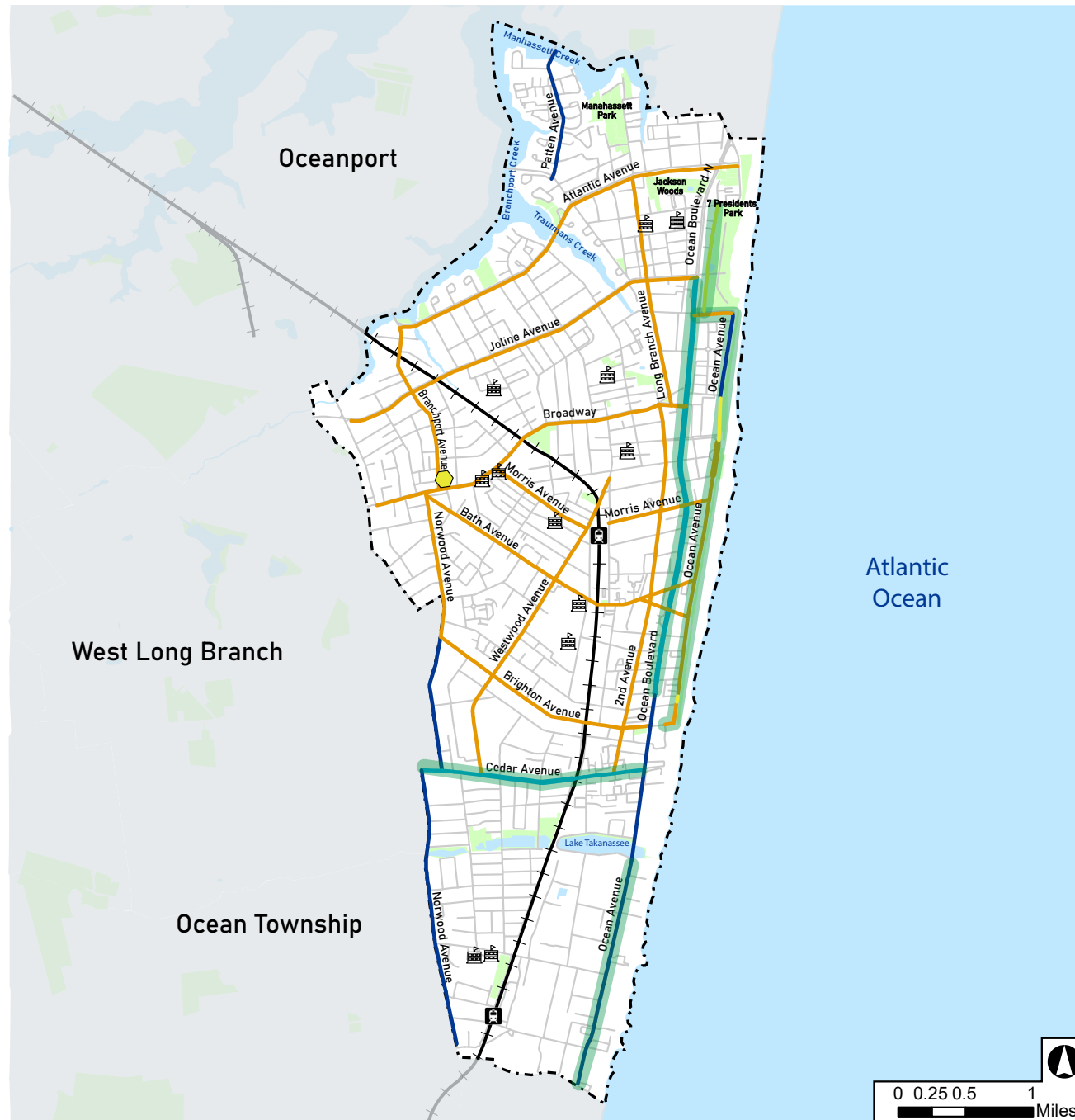
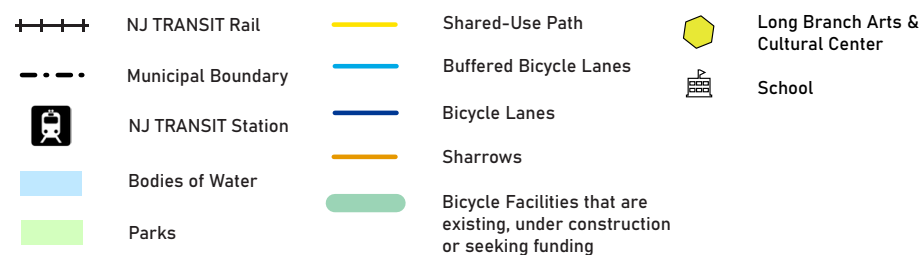


Figure 13. Bicycle Network



Long Branch Complete Streets Implementation Plan



3.4 Bicycle Facility Recommendations on Priority Corridors

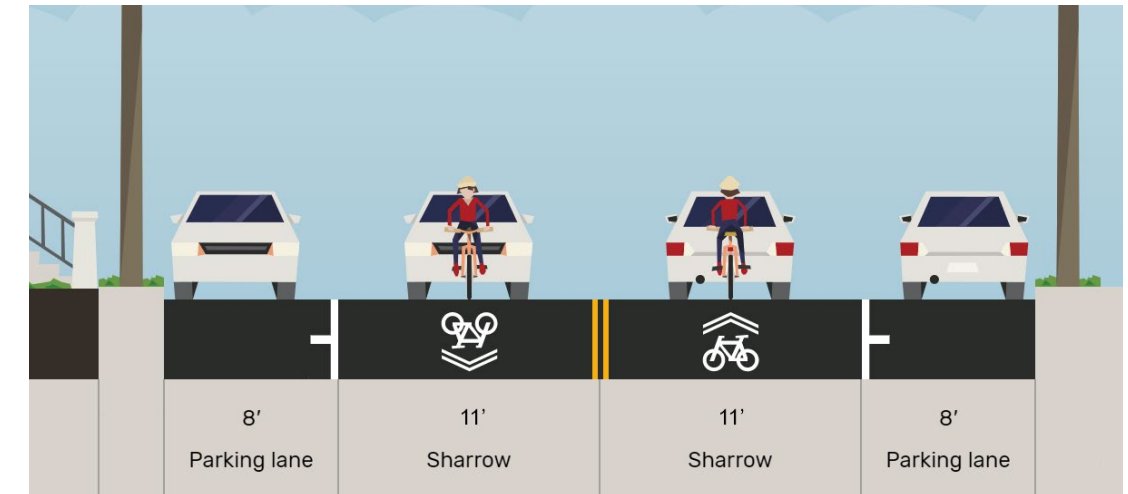


Figure 14. Cross section with sharrows

Sharrows are recommended along many of the priority corridors in Long Branch. This is due to the narrow street width, low speed limits, and need for street parking. These streets include, 2nd Avenue, Atlantic Avenue, Bath Avenue, Branchport Avenue, Brighton Avenue, Broadway, Broadway South, Joline Avenue, Long Branch Avenue, Morris Avenue, and Norwood Avenue.

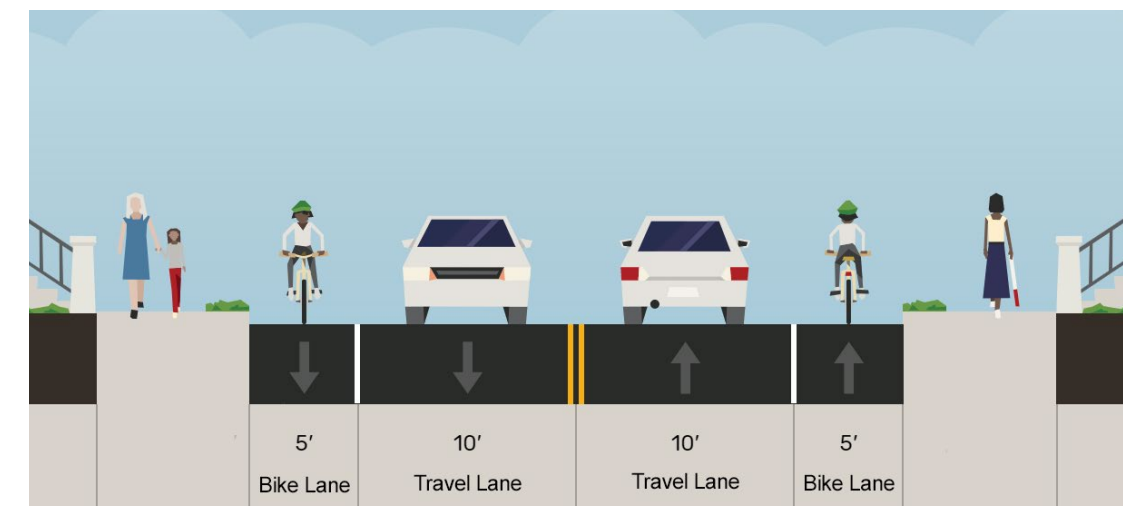


Figure 15. Cross section with bicycle lanes

Conventional bicycle lanes are recommended for Norwood Avenue and Patten Avenue. These roadways do not have street parking and there is enough available roadway width for an on-street bicycle facility. The municipality should coordinate with NJ TRANSIT if there are any existing bus stops along these roadways.

3.5 Intersection Recommendations

Intersections are one of the most critical parts of any transportation network. They are key points for all users as they travel through a street network and can act as important nodes of activity for community life. While they can have positive impacts on community life they also account for the most serious and frequent conflicts between all travel modes. If an intersection is not functioning properly, it can dramatically reduce mobility and safety for all modes. However, a well-designed intersection that facilitates visibility and predictability for all users can reduce crashes. Intersection design should allow the street space to be effectively shared by pedestrians, bicyclists and drivers.

Pedestrians are encouraged to cross at controlled intersections. These intersections should be properly delineated for pedestrian crossings. Additionally, crosswalks must be ADA compliant and signalized intersections should include countdown pedestrian signal heads. At intersections within commercial districts and areas conducive to pedestrian traffic, crosswalks should be properly signed and striped, and the use of longitudinal thermoplastic stripes should be considered to delineate crosswalks. Along with signage and striping, intersections should have lighting where feasible and traffic calming measures. The following are different strategies and traffic calming measures recommended throughout Long Branch.

Intersection recommendations are proposed for:

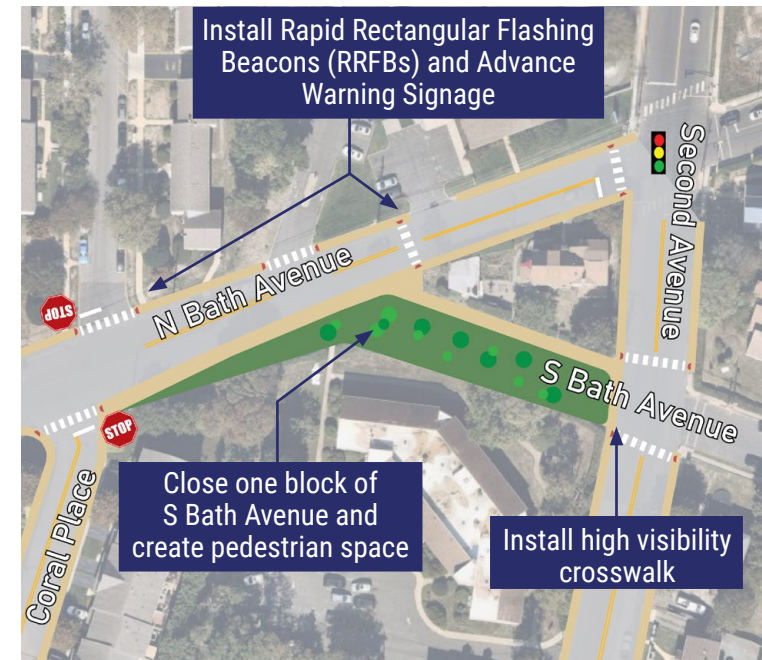


Figure 16. Intersection of N Bath Avenue and S Bath Avenue Recommendations

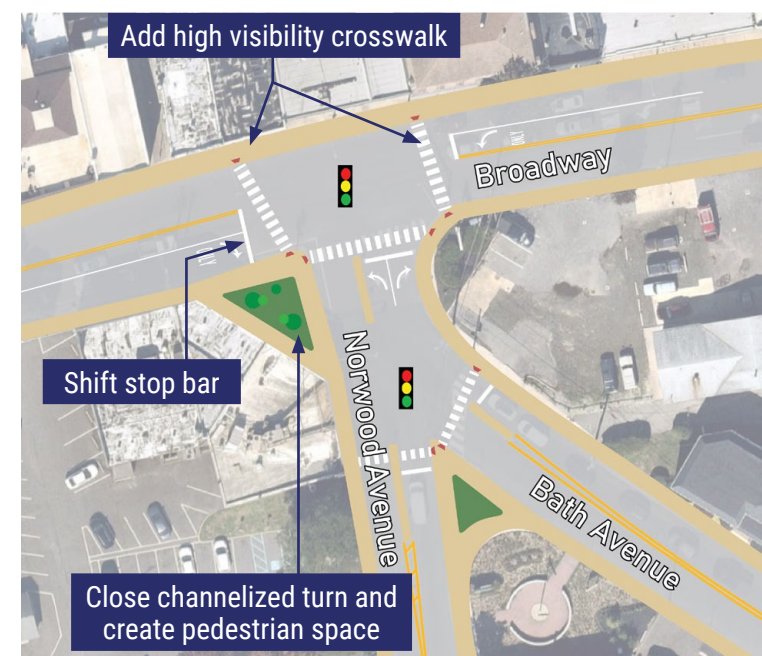


Figure 17. Intersection of Norwood Avenue, Bath Avenue, and Broadway Recommendations



High Visibility Crosswalks

A crosswalk is a portion of a roadway designated for pedestrians to cross streets. The striping of a crosswalk is important, it creates a high level of visual contrast with the surface of the roadway to draw both pedestrian and drivers' attention. Some striping styles are more visible than others. It is recommended that Long Branch use a ladder style striping or red brick paver crosswalk. These have been shown to be more visible and are recommended in the New Jersey Complete Streets Guide.



Curb Ramps

ADA guidelines require appropriately designed curb ramps at all pedestrian crossings. These curb ramps are essential to provide easy access at crossings for pedestrians of all ages and abilities. Curb ramps assist in providing a smooth transition from the sidewalk level to the street level and back again. Additional to the curb ramp, detectable warning surfaces should also be included. These warning surfaces assist people with visual impairments to determine safe crossing locations.



Curb Extensions

Are an example of a traffic calming measure. These can also be referred to as bulb-outs or bump-outs. A curb extension extends the curb line and sidewalk into the existing roadway, thus expanding the available pedestrian realm. The benefits of curb extensions include the following:

- Increased visibility for pedestrians and drivers
- Reduction of pedestrian crossing distance
- Traffic calming
- Shields on-street parking from intersection
- Expands pedestrian realm



Rectangular Rapid Flashing Beacons (RRFBs)

A lower cost alternative to traffic signals and hybrid signals that are shown to increase driver yielding behavior at crosswalks significantly when supplementing standard pedestrian crossing warning signs and markings. RRFBs are user-actuated amber LEDs that are recommended at uncontrolled intersections or mid-block crosswalks, they can be activated by pedestrians manually by push button or passively by a pedestrian detection system.



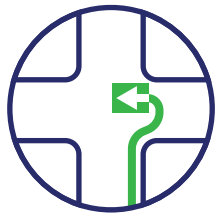
Crossbike

A crossbike intersection treatment is a set of pavement markings adjacent to the crosswalk indicating the space intended for bicycles to cross major intersections. They increase the visibility of bicycles at intersections and encourage motorists to yield right-of-way to bicyclists waiting to cross. They provide greater visibility for bicyclists at intersections, informs all roadway users of where bicyclists should cross, and separate modes to reduce conflicts. They're best utilized at wide or complex intersections where the intended bike path is unclear, near driveways, ramps, and Yield-controlled intersections, or where vehicle movements frequently encroach upon bicycle operations and space.



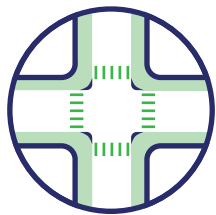
Bike Box

A bike box is a designated area at the head of a traffic lane at a signalized intersection that provides bicyclists with a safe and visible way to get ahead of queuing traffic during the red signal phase. It is typically a green on the road with a white bicycle symbol inside that is placed in front of the white vehicular stop-bar and is a continuous extension of the bike lane. Bike boxes increase the visibility of bicyclists, reduce signal delay for bicyclists (who often accelerate from stopped positions slower than cars), prevent conflicts with vehicles turning across the bike lane, aka “right-hook” conflicts, and group bicyclists together at an intersection quickly which minimizes their impact on traffic. They’re best utilized in locations with high bicyclist usage, frequent vehicle-bicyclist turning conflicts, or where a left-turn is required to follow a bike path.



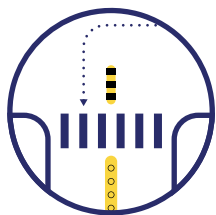
Two State Turning Queue Box

Two-stage turn queue boxes offer bicyclists a safe way to make left turns at multi-lane signalized intersections from a right-side cycle track or bike lane, or right turns from a left-side cycle track or bike lane. This allows bicyclists to make left-turns across traffic without having to merge into traffic, significantly increasing safety and efficiency for all road users. Like vehicles waiting for a supplemental green left-turn arrow, bicyclists will need to wait for a second green turning symbol after the initial through/right-turn green arrow or symbol.



Protected Intersection

Also known as setback or offset intersections, this design keeps bicycles physically separate from motor vehicles up until the intersection, providing a high degree of comfort and safety for people of all ages and abilities. This design can reduce the likelihood of high-speed vehicle turns, improve sightlines, and dramatically reduce the distance and time during which people on bikes are exposed to conflicts. At protected intersections, the bikeway is set back from the parallel motor vehicle traffic. Unlike at conventional bike intersections, people biking are not forced to merge into mixed traffic. Instead, they are given a dedicated path through the intersection, and have the right of way overturning motor vehicles.



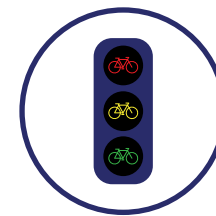
Dedicated Intersections

People on bikes can be given a dedicated path through the intersection even where there is not enough space for a full bike setback. By providing excellent visibility and low turn speeds, dedicated bikeway intersections provide key improvements over conventional bike lane intersections. To reduce conflicts between bikes and turning vehicles on busy streets, turn speed reduction techniques and new signal phasing patterns can complement the design of the dedicated bike intersection. These techniques include corner wedges, which feature a modular speed bump or similar element over which vehicles are permitted to turn at low speeds. Where the bikeway is on a two-way street or intersects with one, the speed of left turns across the bikeway can be reduced with centerline hardening or pedestrian safety islands.



Minor Street Crossing

Minor street crossings use compact corners and raised elements to keep turn speeds low. The raised crosswalk and bikeway indicate to drivers that they are entering a low-speed environment, and must prepare to yield to other users. Traffic control devices, such as signals, are uncommon. Ensuring a clear approach sightline is essential to encourage drivers to yield to people in the bikeway or the crosswalk. On minor street crossings, several design features work to keep speeds low. These include pedestrian islands or bulbouts, marked pedestrian safety zones, planters, in-street bike parking, or bike share stations. As in dedicated intersections, turn wedges and/or hardened centerline treatments can reduce turn speeds while providing turn flexibility for emergency vehicles and trucks.



Leading Bike/Pedestrian Intervals (LBI/LPI)

A leading bike interval gives pedestrians and bicyclists a head start in front of turning vehicles, providing a priority position in the right of way. These signals function similarly to protected vehicular left-turn phases, but for bicyclists and/or pedestrians. The leading pedestrian interval (LPI), which can accompany the LBI, is a proven measure to reduce serious crashes and injuries for pedestrians. On two-way streets with signalized left turns, bike and through/right motor vehicles should generally be given the first phase, with right turns yielding to bikes and pedestrians. Left turns are then accommodated in a dedicated phase after oncoming bikes receive a red signal, to reduce bike-left turn conflicts and pedestrian-left turn conflicts.



Amenities

Sidewalk and trail furnishings like benches, shade structures, restrooms, water fountains, and trash receptacles contribute to a cleaner, more comfortable, and more pedestrian-oriented public realm. These elements not only encourage the activation of Long Branch’s sidewalk and trail networks, they contribute to a more accessible pedestrian network for all residents. The plan recommends the city identify and pursue opportunities to provide amenities in the downtown, near transit stops and along trails in the community.

3.6 Citywide Recommendations

In addition to specific infrastructure projects and related programmatic efforts, some amenities are needed citywide to complete the active transportation network. These amenities should be installed as a matter of policy in conjunction with any project as opportunities arise, or when development occurs. Amenities recommended in this plan include a comprehensive wayfinding program, secure bike parking, and pedestrian lighting.

Wayfinding Recommendations

An important step in advertising and promoting the facility improvements being made to these priority corridors are wayfinding signage. The National Association of City Transportation Officials (NACTO) defines a bicycle wayfinding system as comprehensive signing and/or pavement marking that guide bicyclists to their destinations along preferred bicycle routes. Typically, signs are placed at decision points along bicycle routes, this could be at intersections of other major locations. Wayfinding signage helps to make less experienced bicyclists more comfortable in the environment and encourage these bicyclists to use the safest routes available.

Wayfinding systems can be implemented and designed formally by a municipality or business improvement district. However, in many cases walking and biking advocates have organized informal wayfinding systems.

Benefits:

- Familiarize bicyclists with the bicycle network
- Identify preferred routes to key destinations
- Increase awareness of the bicycle network to drivers
- Increase accessibility and convenience of the bicycle network to visitors and casual users
- If mileage and/or travel time information is included it can minimize the tendency to



Bike path wayfinding in Portland, Oregon

overestimate the amount of time necessary to travel to a destination

The *New Jersey Complete Streets Design Guide* outlines guidance for wayfinding:

- Signage should maintain a clean, visible, and consistent design
- Signs should be on both sides of the street or trail
- Maps should be properly oriented so that the direction the user is facing is at the top
 - A “you are here” symbol should be included
- Distances should be provided by the time needed to reach the destination

Bicycle Parking Recommendations

No bicycling network is complete without convenient and secure bicycle parking. Bicycle parking can take many forms, from a simple bicycle rack to secure storage in a locker or gated area. This plan recommends the city continue to expand its bicycle parking as opportunities arise and development occurs.

- Short-Term Bicycle Parking: Bicycle parking can be categorized into short-term and long-term parking. Bicycle racks are the preferred device for short-term bicycle



Secure bike parking hub in New York City

parking. These racks serve people who leave their bicycles for relatively short periods of time, typically for shopping or errands, dining or recreation. Bicycle racks provide a high level of convenience and moderate security. The city may also choose to partner with local artist groups to pursue customized racks that serve as bicycle parking in addition to public art. Where possible on-street bicycle corrals can be used to provide increased bicycle parking where demand is high or limited sidewalk space exists.

- Long-Term Bicycle Parking: Long-term bicycle parking includes bike lockers and secure parking areas and serves people who intend to leave their bicycles for longer periods of time. Bike lockers may vary in design and operation including keyed lockers that are rented to one individual on an annual or monthly basis or e-lockers that can be reserved online in hourly increments and unlocked with a credit card or an access code. These facilities provide a higher level of security than bicycle racks, and are typically found at transit stations, multifamily residential buildings, commercial buildings and in other areas where bicyclists running multiple errands would benefit from a secure place to store parcels in addition to their bicycle.

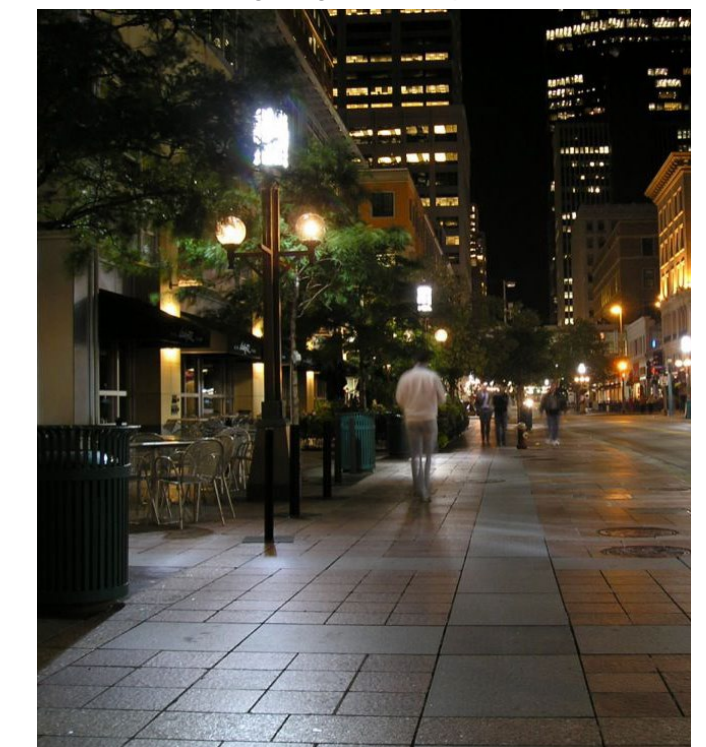
Pedestrian Scale Lighting

Pedestrian scale lighting is a type of lighting with frequent lampposts at low heights that illuminate the walking areas. This typically includes poles 12 to 15 feet high spaced 25 feet apart, directly above walking areas. Pedestrian scale lighting not only increases the visibility of pedestrians for drivers at night, but it also contributes to a more comfortable and inviting streetscape for people walking at night.

Pedestrian scale lighting should be appropriately designed to illuminate only the areas needed and be no brighter than necessary. Street trees should be appropriately maintained so they do not obstruct illumination from the lighting along sidewalks and pathways.

The plan recommends the town evaluate locations where pedestrian scale lighting may improve pedestrian comfort and encourage walking, including downtown, the areas near schools, and trails.

Pedestrian scale lighting in Minneapolis



3.7 Policies and Actions

Planning

Policy 1:

Integrate bicycle and pedestrian network and facility needs into all city planning documents and capital improvement projects.

- Action 1.1: Review the existing *Complete Streets* policy and update based on the *Complete and Green Streets for All: Model Complete Streets Policy and Guide*. Include and utilize the Complete Streets Checklists to assure consideration of pedestrian and bicycle facility needs in Town transportation projects and roadway improvements.
- Action 1.3: Evaluate all streets during pavement resurfacing to determine if bicycle facilities can be provided (e.g., bike lanes, wider shoulders) when the striping is reapplied.
- Action 1.4: Ensure that all traffic impact studies, analyses of proposed street changes, and development projects address impacts on bicycling and walking facilities. Specifically, the following should be considered:
 - Consistency with the *Master Plan*, and the *Complete Streets Implementation Plan* policies and recommendations
 - Impact on the existing bikeway and pedestrian network.
 - Degree to which bicycle and walking travel patterns are altered or restricted by the projects
 - Safety of future bicycle and pedestrian operations
- Action 1.5: Require new development or reconstruction if applicable to address the pedestrian and bicycle circulation element based on the above considerations.
- Action 1.6: Continue to implement the guidelines set forth in this report for all new development projects to support integration of transportation into land use planning decisions.

Policy 2:

Coordinate with other agencies and stakeholders to incorporate the Long Branch Complete Streets Implementation Plan.

- Action 2.1: Work with adjacent governmental entities, public service companies, coordinating agencies, and transit agencies to ensure the Plan recommendations are incorporated into their planning and areas of responsibility, and vice versa.
- Action 2.2: Work with transit providers and other agencies to improve bicycle and pedestrian access (first/last mile connections) to stops and stations. Identify strategies to make transit stops and transit vehicles more comfortable, especially during peak commute hours, and to provide secure bike parking, benches, and covered waiting areas at stations and stops. Consider participating in NJ TRANSIT's Bus Stop Sign and Shelter Program.

Design

Policy 3:

Design a Low Stress Bikeway Network suitable for the “Interested but Concerned” to include people of all ages and ability levels riding bicycles.

- Action 3.1: Design a network of continuous Low Stress Bikeways as identified in this plan. Projects that improve comfort at intersections and along corridor with high stress should be prioritized.
- Action 3.2: Utilize the design guidelines in this plan, guidance from the New Jersey Complete Streets Design Guide, the North American City Transportation Officials (NACTO), and most recent State and Federal design standards and guidelines to develop plans for on-street bicycle facilities along additional corridors and at intersections.
- Action 3.3: Follow a multi-disciplinary design process that incorporates and balances the needs of all modes and stakeholders, both internal and external; the design process should include the Town divisions, departments, and staff responsible for emergency response, parking, law enforcement, maintenance, and other affect areas as well as other responsible external stakeholder agencies.

Policy 4:

Design a connected, convenient, and comfortable pedestrian network to serve people of all ages and abilities.

- Action 4.1: Include sidewalks on all new or retrofitted roadways within reason.
- Action 4.2: Identify and construct sidewalks in areas where they are incomplete.
- Action 4.3: Enforce sidewalk maintenance to ensure that adjacent property owners maintain the sidewalk properly.
- Action 4.4: Plan and develop well-connected streets, sidewalks, and pathways that provide the most direct paths of travel for pedestrians. Remove barriers to walking where feasible.
- Action 4.7: Routinely evaluate locations for enhancing crosswalks.

Policy 5:

Design accessible, comfortable, and continuous off-street paths that contribute to the framework of Long Branch’s active transportation network.

- Action 5.1: Utilize the design guidelines in this Plan and most recent State and Federal design standards and guidelines to develop plans for ADA-compliant off-street trails.
- Action 5.2: Utilize Crime Prevention Through Environmental Design (CPTED) principles in the design of trails.
- Action 5.3: Identify opportunities for trailhead enhancements to include gateway treatments, public art, wayfinding, and placemaking.

Policy 6:

Develop an easy to read, unified and comprehensive wayfinding system for bicyclists, pedestrians, and trail users.

- Action 6.1: Pursue grant funding to develop a consistent citywide wayfinding program and replace all prior wayfinding signs.

Operations and Maintenance

Policy 7:

Maintain designated facilities to be comfortable and free of hazards to bicycling and walking

- Actions 7.1: Trim overhanging and encroaching vegetation to maintain a clear path of travel along pedestrian and bicycle facilities.
- Action 7.2: Incorporate maintenance needs into design of separated bikeways to ensure proper maintenance after construction.

Policy 8:

Maintain bicycle parking

- Action 8.1: Develop a procedure for inspection and prompt replacement of damaged bicycle racks.
- Action 8.2: Remove abandoned bicycle from bicycle racks and donate to local non-profit community bicycle shops for use in youth education programs.

Evaluation

Policy 9:

Report annually on the implementation of this plan.

- Action 9.1: Prepare and present a report on the progress in:
 - Achieving the three Goals of the Plan in terms of their specific performance measures.
 - Implementing the Policies and Action of this Plan.



3.8 Implementation

The recommendations outlined in this Bicycle and Pedestrian Master Plan provide an opportunity to enhance biking and walking throughout Long Branch. There are multiple opportunities to improve bicycle and pedestrian access and mobility. The following sections provide guidance on coordination, planning, education, and funding sources that can serve as a resource for advancing and implementing the proposed facilities throughout Long Branch.

Coordination

Coordination between Long Branch, neighboring communities, and Monmouth County should be initiated to advance improvements for bicycle and pedestrian accommodations on roadways. A potential next step could be the formation of a working group (e.g. Complete Streets Task Force) to spearhead a public information campaign and pursue opportunities and resources to support the design and implementation of facilities. The working group would be led by a Complete Streets “Champion” and could assist with advancing priority recommendations and build upon the preliminary network and regional connections identified in this plan, as well as, identify opportunities for improving biking and walking through future development.

The working group should create partnerships within the Long Branch community to advance the Complete Streets Implementation Plan. Within the community, businesses, private developers, and neighborhood associations can be important allies in providing ongoing support. Partnerships with neighboring municipalities, Monmouth County, and NJDOT can help to achieve consistency in design treatments for roads operated by different agencies.

Additionally, it is recommended that Long Branch adopt this plan into their existing Master Plan.

Educational Programming

To encourage the safe use of existing and proposed facilities and more walking and bicycling trips, it is recommended that the Long Branch promote walking and bicycling and implement educational programs on best practices and safety. Education programs are recommended for all types of users of all ages. Efforts should be made to educate bicyclists, pedestrians, and motorists on the rules of the road and how to safely share the road. Widespread education efforts can contribute to safer roadways for all. Encouragement is also needed to promote the spread of bicycling and walking as means of transport, recreation, and physical activity.

Safe Routes to School (SRTS) is a federally funded program with the goal of making it safer for students, including those with disabilities, to walk and bike to school. NJDOT provides funding to schools and communities to improve walking and bicycling conditions to schools through a SRTS Infrastructure Grant Program. At the local levels, assistance to schools and communities with Non-Infrastructure



Patten Avenue

Programs is provided by the new Jersey SRTS Resource Center and the eight Transportation Management Associations.

EZRide is a non-profit Transportation Management Association located in Bergen, Monmouth and Union counties, and parts of Passaic and Essex County. EZRide advocates for safe walking and biking to school for students K-12 with educational programs such as Bike Rodeos, poster contests and even distribute free bike helmets. EZRide also provides evaluation programs such as walkability audits and the development of School Travel Plans. SRTS and EZRide can provide group training for safety education and enforcement campaigns to students and adult volunteers at Eatontown schools. To set up programming, the city of Long Branch is encouraged to contact the Safe Routes to School Coordinator at EZRide TMA. Additional SRTS resources can be found on the New Jersey SRTS Resource Center website and the National Center for Safe Routes to School website.

For more information visit the EZRide TMA website here <https://ezride.org/> or the NJTPA website here <https://www.njtpa.org/Home.aspx>.

Promotional Activities

A wide variety of programs are available to encourage Long Branch residents to walk or bike more often. Below are some recommended educational programs:

- **Walk to School Day:**
This is one of the most fundamental strategies for encouraging younger residents to walk or bicycle. Although sometimes referred to as “Walk and Roll to School Day,” this event has been popularized in the past as “Walk to School Day,” and the typical focus has been on encouraging walking and biking to school. As one idea, walking and bicycling could be one of the units available in physical education classes. In the fall or spring, physical education teachers could enroll students in walking

and bicycling events for a minimum number of miles. Cross County Connection can provide assistance in coordinating Walk to School events.

- **Join a Walking or Bicycling Club:** Residents of Long Branch can start a club to encourage other residents to log on a certain number of miles per week on foot or bicycling.
- **Special Events:** A Walk to School Day is an example of a special event; other examples include Trails Day, Car Free Day, Traffic Safety Day, and Bike to Work Day.
- **Awareness Campaign:** Public Service announcements on cable television, posters, brochures, and bumper stickers promote increased use of walking and bicycling in general for errands, work trips, school and other purposes, or to promote special event days.
- **Commuter of the Month:** Long Branch businesses, public agencies, or Cross County Connection could recognize the employee that walks or bicycles to work with the greatest frequency.

Enforcement

An important component of a safe and well-traveled transportation system is an enforcement program for traffic regulations as they apply to each type of roadway user: motorist, bicyclists, and pedestrians. The City of Long Branch can improve travel habits and behavior through enforcement. This process should include reviewing current ordinances and traffic regulations to identify elements that may unnecessarily affect certain roadway users, such as bicyclists. As bicycle facilities are installed, it is recommended that local ordinances and regulations be developed or revised to clarify items such as: application of vehicle laws to bicyclists, permitted movements on and across bicycle facilities (e.g., permitted motor vehicle movements across bicycle lanes), bicycling on sidewalks, and bicycle parking requirements.

In addition, a review of enforcement regulations and practices may assist in identifying opportunities to partner with community, county, or state organizations to inform users about safe bicycle travel behavior, such as the required use of helmets by bicyclists under the age of 17 (N.J.S.A 39:4-10.1), the N.J.S.A 39: 4-36 which requires motorists to stop for pedestrians in the crosswalk, or the N.J.S.A 39:4-14.2 which requires bicyclists to ride in single file. As of March 1, 2022 New Jersey also passed the Safe Passing Law. This requires drivers to use “due caution” whenever they encounter vulnerable road users. Specifically, drivers are asked to provide 4 feet of space when passing a vulnerable road user.

Capital Improvement Projects

The City of Long Branch should review their Capital Improvement Projects to determine where bicycle and pedestrian improvements can be integrated. The majority of bicycle facility recommendations outlined within this plan can be implemented as part of regular roadway resurfacing and/or restriping projects. When implemented as part of a larger maintenance or construction project the added cost for roadway markings and signage is minor within the scope of the larger project.

Funding

Several federal and state programs are commonly used to fund bicycle and pedestrian improvement projects. **Table 10** provides a list of programs, the program administrator, who is eligible to apply, and the estimated amount of funding available for an individual allotment. Note: the estimated amounts are based on previous amounts awarded to municipalities and counties. City of Long Branch can use this implementation plan to pursue funding through these programs.

Cross County Connection Transportation Management Association developed a funding guide for use in South Jersey. Much of the information is also applicable to the rest of the state and is a great resource for

municipalities. The guide can be found here: <http://www.driveless.com/wp-content/uploads/sites/5/2020/05/CCCTMA-Funding-Guide-2020.pdf>

Many improvements (e.g., installing “Share the Road” or Wayfinding signage, or striping a bike lane) can be implemented quickly and at a relatively low cost. There are a number of opportunities for grants to fund bicycle and pedestrian improvements.

The recommended concepts for both bicycle and pedestrian projects could be eligible for the following potential funding sources:

- **NJDOT Municipal Aid:** Each year NJDOT invites municipalities to apply for funds to go towards road improvement projects. This includes resurfacing, rehabilitation or reconstruction and signalization. NJDOT has set a goal to award up to 10% of the Municipal Aid program funds to projects such as pedestrian safety improvements, bikeways and streetscapes.
- **NJDOT County Aid:** These funds are used for the improvement of public roads and bridges that are under county jurisdiction. Public transportation and other transportation projects are also included.
- **NJDOT Safe Routes to School:** Provides federal-aid highway funds for infrastructure projects that enable and encourage children in grades K-8, including those with disabilities, to safely walk and bicycle to school. Bonus points on the grant are given to applicants with School Travel Plans, a Complete Street Policy and Transit Village Designation.
- **NJDOT Safe Streets to Transit:** Provides funds to construct safe and accessible pedestrian linkages to transit facilities, to promote increased usage of transit by all segments of the population.
- **NJDOT Transportation Enhancements/Transportation Alternatives Program:** Provides federal funds for community based “non-traditional” transportation projects designed to strengthen the cultural, aesthetic

and environmental aspects of the nation’s intermodal system. Bonus points on the grant are given to municipalities that have an adopted Complete Street Policy and Transit Village Designation.

- **Sustainable Jersey:** Provides capacity building awards to municipalities to support local green teams and their programs to make progress toward Sustainable Jersey Certification.
- **New Jersey Healthy Communities Network:** This is a partnership of grantees, funders, and advocate organizations who seek collective impact on a community’s well-being by supporting healthy eating and active living. The Community Grant Program provides the opportunity to develop healthy environments for people to live, work, learn and play by funding policies, projects and programs that support walking and biking.
- **New Jersey Transportation Bank:** Provides low interest loans to local government units for transportation infrastructure projects. It is a partnership between NJDOT and the New Jersey Infrastructure Bank (I-Bank).
- **NJDEP Recreational Trails Grant:** The Federal Highway Administration’s Recreational Trails Program provides financial assistance to states for developing and maintaining trails and trail facilities. New Jersey Department of Environmental
- **Safe Streets and Roads for All:** Through the Bipartisan Infrastructure Law (BIL) the new Safe Streets and Roads for All program was created. SS4A program funds regional, local and Tribal initiatives through grants to prevent roadway deaths and serious injuries. It is eligible for the development of comprehensive safety action plans; planning, design and development activities in support of an Action Plan; and to carry out projects and strategies identified in an Action Plan.

Table 10. Funding Opportunities

Program Name	Program Administrator	Estimated Award (\$)	Eligibility	Additional Notes
Municipal Aid	NJDOT	\$100,000 - \$500,000	Municipalities are eligible to apply for improvement of any public road or bridge governed by the municipality	
County Aid	NJDOT	\$5 Million - \$10 Million	Counties are eligible to apply for improvements of public roads and bridges under county jurisdiction	Each county must develop an Annual Transportation Program. Long Branch should coordinate with Monmouth County to list projects on county roads
Safe Routes to School	NJDOT	Under \$500,000	Any county, municipality, school district, or board of education are eligible to apply	Funds are intended to be used for projects that facilitate walking and/or bicycling to school
Safe Streets to Transit	NJDOT	Under \$500,000	Counties and municipalities are eligible to apply	
Bikeway Grants	NJDOT	\$100,000 - \$300,000	Counties and municipalities are eligible to apply	Funds support the State's goal of constructing 1,000 new miles of dedicated bicycle paths
Transportation Enhancements/Transportation Alternatives Program	NJDOT	\$100,000 - \$500,000	Counties and municipalities are eligible to apply	
Sustainability Jersey Grants Program	Sustainable Jersey	\$1,000 - \$35,000	Municipalities are eligible to apply	
NJHCN Community Grant	New Jersey Healthy Communities Network	N/A	Municipalities, non-profit organizations, parks and recreation departments, school boards, are eligible to apply	
New Jersey Transportation Bank	NJDOT and New Jersey Infrastructure Bank	N/A	Municipalities, counties, regional transportation authorities, or any other political subdivision of the state are eligible to apply	
Recreational Trails Grant	NJDOT and New Jersey Infrastructure Bank	Under \$50,000	Government agencies and non-profit organizations are eligible to apply	



Atlantic Avenue

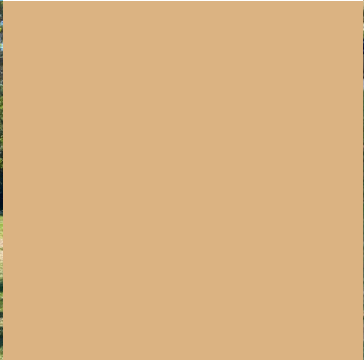
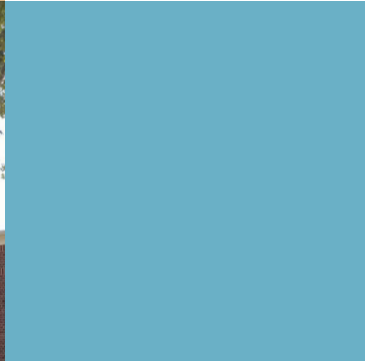
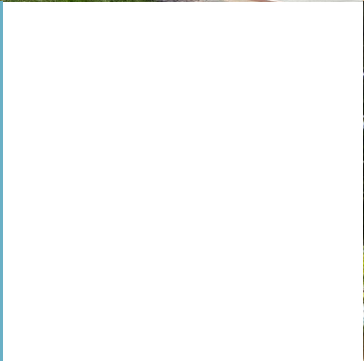
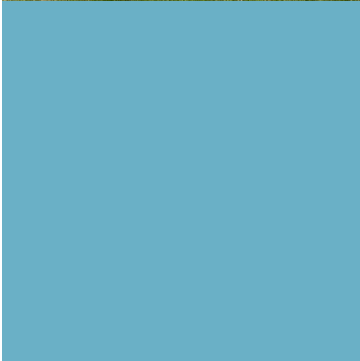
Implementation Matrix

It is recommended that Long Branch determine a practical means for implementing the recommendations made within the plan. An Implementation Matrix for the proposed improvements is included as **Table 11** to assist Long Branch. The Implementation Matrix is intended to assist the City in prioritizing the recommendations for a phased implementation, as well as identifying costs and the appropriate agency to coordinate carrying them out. Prioritization is determined by the proximity of the locations to the downtown, schools, and other points of interest. It can also be affected by other projects that may be occurring in the same space, for example, a road resurfacing project, or new development.

Type	Improvement	Location	Timeframe	Cost	Priority	Responsible Agency	
Engineering	Sidewalk Installation	Joline Avenue between Rockwell Avenue and Ocean Boulevard	Medium	Low	Low	NJDOT	
		John Street by Anastasia School	Short	Low	Medium	Long Branch	
		Laurel Street	Short	Low	Medium	Long Branch	
		Norwood Avenue between Overturn Place and Broadway	Medium	Low	Low	NJDOT	
		High Street between Eastborne Avenue and Bath Avenue	Short	Low	Low	Long Branch	
		Atlantic Avenue at entrance of Jackson Woods	Short	Low	Medium	Long Branch	
		Avenel Boulevard and Ocean Boulevard	Short	Low	Medium	Long Branch	
		All sidewalks near rail station	Short	Low	Medium	Long Branch	
		Norwood Avenue at Park Avenue	Short	Low	Medium	Long Branch	
		Norwood Avenue at Kirby Avenue	Short	Low	Medium	NJDOT	
		Pavilion Avenue at 2nd Avenue (EB)	Short	Low	Medium	Long Branch	
		Pavilion Avenue at 2nd Avenue (WB)	Short	Low	Medium	Long Branch	
		Norwood Avenue at Cedar Avenue	Short	Low	Medium	NJDOT	
		Morris Avenue at Villa Drive	Short	Low	Medium	Long Branch	
		Norwood Avenue at Highland Avenue	Short	Low	Medium	NJDOT	
		Norwood Avenue at Hollywood Avenue	Short	Low	Medium	NJDOT	
		"Sharrows"	2nd Avenue	Short	Low	Medium	NJDOT
			Atlantic Avenue	Short	Low	Medium	NJDOT
	Bath Avenue		Short	Low	Medium	NJDOT	
	Branchport Avenue		Short	Low	Medium	NJDOT	
	Brighton Avenue		Short	Low	Medium	NJDOT	
	Broadway		Short	Low	Medium	NJDOT	
	Broadway South		Short	Low	Medium	Long Branch	
	Joline Avenue		Short	Low	Medium	NJDOT	
	Long Branch Avenue		Short	Low	Medium	Long Branch	
	Morris Avenue		Short	Low	Medium	Long Branch	
	Norwood Avenue	Short	Low	Medium	NJDOT		

Type	Improvement	Location	Timeframe	Cost	Priority	Responsible Agency	
Engineering	Bike Lanes	Norwood Avenue	Short	Low	Medium	NJDOT	
		Patten Avenue	Short	Low	Medium	Long Branch	
	Bicycle Parking	Key Trip Generators Townwide <i>*see bike network map for locations*</i>	Short	Low	High	Long Branch	
	Wayfinding/Bike Route Signage	Along all Priority Corridors	Medium	Low	Medium	NJDOT	
	ADA Compliant Curb Ramps	Broadway, Norwood Avenue, and Bath Avenue	Short	Low	High	Long Branch, County	
		N Bath Avenue and S Bath Avenue	Short	Low	High	Long Branch	
	Road Closure	N Bath Avenue and S Bath Avenue	Long	High	Low	Long Branch	
	Eliminate Slip Lane	Broadway, Norwood Avenue, and Bath Avenue	Long	High	Low	Long Branch, County	
	High Visibility Crosswalk	Broadway, Norwood Avenue, and Bath Avenue	Short	Low	High	Long Branch, County	
		N Bath Avenue and S Bath Avenue	Short	Low	High	Long Branch	
	Rectangular Rapid Flashing Beacons (RRFB) and Advance Warning Signage	N Bath Avenue and S Bath Avenue	Medium	Low	Medium	Long Branch	
	Streetscaping/ Amenities	Project Areawide	Medium	Low	Low	Long Branch	
	Policy	Update Complete Streets Policy	Citywide	Short	Low	Low	Long Branch
	Educational	Educational Safe Routes to School	Citywide	Short	Low	Low	Long Branch
Encouragement	Awareness Campaign	Citywide	Short	Low	Low	Long Branch	
	Creation of Complete Streets Working Group	Citywide	Short	Low	Low	Long Branch	

Key			
Cost Estimate		Timeframe	
Low	\$0-\$5,000	Low	0 - 2 years
Medium	\$5,000-\$10,000	Medium	2-5 years
High	\$10,00 +	High	5 years +



Complete Streets **Implementation Plan**

August 2023