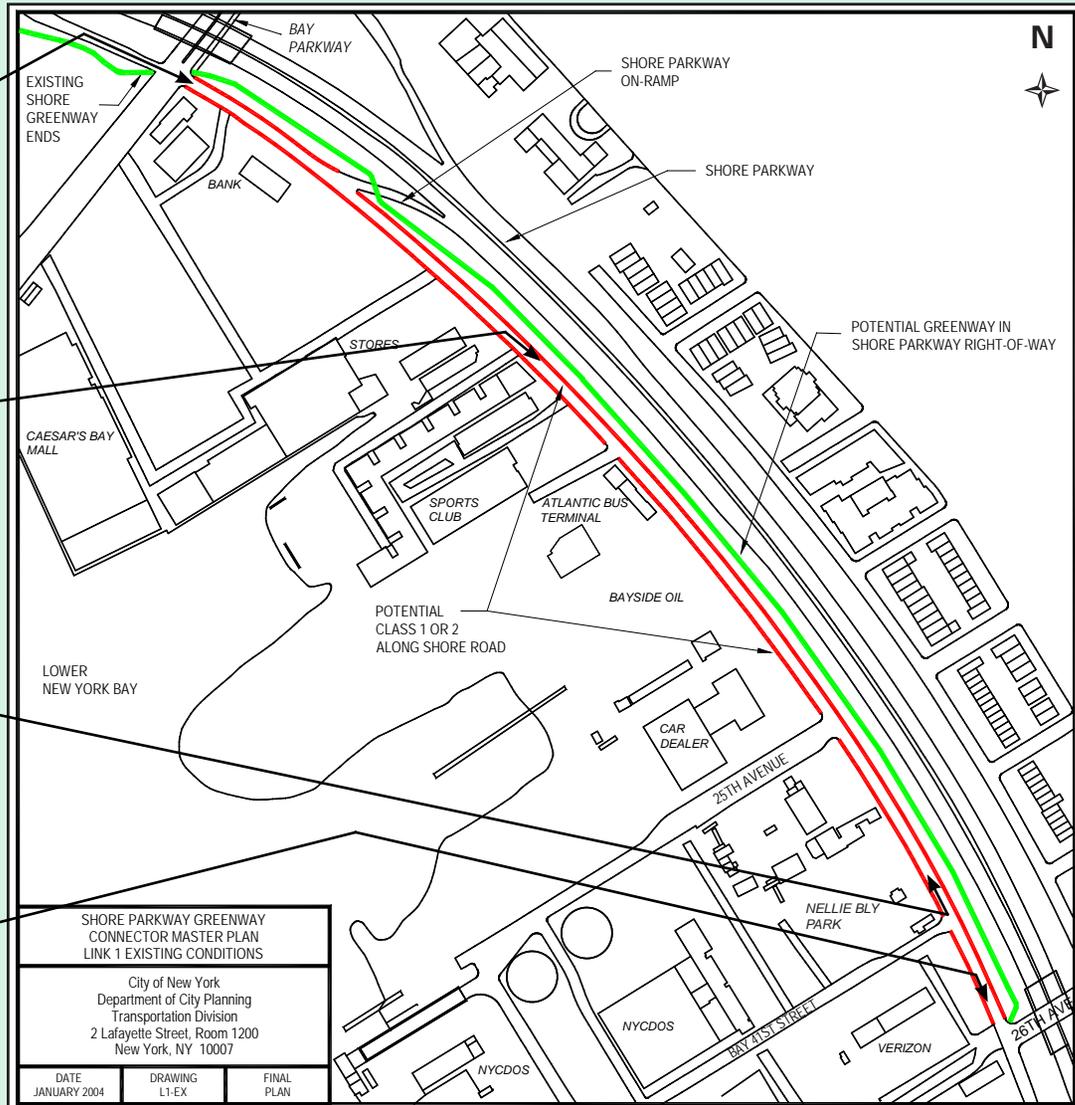


LINK 1: SHORE ROAD SOUTH FROM BAY PARKWAY TO 26TH AVENUE

Proposed Route

Map 5



LINK 1: SHORE ROAD SOUTH FROM BAY PARKWAY TO 26TH AVENUE

Existing Conditions

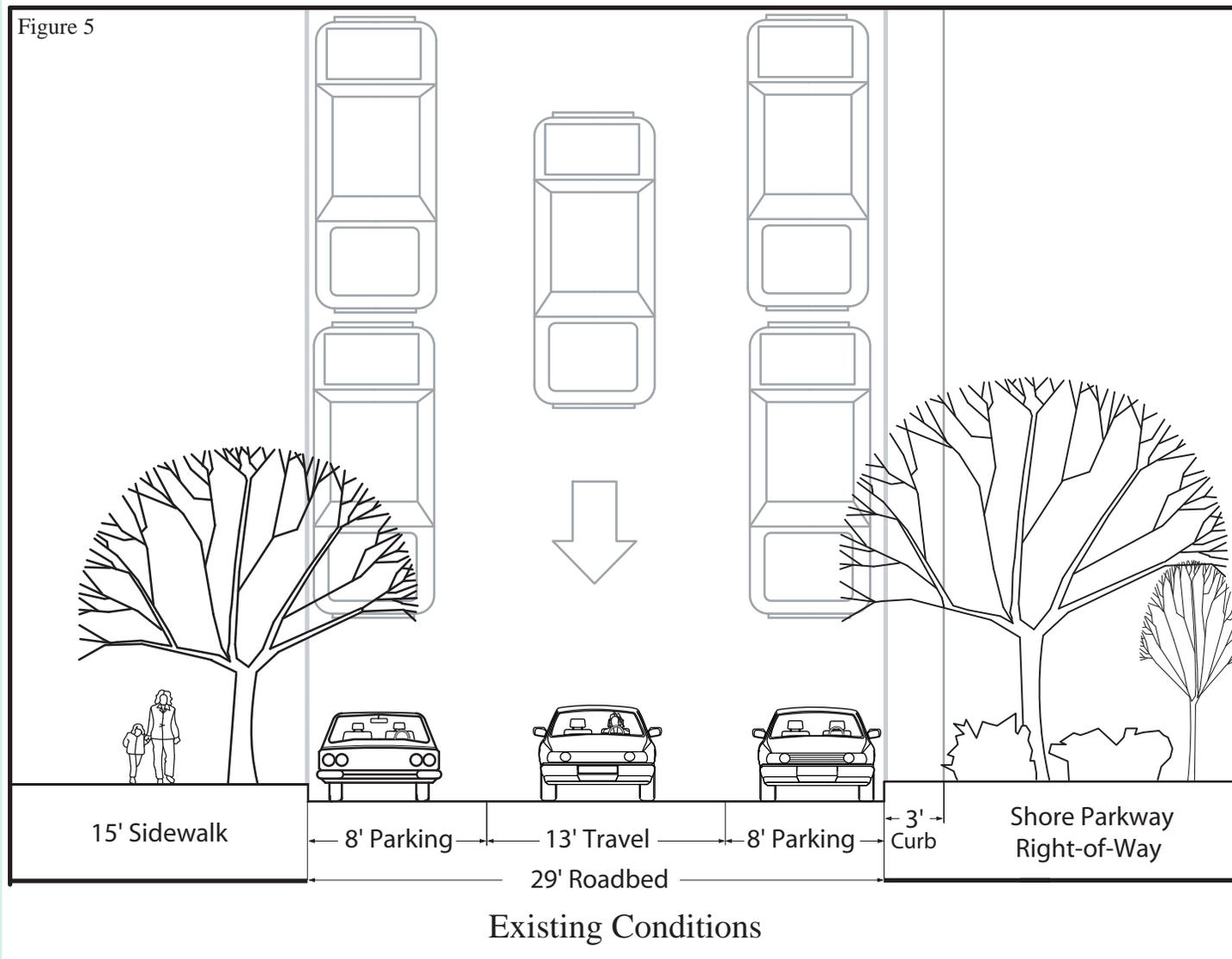
Shore Parkway, as mentioned, is a six-lane limited-access highway with service roads located within an expansive right-of-way, under the jurisdiction of the NYCDOT. The parkway hugs the waterfront until Bensonhurst Park, then turns inland, where eastbound Shore Road South begins. Shore Road South parallels the parkway and provides access to and egress from it with on- and off-ramps.

While residential buildings front the north side of Shore Parkway, a concentrated mix of manufacturing and commercial uses line Shore Road South from Bay Parkway to 26th Avenue [Map 5]. At Bay Parkway, where the existing greenway ends, is Ceasar's Bay Shopping Center, a large retail mall with anchor tenants that include Kohl's, Toys 'R' US, Modell's, Strauss Auto, Best Buy, and a parking lot with 1,200 spaces. Continuing east the businesses are a Stop & Stor, Moda Furniture, Harbor Motor Inn, New York Sports Club, Atlantic Express Bus, Bayside Oil, and a Mercedes Benz dealership. Each business has its own parking lot for customers and/or employees. Nellie Bly Amusement Park, with old-fashioned kiddie thrill-rides, and a Verizon vehicle parking facility are located between 25th Avenue and 26th Avenue. Along the waterfront behind Nellie Bly Amusement Park and Verizon are a marina and a Department of Sanitation (DSNY) 23-acre lot that includes a garage facility, a self-help site, the Southwest Brooklyn Marine Transfer Station (MTS) that has not operated since 1997 and the inactive old Southwest Brooklyn Incinerator that is scheduled for demolition. The City's Solid Waste Management Plan for long-term export and disposal of solid waste includes the conversion of eight existing MTS's, including the Southwest Brooklyn MTS, to containerized waste for export by barge.

Shore Road South is 29 feet wide and has one travel lane and variable curbside parking [Figure 5]. It begins at the intersection of Bay Parkway, a major street providing vehicular access to the mall and the parkway. Two left-turn lanes on Bay Parkway permit southbound traffic to access Shore Road South which carries 900 to 1,000 vehicles in each of the typical peak hour periods. A substantial number of trips are generated by the mall and the exit and entry ramps to the parkway. There is also notable truck traffic at the Atlantic Bus Depot, Bayside Oil and the DSNY site. Most vehicles - 500 to 600 per hour - exit Shore Road South at the Shore Parkway on-ramp approximately 300 feet east of Bay Parkway. This is the only intersection along the north side of Shore Road South until 26th Avenue which is at the end of this link. Most of the remaining 300 to 500 vehicles on Shore Road South turn north onto 26th Avenue, which is controlled by a two-way stop sign. Twenty-Sixth Avenue is 50 feet wide with a single travel lane in each direction, 10-foot sidewalks, curbside parking, and a B6 bus layover.

LINK 1: SHORE ROAD SOUTH FROM BAY PARKWAY TO 26TH AVENUE

Existing Conditions



LINK 1: SHORE ROAD SOUTH FROM BAY PARKWAY TO 26TH AVENUE

- Available Right-of-Way
- 29-Foot Roadbed
- One Southbound Travel Lane
- Variable Parking Conditions
 - Including 17 Meters on Southside
- Sidewalk on Southside Only
- Commercial and Manufacturing

Existing Conditions



LINK 1: SHORE ROAD SOUTH FROM BAY PARKWAY TO 26TH AVENUE

Existing Conditions

The sidewalk on the south side of Shore Road South is 15 to 18 feet wide, but varies from fully paved sidewalks to sidewalks with five feet of concrete pavement and five feet of dirt, grass, rocks and/or tree pits on each side at Nellie Bly. Along the north side of Shore Road South is a three-foot wide curb that provides people a place to stand when they exit a parked vehicle. A chain-link fence at the northerly edge of the curb separates Shore Road South from the Shore Parkway right-of-way with approximately 40 feet of green space between them.

Uses along the south curb of Shore Road South include four B6 bus stops, two in front of the mall within close proximity of each other (375 feet), one at Bayside Oil and one at the Verizon site at 26th Avenue. Only the first bus stop at the mall has a shelter. According to New York City Transit, the B6 daily average total was 749 boardings and alightings combined for the four bus stops. The first mall stop had the majority of boardings and alightings at 479 (64 percent); the second mall stop had 75 (10 percent); the Bayside Oil stop had 78 (10 percent); and 26th Avenue had 117 (16 percent).

Saturday morning street sweeping regulations are in effect from 9:30AM to 10AM on the north side and 8:30AM to 9AM on the south side. On-street parking on Shore Road South is inconsistent, with few posted parking signs, and parking varies, occurring at times only on the north side, only on the south side, sometimes on both sides, and sometimes on neither side. The north side of the street has the majority of on-street parking.

Parking is not permitted on either side of the street between Bay Parkway and the Shore Parkway on-ramp that is located 300 feet east of Bay Parkway. Seventeen metered spaces permitting up to three-hour parking are interspersed along the south side of Shore Road South from the Stop & Stor to the Atlantic Express Bus Depot. Parking is not permitted on either side of Shore Road South by the Bayside Oil facility, so that the large oil trucks may easily maneuver around the entrance/exit. Neither is parking permitted on the south side of Shore Road South between 25th Avenue and Bay 41st Street fronting Nellie Bly Park, where during summer hours of operation vehicles tend to park illegally. Nellie Bly Park has a large parking lot behind the site that is unused. Bay 41st Street and 25th Avenue have back-in angled parking.

LINK 1: SHORE ROAD SOUTH FROM BAY PARKWAY TO 26TH AVENUE



LINK 1: SHORE ROAD SOUTH FROM BAY PARKWAY TO 26TH AVENUE

Recommendations

These are the four options proposed for this link.

Option 1: Build a Class 1 Off-Street Greenway in the Shore Parkway Right-of-Way

The preferred option is to extend the existing greenway east by building a 12- to 15-foot Class 1, off-street multi-use path in the Shore Parkway right-of-way [Figure 6], where there is approximately 40 feet of available space between the service road and the parkway. This option separates path users from vehicles on Shore Road South, ensuring fewer conflicts, and it would not require changes to the roadway or on-street parking. This option creates a more attractive riding experience, keeps bi-directional pathway users on the same facility close to the waterfront south of the parkway, and maintains the same type of facility as the existing greenway,

Path users would reach the new route by crossing to the north side of Shore Road at the signalized intersection at Bay Parkway, where the crosswalk design would be improved. Option 1 would require path users to cross a Shore Parkway on-ramp approximately 300 feet east of Bay Parkway, thereby necessitating the redesign of the interface between the on-ramp and the path to ensure the safety of greenway users. A New York City precedent already exists in the Bronx where the Pelham Greenway crosses a Pelham Parkway off-ramp.

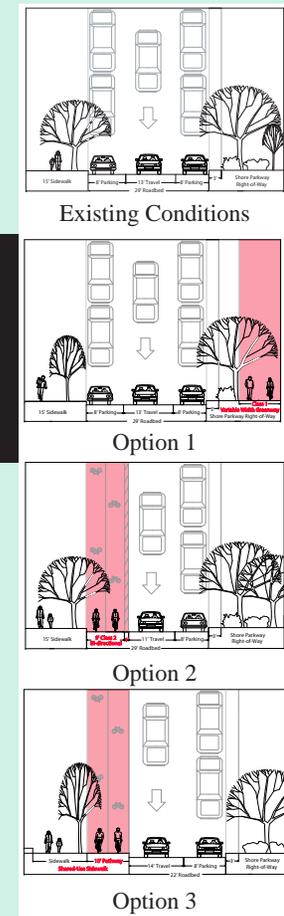
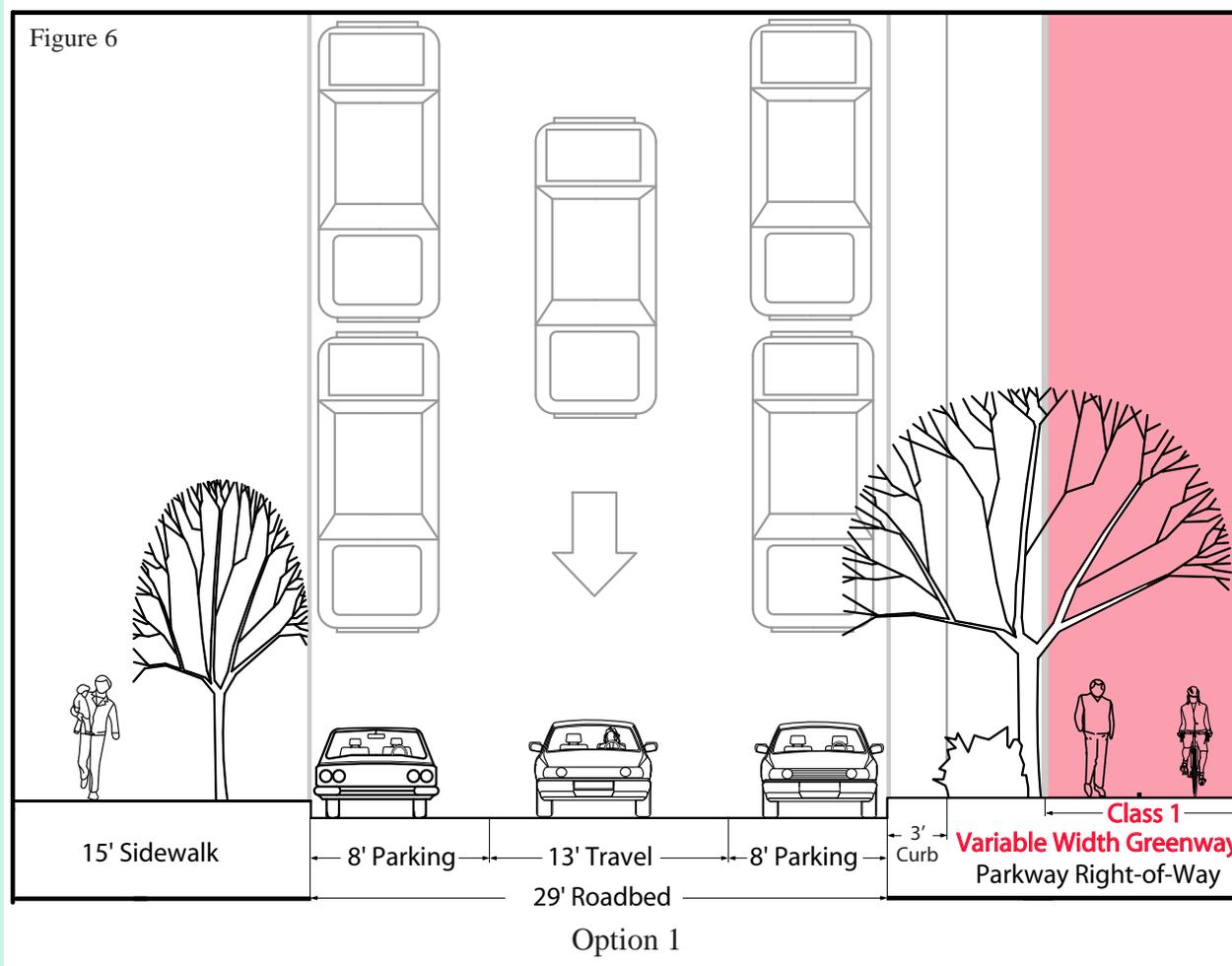
The redesigned at-grade crossing might include physical barriers, stop signs, and other regulatory signs and markings to control the movements of path users. The greenway would also be designed to meet the on-ramp at a right angle to ensure proper sightlines. New warning signs and markings for vehicles would also be installed. Shore Road South could also be re-striped to provide a dedicated left turn bay for ramp-bound traffic; the road is sufficiently wide and there is no curbside parking approaching the ramp. Another possible but costly variant of this option is to relocate the vehicle on-ramp closer to the Bay Parkway intersection. All traffic movements and user conflicts would be regulated at a typical signalized intersection. Vehicles entering the on-ramp would have a longer dedicated merge lane to facilitate their entry into the Shore Parkway traffic flow. The NYCDOT does not support a greenway crossing of a parkway ramp nor the reconstruction of the on-ramp.

A costly variable to this option would be to build a pedestrian and bicycle bridge over the parkway entrance ramp; this would eliminate any conflict between vehicles and pedestrians and cyclists. The Americans with Disabilities Act (ADA) permits a maximum grade of 4.8 percent and an ADA-compliant bridge with sufficient clearance over the parkway ramp would require approaches of about 200 feet in either direction.

LINK 1: SHORE ROAD SOUTH FROM BAY PARKWAY TO 26TH AVENUE

Option 1: Class 1 Off-Street Greenway Within Shore Parkway Right-of-Way

Recommendations

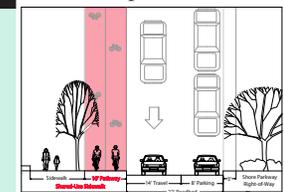
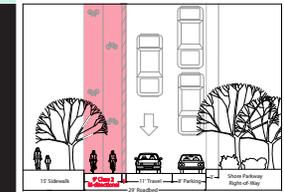
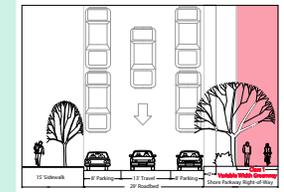
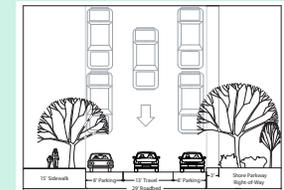
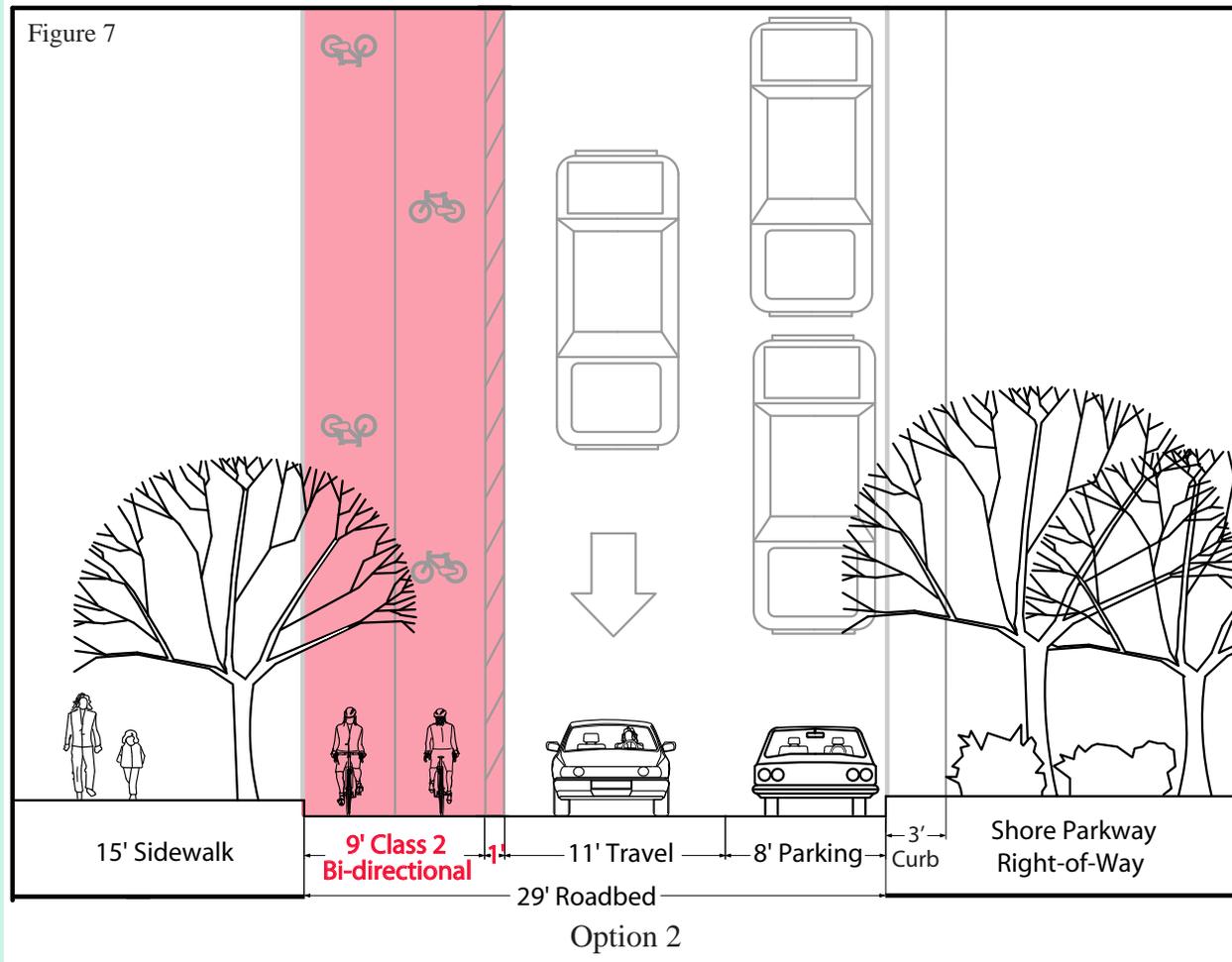


LINK 1: SHORE ROAD SOUTH FROM BAY PARKWAY TO 26TH AVENUE

Recommendations

Option 2: Class 2 Bicycle Lane

Bi-directional with Buffer/Barrier within Existing Roadbed



LINK 1: SHORE ROAD SOUTH FROM BAY PARKWAY TO 26TH AVENUE

Recommendations

Option 2: Stripe Class 2 On-Street Bi-Directional Bicycle Lane with Buffer/Barrier

This option [Figure 7] proposes to build a Class 2 bi-directional bicycle lane along Shore Road South by recapturing excess roadbed unnecessary for vehicular use. The existing 29-foot roadway would be reconfigured to remove a parking lane and add a nine-foot two-way bike lane with a one-foot barrier, leaving one 11-foot eastbound travel lane and one eight-foot parallel parking lane. This option would be cost-effective because the roadway geometry remains the same, but it would require an adequate barrier between bicyclists and the motor vehicle lane. The pathway should be raised, graded, or made of a tinted pavement (typically a brick color) in order for it to be discernible and delineated from the regular roadway.

While typically bike lanes are located on the left side of a one-way street to minimize potential conflicts with driver-side doors opening into bicyclists, this facility could be placed on either side of Shore Road South. The south side is more appropriate because there is no conflict with the Shore Parkway on-ramp, and there are fewer parking spaces on the south side to remove or relocate. Pedestrians and joggers would use the adjacent existing south sidewalk. Option 2 requires the removal of 17 metered parking spaces from the south side of Shore Road South, which is supported by a parking capacity and utilization study (See Appendix 3: Parking Analysis). This action would normalize and better regulate parking conditions on the service road and permit the installation of the pathway. As stated earlier, all of the businesses along the south side of Shore Road South provide off-street parking lots or parking along Bay 41st Street and 25th Avenue, as well as regular curbside parking along the north side of Shore Road South. Traffic exiting from the driveways of the businesses should be controlled by stop signs, and regulatory signs should caution drivers to be alert to the presence of bicyclists from both directions. We will work with property owners as necessary to address concerns about regulatory signs and safety.

However, there are issues with this option: DSNY needs at least 10-feet of right-of-way to sweep the streets or remove snow; the Federal Highway Administration (FHA) does not recommend bi-directional pathways on one-way streets; and the B6 bus would have to cross over the pathway at each bus stop. This option is achievable in conjunction with a roadway widening and a sufficient barrier between the bicyclists and vehicles. The pathway and barrier would end and start again with each bus stop with dotted lines to indicate the continuation of the pathway (AASHTO standard). While the FHA does not recommend bi-directional pathways on one-way streets, there are numerous example of this configuration with a barrier throughout the nation and the world. There is also a precedent in the city where the NYCDOT implemented a reverse flow bicycle lane on the one-way northbound FDR service road in Manhattan from the Water Club restaurant to East 24th Street.

LINK 1: SHORE ROAD SOUTH FROM BAY PARKWAY TO 26TH AVENUE

Recommendations

Option 3: Build a Class 1 Shared-Use Sidewalk (Combined South Sidewalk & Bi-Directional Bicycle Lane)

This option proposes to redesign the south sidewalk as a shared-use sidewalk, whereby pedestrians and bicyclists would be separated from the street and moving traffic by a raised curb. The existing sidewalk is 15 to 18 feet wide which meets AASHTO guidelines for the width of a shared-use path. There are some sections in this link, such as in front of Nellie Bly Park and the Atlantic Bus site, that do not have a completely paved sidewalk. Appendix 1 has a detailed discussion of the shared-use sidewalk in Links 1 and 2. An alternative to this option is to add five to seven feet of roadbed to the sidewalk, and reconfigure the sidewalk as a dual carriageway with a 12-foot pedestrian path separated from a 10-foot wide bi-directional bicycle path paved in asphalt and appropriately striped [Figure 8]. The roadbed would be reduced to 22 feet. This would require the elimination of the parking lane along the south curb (see Appendix 3: Parking Analysis). The city would assume jurisdiction, maintenance, and legal responsibility of the shared-use sidewalk. The MTA has expressed its preference for the shared-use sidewalk in Links 1 and 2 because bus movements would be less affected than in Option 2 in Links 1 and 2. Additionally, the roadbed could be widened using the parkway right-of-way to build a substantial Class 1 facility as well as to accommodate parallel parking on both sides of the street.

Option 3a: Build a Class 1 Shared-Use Sidewalk, Crossing Intersection & Class 1 Off-Street Greenway in the Shore Parkway Right-of-Way

This option (not shown) would build a new signalized or stop-controlled intersection east of the parkway on-ramp and continue on an off-street greenway in the right-of-way. This option enables greenway users to forgo crossing the parkway on-ramp and continue in the parkway right-of-way through Link 2.

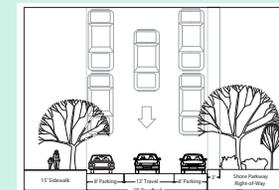
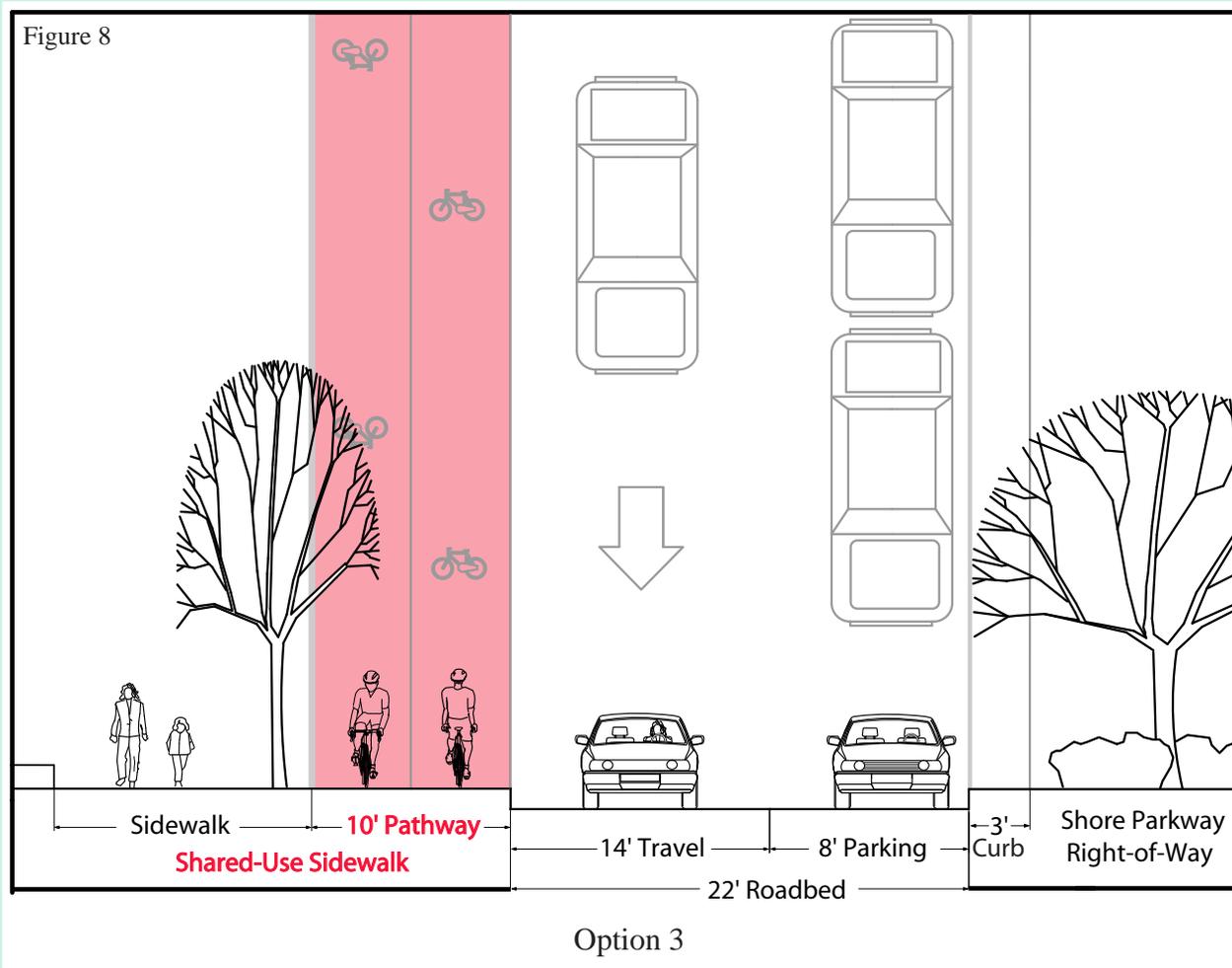
Additional Improvements

In Options 2 and 3, additional regulatory signage should be posted to minimize conflict between greenway users and drivers entering or exiting off-street parking lots, 25th Avenue, or Bay 41st Street. In all options signal timing changes are proposed at Bay Parkway and Shore Road South to improve traffic operations (See Appendix 2: Traffic Analysis). Improving bus stop facilities is also recommended in concert with any of the above options. The two B6 bus stops in front of the mall (375 feet apart) should be incorporated into one more centrally located bus stop equipped with an improved shelter and benches. A daily average of only 75 boardings and alightings used the second mall bus stop. It is also worthwhile to consider combining the other two bus stops into one improved stop especially considering that there were only 78 boardings and alightings at the Bayside Oil stop daily. While bus routes and bus stops do not prevent the creation of bicycle facilities, combining these two bus stops would make it a less complicated route for greenway users. Conflicts between bicyclists and waiting bus patrons should be minimized by highlighting conflict areas with signage, colored pavement, or other sidewalk treatments.

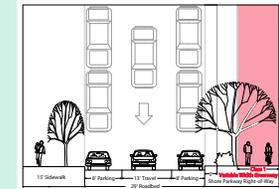
LINK 1: SHORE ROAD SOUTH FROM BAY PARKWAY TO 26TH AVENUE

Option 3: Class 1 Shared-Use Sidewalk Bi-directional and Off-Street

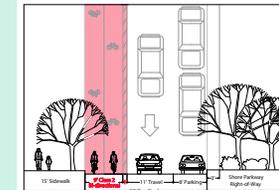
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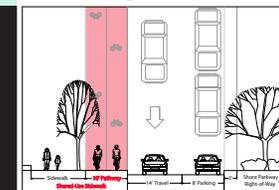
Existing Conditions



Option 1



Option 2



Option 3

