
An Alternative Solution for Repairing the Triple Cantilevered Roadway

Could building a tunnel across downtown Brooklyn and re-visioning the BQE Expressway be a better, more efficient solution for the repair of one of New York's most iconic engineering structures and resolve a host of major surface transportation issues at the same time?

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A More Comprehensive Solution for Better Results

This proposal reimagines downgrading the BQE Expressway from an Interstate Highway to a major arterial serving as a feeder/ distribution roadway for traffic heading to Downtown Brooklyn, the surrounding communities, and to bridge and tunnel connections. A new Cross Downtown Brooklyn Tunnel would be constructed to become the new alignment for I278.

Specifically, this proposal envisions reducing the number of moving lanes on the BQE between Hamilton Avenue and Sands Street from three to two moving lanes in each direction and reducing the speed limit from 45 MPH to 35 MPH or even 25 mph to bring this road into concordance with "Vision Zero". The lanes removed in each direction would be used for merge lanes, recovery lanes and construction lanes during the TCR restoration construction.

Through-traffic and heavy trucks would be served by the proposed new Cross Downtown Brooklyn Tunnel.

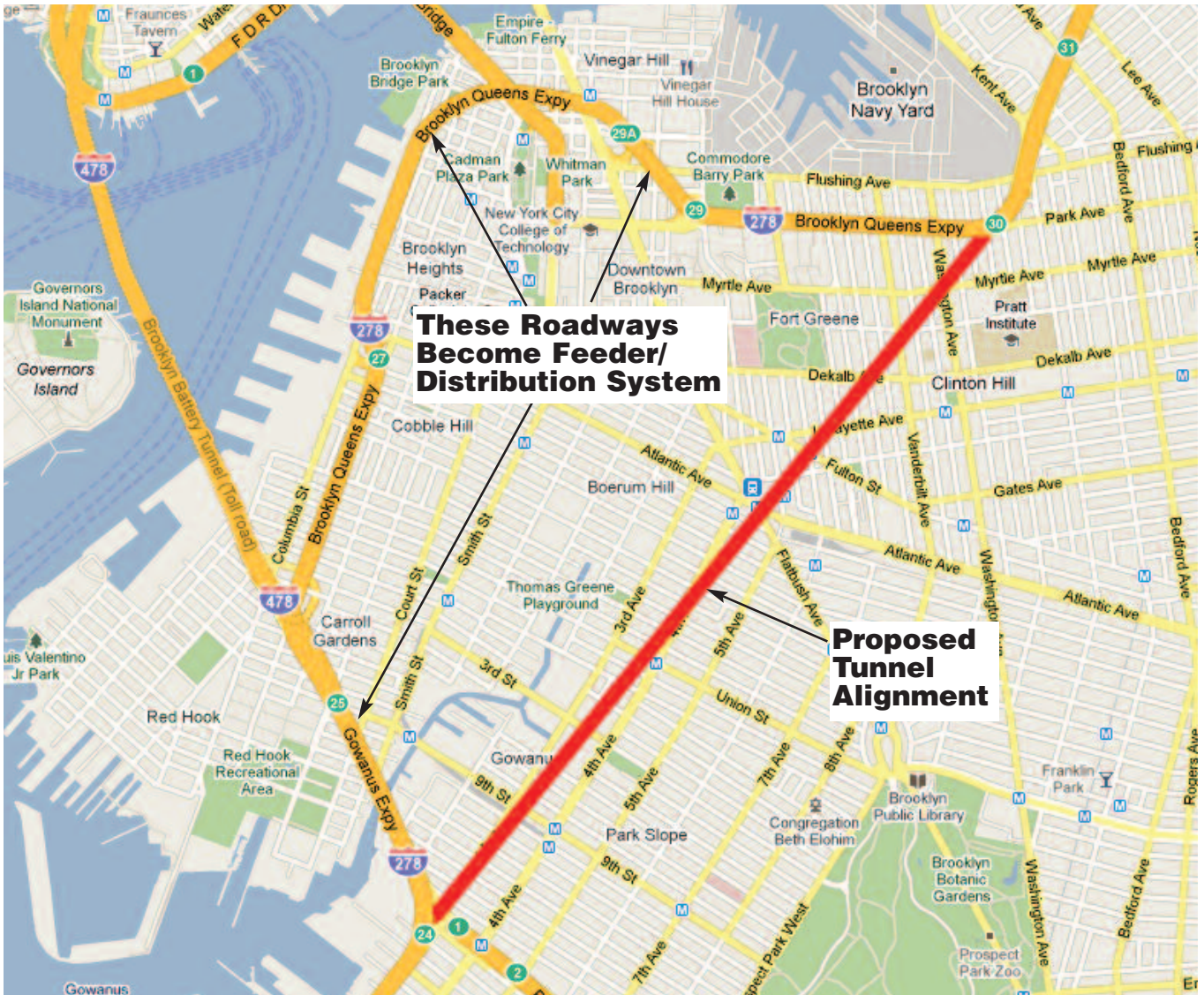
These changes would provide improved transportation for all users, provide quality of life improvements for all residents adjacent to I278 and, most importantly, would facilitate renovating and rehabilitating the Triple Cantilevered Roadway in its current configuration as opposed to the compete rebuild/replacement project presently envisioned by NYC DOT.

Traffic studies as well as local observations show that the BQE has a declining percentage of through-traffic and freight, and an increasing amount of local traffic. The BQE from Hamilton Avenue to Sands Street is no longer serving as an interstate highway because congestion and increased local use have forced these vehicles to find other routes.

Therefore, why rebuild the Triple Cantilevered Roadway to a design specification that would support six moving lanes of heavy trucks traveling at 65 MPH when the current structure design may be sufficient to support four moving lanes of traffic traveling at speeds lower of 35 MPH or less if one third of the total vehicular weight, vibration can be reduced and heavy trucks are removed?

Cross Downtown Brooklyn Tunnel

- Build a 2.5 mile tunnel with 2 moving lanes in each direction underneath downtown Brooklyn to become the new alignment for I278.
- The BQE from Exit 24 to Exit 30 – including the Gowanus Viaduct, BQE trench, Triple Cantilevered Roadway and BQE up to Exit 30 – would become feeder/ distribution roadways for traffic heading to Downtown Brooklyn, and bridge and tunnel connections.
- The BQE roadways between Hamilton Avenue and Sands Street would be reduced to two lanes of moving traffic with merge and recovery lanes in each direction and the speed limit reduced to 35 MPH or less to minimize vibration.
- Tunnel construction to be financed through bonding and tolls.



Benefits of Proposed Tunnel:

- The Cross Downtown Brooklyn Tunnel would increase overall throughput from 6 moving lanes to 8 moving lanes (4 lanes on TCR/ 4 lanes in tunnel).
- Could save drivers 10 to 30 minutes per trip.
- Would conserve hundreds of thousands of gallons of gasoline and diesel fuel.
- Would remove thousands of vehicle-miles per day from our surface roadways reducing congestion, pollution, noise, and improving overall safety.
- Eliminates the unnecessary “double dog leg” around downtown Brooklyn for through-traffic.
- Removes through-traffic congestion from tunnel and bridge entrances and exits.
- Cuts maintenance costs in half and doubles lifespan versus that of bridges.
- Recent studies project that urban tunnels could be responsible for roughly 50% of carbon recaptured.
- Improves pedestrian and cycling safety by removing heavy trucks and through traffic.
- Helps businesses that rely on the roadways and highways.
- Makes it faster and easier to get to Manhattan, by unclogging the approach to the Battery Tunnel.
- Removes heavy trucks and through traffic from the Gowanus Viaduct, lessening the impacts on this structure at the same time reduces maintenance costs and lengthens its lifespan.
- Improves access to the Brooklyn Bridge because of the reduction in heavy trucks and through-traffic.
- Transforms Fourth Avenue into a living street if heavy trucks and through-traffic are removed.
- Resolves safety issues at Atlantic Avenue entrances and exits to the BQE.
- Makes in-place “restoration” of the historic Triple Cantilevered Roadway possible.
- Costs would be borne primarily by roadway users: bonds financed by tolls pay for tunnel construction and on-going maintenance.

Restore and Rehabilitate the Triple Cantilevered Roadway in place instead of Rebuilding and Replacing

Downgrading the BQE between Hamilton Avenue and Sands Street from a Federal Interstate Highway with 6 moving lanes of traffic to a Major Arterial with 4 moving lanes plus break-down and merge lanes would substantially reduce the weight on the TCR structure, and by reducing the speed limit to 35 MPH or less, vibration would also be reduced immediately. Once the Cross Downtown Brooklyn Tunnel was completed, heavy trucks would be required to use the new tunnel. The combined effect of these changes would be to make it possible to restore and rehabilitate the TCR in place, in its present configuration.

The benefits are immediate:

- Extends the current lifespan of the TCR structure by 5, 10 or even 20 years – buying time to build the tunnel and to thoughtfully plan for Brooklyn’s transportation future.
- Provides immediate relief to those residing adjacent to the Promenade.
- Delivers a huge, immediate quality of life benefit to all residents living near the BQE in Vinegar Hill, DUMBO, Brooklyn Heights, Cobble Hill and Carroll Gardens... all before any work begins.
- Makes it possible to start work renovating and rehabilitating the TCR, one lane at a time, right away.
- Preserves the TCR – one of NYC’s most iconic and beloved engineering structures.
- In-place renovation/rehabilitation of the BQE is less costly than any plan involving total replacement-- probably saving \$Billions.
- Preserves Lower Van Voorhees Park and saves cost of reconstruction.
- No encroachment on Brooklyn Bridge Park property making the entire park available to park users during TCR rehabilitation.
- Reducing the TCR from 6 lanes of traffic moving at 45 MPH to 4 lanes moving at 35 MPH or less would significantly reduce noise in the park-- possibly eliminating the need for the “Sound Berm”.
- Removing the berm would add significantly to the amount of land available for recreation in the park.
- Less noise and more useable park space will enhance the park experience for all users.

Thoughts on how to proceed:

The benefits outlined in this proposal will need to be confirmed through a thorough independent study. To that end, our local elected officials should work with NYC DOT to fund a comprehensive study to determine if the Cross Downtown Brooklyn Tunnel + TCR Repair approach would deliver the benefits, as outlined. This would include looking at basic engineering issues, traffic modeling as well as financial feasibility. This study could be completed rapidly given that much of the data has already been collected.