

DRAFT

ORANGE COUNTY, NY

COMPLETE STREETS

CITY OF NEWBURGH & CITY OF PORT JERVIS

DESIGN ALTERNATIVES

FALL 2016



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INTRODUCTION

INTRODUCTION

The streets of our cities and towns play an important role in the livability of our communities. Everyone, regardless of age, ability, income, race, or ethnicity, should have safe and convenient access to community destinations and public places—whether walking, wheeling, driving, bicycling, or taking public transportation. Yet, too many of our streets are designed only for cars, and how quickly they can move up and down streets. They are unsafe for people on foot or bike – and unpleasant for everyone. Changes are needed to improve the efficiency and capacity of our streets to move people in the same amount of space without having to rely on their car. Many cities and towns now have plans and

policies to ensure safety and convenience on streets throughout the community, not just for drivers, but for all users including pedestrians, bicyclists, and transit riders.

The principles of Complete Streets fits well within the overarching mobility goals and objectives of Orange County’s Creating Healthy Schools and Communities initiative. As an approach to design, Complete Streets aims to provide safe access to all modes of transportation for all ages and abilities. Increasingly it also means to encourage active transportation and green the streetscape to improve environmental conditions and benefits to public health.



A example of a complete street in Kern County, CA

WHAT IS A COMPLETE STREET?

“Complete Streets are streets for everyone and provide an opportunity to engage in inclusive, community-wide health promotion. By planning, designing, operating, and maintaining Complete Streets, communities of all sizes - from small rural towns to large cities- can provide convenient and comfortable access and travel for all users regardless of their transportation mode. Complete Streets enable those walking, wheeling, bicycling, driving automobiles, riding public transportation,

and delivering goods to share the road safely and allow communities to achieve greater economic, environmental, and public health benefits. Complete Streets go beyond just the street; if the underlying principles of universal design are adhered to and effectively executed, an inclusive and accessible environment for pedestrians and transit users will be achieved.”¹

¹ New York State Creating Healthy Schools and Communities and NYS Obesity Prevention Center for Excellence. 2016. Complete Streets Flyer.

BENEFITS

The following benefits of complete streets are emphasized in a promotional flier distributed by the New York State Creating Healthy Schools and Communities and the NYS Obesity Prevention Center for Excellence organizations:²

SAFETY

Designing the street with pedestrians in mind - improved lighting, sidewalks, raised medians, better bus stop placement, and traffic calming measures - has been shown to improve pedestrian, bicyclist, and motorist safety. Moreover, when more residents use active transportation there are more people in the public realm, and increased active transportation creates a safer setting for children as they travel.

ECONOMIC VITALITY

Communities that undergo complete streets improvements can bolster local business and spur economic development. Complete streets encourage private investment and businesses often look at the health of a community when deciding where to locate because of insurance costs. Making it easier for residents and visitors to walk, bike, or take transit to their destinations helps them to spend money locally. Instead of paying for the cost of owning a car, individuals can pay for housing, restaurants, and entertainment.

JOB GROWTH

Road improvement projects that include bike and pedestrian facilities create more jobs per dollar spent, compared to those that are only designed for vehicles. Moreover, cycling adds jobs to the economy through increased tourism, bicycle manufacturing, sales and repair, bike tours, and other activities.

HEALTH

Complete Streets encourage walking and bicycling and improve air quality, all important for our health (reduce obesity, asthma, and illness).

EQUITY

Complete Streets are equitable and help to provide access to daily activities, such as employment or school, among those who don't have a car.

TRAFFIC CONGESTION

Complete Streets can help ease transportation woes and increase the overall capacity of the transportation network.

² New York State Creating Healthy Schools and Communities and NYS Obesity Prevention Center for Excellence. 2016. Complete Streets Flyer.

CREATING HEALTHY SCHOOLS AND COMMUNITIES

“Creating Healthy Schools and Communities (CHSC) is a five-year (2015–2020) public health initiative to reduce major risk factors of obesity, diabetes, and other chronic diseases in 85 high-need school districts and associated communities statewide. The New York State Department of Health (NYSDOH) has funded local organizations and county health departments and Orange County was one of 26 grantees who were awarded funds as part of CHSC. The goal is to implement multi-component evidence-based policies, place-based strategies, and promising practices to increase demand for and access to healthy, affordable foods and opportunities for daily physical activity for all New Yorkers. The Obesity Prevention Center for Excellence (OPCE), led by JSI Research & Training Institute, Inc. (JSI) strengthens the CHSC Initiative’s collective impact by providing technical assistance, training, resources, and a network to collaborate.”³

3 New York State Creating Healthy Schools and Communities. 2016. Creating Healthy Schools and Communities Grant and Program Flyer.

CHSC STRATEGIES

The following CHSC strategies for success are emphasized in a promotional flier distributed by the New York State Creating Healthy Schools and Communities organization:⁴

1. Revise, implement, and assess local wellness policies to improve the school environment.
2. Establish Comprehensive School Physical Activity Programs (CSPAP).
3. Increase access to healthy, affordable foods and increase school districts’ ability to meet federal nutrition standards for foods sold outside of school meals.
4. Restrict food marketing to children.
5. Increase access to healthy, affordable foods in communities.
6. Increase adoption and use of food standards and procurement policies that increase healthy foods in community sites and settings.
7. Adopt and implement Complete Streets policies, plans, and practices to increase access to opportunities to walk, bike, and roll.

4 New York State Creating Healthy Schools and Communities. 2016. Creating Healthy Schools and Communities Grant and Program Flyer.

O | CITY OF NEWBURGH

CONCEPT PLAN

The complete street recommendations take in consideration the general character, current land uses, and future trends of the area surrounding the corridor. Both public input and expert analysis of the current conditions along the Lake Street corridor revealed an over-built roadway, making it an ideal candidate for a road diet. Reducing the number of travel lanes provides sufficient space for bicycle and pedestrian facilities, stormwater management elements, and vegetation without hindering motorists' ability to move through the corridor.

The concept plan recommends formalizing the designated fitness trail by constructing a multi-use path around Muchattoes Lake and Lake Drive with future spur trails along Quassaic Creek. If implemented, these facilities will increase the number of recreational opportunities for both pedestrians and bicyclists as well as help connect residential areas to amenities and key destinations throughout the area.

A number of park enhancements are recommended along the Quassiac Creek Trail and multi-use path to provide open space destinations for both bicyclists and pedestrians, alike. These parks should include various amenities for visitors such as benches, trees, bike racks, water stations, and picnic tables.

Crossing improvements should be included in the Lake Street Road Diet to enable bicyclists and pedestrians to easily and safely access amenities on both sides of the street including grocery stores, healthcare, and recreational facilities. Recommended intersection crossing improvements are located at Washington Terrace/Lake Street and Lake Street/South William Street. A mid-block crossing along Lake Street at the Quassiac Creek is vital to the creation of a safe and connected trail along the creek.

The following recommendations included in the cross-section and plan view alternatives were created based off these concept plans.



CITY OF NEWBURGH

PLAN VIEW MAP

- Residential
- Public Service Areas
- Parks & Open Space
- Lake St. Road Diet
- Quassaic Creek Trail
- Park Enhancements
- Important Public Services
- Crossing Improvements
- Multi-use Path



Snake Hill
Recreation
Area

Healthcare

Grocery

Newburgh Housing Authority

New Mid-block Crossing





WEST STREET
ELEMENTARY SCHOOL

SCHLEIERMACHER
PARK

MUCKATTOES LAKE

DELANO-HITCH
PARK

NEWBURGH ARMORY

LITTLE FALLS
PARK

CITY OF NEWBURGH

CROSS-SECTIONS MAP

- █ Lake Drive: Options 1 & 2
- █ Lake Street: Options 1, 2, & 3



CROSS-SECTIONS

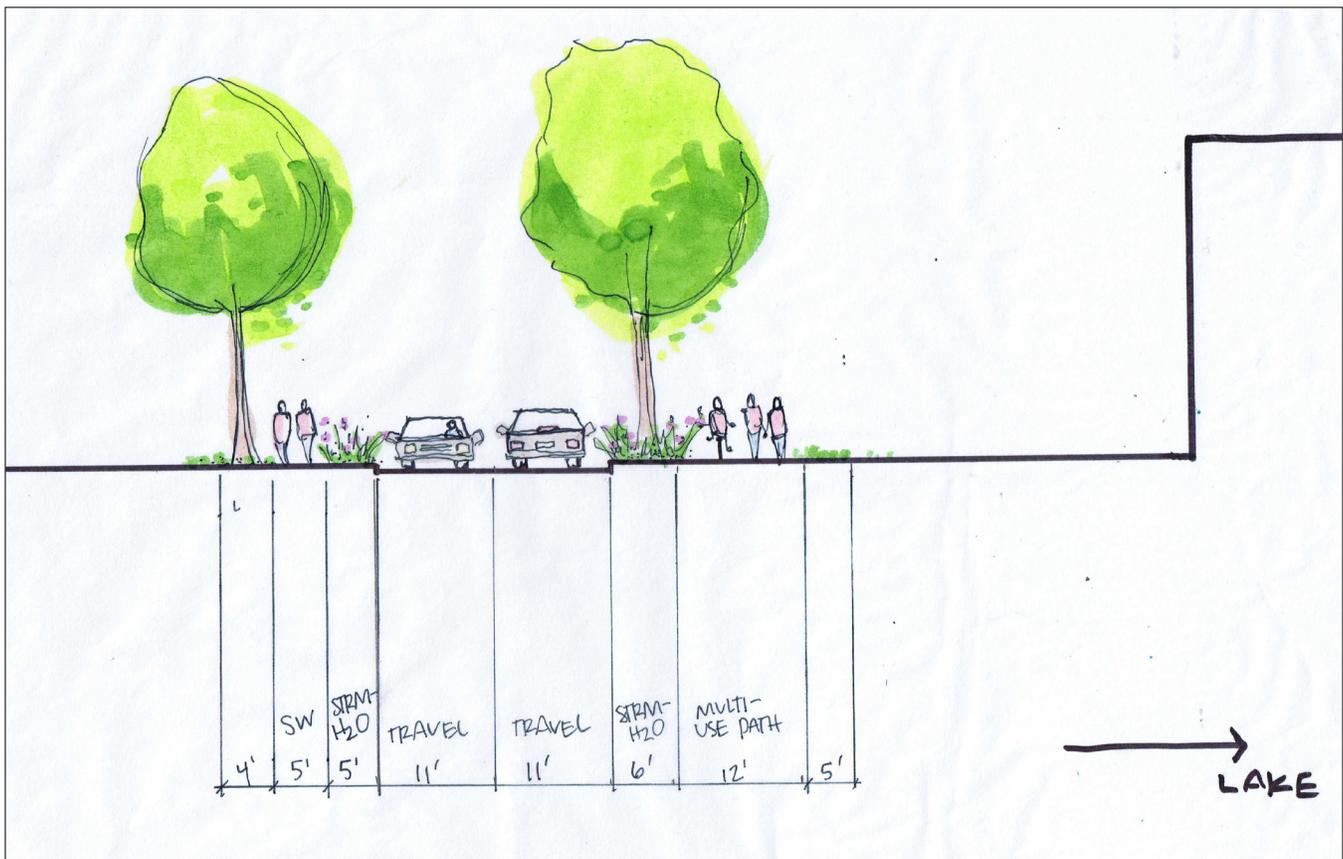
The following cross-sections for Lake Drive and Lake Street were created based on the existing right-of-way (ROW). The treatments in each alternative were driven by input from the public and City staff regarding the vision and needs for the corridor. The following designs do not need to be considered individually. Elements of multiple cross sections can be combined into the final design provided the treatments fit within the existing ROW. Additionally, treatments along the length of the streets can differ as the character and needs of the corridors change. If multiple treatments are chosen for a street, it is important to use good judgment and attention to detail to ensure all travel modes flow smoothly down the length of the study corridors.

LAKE DRIVE

There are two alternative designs for the ROW on Lake Drive. They are oriented as if the viewer is looking up the street to the North with Lake Muchattoes to the right.

OPTION I

This alternative emphasizes open space and stormwater management techniques. The roadway consists of two travel lanes, one in each direction, flanked on each side by stormwater management facilities. This alternative recommends a 12-foot multi-use path on the eastern side of the road, closer to Lake Muchattoes, which can be used by both pedestrians and bicyclists. The existing ROW provides additional space for a five foot sidewalk on the opposite side of the street, allowing for pedestrian travel.

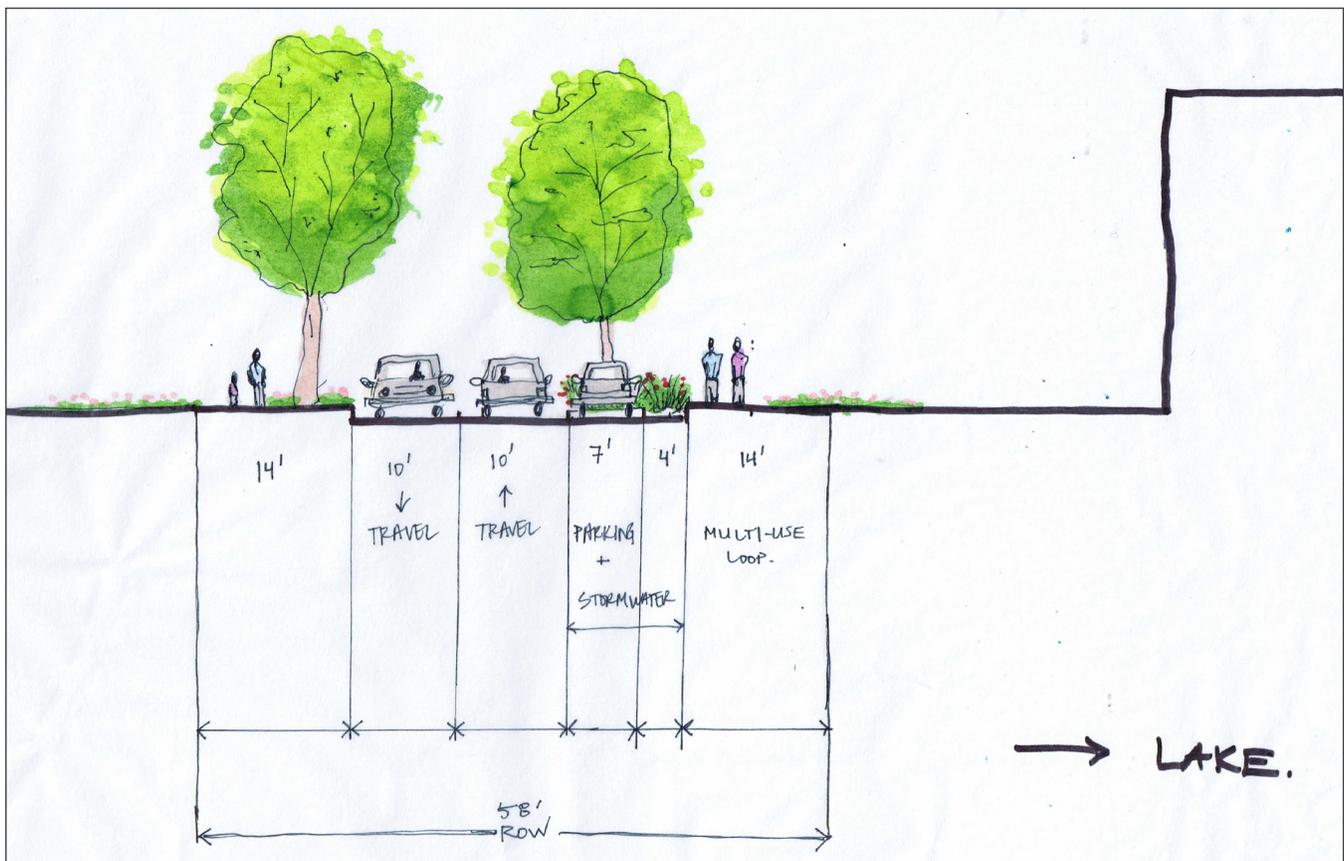


Lake Drive: Option I

OPTION 2

The second alternative is similar to the first in that it provides a multi-use path on the lake-side of the street and pedestrian facilities on the opposite side of the street. Lake Drive also remains a two-lane street, with 10-foot travel lanes in either direction. One large difference is that this option provides parallel parking along the eastern side of the street. The parking lane

and stormwater management treatments act as a buffer between moving traffic and those on the multi-use path. A street tree buffer on the opposite side between the roadway and sidewalk is recommended for both shade and to add distance between pedestrians and moving vehicles.



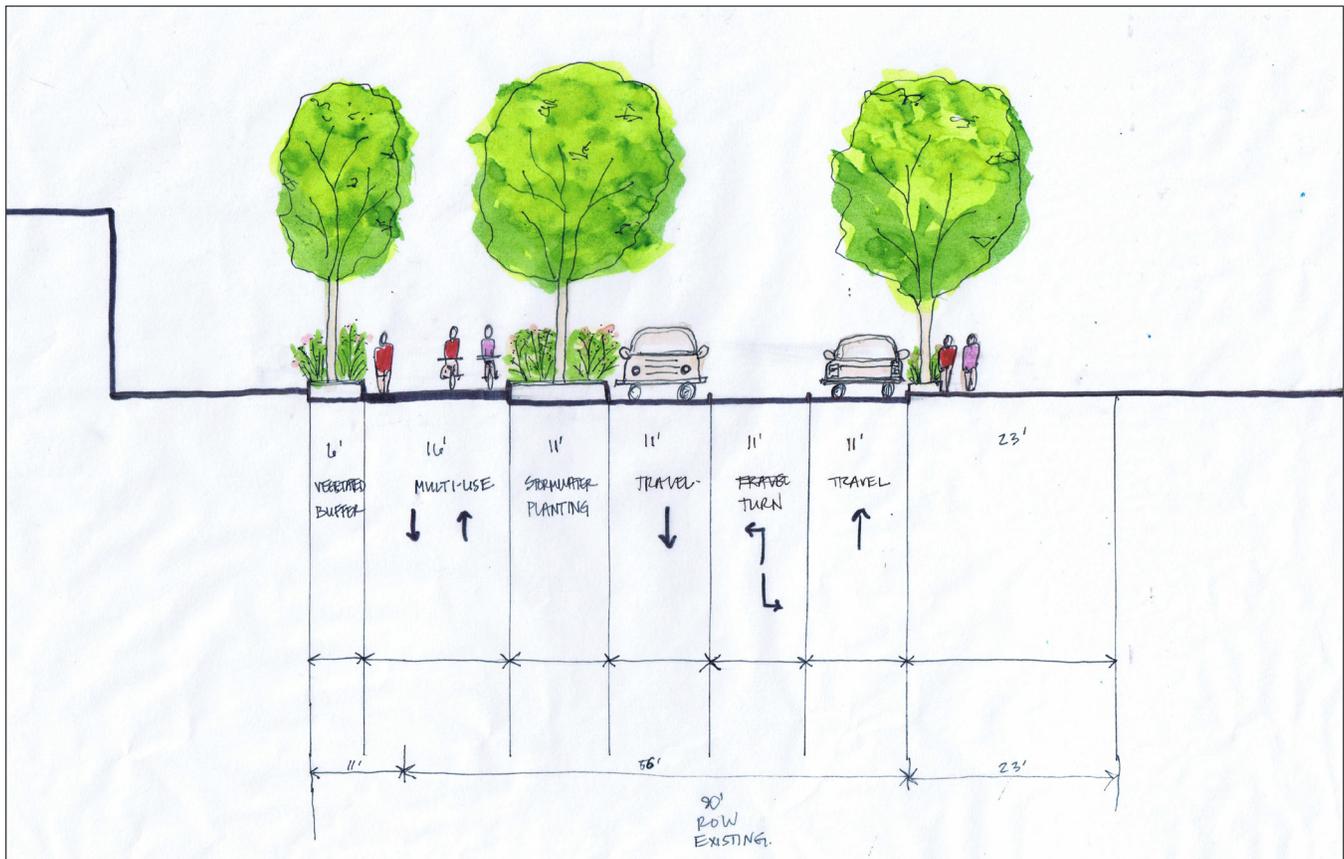
Lake Drive: Option 2

LAKE STREET

There are three alternative designs for the ROW along Lake Street. The width of the design options varies slightly as it is expected that the vegetated buffer will vary along the corridor. All designs can be altered slightly to fit within the existing ROW. The cross-sections are oriented as if the viewer is looking up the street to the North with Lake Muchattoes to the left. The large ROW and widespread public support of a road diet provides a perfect opportunity to implement multiple complete street elements along Lake Street.

OPTION 1

For option 1, motorists will have access to two 11-foot travel lanes, one in each direction, and one center turn lane to facilitate left-hand turns. The 16-foot multi-use path on the west side of the roadway provides easy access to the multi-use path fitness loop proposed on Lake Drive for both bicyclists and pedestrians. An 11-foot stormwater management planting is placed between the roadway and multi-use path to separate motorized and non-motorized travel modes. Additional pedestrian facilities located on the eastern side of Lake Street will enable pedestrians to easily access the recreational and commercial attractions in the area.

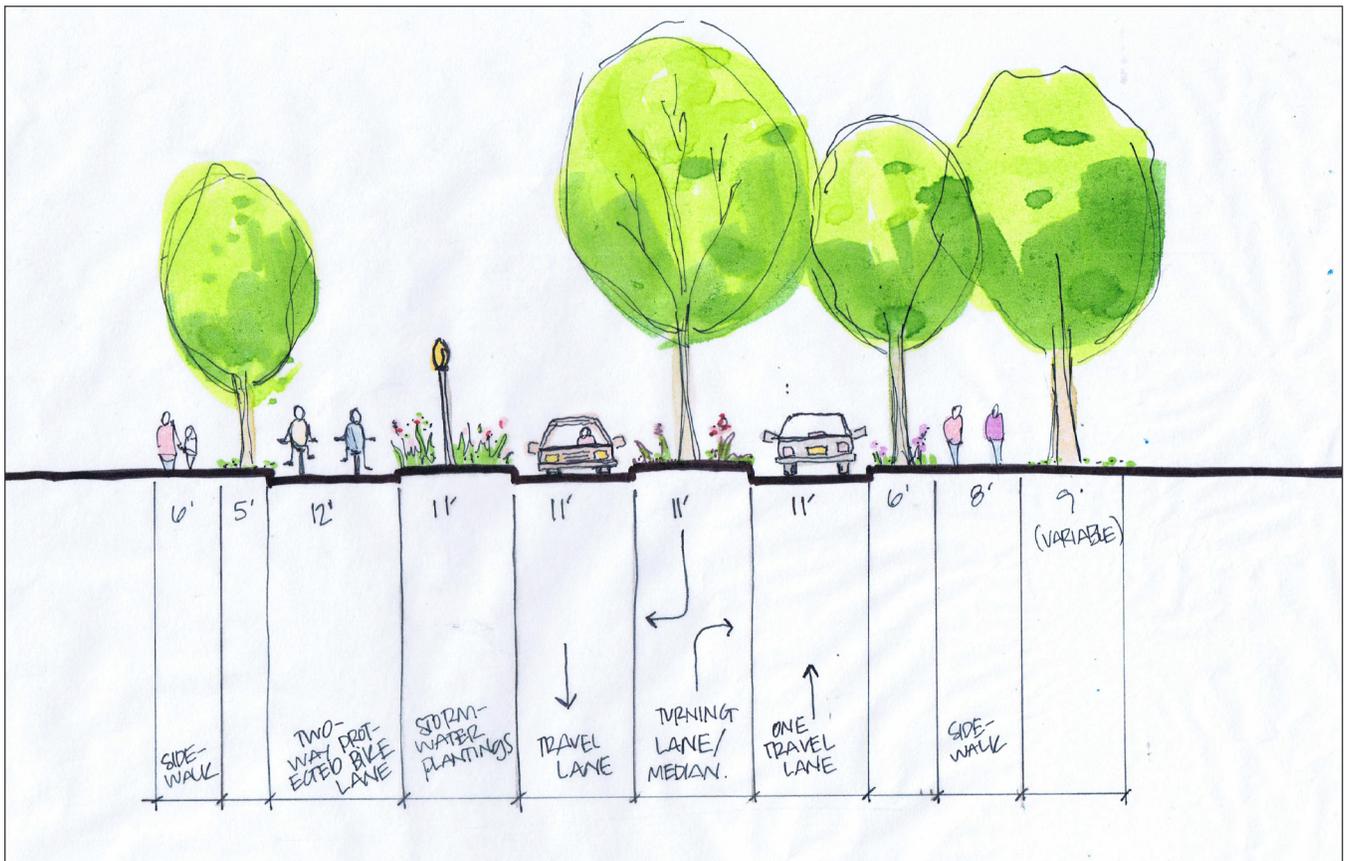


Lake Street: Option 1

OPTION 2

Option 2 successfully separates, and buffers, all modes of travel. Pedestrians coming from the lake to the west or the commercial area to the east can take advantage of sidewalks on both sides of Lake Street. A two-way protected bike lane is recommended on the west side of the street, enabling cyclists to easily access the multi-use path fitness loop proposed on Lake Drive. Bikes are separated from a southbound

travel lane by an 11-foot buffer complete with stormwater management plantings. The two travel lanes are separated by a vegetated median which doubles as a turning lane at necessary intersections and commercial areas along the corridor. The abundance of open space, street trees, and dedicated facilities will transform Lake Street into an inviting corridor for non-motorized modes of travel.



Lake Street: Option 2

OPTION 3

The final alternative design trades open green space for parallel parking lanes on both sides of the corridor. Pedestrians would be accommodated with large sidewalks and street buffers on either side of the street. A two-way parking-protected bike lane is recommended on the west side of the street. Consistent with the need for a road diet, this alternative removes one travel lane from each direction and provides a center turn lane for vehicles turning left.



Lake Street: Option 3

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PLAN VIEWS

Plan views were created for two segments along the complete street study corridor. The segment locations, shown by the map on the adjacent page, were chosen based on the importance of and the need for pedestrian and bicycling improvements in these specific locations.

The plan views help illustrate the potential of the corridor if complete street elements were implemented along the streets.

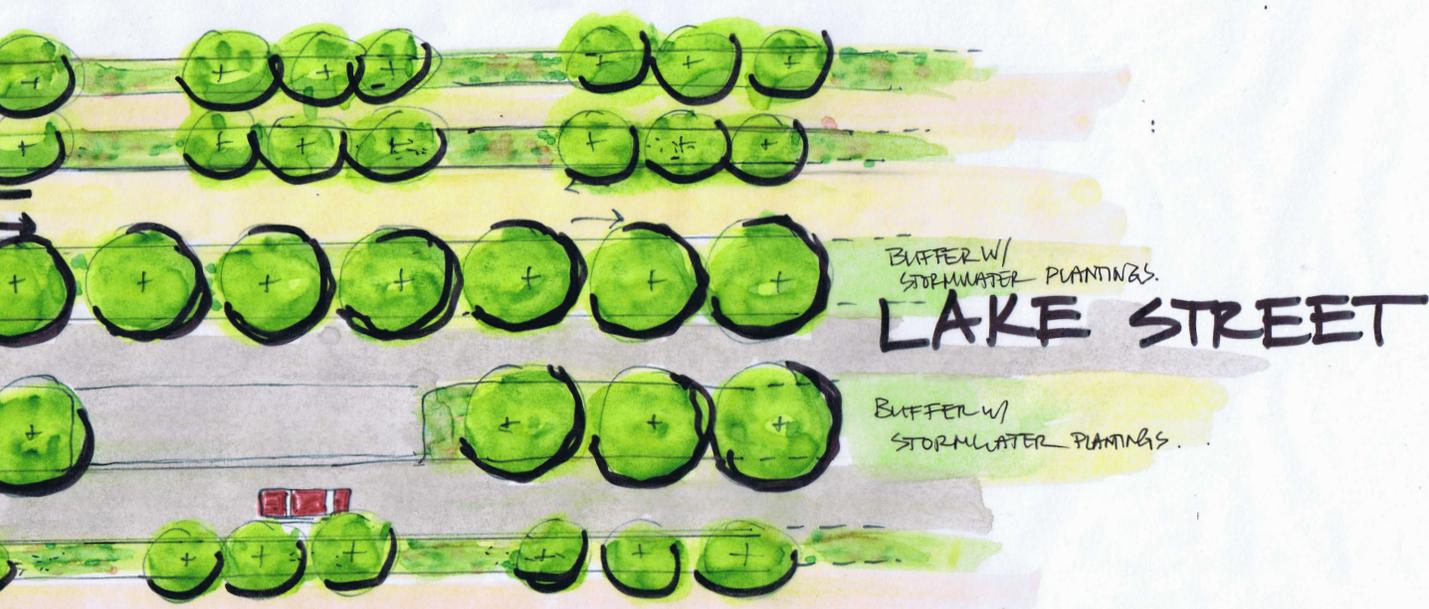
The two segments chosen were:

- Lake Street at South Williams Street
- Lake Street at the Muchattoes Lake Overlook and Quassiac Creek Trail crossing

LAKE STREET CYCLE TRACK AT SOUTH WILLIAMS STREET PLAN VIEW



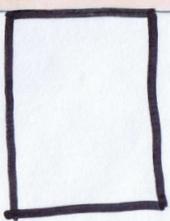
LAKE



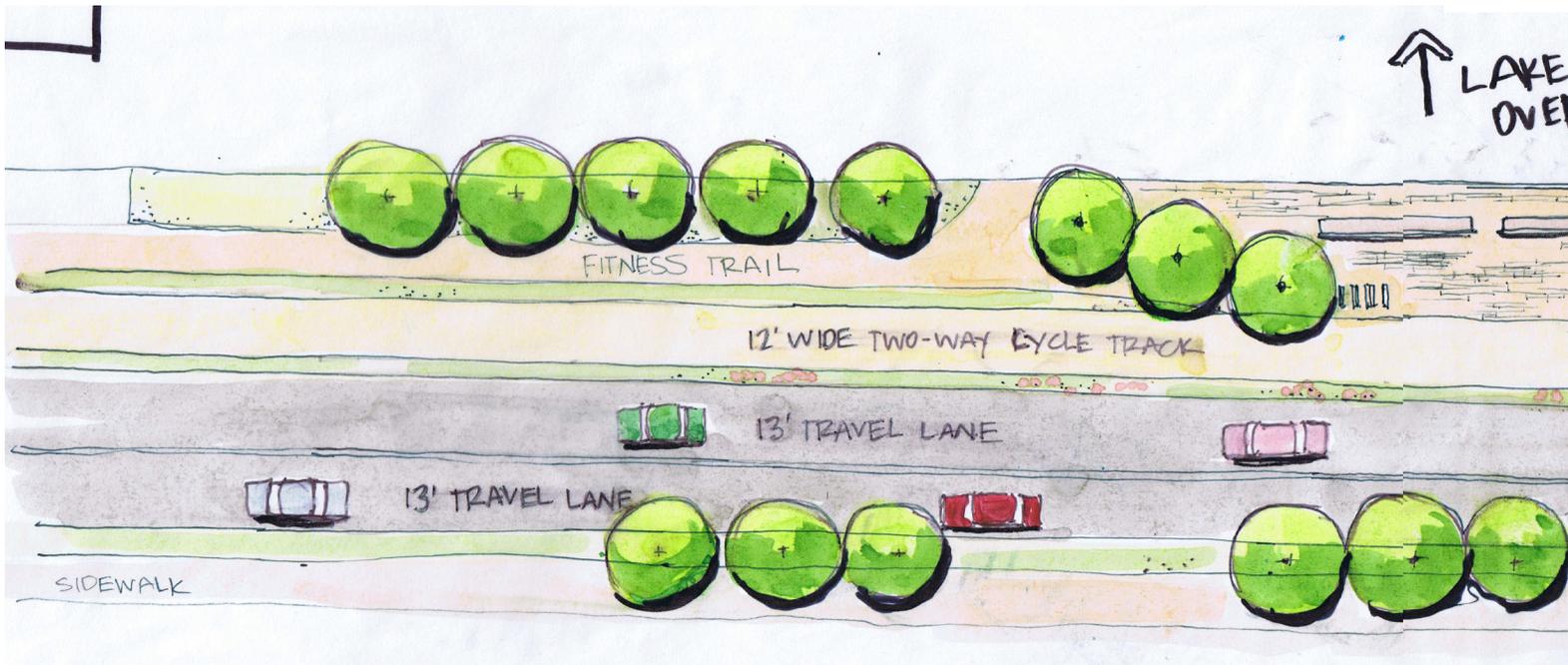
BUFFER W/
STORMWATER PLANTINGS.

LAKE STREET

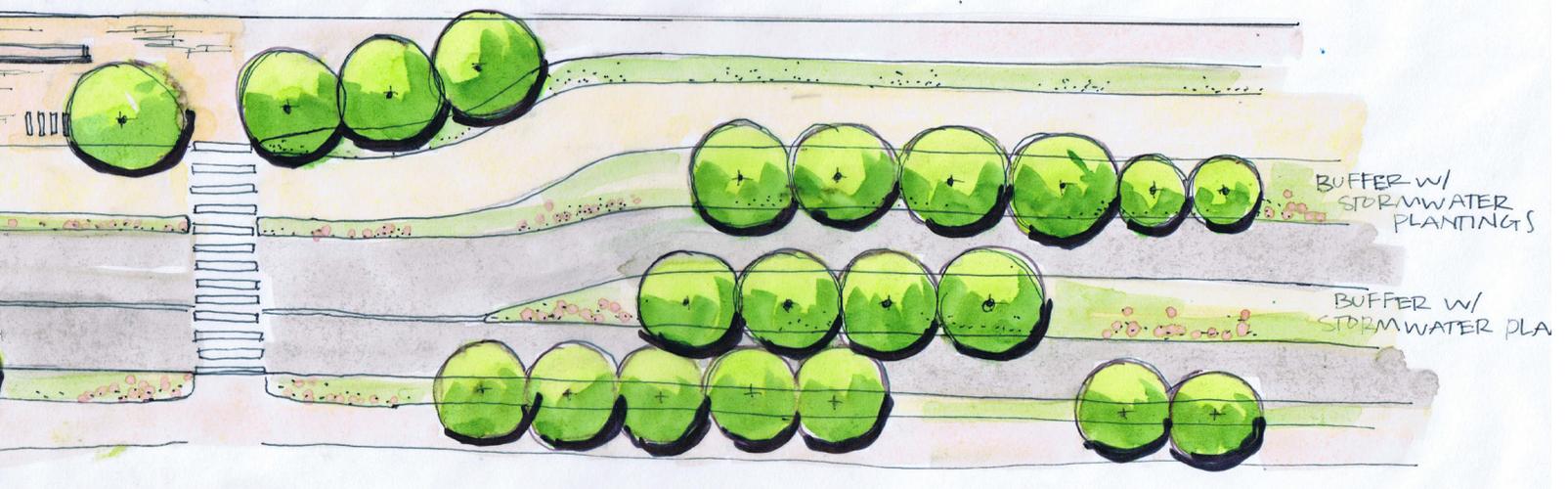
BUFFER W/
STORMWATER PLANTINGS.



LAKE STREET OVERLOOK PLAN VIEW



LOOK.



02 CITY OF PORT JERVIS

CONCEPT PLAN

The complete street recommendations take in consideration the general character, current land uses, and future trends of the area surrounding the corridor. Considered this area to be the Central Business District (CBD) of the City of Port Jervis, the entirety of Pike Street and the beginning of Front Street are comprised mainly of commercial uses. Additional foot traffic brought by recommended crossing improvements, park and open space enhancements, bicycle and pedestrian facilities and amenities, such as bike lanes, sidewalks, street trees, benches, and bike racks corridor will further establish this area as an important economic generator for the City.

The CBD currently ends at the Front Street/Jersey Avenue fork and the site of a recommended future public promenade. This public promenade will provide a central attraction to the city's urban core and a smooth transition from the CBD to the existing mix of

public services, commercial services, mixed-use residential, and residential land uses along Jersey Avenue.

Intersection crossing improvements are vital to transforming the corridors into complete streets. Currently, there is no direct connection between Riverside Park and the complete street study corridor. Establishing an at-grade railroad crossing to connect Fowler Street and Fourth Street will enable bicyclists and pedestrians to easily and safely access Riverside Park and the Delaware River. This connection will become increasingly important after an expansion of Riverside Park and the creation of a whitewater recreation park on the Delaware River. Additional crossing improvements within the CBD at the intersections of Pike Street/Hammond Street and Sussex Street/Front Street will improve safety conditions for non-motorized users.

The following recommendations included in the cross-section and plan view alternatives were created based off these concept plans.



Library

Future Pocket Park

Future Promenade

At-grade Railroad Crossing Improvement

FUTURE WATER SPORTS PARK

Grocery

Future Park Expansion

Assisted Living

CITY OF PORT JERVIS

PLAN VIEW MAP

-  Residential
-  Public Service Areas
-  Parks & Open Space
-  Central Business District
-  Park Enhancements
-  Important Public Services
-  Crossing Improvements





CITY OF PORT JERVIS

OVERVIEW MAP

- Pike Street: Options 1, 2, 3, & 4
- Front Street: Options 1 & 2
- Jersey Avenue: Option 1



CROSS-SECTIONS

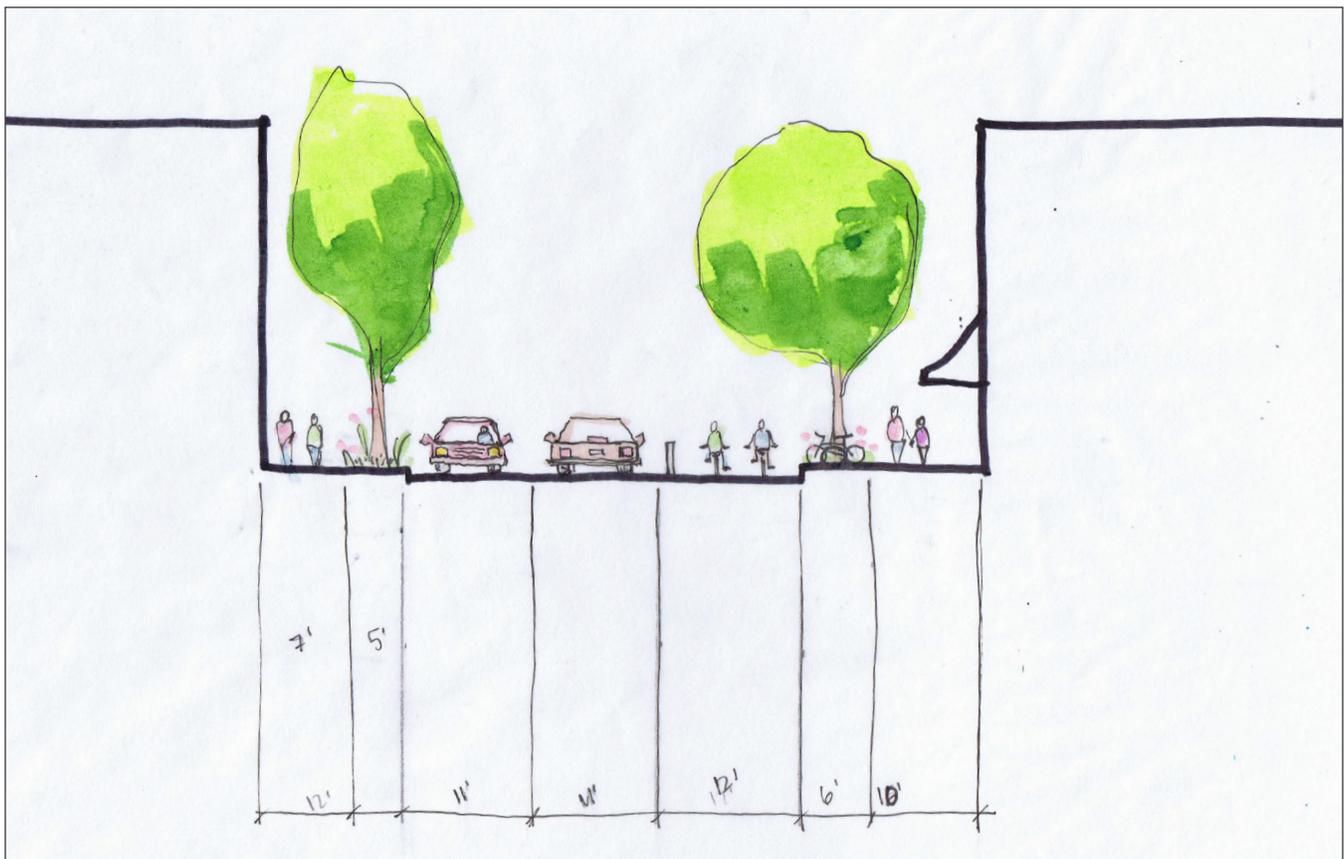
The following cross-sections for Pike Street, Front Street, and Jersey Avenue were created based on the existing right-of-way (ROW). The treatments in each alternative were driven by input from the public and City staff regarding the vision and needs for the corridor. The following designs do not need to be considered individually but may be interchangeable in most instances. Elements of multiple cross sections can be combined into the final design provided the treatments fit within the existing ROW. Additionally, treatments along the length of the streets can differ as the character and needs of the corridors change. If multiple treatments are chosen for a street, it is important to use good judgment and attention to detail to ensure all travel modes flow smoothly down the length of the study corridors.

PIKE STREET

There are four alternative designs for Pike Street. The width of the design treatments varies slightly moving along the corridor and ranges between 62 feet to 67 feet. Since the width varies by just 5 feet, all designs can be altered slightly to fit within the ROW. The cross-sections are oriented as if the viewer is looking up the street to the North with the train station to the left.

OPTION I

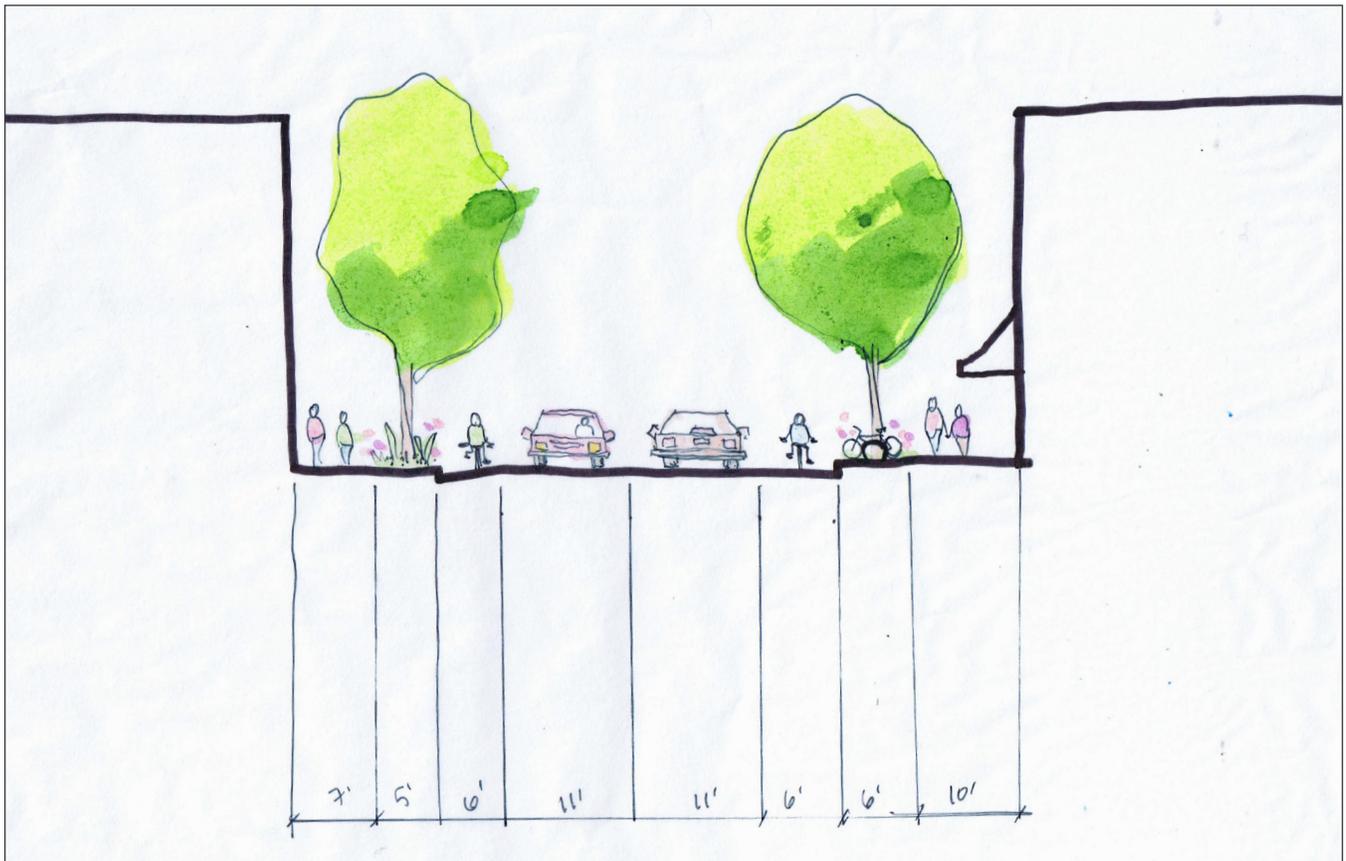
The first alternative provides wide sidewalks on either side of the street with street tree buffers separating pedestrians from moving traffic. There are two travel lanes, one in each direction, and a two-way cycle track protected from motorized vehicles by flexible delineators. The addition of other bicycling amenities, such as bike racks, will attract bicyclists to the area while also increasing foot traffic along the commercial corridor. It is important for bicycles to remain on the east side of the street so they can access Front Street and Jersey Avenue without having to interact with the MacArthur Circle, which loops up and over Pike Street.



Pike Street: Option I

OPTION 2

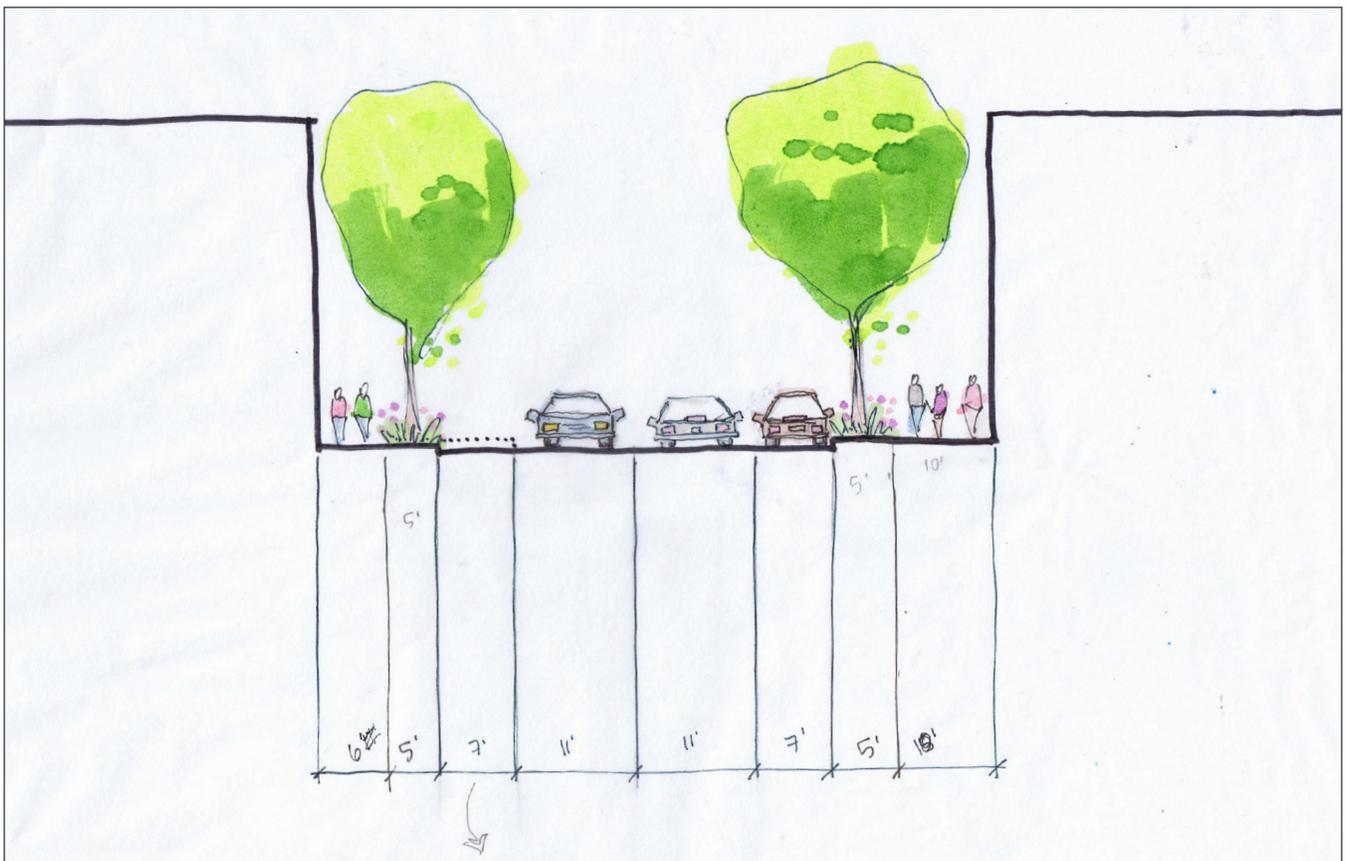
Option two is similar to the first alternative for both pedestrians and motorists. There will be 7- to 10-foot sidewalks on both sides and one travel lane in each direction. Bicyclists will be provided one-way 6-foot bike lanes between the vehicles and vegetated buffers.



Pike Street: Option 2

OPTION 3

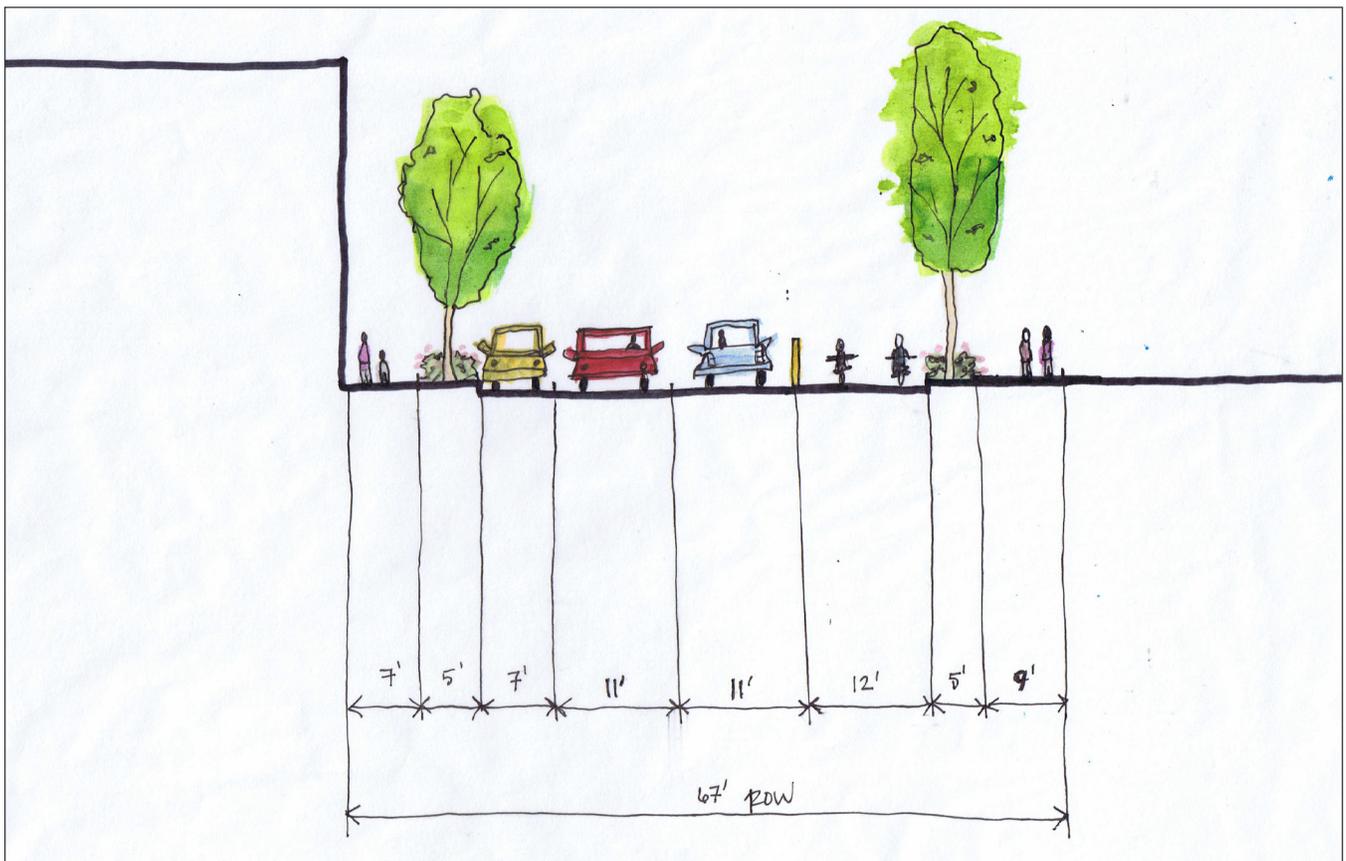
The third alternative design accommodates pedestrians with sidewalks on either side of Pike Street. They are separated from the parallel parking lanes on both sides of the street by five-foot street tree buffers. It is proposed that the parallel parking lanes include bump outs at intersections to shorten crossing distances and increase visibility for all users. The two travel lanes should be marked as shared roadways to allow for bicycle use.



Pike Street: Option 3

OPTION 4

The final alternative provides separate facilities for all travel modes. Pedestrians have access to sidewalks on both the East and West sides of the street and are separated from the roadway by street tree buffers. This alternative reserves one lane from parallel parking on the west side of the street, accompanied by two travel lanes. A 12-foot two-way protected cycle track is recommended for the East side of Pike Street. Once again, the bicycle facility should remain on this side of the corridor so bicyclists can avoid MacArthur Circle when traveling throughout the complete street study corridor.



Pike Street: Option 4

FRONT STREET

There are two alternative designs for Front Street's ROW. The cross-sections are oriented as if the viewer is looking to the East toward Jersey Avenue.

OPTION I

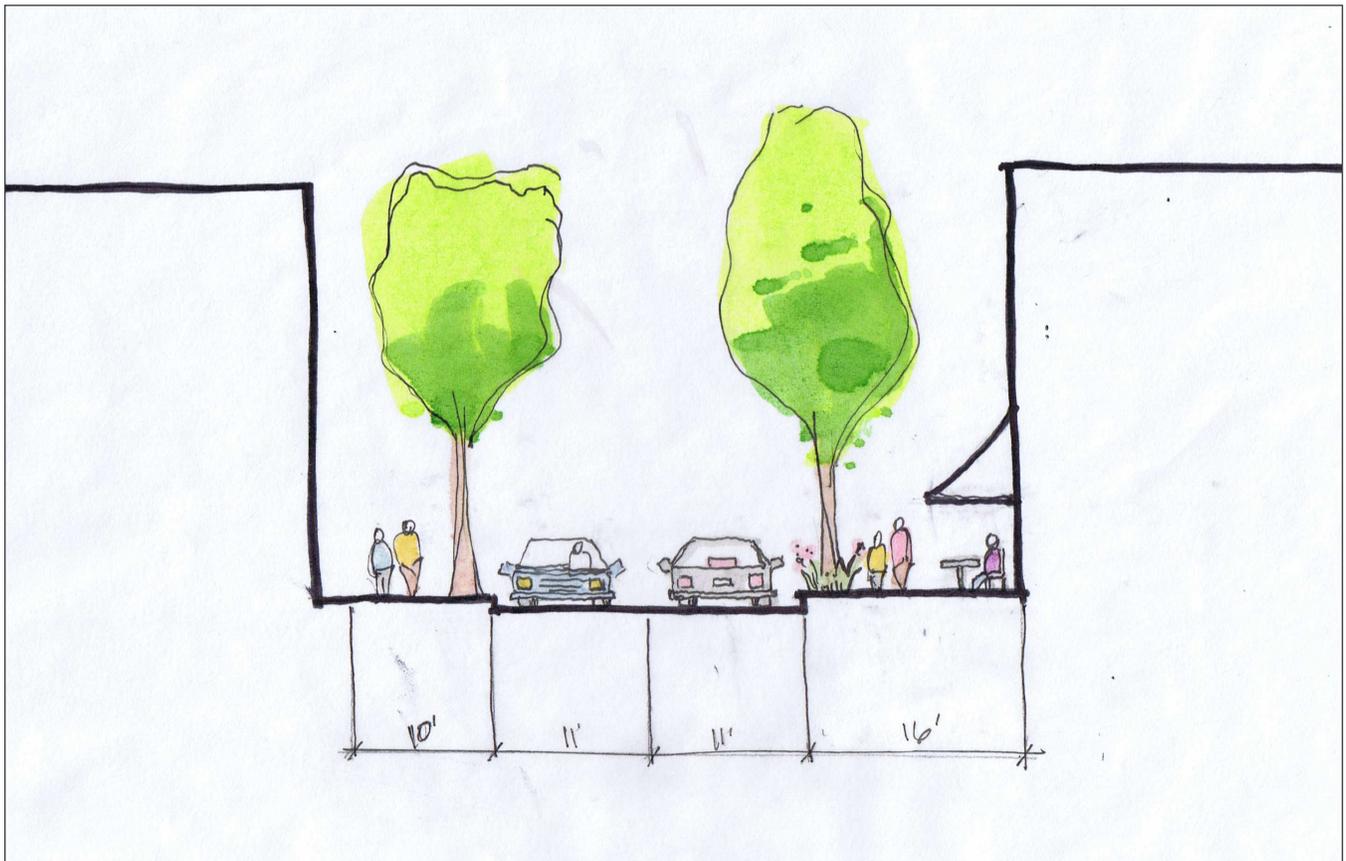
The roadway in the first design alternative includes two travel lanes shared between bicycles and vehicles and one parallel parking lane on the north side of the street. Sidewalks are provided for pedestrians on both sides and include vegetative elements such as street trees and planters.



Front Street: Option I

OPTION 2

The second alternative alters the roadway to allow for additional pedestrian and public space on the northern side of Front Street. Parking is removed in favor of street furniture, such as benches and bike racks, and additional space for sidewalk cafes and other public activities. Street trees and planters are recommended to shield those on the sidewalk from the shared travel lanes, creating an inviting corridor that will encourage pedestrian travel throughout the area.



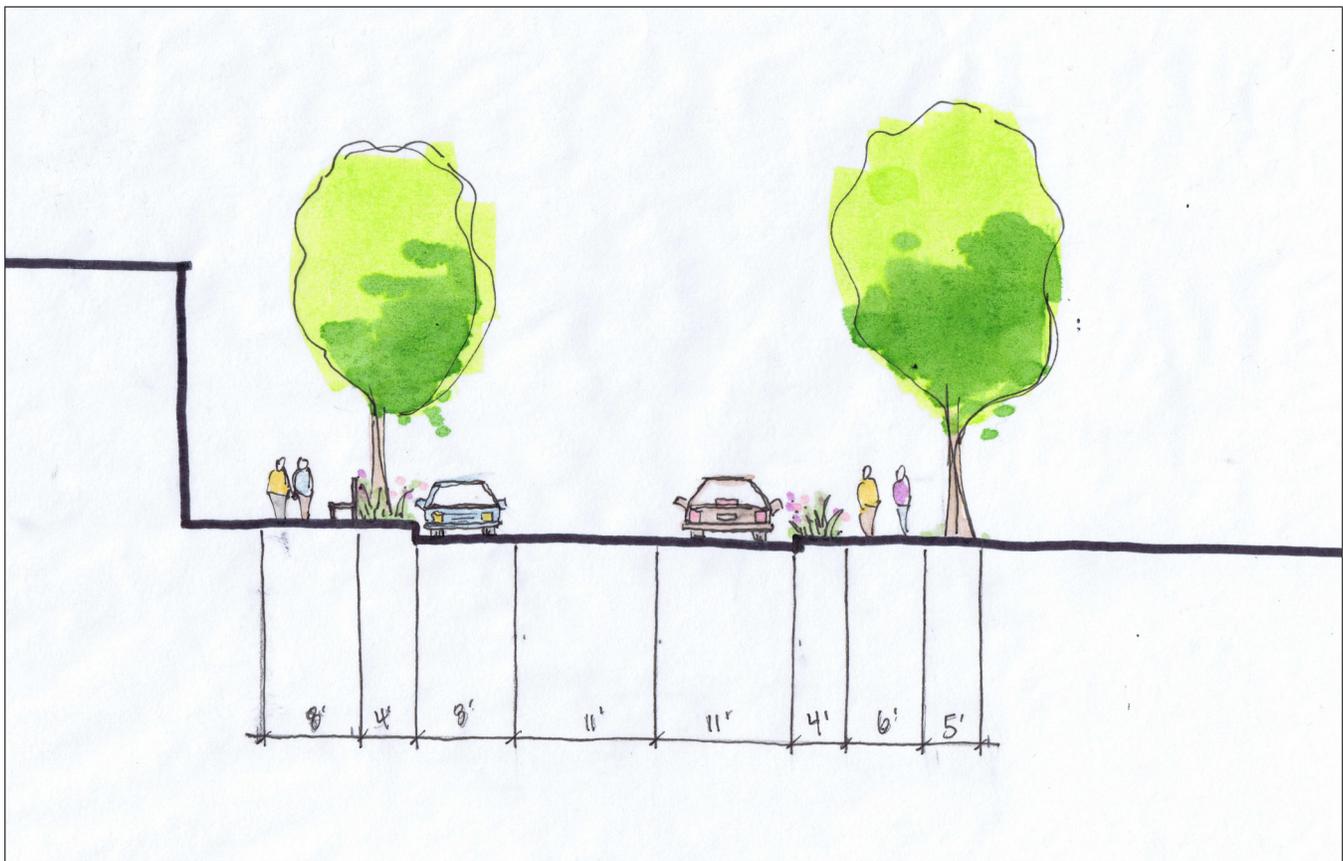
Front Street: Option 2

JERSEY AVENUE

Based on the existing infrastructure, character of the corridor, and public input, there is one generalized design for the ROW on Jersey Avenue. The cross-section is oriented as if the viewer is looking East toward Main Street with Riverside Park on the right. .

OPTION I

Pedestrians will have eight-foot and six-foot sidewalks on either side of the street which should include street furniture for both bicyclists and pedestrians, such as bike racks and benches. Vegetated buffers are recommended to separate pedestrians from moving traffic. Shared travel lanes will enable bicyclists to move safely through the corridor and access key destinations in the area, such as Riverside Park. One parking lane is provided on the North side of Jersey Avenue.



Jersey Avenue: Option I

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PLAN VIEWS

Plan views were created for two segments along the complete street study corridor. The segment locations, shown by the map on the adjacent page, were chosen based on the importance of and the need for pedestrian and bicycling improvements in these specific locations.

The plan views help illustrate the potential of the corridor if complete street elements were implemented along the streets.

The two segments chosen were:

- Pike Street at Hammond Street and includes the recommended pocket park
- Jersey Avenue at the Save-a-lot grocery store between Seward Avenue and Pennsylvania Avenue



CITY OF PORT JERVIS

SEGMENT PLAN VIEWS

- Pike Street at Hammond Street/Pocket Park
- Jersey Avenue at Save-a-lot Grocery



PIKE STREET PLAN VIEW





JERSEY AVENUE AT SAVE-A-LOT GROCERY PLAN VIEW



