

CENTRAL BUSINESS DISTRICT (CBD) TOLLING PROGRAM

Appendix 4B.8, Transportation: Overview of Highways Throughout the Study Area

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Figure 4B.8-1, Figure 4B.8-2, and Figure 4B.8-3 show the principal highways in the regional study area. The following describes this highway network and is organized by geographic regions relative to the Manhattan CBD.

4B.8-1 NORTH OF THE MANHATTAN CBD: HIGHWAYS IN THE BRONX, NEW YORK COUNTIES NORTH OF NEW YORK CITY, AND SOUTHWESTERN CONNECTICUT

The **Major Deegan Expressway (I-87)** extends from the Robert F. Kennedy (RFK) Bridge through the western Bronx to the New York City-Westchester County border where it becomes the **New York State Thruway (I-87)** (Governor Thomas E. Dewey Thruway). From the RFK Bridge, I-87 has three lanes in each direction for most of the highway north until it merges with I-287 at the approach to the Governor Mario M. Cuomo Bridge.

Between the Bronx and Westchester County border to Albany, I-87 is commonly known as the New York State Thruway. This portion of the New York State Thruway passes through Yonkers, New York, and continues through southwestern Westchester County until it converges with I-287 and crosses the Hudson River via the Governor Mario M. Cuomo Bridge. The New York State Thruway then diverges from I-287 and continues north through Rockland and Orange Counties, and points north to Albany.

Tolls are collected by the New York State Thruway Authority in both directions at the Yonkers tolling point, eastbound only at the Governor Mario M. Cuomo Bridge, and westbound only at Spring Valley (for trucks only) in Rockland County. From Woodbury, in Orange County to the north, tolls are based upon entrance and exit location, distance traveled and type of vehicle. New York State Thruway system tolls can be paid by E-ZPass and more recently Tolls by Mail.

The **Trans-Manhattan/Cross Bronx Expressway (part of I-95)** extends east–west from the George Washington Bridge, with the Trans-Manhattan Expressway consisting of the portion located in Manhattan, and the Cross Bronx Expressway consisting of the portion in the Bronx. It continues to run across the Bronx to multiple interchanges in the eastern Bronx and joins with the New England Thruway (I-95), the Bruckner Expressway (I-278), the Hutchinson River Parkway, the Bronx-Whitestone Bridge via the Hutchinson Expressway (I-678), and the Throgs Neck Bridge via the Throgs Neck Expressway (I-695).

The **New England Thruway (part of I-95)** extends north–south from the Cross Bronx Expressway (I-95) and Bruckner Expressway (I-278) in the eastern Bronx through Westchester County to the New York and Connecticut state line where I-95 continues as the Connecticut Turnpike, serving cities and towns along Long Island Sound. A toll is collected for I-95 in New York by the New York State Thruway Authority in the northbound direction only, at New Rochelle, New York. The **Bruckner Expressway (I-278)** connects the RFK Bridge and the southern end of the Major Deegan Expressway (I-87) to the New England Thruway (I-95), Cross Bronx Expressway (I-95) and Hutchinson River Parkway.

Figure 4B.8-1. Highways in The Bronx, New York Counties North of New York City, and Southwestern Connecticut



Source: ESRI, New York City Open Data, NYMTC 2020 TransCAD Highway Network.

Figure 4B.8-2. Highways in Brooklyn, Queens, and Long Island



Source: ESRI, New York City Open Data, NYMTC 2020 TransCAD Highway Network.

Figure 4B.8-3. Highways in Northern New Jersey



Source: ESRI, New York City Open Data, NYMTC 2020 TransCAD Highway Network.

The **Cross-Westchester Expressway (I-287)** runs east–west across Westchester County, connecting the Governor Mario M. Cuomo Bridge and the New York State Thruway (I-87) to the New England Thruway (I-95). Along the way, it connects to several north–south parkways in Westchester County and the southern end of I-684.

I-684 extends north–south from the Cross-Westchester Expressway (I-287) north to I-84, east of Brewster, New York. Along the way it traverses a small corner of Connecticut. The northern end of the Saw Mill River Parkway terminates at I-684, in Katonah, New York.

I-84 extends east–west from Scranton, Pennsylvania, to the Massachusetts Turnpike. Within the study area, I-84 enters New York at Port Jervis, crosses the Hudson River from Orange County to Dutchess County on the Newburgh-Beacon Bridge and enters Connecticut at Danbury in Fairfield County.

A group of interconnected parkways pass through Putnam County, Dutchess County, Westchester County, or the Bronx in New York as well as Fairfield County in Connecticut. These parkways provide north–south connections with Manhattan via the Henry Hudson Bridge, RFK Bridge, I-95, and local streets that span the Harlem River. Only passenger cars are permitted on these parkways. Parkways generally prohibit heavy trucks, most buses, and other commercial vehicles and impose height restrictions for bridges and overpasses along the roadway.

These parkways include the following:

- **Henry Hudson Parkway** is a north–south parkway that extends from West 72nd Street in Manhattan to the Bronx–Westchester County boundary.
- **Saw Mill River Parkway** is a north–south parkway that runs along the westernmost side of New York extending from the Bronx–Westchester County boundary as the continuation of the Henry Hudson Parkway. The Parkway heads northeastward to an interchange with I-684 and New York State Route 35 (NY 35).
- **Sprain Brook Parkway** is a north–south parkway that extends up the middle of New York from an interchange with the Bronx River Parkway in Yonkers, New York, to Hawthorne, New York, where it ends as a merge into the Taconic State Parkway.
- **Bronx River Parkway** is a north–south parkway that extends between Story Avenue near Bruckner Expressway in the Bronx to the southern end of the Taconic State Parkway at Kensico Circle in Westchester County.
- **Taconic State Parkway** is a north–south divided highway that passes through Putnam and Dutchess Counties from the Kensico Dam in Valhalla, New York, in the south, to Chatham, New York, in the north. This alignment extends roughly midway between the Hudson River and the Connecticut and Massachusetts state lines, along the Taconic Mountains.
- **Hutchinson River Parkway** is a north–south parkway that extends from the Bruckner Expressway in the Throgs Neck section of the Bronx to the New York–Connecticut state line at Rye Brook, New York, where the highway continues into Connecticut as the Merritt Parkway.

- **Merritt Parkway** is a limited-access parkway in Fairfield County, Connecticut, that extends from the New York State line in Westchester—where it serves as the continuation of the Hutchinson River Parkway—to Exit 54 in Milford, where the Wilbur Cross Parkway begins.

4B.8-2 HIGHWAYS IN BROOKLYN, QUEENS, AND LONG ISLAND

The **Long Island Expressway (I-495, NY-495)** extends most of the length of Long Island, 71 miles east from the western end at the Queens-Midtown Tunnel in Queens, through Nassau, to Riverhead in Suffolk County. The Long Island Expressway (I-495) is the primary east–west highway through Long Island and serves car, bus, and truck traffic. The Long Island Expressway (I-495) has three general-use lanes in each direction in most areas and there is a high-occupancy vehicle (HOV) lane in each direction between Exit 32 (Nassau/Queens Border) and Exit 64 (Medford, Suffolk County). In addition, during weekdays, there is an HOV-3+ (and Clean Pass) lane in effect in the Manhattan-bound direction from the Calvary Cemetery to the entrance of the Queens-Midtown Tunnel.

The **Grand Central Parkway and Northern State Parkway** follow a curving 43-mile route, starting from the RFK Bridge in the west to Hauppauge, New York, in the east. The route begins at the RFK Bridge on an overlapping route with I-278 to the Brooklyn-Queens Expressway (BQE) interchange in the Astoria and Jackson Heights neighborhoods of Queens. It continues as the Grand Central Parkway through Queens and becomes the Northern State Parkway at the Queens-Nassau County border. The Grand Central Parkway and Northern State Parkway carry only passenger cars. West of the Wantagh State Parkway, the Northern State Parkway generally has three lanes in each direction while east of the Wantagh State Parkway, it has two lanes in each direction.

The **Belt Parkway** extends 25 miles around southern Brooklyn and Queens from Bay Ridge, Brooklyn, to the Queens-Nassau County border. At its western end, the Belt Parkway connects to both the Gowanus Expressway and the Verrazzano-Narrows Bridge. At its eastern end, the Belt Parkway connects to the Southern State Parkway and the Cross Island Parkway. Along the way, it provides connections to the Van Wyck Expressway, John F. Kennedy (JFK) Expressway, and Nassau Expressway. Both the Van Wyck Expressway and JFK Expressway provide access to/from JFK International Airport. The Belt Parkway carries only passenger cars.

The **Southern State Parkway and Heckscher State Parkway** extend 34 miles from the Belt Parkway at the Queens-Nassau County border east to Heckscher State Park on the south shore of Long Island in East Islip. The Southern State has three lanes in each direction in most areas—except the western portion where it has four lanes in each direction. The Southern State Parkway and Heckscher State Parkway carry only passenger cars.

The **BQE and Gowanus Expressway (both I-278)** follow a winding north–south path in western Brooklyn and Queens. They comprise the circumferential link between the Bruckner Expressway via the RFK Bridge and the Staten Island Expressway via the Verrazzano-Narrows Bridge. This limited-access highway provides connections to all the Brooklyn and Queens bridges and tunnels to Manhattan (e.g., Hugh L. Carey Tunnel, Brooklyn Bridge, Manhattan Bridge, Williamsburg Bridge, Long Island Expressway/Queens-Midtown

Tunnel, and Ed Koch Queensboro Bridge¹). The highway generally has three lanes in each direction; however, the section between Atlantic Avenue and Sands Street has been reduced to two lanes in each direction due to the advanced age and condition of this cantilever structure. There is a reversible 3+ HOV lane from the Verrazzano-Narrows Bridge to the Hugh L. Carey Tunnel via the Gowanus Expressway in Brooklyn.

A set of relatively short expressways and parkways provide north–south connections in Queens and Long Island. Parkway generally prohibit heavy trucks, most buses, and other commercial vehicles and impose height restrictions for bridges and overpasses along the roadway. From west to east, these expressways and parkways include the following:

- **Van Wyck Expressway (I-678)** is a north–south auxiliary interstate highway that extends for approximately 9 miles through Queens. The route begins at JFK International Airport and ends at Northern Boulevard, with I-678 continuing under other highway names across the Bronx-Whitestone Bridge to the Bruckner Interchange in the Bronx. The Van Wyck Expressway has three to four lanes in each direction, with an additional managed-use lane² proposed in each direction from the airport to the Kew Gardens Interchange as part of the Van Wyck Expressway Capacity and Access Improvements to JFK Airport Project.
- The **Cross Island Parkway** originates near the JFK International Airport and the Southern State Parkway in the south and ends at the Whitestone Expressway (I-678) in Whitestone, Queens, in the north—a distance of approximately 11 miles.
- **Meadowbrook State Parkway** is a 12.5-mile parkway in Nassau County. Its southern terminus is at a full cloverleaf interchange with the Bay and Ocean Parkways in Jones Beach State Park. The parkway heads north, provides an interchange with the Loop Parkway, crosses South Oyster Bay, enters the mainland, and connects to the Southern State Parkway in North Merrick before merging into the Northern State Parkway at Exit 31A in the hamlet of Carle Place.
- **Wantagh State Parkway** is a 13.3-mile parkway in Nassau County that extends from Jones Beach State Park at the southern end to an interchange with the Northern State Parkway at the northern end.
- **Robert Moses Causeway, Sagtikos State Parkway, and Sunken Meadow State Parkway** together form a continuous north–south route across the entire width of Long Island for 19.4 miles. At the south end, the Robert Moses Causeway extends from its interchange with the Southern State Parkway south to Robert Moses State Park. From this interchange, the roadway is branded as Sagtikos State Parkway, which continues northward to the Long Island Expressway (I-495) and Northern State Parkway. At this interchange and continuing northward, the roadway is known as the Sunken Meadow Parkway and extends to the north shore, terminating at Sunken Meadow State Park.

¹ The connection to the Ed Koch Queensboro Bridge is not direct because vehicles must traverse local streets to reach the bridge.

² Managed use lane is defined by the Federal Highway Administration as highway facilities or a set of lanes where operational strategies are proactively implemented and managed in response to changing conditions. Strategies may include pricing, vehicle eligibility, and access control.

4B.8-3 HIGHWAYS IN NORTHERN NEW JERSEY

The **New Jersey Turnpike (I-95)** runs north–south for 117 miles through New Jersey from the George Washington Bridge to the Delaware Memorial Bridge. The turnpike enters the south end of the BPM catchment area east of Trenton and intersects with several limited-access or major highways in northeastern New Jersey, including I-195, I-287, the Garden State Parkway, I-278, I-78, US-1/9, I-280, NJ Route 3, US-46, and I-80.

From the southern end of the regional study area to the Garden State Parkway interchange, the turnpike has six lanes split between two adjacent roadways in each direction, for a total of 12 lanes. From the Garden State Parkway to the Route 9 interchange, the turnpike has seven lanes in each direction for a total of 14 lanes. From the Route 9 interchange to the Vince Lombardi Park & Ride facility, the turnpike splits into eastern and western spurs with three lanes in each direction on each spur, for a total of 12 lanes. From the junction with I-80 to the George Washington Bridge, the turnpike has five lanes on two roadways in each direction for a total of 10 lanes.

Tolls are paid in cash or by E-ZPass using a system to record the entry and exit of each vehicle along the entire length of the turnpike up to the Route 46 interchange. A toll is collected by the Port Authority of New York and New Jersey on the George Washington Bridge for vehicles entering New York.

I-80 begins at a junction with the New Jersey Turnpike (I-95) in Teaneck, New Jersey, west of the George Washington Bridge and continues west through the Delaware Water Gap, where it enters Pennsylvania. I-80 intersects the Garden State Parkway, I-280, and I-287. Between the Garden State Parkway in Saddle Brook and the junction with I-95, I-80 is divided into an express and local roadway pair with three local and two express lanes in each direction. This separation continues after the merge onto I-95 to the Fort Lee, New Jersey side of the George Washington Bridge in Bergen County. West of Saddle Brook, the interstate initially has four lanes in each direction, narrowing to three lanes, and then two lanes just before the Delaware Water Gap in Warren County.

I-78 comprises the New Jersey Turnpike Extension and the Phillipsburg-Newark Expressway. The New Jersey Turnpike Extension begins just west of the Holland Tunnel and extends to the New Jersey Turnpike after crossing Newark Bay. From that point, the Phillipsburg-Newark Expressway continues west-southwest past Phillipsburg, New Jersey, into Pennsylvania. In addition to the New Jersey Turnpike, the highway intersects the Garden State Parkway and I-287. From the New Jersey Turnpike west to a junction with NJ Route 24, I-78 is divided into a local roadway and an express roadway in each direction.

The New Jersey Turnpike Extension (the portion of I-78 between the New Jersey Turnpike and the Holland Tunnel) has two lanes in each direction and is integrated into the New Jersey Turnpike toll system, which accepts cash and E-ZPass payments. At Jersey Avenue in Jersey City, New Jersey, I-78 transitions to a pair of one-way, east–west, local streets with traffic signals to the Holland Tunnel.

The **Essex Freeway (I-280)** runs southeast to northwest for 17.9 miles connecting I-80 at the western end to the New Jersey Turnpike (I-95) at the eastern end, passing just north of downtown Newark. The highway varies between two to three lanes in each direction, depending upon the segment.

I-287 is a circumferential or belt freeway that loops around the southern, western, and northern portions of the New York/Northern New Jersey metropolitan area. To the south, I-287 heads westward from an interchange with the New Jersey Turnpike (I-95) and NJ Route 440 (connecting to the Outerbridge Crossing to Staten Island, New York). From this interchange, the highway heads west and north through Middlesex, Somerset, Morris, and Bergen Counties in New Jersey and then connects with the New York State Thruway (I-87) in Suffern, New York.

Garden State Parkway is a 172-mile parkway that parallels the New Jersey Coast and northeastern New Jersey with its southern terminus in Cape May and its northern terminus as a short section in Rockland County, New York, where it connects with the New York State Thruway (I-87 and I-287). From south to north, the Garden State Parkway intersects I-195, the NJ Turnpike (I-95), I-78, I-280, NJ Route 3, I-80, NJ Route 4, and I-87/I-287. The Garden State Parkway has large truck restrictions from Exit 105 (Tinton, New Jersey) north to its terminus in New York State.

The **Palisades Interstate Parkway** links I-95, the George Washington Bridge, and US Route 9W from its southern terminus in Fort Lee, New Jersey, and extends north along the Hudson River and into New York State.

The **Pulaski Skyway (US 1/9) and NJ 139** form a key connection to the Holland Tunnel. The 3.5-mile four-lane highway opened in 1932 as one of the first limited-access highways in the United States. The east end of the highway connects to the Holland Tunnel, and the west end has interchanges with the New Jersey Turnpike and I-78.

NJ Route 3 is a limited-access highway connecting US Route 46 to the Lincoln Tunnel via NJ Route 495. NJ Route 3 also serves the Meadowlands Sports Complex and has three to four lanes, depending on the segment, with separate express and local roadways in Secaucus, New Jersey.

NJ Route 495 extends east–west, connecting the Lincoln Tunnel to both NJ Route 3 and the New Jersey Turnpike. NJ Route 495 has three lanes in each direction, with an eight-lane section along the NJ Route 495 Viaduct to Union City, New Jersey. The Port Authority of New York and New Jersey operates one westbound (outbound from the Manhattan CBD) lane of the highway as a contra-flow Exclusive Bus Lane during the AM peak hours.

NJ Route 4 extends east–west connecting Paterson, New Jersey, to an interchange with I-95, US Route 1/9 (US 1/9), and US 9W at the George Washington Bridge approach in Fort Lee, New Jersey. The route is a divided highway with four to six lanes depending on the segment.