THE BROOKLYN-QUEENS RAIL LINK:
A Plan to Connect the Boroughs of
Brooklyn and Queens By Using the Bay Ridge
Freight Line As A New Light Rail Link

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A new light rail line running on existing freight tracks that arc through Brooklyn and Queens would connect subways, bring workers to job sites and clean up a blighted rail right-of-way, all at relatively low cost. But the main obstacles are political, not technical.

ABOVE: The Brooklyn-Queens Rail Link would provide an important segment of a 75-mile circumferential route first proposed by George Haikalis, transportation consultant, and James T.B. Tripp, General Counsel of the Environmental Defense Fund. All photographs and illustrations in this plan, except where otherwise indicated, are by Wayne Fields.

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—Wayne Fields
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In this 1951 photograph, a light rail vehicle on the Key Route, which connected San Francisco with its neighboring cities on the East Bay, dips under the Southern Pacific main line and a highway bridge. Portions of the Brooklyn-Queens Rail Link would have a similar appearance.
INTRODUCTION

Imagine a city choking on traffic congestion, but with a vast subway system that makes it easy to commute to jobs in the city center but difficult to get anywhere else. Then imagine in this same city a little used rail right-of-way in an open cut just below street level that runs through a variety of industrial, commercial and residential districts, that crosses the paths of over a dozen subway lines, and that could easily expand into other regions. But instead of being a valuable public asset, these rail tracks are an illegal dump site, an eyesore and a neighborhood blight.

The rail right-of-way is Brooklyn and Queens’ Bay Ridge freight line and the decades of neglect could end soon, if advocates for environmental justice, economic development, rail freight and light rail transit can all join together, gather funding and follow through to ensure the job gets done. One point that all agree on—the obstacles to building the new line are primarily political, not technical.

The Brooklyn-to-Queens Rail Link (BQRL) could be easily built since the trackbed and bridges are already there. Not a single home or business need be condemned. All of the grade crossings were built over eighty years ago by far-seeing planners. Only new tracks, stations, signals and overhead wires would be needed. Since the streetcars are short, the platforms do not have to be as long as subway platforms, saving on station costs. To make it possible for New Yorkers with disabilities to use this line, all new stations would have wheelchair access in the form of ramps or elevators.

Light rail transit (LRT) is perfect for this line because it is quiet, economical to operate, can run on streets like a bus and is light enough for bridges like the Verrazano and the George Washington. Light rail vehicles can handle steeper grades and tighter curves than conventional subway trains. And the BQRL would be fast—a trip between New Utrecht in western Brooklyn and Astoria in northern Queens would take about 30 minutes.

But politically, the current fiscal climate makes non-highway capital projects difficult, and city and state bureaucracies fear change. Coordinating the diverse neighborhoods along the route will be a challenge. Here New York could learn from Los Angeles’ new streetcar line, the Blue Line, which runs through troubled districts like Compton and Watts. With adequate security measures in place, service on the Blue Line was not even interrupted by that city’s riots of 1992.

The benefits of the BQRL are in three areas—economic, environmental and social:
Jobs! Jobs! Jobs!

By focusing on connections to employment centers outside of Manhattan, the BQRL would give low-income residents of Brooklyn and Queens access to jobs, as well as make industrially-zoned districts more attractive to employers. Since rates of car ownership drop with income levels, the rail line would present new job opportunities to those who cannot afford a car and would raise the standard of living for those who now hand over a large part of their income to keep a private car running. And a connection to gainful, legal work would result in fewer people on welfare as well as less crime and other social problems.

Parts of the BQRL are lined with light industries, wholesalers, car dealers, auto body shops, food importers and numerous other small and medium-sized employers. Indeed, the tracks run directly through the Brooklyn Terminal Market at Remsen Ave. And two other huge employment centers with little or no mass transit access—the Brooklyn Army Terminal (at the waterfront) and LaGuardia Airport—could be reached by short extensions.

Streetcars = Cleaner Air and Safer Streets

At the turn of the century New York City had the world’s most extensive network of streetcar lines, with tracks laid on nearly 10% of its 6,000 miles of streets. But by the 1920s it became clear that streetcars inhibited the smooth flow of automobiles which were becoming increasingly available to the city’s business and professional classes. These groups, acting in the name of ‘progress,’ went about dismantling the streetcar network in the 1930s and 1940s, most notably under the leadership of Mayor LaGuardia. Buses became the obedient norm, pulling to the curb and allowing cars to pass. Trolleys had been the ultimate traffic calming device, attracting riders, while inhibiting car travel. With the trolleys gone motor vehicle traffic grew (and grew and grew).

New York City’s attempt to cater to the automobile, particularly for core area travel, has had disastrous results. Over 30,000 pedestrians have been run down and killed by motor vehicles on New York City streets since Henry Bliss, the city’s (and the nation’s) first pedestrian casualty occurred in 1899. Even today the killing continues, with an average of one pedestrian slain nearly every day. Many thousands are injured, while an equal number of occupants of cars and trucks are harmed. The cost to the city in terms of medical expense and wages lost runs in the hundreds of millions of dollars. The noise from cars and trucks accelerating and braking, and car horns honking, car alarms sounding off and car radios blasting raises stress and aggression levels and is a major deterrent to living in this city.
City and regionwide air pollution, most of which comes from vehicular exhaust, continues to exceed Federal health standards. Even with a working catalytic converter, exhaust fumes still contain carbon monoxide, oxides of nitrogen, particulates (from diesels), dioxin, benzene and other carcinogenic and mutagenic gases. The fumes are especially harsh on children, which may account for why city kids' asthma rates are skyrocketing.

Automobiles have been implicated in worsening environmental problems like acid rain, ozone depletion, global warming, habitat loss and the disappearance of frogs, birds, turtles and other species. In our cities, trees and grass are sacrificed for car parking on streets, front yards and city parks. Motorists routinely dump used oil, tires and car parts in parks and down sewers. Abandoned cars are strewn everywhere. In contrast, streetcars have no tailpipes; their motive power comes from relatively efficient central generating plants. Steel wheels on steel rails use only one-fifth the energy of rubber tires on pavement. Streetcars are quieter than many cars and all buses, and the characteristic clang of the trolley bell adds presence to streets as it gently warns pedestrians. And their rails not only provide easily identified routes, making them more popular than buses, but also represent significant neighborhood investment, a reason why people want to live near them and property values generally rise. Finally, trolley barns make much better neighbors than bus depots.

Social Benefits

Nowadays, few cheer when new highway lanes open as part of the region's highway capacity expansion program. But a whole new transit line like the BQRL would be a dramatic gesture the whole city could celebrate.

New York's extensive bus network is in serious trouble because its buses get caught in chronic traffic congestion, resulting in falling ridership levels and the nation's highest bus operating expenses. But a network of fast, reliable streetcars running mostly in separated rights of way would draw people out of their cars, freeing up street space for the remaining buses. This network would enable the city to provide faster and more reliable surface transportation at much lower cost. Who'd benefit? The majority of New Yorkers, who will not or cannot drive, among them the elderly, people with disabilities and children.

Finally, most new light rail systems in America today were designed mainly to whisk suburbanites to and from work in urban areas. The BQRL represents a dramatic departure from such urban surface transit policy in that it would be designed to get urban residents to urban jobs, knitting the city together. It would also permit the majority of New Yorkers who do not own cars to reach schools, shops, beaches, theaters, museums, hospitals and parks through an interconnected rail system. New York would become a more civilized place.
FROM FRESH POND TO YELLOW HOOK:  
A HISTORY OF THE BAY RIDGE LINE

By John A. Fink

In the 1870’s, at a time when Brooklyn was mostly farmland, the Bay Ridge freight line was constructed by the New York & Manhattan Beach Railway. The line extended from Fresh Pond (Freeront Junction) in Queens south to Manhattan Beach. A branch of this line ran west from Ocean Ave. (near Brooklyn College) to Yellow Hook (renamed Bay Ridge to calm fears of potential homeowners that Yellow Hook was associated with Yellow Fever!).

At the line’s western terminal on the Bay Ridge waterfront, freight was transferred via ferries to numerous railroads in New Jersey, while passengers boarded ferries to Manhattan. The line was leased by the LIRR in 1882 and purchased outright in 1925. Two years later it was electrified for freight trains as part of a major project to build a freight bypass linking New England via the Hell Gate Bridge in Queens.

But passenger service on the Bay Ridge line ended in the 1930’s as part of the general trend of rail abandonment. The line continued to be an important freight interchange link for the New Haven Railroad with the Pennsylvania Railroad via car floats across the Hudson River until the Penn Central rail merger in 1969. After that, long distance rail freight traffic was diverted to a circuitous, inland route via Albany. The power to the overhead wires was shut off in the mid 1950’s and stayed off (except for a short time in 1963) until 1969, when the wiring was crudely clipped off. But with the use of diesel locomotives, the line continued to serve a handful of local shippers.

In 1976 the line became part of Conrail, which sold it back to the LIRR in the mid 1980’s. The city has recently invested $25 million in the railyard at the Bay Ridge waterfront as a halting first step in reviving rail freight service in the city. Today the remaining tracks are in such bad shape that top speed for all freight movements is 10mph.

As for the rest of the right-of-way, garbage, car parts, thousands of car tires, crumbling walls and rats abound. A few sections have been cleaned and fenced, due mostly to determined local activists. But elsewhere, vandals toss broken parking meters into the cut and homeless people lodge at their peril under the bridges. This neglected asset is a major problem for just about every neighborhood it passes through.●

John A. Fink, a rail historian, is writing a book on the Prospect Park & Coney Island Rail Road.
PREVIOUS LINK PROPOSALS

Back in 1963, the Committee for Better Transit proposed, in a cover article of its publication, Notes from the Underground (at right), that the Bay Ridge line be converted to a streetcar link route, at an estimated cost of only $5 million.

Fifteen years later, Bobby Wagner, Jr., as head of the City Planning Department, built a strong case for a light rail line on this corridor, including the proposed route in his landmark report, A New Direction in Transit, nicknamed the Silver Bullet for its shiny cover. Although the Silver Bullet played a major role in the rebuilding of the city's ailing subway system, the Brooklyn-Queens rail link proposal languished.

Like most public assets, the Bay Ridge line has also attracted its share of poorly thought out or grossly inappropriate plans. When Mayor Lindsay realized a lower Manhattan crosstown interstate highway could not be built, he proposed shifting the interstate designation (and accompanying mega-funds) to a Cross-Brooklyn Expressway in the Bay Ridge freight corridor. The highway would be hidden in a gigantic "linear city" building complex. This proposal was quickly dropped when community opposition mounted. In the mid-80s, the Port Authority, flying in the face of economic reality and environmental and neighborhood concerns, proposed eliminating the tracks altogether and building a Circumferential Commercial Corridor—a two lane highway for trucks only.

Recently, greenway advocates have proposed that the line become a bike path as part of a network of greenways throughout the city. A bicycling/pedestrian path could be included along parts of this route, but at most locations, bike lanes would have to be located on parallel streets to preserve this vital circumferential transitway and rail freight link of regional importance.

Why doesn't the Metropolitan Transit Authority (MTA), the nation's largest transit provider, push for such a plan? In the face of repeated attempts at the federal, state and local levels to cut funding for transit operations of its existing system, it is understandable that the MTA would not be eager to take on a new transit line that might add to its operating deficit. It is true that the MTA's only circumferential rail route, the G train, has one of the lower ridership levels in the system. But if such a line was transferred to any other American city, it would be considered a success. Furthermore, the G train ends at Smith/9th St. in Brooklyn, not a major trip generator or even a transfer point. Finally, on its inter-borough tour, the G train does not link at all with the J, M, Z, B, D and Q trains, whose paths it crosses. And in downtown Brooklyn, the G also misses out on the 2, 3, 4, 5, N and R trains.

The traditional antipathy of most MTA transit planners to streetcars and light rail may be rooted in streetcar companies' checkered past, involving robber barons and corruption, dating back to the pre-merger days of Mayor Jimmy Walker in the 1920s and Mayor Fiorello LaGuardia in the 1930's. The MTA may simply have been too preoccupied with
the massive reconstruction projects it accomplished over the past decade to restore the subway system. But recently the MTA has become more aggressive and has begun to examine major new additions to its rail system.

Meanwhile, the NYC Department of City Planning released a study in 1991 examining the potential for passenger service of all of the abandoned or underused rail rights of way in the five boroughs, including the Bay Ridge line. Although the study concluded that passenger train service on the Bay Ridge rail line "appears to be feasible," it would not study it further, apparently since the Transit Authority and the LIRR "envision intensifying the use of this line for freight and transit." The report also mentioned the Transit Authority having proposed extending the #2 and 5 subway line along the Bay Ridge line from Nostrand Ave. to a proposed new cleaning and storage yard at the Brooklyn Terminal Market near Foster Ave. The report chose heavy rail for all other potential new lines, and did not consider light rail for the Bay Ridge line.³

Ideally, the BQRL should be planned by the MTA as part of its mandate to coordinate comprehensive transit service, and built and operated by its subsidiary, the Transit Authority. Or the work could be contracted out to a private or public entity, much like the proposed franchise arrangement for the 42nd St. LRT. The MTA denied Committee for Better Transit's request to include this plan in their recent Southwest Brooklyn Transit Improvement Study, but did express interest, calling for more study. Obviously, only an aroused citizenry and a forward-looking mayor and governor will be able to awaken the MTA—a sleeping giant.

Hopefully, the appearance of this proposal will spark a strong interest of community groups along the route in urging to prod the MTA to clean up and secure the line and get new transit service on it. The BQ rail link would be the pride of the neighborhoods, resulting in more people caring and getting involved in community improvement and development.

Looking south from 41st Ave. in Queens. Bridges in the background are, front to back: Woodside Ave., 43rd Ave. and 44th Ave. See page 17.
TAKING THE GRAND TOUR

The BQRL passes through a grand quilt of neighborhoods that is one of New York's great strengths. Starting from the southwest, the Link parallels the N line, forming the border between Bay Ridge and Sunset Park. Heading east, it passes below Brooklyn's Chinatown (at 8th Ave.), then through mostly residential Borough Park, Parkville, Midwood and Flatbush. Here the line passes directly by Brooklyn College and enters East Flatbush, with its Terminal Market.

The line then turns sharply north alongside the tracks of the L train through East New York, entering a long tunnel under the LIRR Flatbush branch and emerging on the eastern edge of Bushwick. Entering Queens, the tracks run between Glendale and Ridgewood to the intersection with the LIRR's Montauk line (at Fremont Junction in Glendale). From here the line's ownership switches from the LIRR to Conrail. The BQRL then passes within a few feet of the M terminal at Metropolitan Ave., and continues by residential Middle Village.

Heading northwest under the Long Island Expressway and past the huge, soon to be dismantled Elmhurst Gas Tanks, the tracks join up with the noisy and congested Brooklyn-Queens Expressway to form the border between Jackson Heights and Woodside. The two tracks of the BQRL merge with Amtrak's two Northeast Corridor line tracks in an industrial area on the southern edge of Steinway before entering Astoria. Here, on a high embankment, the rails point north to the Bronx via the handsome Hell Gate Rail Bridge, opened in 1917.
GETTING CONNECTED

The greatest feature of the BQRL is its ability to provide easy transfers to the numerous subway lines that radiate out of Manhattan like spokes on a wheel. Besides opening up previously unserved areas like East Flatbush, the new line would provide millions of Brooklyn and Queens subway riders with alternate routes they could take, either by choice or because their regular line is blocked for repair or emergency.

Building the station connections range from easy to complex. In the following pages we conduct a tour along the route starting from southwest Brooklyn and ending in northwest Queens, with suggestions for building transfer links that will show that there are no overwhelming technological problems that would prevent this line from being built. These suggestions are the result of an informal survey, and of course are subject to community concern and input, as well as possible but unlikely engineering complications.

The advantage of using light rail is its ability to run on regular streets would reduce walking distance at some station connections to the BQRL, like at the last stop on the IRT 2 and 5 subway in Flatbush, at Brooklyn College, or at Roosevelt Avenue in Queens.
NEW UTRECHT AVENUE: N, B, AND M TRAINS

The N train crosses underneath New Utrecht Ave. in an open cut a block south of the Bay Ridge Line, while the B and M trains pass overhead on elevated tracks. There is only one token booth open at this time, directly over the N tracks at the south end of the elevated train platform. A token booth and a set of stairwells in a mezzanine level at the north end of the elevated train platform have been closed, although the mezzanine allows transfer between platforms.

There are three likely locations for an LRT station here. One, directly east of New Utrecht Ave., is a poor choice because buildings on either side of the rail cut leave little or no space. A second location, on an embankment abutting 61st St. directly west of 14th Ave., has plenty of space but would require a walkway over 14th Ave. to reach the elevated platform. The third location, the triangular space between 14th and New Utrecht Avenues, would be right at the foot of the elevated structure. Although small, it could be expanded by removing the shoulder-height concrete walls (crumbling anyway), narrowing the existing sidewalk and converting the curbside lane to new sidewalk.
AVENUE I: THE F TRAIN

The F train runs north-south on elevated tracks over McDonald Avenue, with the Bay Ridge line passing underneath in its open cut. There is plenty of room on either side of McDonald Avenue (but especially on the west side, at the back of an unused and debris-filled parking lot) for an LRT station. A stairway, elevator and about 300 feet of covered walkway would be sufficient to reach the Ave. I station to the south.

The stairs from the mezzanine token booth up to the Ave. I station platforms are at the north end of the platforms. By rebuilding the elevated platforms to the north so that the stairs open onto the south end of the platform, the walkway between the LRT and the elevated could be shortened to 100 feet or less.

A southbound F train approaching the Ave. I station. A portion of this unused parking lot, now marred by automobile crap, could be a new station that would be an asset to the neighborhood.
AVE H: THE D TRAIN

At Avenue H in Midwood, the Bay Ridge line in its open cut runs underneath the Brighton line D train. These subway tracks run on top of a low embankment, surrounded by one- or two-family homes and small apartment buildings. Getting to or exiting the west (Coney Island bound) platform of the station requires using a passageway under the tracks at the north end of the platform. Also at the north end is the current token booth, situated in a small hut on the east (Manhattan-bound) platform.

Fortunately, the open cut has broad shoulders with plenty of room for a station, especially directly east of the Brighton line tracks (see diagram). By constructing a pedestrian bridge across the open cut at E. 16th St., a bright, modern station could be relocated there that would be a real asset to the neighborhood. To make it easier to get to the west side platform, a new underpass near the freight tracks would be added (the MTA owns the property around the substation on the west side). The underpass at the north end would be disconnected from the platforms and the iron fencing would be removed, making walking or biking on Ave. H easier. Also, by improving sightlines, the passageway would be safer at night.

Ultimately, the solution depends on studies to determine where riders at this station come from and, of course, on the preferences of local residents.

Looking south from East 16th St. towards the D train overpass, with the MTA substation behind it.
BROOKLYN COLLEGE: THE 2 AND 5 TRAINS

A light rail stop at Brooklyn College would be a tremendous boon to students, particularly those who would rather study than drive, or who cannot afford a car or whose commute to the college is a two-fare zone. With students better able to arrive by transit, parking lots now blighting the campus could be converted to educa-tional uses. And urban planning students at the college could be involved in the design of the station.

The terminal for the # 2 and 5 subway trains also ends here. This station could be extended south to the Bay Ridge line, making transfers easy. Or a station could be easily built where Nostrand Avenue crosses over the tracks, using a small corner of the large municipal parking lot for stairs and a wheelchair ramp. But this would necessitate a 600 foot walk north on Nostrand to the nearest subway entrances. As a third choice that would take advantage of the flexibility of light rail, the line would exit the cut and run along the edge of the parking lot to the intersection of Nostrand and Avenue H, within 25 feet of the subway entrances.

East of Brooklyn College is East Flatbush, a mixed neighborhood of mostly two- or three-family homes and some light industrial areas. East Flatbush has no subway service at all. For this reason, it might be worthwhile to have several local stops, at for instance, Kings Highway (free transfer to B7 bus), Ralph Ave. (free transfer to B78 bus), Remsen Ave. (the eastern end of the massive Brooklyn Terminal Market, and free transfer to B17 bus), Rockaway Ave. (free transfer to B60 bus) or Linden Boulevard (simply extend Church Ave.'s B35 bus three blocks east for free transfer). Between Rockaway Ave. and Linden Blvd. is a huge Pepsi-Cola plant, a telephone company installation and other large job sites. Local community groups would help to establish the most advantageous station locations.
JUNIUS AVE./LIVONIA AVE.: THE 3 AND THE L TRAINS

The Bay Ridge line passes by the Linden Rail Yards as it turns northward, approaching Livonia Ave. and the elevated tracks of the #3 train. Here the Bay Ridge line descends from its low embankment to surface level. An existing walkway allows pedestrians from Junius St. and the area's apartment complexes to cross east over the Bay Ridge line tracks to get to the elevated platforms of the Livonia Ave. stop of the L train. It would be relatively easy to build a ground level station for the BQRL at the corner of Junius St. and Livonia Ave., and to extend the walkway west to the 3 train platform. To keep people out of the rail yard area, which is currently protected by a fierce-looking fence with lots of razor wire, gates could be installed.

But since the L train would more likely have a transfer point at the Broadway Junction further north, a second transfer at Junius St. might not be necessary. And an intermediate station six blocks south at Linden Blvd., with transfers for the Church Ave. bus) might be a better alternative. Perhaps a station can be added here later on, as ridership increases.

Looking southeast across Junius St. The Bay Ridge line tracks are at surface level at this location, just north of the Linden Rail Yards. Note the connecting passageway, which stops just short of #3 train platform, preventing free transfer.
EAST NEW YORK: ATLANTIC AVENUE LIRR AND THE BROADWAY JUNCTION (ELEVATED)

As it heads north from Livonia Ave., the Bay Ridge freight line descends from grade level back to a shallow open cut directly west of and parallel to the elevated L train. Just south of the LIRR tracks at Atlantic Ave., the freight tracks enter a long tunnel completed in 1914 to eliminate grade crossings for a growing Brooklyn. A single platform, the remains of a short-period of steam-powered passenger service, still exists at the southern entrance to this tunnel near the corner of East New York Ave. and Van Sinderen Ave. Here an important link to the surface-level LIRR tracks that lead into downtown Brooklyn’s Flatbush Ave. terminal could be made. And a stairway and elevator up to the elevated L train are possible here, although such a transfer could more easily be made elsewhere on the BQRL route.
Just a few blocks north is the complicated overhead trackwork of the Broadway Junction, where the elevated tracks of the A and C trains over Fulton St., the J and Z trains over Broadway, and the L train all meet. Passengers can now transfer free between any of these trains.

For BQRL passengers to transfer to this triple-train connection, a single subway-style station would be built along the freight tracks as close as possible to the existing token booth between Broadway and Fulton St. To hold down costs, the station would have a single low platform between two tracks, necessitating only one set of stairs and elevators. Because BRQL trains are at most two cars long, this underground BQRL station would be much shorter, more secure and cheaper to build than a typical subway station. Generously sized modern skylights would be incorporated into the design. Surveillance cameras and police patrols from the large Transit Police station across the street would keep people from straying down the tracks and would provide needed extra security because of East New York’s crime problems and perceptions.

North of Broadway Junction, the freight line, emerging from the East New York tunnel at Wilson Ave., runs northeast alongside the Cemetery of the Evergreens into a district with numerous job sites and light industry. A likely intermediate station between here and Metropolitan Ave., further north, would be at Myrtle Ave. (with free transfer to the Q55, B13 and B20 buses).
METROPOLITAN AVENUE: THE M TRAIN

This transfer has got to be the easiest of the entire line. Only a small embankment separates the Bay Ridge line from the M train’s terminal stop at Metropolitan Ave. There is plenty of room for a ramp for wheelchair users and a broad, well-lit stairwell for everyone else that would connect directly into the fare control area of the token booth.

Looking west over the freight tracks. The M train terminal is at upper left.
ROOSEVELT AVENUE/BROADWAY: E, F, G, R AND 7

As the freight line gradually arcs northwest through Woodside and Jackson Heights, it passes about a block west of the transfer point of the elevated 7 trains over Roosevelt Ave. and the E, F, G and R trains under Broadway. Roosevelt Ave. is a lively commercial spine with numerous ethnic restaurants and shops. Around it are quiet residential blocks of 2- or 3-family homes and small and large apartment buildings, many part of the recently designated Jackson Heights Historic District.

Because of the width of the freight line's open cut, a station could be built very economically anywhere in the area, although the most logical place would be at Roosevelt Ave. To transfer to the subway would require a one block walk east to reach the westernmost subway/elevated entrances at 73rd St.

In the 50s, the Transit Authority built a brick jailhouse-style 'bunker' on the corner of 73rd and Roosevelt to contain the escalators that carry passengers between the subway and the elevated platforms. If a northbound Rail Link trolley left the cut at 41st Ave. and turned north onto 73rd St., the 'bunker' could be rebuilt to become a handsome multi-modal transfer station that would be a real asset to the neighborhood, not an eyesore. This station would replace the existing underground token booth. Skylights would bring space and light to the underground passages. The trolley would stop directly in front of the new ground-level token booth.

After stopping at 73rd St., the northbound trolley would turn west on Broadway and return to the freight line further north on 69th St. near 35th Rd. At this location, the freight line rises on an embankment paralleling the Brooklyn Queens Expressway.

The risk of slowing the trolley by running on local streets for a few blocks has
to be balanced against the benefit of making it easier to transfer to this major rapid transit station. The detour would only amount to about five blocks. Other than the presence of the overhead wires and tracks and the loss of a couple of curbside parking spaces at the intersection of 41st Ave. and 73rd St., residents along this route wouldn’t notice any difference—modern streetcars are quieter than many private automobiles.

Across Roosevelt Ave. in this view is the MTA bunker containing the escalators allowing transfers from the subway to the elevated. Note passenger crossover to eastbound platform of 7 train. Almost every window is sealed up, apparently to convey that "underground" feeling even when way up over the street.
INTERMEDIATE STATIONS IN QUEENS

Between Roosevelt Avenue and Ditmars Boulevard, the freight line crosses over the Brooklyn-Queens Expressway, passes through several neighborhoods and industrial areas, and then vaults over the huge dividing wall of the fume-filled Grand Central Parkway.

An intermediate station could be established where the line crosses busy Northern Boulevard (free transfer to the Q66 bus), and further northwest at Steinway Street (free transfer to the Q101 bus). In this area, especially on 30th Ave., an additional spur could be easily added that would run to LaGuardia Airport.

The freight line crosses three routes of the LIRR line in Queens. In each case, the crossing takes place in a low-density light industrial district with few trips generated at present. However, the presence of the line could make these areas more attractive to employers who, because of difficulty complying with Clean Air Act regulations requiring carpooling, are searching for plant or office locations with good mass transit access. Future stations should be considered as part of a long range land use planning activity.
DITMARS BOULEVARD: N TRAIN

Because of the height of the overhead rail embankment, the transfer from the last stop on the elevated N train would lend a dramatic air to commuting. And the increased functionality of this huge four-track embankment/viaduct, completed in 1917, would make it less of an intrusion to the communities of Astoria and Steinway.

Amtrak’s Northeast Corridor line (to and from Boston) currently uses the two south tracks; the freight line uses the two north tracks (although one has been removed). Where the embankment crosses over the N train station terminal (Ditmars Boulevard), the light rail line would have to use the outer two tracks, so that people would not have to cross Amtrak tracks to board the LRT.

The two Amtrak tracks, approaching from the southwest, meet the two freight line tracks, approaching from the southeast, at the ‘Bowery Bay’ junction, between the Brooklyn-Queens Expressway and 50th St., north of 31st Ave. There are two ways to switch the Amtrak tracks into the two center tracks. The cheaper method would use standard signaling to keep the local LRVs (running every five to fifteen minutes) from conflicting with the (hourly or so) Amtrak. Or a crossover could be built so that the south LRT track arches over the Amtrak tracks (see diagram). The second choice will cost more, but is safer and will remain a permanent solution.
The Hell Gate Bridge, opened in 1917, connects Queens with the Bronx. Currently only two of its four tracks are being used (by Amtrak). In a densely built city like New York, not fully using such an asset is practically a crime. Imagine half of the Queensboro Bridge closed down and neglected.

FUTURE EXPANSION

The best way to increase ridership on the BQRL would be to ensure major destination points on either end of the line. On the Brooklyn end, that could mean a revived employment center, Bush Terminal, on the Sunset Park waterfront, or the St. George ferry terminal (and rail line) on Staten Island, or Newark Airport, or Newark's Penn Station. In Queens, a spur could connect to LaGuardia Airport. But the real draw on the northern end would be to the Bronx and to New Jersey.

The BQRL can easily be expanded, to the Bronx by utilizing the Hell Gate Rail Bridge, of which two of the four tracks are available, and to Staten Island via two of the Verrazano Bridge's twelve lanes. The vistas from either of these bridges would make the trolley a tourist destination in itself. Even better, plans are now afoot for reinstating Staten Island's North Shore rail link, which would also connect with the ferry terminal and with Staten Island's only rail line, SIRTOA. Such a link would provide many Brooklynites with a quick commute to lower Manhattan.

An additional link west to New Jersey would employ a currently unused rail freight bridge just north of the Goethals Bridge across the Arthur Kill (see photo, next page). This link would connect with New Jersey’s planned Newark-to-Elizabeth LRT line, affording Staten Islanders an easy commute to midtown Manhattan and New Yorkers an easy way to get to Newark Airport.

In order to maximize the benefit of the BQRL, expansion plans to Staten Island, New Jersey and the Bronx should begin at the same time the link is being constructed. However, the prime focus should be on getting the link line itself up and running as soon as possible. Extensions can be built later.
To the Verrazano Bridge

The route of the LRT to the Verrazano Bridge depends upon where the rail link ends. For the purposes of this plan, the line ends at New Utrecht Ave., where it crosses under the B and M train and meets up with and begins to parallel the Sea Beach Line (N train) between 61st and 62nd Streets straight down to the 65th St. railyard on the waterfront. Along this stretch, depending upon local requirements, the streetcar could ride up a ramp on the line's broad embankments and turn south to the Bridge, using Fort Hamilton Parkway or Eighth, Seventh or Sixth Avenues. Each of these avenues is more than five lanes wide and could afford the space for an exclusive two-track guideway.

As it approaches the Verrazano, the Gowanus Expressway takes up only six lanes of a huge trench, the layout of which clearly did not have future rail expansion in mind. Nevertheless, if the rail link is to be express on the stretch southwest of New Utrecht Ave., room can be made for it down the median of the Gowanus Expressway. Alternatively, the rail link could continue as a local south of 66th St. by running on either Sixth or Seventh Avenues, alongside the expressway. Either side has room for tracks and intermediate stations. It’s at places like these that the versatility of light rail really becomes obvious.

If it is decided to run the LRT to the 65th St. railyard and Bush Terminal on the waterfront (to connect with the employment centers there or potential ferries), there are numerous areas, such as Third Ave. near 63rd St., under the Gowanus Expressway where the LRT could turn south to run as an express or as a local to the Bridge. Alternatively, with other community groups looking seriously at a plan to
tear down the Gowanus rather than have their neighborhoods overrun with cars because of a planned ten-year, billion dollar rebuild and expansion of the aging elevated highway, the LRT line could be incorporated into plans for a surface-level link to the Battery Tunnel via Third Ave.⁶

To the Bronx and the George Washington Bridge

The great advantage of the BRQL is the ease with which a connection to the Bronx could be made over the Hell Gate Bridge. In fact, it is virtually a crime that in such a densely populated city, two tracks could lay unused on a major bridge. Various options for routes are possible. With the completion of the Oak Point Link freight viaduct in the Harlem River, the existing Port Morris freight line becomes redundant, making a connection from the Hell Gate LRT line possible. A new line here, either on the surface or as a subway, are options as the line heads past Yankee Stadium on its way towards the George Washington Bridge. Until the completion of the Bronx route, a simple interim terminal using the two northernmost tracks on the viaduct over the N train would serve as the end of the line.

(Above right) View looking east from 7th Ave. towards 8th Ave. The N train tracks and station are on the left, the rail freight line is on the right.

(Below right) The spaghetti of ramps to and from the Verrazano Bridge, as viewed from Bay Ridge.
INTEGRATED FARES

The BQRL would collect fares via the honor system, now successfully in use by numerous transit agencies here in America and abroad. The benefits of the honor system for fare payment far outweigh its risks. This system does away with prison-like fences and barriers, and eliminates the need for more token booths. More importantly, the convenience and speed of boarding makes travel times considerably shorter, encouraging more to use the system, increasing ridership and revenues and reducing equipment needs. Certainly there will be some fare beating (rates in other cities hover at one or two percent), but this must be weighed against the benefit of a public authority granting a form of trust to the general public, the vast majority of which are law-abiding citizens. The importance to public morale and civic spirit of restoring even a tiny part of the social contract cannot be overestimated.

A key part of the transfer process is the MTA's new MetroCard, which could be sold and validated at self-serve machines at each LRT station or even on the light rail vehicles themselves. Fares would be the same as the MTA's buses and subways, and would accept and offer free transfers. A subway rider transferring to the Rail Link would ask for and receive a time-restricted receipt for boarding, while a Rail Link rider would use the MetroCard to enter the subway system. Roving inspectors would ensure compliance with the honor system, with fare-paid zones at each station that would eliminate loitering. Entries to the subway system that are remote from a token booth would be patrolled by transit police and remote cameras, as at every other entrance.

Finally, integrated fares, as planned between the LIRR, Metro-North and NYC's subways and buses, would also apply to the BQRL. Connecting together these various transit entities with an efficient fare system is of the utmost importance in improving regional auto-free travel. The BQRL would provide a vital link to this new integrated network.
BOXCARS AND STREETCARS?

The Bay Ridge line is a crucial element in the city’s plans to expand rail freight operations that would reduce New York’s dependence on costly and polluting trucking. As it now exists, the line offers freight access between the Brooklyn waterfront, Long Island and points north in New England (via the Hell Gate Bridge). And the bridges along the route are high enough to allow commonly used "trailer on flat car" (TOFC) service.

But at many locations along the line, space is not available for adding tracks to completely separate freight and passenger service. Cities like Baltimore and San Diego operate conventional LRVs on tracks used by freight trains, but these cities’ passenger operations shut down overnight, at which time freight trains can move.

To allow for track sharing, the technical issues and equipment requirements can and must be worked out. For example, LRVs that meet freight rail safety standards need to be specified. In the New York area, the PATH and the LIRR use modern light weight electric cars that meet these standards. The BQRL would therefore use a variation of these cars, but with low floors. The light weight of these cars is an important consideration in any plans to expand the rail link over the Verrazano Bridge. These vehicles could be built here in New York at, for example Brooklyn’s Sunset Park waterfront. This would create badly needed manufacturing jobs and reinvigorate industrial areas as well as the waterfront.

The light rail vehicle above would work well on the Bay Ridge freight line. It is now in use on the Nyon-St. Gervaze light railway in Switzerland. Such a vehicle could be built in factories on the Brooklyn waterfront using urban workers.
THE PRICETAG

Despite Mayor Giuliani's repeated attempts to cut city funds for the MTA, there is never a better time than now for building grassroots support for transit investment. Because the right-of-way already exists, the BQRL would be relatively cheap. The total capital cost, using current, conservative (i.e. upper range) estimates is $460 million. If the system had been built thirty years ago, when first proposed by the Committee for Better Transit, it would have cost about $5 million. To delay means prices will only increase.

It is always difficult to forecast ridership levels for new transit lines. At least in the beginning, farebox receipts for the BQRL would not pay for the line's operating costs. But because of the new line's role in spurring sustainable development, ridership can be expected to increase substantially. In addition, the ability to easily transfer to numerous subway lines would translate to higher general system ridership, something not easy to directly credit to the BQRL.

Still another way that the BQRL will prove a good longterm investment to the city is the increase in valuation of properties along the route, translating to higher property tax revenues. Better transit access always improves adjacent real estate values, as would cleaning, fencing, lighting and securing the open cut, currently a blight.

Of course, money for civilized necessities like public transportation and education always seems hard to come by while millions of dollars every year go towards the construction and maintenance of highways that the majority of New Yorkers don't even use. Plenty of money is available for transportation projects in NYC, but it's being spent for highway expansion:

- The "Route 9A Project."

At least $375 million to not only rebuild but to actually increase the carrying capacity of just five miles of Manhattan's lower West Side Highway, with a bike lane tossed in to silence some environmentalists, when $30 million would do just as well in creating a more pedestrian- and bike-friendly waterfront. Increasing capacity on any highway in NYC today is in direct violation of federal clean air regulations. In other

<table>
<thead>
<tr>
<th>B/Q Rail Link Capital Costs</th>
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<tbody>
<tr>
<td>15 miles of Track @$20/mile</td>
</tr>
<tr>
<td>15 Stations @$5/station</td>
</tr>
<tr>
<td>30 Streetcars (2 per train) @ $2m ea.</td>
</tr>
<tr>
<td>Car barn &amp; contingencies</td>
</tr>
<tr>
<td>TOTAL CAPITAL COST</td>
</tr>
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The freight tracks cross over Queens Boulevard on an rumpled but still elegant bridge, complete with niches for sculptures. View looks east.
words, the city is planning a criminal act! The $345 million saved could be traded in to pay for most of the rail link. Even Manhattanites would benefit. First, there'd be less cars in Manhattan because the highway wasn’t widened, and second, thanks to the BQRL, more people from the other boroughs would be taking the subway rather than their cars.

■ $40 million to replace one offramp from the East River Drive to 48th St. This ramp has been closed since 1987 for structural reasons.

■ $84 million to rebuild and widen a connecting ramp from the Prospect Expressway to the Gowanus Expressway in Brooklyn. This also includes a new highway lane reaching west to the Brooklyn-Queens Expressway.

■ $80 million for a new third lane in each direction on a 2.5-mile stretch of the Northern State Parkway between the Meadowbrook and Wantagh State Parkways, in Nassau County.³

■ $30 million for ramps on the Van Wyck Expressway, and $50 million for ramps on the Whitestone Expressway, both in Queens.

■ $3 million for an "intelligent highway system" pilot project along Interstate 95 in New York State.⁶

Hundreds of millions of dollars are being lined up for other ill-advised road expansion projects, like new lanes for the Long Island Expressway in Queens, ramps from the Williamsburg Bridge to the East River Drive, a massive underpass off the Brooklyn Bridge in downtown Brooklyn and even a second (no rail) Goethals Bridge.

These projects, besides openly flouting federal clean air regulations, will only bring more traffic jams, noise and pollution. Those who complain about the expense of investment in public transportation are curiously silent about such flagrant road expansion in our densely populated city. Light rail, along with new subway lines and streets made safe for bicycling and walking, is the real traffic solution.
HOW TO PAY FOR IT

Much of the capital cost for building the BQRL could come from cancelled road expansion projects. However, the line's operating costs would be financed through a combination of the farebox and local, state and federal funds. Of course, any new taxes would be accompanied by a highly visible multi-media campaign informing citizens that the revenues are creating viable alternatives. Putting money into the transit system is one of the most direct ways of benefitting the people who pay taxes. Some examples, starting with local and ending with federal funding:

- Establish time-of-day tolls on the currently free East River bridges. Keyed to peak rush hours, such tolls would discourage single-occupant, non-commercial drivers, clearing the air and boosting the economy by prying commercial vehicles out of gridlock. In other words, Joe Plumber in his Tradesman van could get to the jobsite without sitting through a huge traffic jam. Just by eliminating the toll discount for commuters over the TBTA’s crossings, $100 million could be generated, according to an estimate by Carolyn Konheim.6

- The citywide gas tax, sales tax and vehicle registration fees could be raised. Even a slight amount would raise substantial sums that could go for public transportation. Motoring has many hidden subsidies; mass transit has many hidden benefits. Recognizing the value of LRT investment, voters in San Diego, St. Louis and other cities chose to raise taxes to pay for their now popular streetcar systems.

- New York’s municipal bond market has recently responded to accusations of gouging by volunteering to police it-
self. By controlling the city’s bond market, and therefore all large projects, a handful of traders in effect dictate all large public investments. They must be persuaded of the wisdom of new transit investment to preserve and enhance their already substantial stake in the city’s future.

A resourceful city administration could secure funding from a variety of sources. For example, repeal the repeal of the Stock Exchange Tax (and make it regional to prevent exchange flight). Privatize the Port Authority's World Trade Center, all eleven million square feet, for whatever it will bring, which will bring in as much as $100 million in annual taxes. And the city’s billionaire foundations, such as the Ford and Rockefeller Brothers’ Foundations could also be placed on the tax rolls.10

Money could come from ISTEA, the 1991 federal transport bill that allows for just such transit projects as the BQRL. But the city has failed to seize the opportunity to use ISTEA for any significant new transit projects. In NYC, ISTEA funds are being used to fix the city’s decaying roads and bridges—especially the four East River bridges that motorists now cross over for free. The remainder of ISTEA money in New York is going for highway widening projects.11

It is necessary to get some perspective on how a $460 million investment like the BQRL compares with big ticket items like defense and space research in the federal budget. First, the Clinton Administration is planning to spend nearly as much on defense next year [$264 billion] as the rest of the world combined.12 Transferring a small part of this huge military expenditure would not reduce preparedness to any significant degree. For example, the cash for one single B-2 Stealth bomber, at $2.2 billion, could complete an entire permanent 75 mile loop through Staten Island, New Jersey and the Bronx! The Pentagon wants to buy twenty of these planes, the most expensive airplane in aviation history.13 Another Cold War relic, the Seawolf attack submarine, will cost $2.3 billion each, and the Pentagon wants $6 billion to build four Milstar satellites, designed for prolonged nuclear war against the Soviet Union,14 and forty C-17 cargo jets at $300 million each.15 Another example of the non-productive use of federal money is NASA’s controversial manned space station, first proposed by President Reagan in 1984, which has already cost to date $10.2 billion, with not a single element of it yet in space. The station’s total cost of launching and construction is expected to reach $100 billion, with billions more for maintenance as a form of permanent entitlement.16 Yet NASA itself has admitted that the station has little or no identifiable scientific benefits! Switch to robots and computers for space science and build manned LRT stations here on earth.

Green rhetoric to the contrary, President Clinton continues trying to cut operating funds for mass transit even as he raises them for new highways. He needs to be informed that better public transportation means a better economy, a better environment and better national security.

With the largest transit system in the country, New York City officials (and residents, too) should be demanding that President Clinton redirect these sums for public transportation, not for useless weapons and astronaut fun and games in outer space.
IT'S UP TO YOU, NEW YORK . . .

By improving transit throughout the city and especially in disadvantaged neighborhoods, the Brooklyn-Queens Rail Link would send an enormous message of hope and opportunity to millions of hard-working New Yorkers struggling for a better life. At the same time it would make New York a better place to live and do business, so that the desire to "make it" and move to the suburbs would be (at least for some) replaced by a desire to "make it" and stay and make city living better for more people.

But this proposal can only come to life from the ground up. Those individuals and community groups convinced of the Rail Link's potential must help others to see the positive that can come about from cooperation, community spirit and hard work. The Mayor, City Councilmembers, State Senators and Assemblymembers, Borough Presidents Howard Golden of Brooklyn and Claire Shulman of Queens, transit officials, congressional representatives, various community boards and others all need to be contacted and pushed to support the plan.

What's at stake is the future of the city itself. Without constant transit system improvement and expansion, any city is doomed to strangle on more cars, more petroleum and more chaos in the streets. Originally seen as a servant, the automobile has become a tyrant in our cities. There is simply no way that our society can thrive if every family, let alone every person, insists on their own private automobile. And since there must be some form of transit system in the city, it is senseless to run it half-heartedly. Meanwhile, the pressure to suburbanize the city is actually increasing, even as the suburbs are bankrupting the rest of the country through various subsidies. A commitment to the Rail Link would send a powerful positive message about America's cities, and therefore about the future of American civilization.

New Yorkers have enormous optimism and good will. No matter where they live and whether or not they drive a car, all New Yorkers would benefit from less traffic. The Brooklyn-Queens Rail Link could be the first great step in expanding our amazing transit system to serve the world-class sustainable city of the next century.
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(NOTE: rail link line in Community Boards 2, 3 and 4 runs along their less populated borders)
NOTES


2. These four paragraphs adapted from an article by George Haikal, "Toward More Dancing Feet on 42nd Street," Metro Planner Magazine (American Planning Association), April 1994.


11. For a detailed analysis, see Transportation Spending in NY: the Path Not Taken, Loretta Simon, New York Environmental Institute and the Environmental Planning Lobby, 353 Hamilton Ave., Albany NY 12210; (518) 462-5526.


SUGGESTED READING


The Ecology of the Automobile, by Peter Freund and George Martin, Black Rose Books, 1993; 213 pp, $19.95 softcover.


