Rail Transit Plans

Fewer people ride the New York subways now than in 1947. (See Chart I.) The population of New York City dropped between 1950 and 1960. Yet the City has been increasing subway capacity and is about to embark on a major expansion of service beginning with a new transit tunnel under the East River at 64th Street.

Why?

1. Population is moving outward, farther from the Manhattan business district, so that more people ride long distances. As a result, the number of express riders on many lines has increased. On most lines, every possible express car is running during rush hours and they are jammed, while many parallel local lines do not even need a full complement of trains.

2. Population also is shifting from one sector to another. Some areas of the city have been left with much more subway capacity for the population than they had in 1947, but the fast-growing areas have much less. The areas of new population growth generally are the farthest from the central business district, making the most uncomfortable trips also the longest.

3. Rush-hour riders have decreased less than off-peak riders since 1947. The number of 7-9 a.m. riders declined only 23 percent between 1948 and 1962 while total riders decreased 32 percent. It is the rush period that sets the maximum capacity needed. About 30 percent of all weekday subway riders get on during the two peak hours each day; more than 55 percent enter during the five peak hours.

4. Some rail capacity in Manhattan has been eliminated since 1940—elevateds that ran on 6th and 9th Avenue, on 2d Avenue and, as late as 1955, on 3d Avenue.

5. Employment has shifted, leaving parts of Manhattan underserved, parts with excess capacity.

6. Subway conditions contrast starkly with other living conditions of most residents of the Region and with their transportation alternatives—commuter railroads for some, automobiles for many. Suburban rail riders often average more than twice the speed of subway commuters while sitting in air conditioned cars. Automobile riders, even during rush hours, have much greater comfort and sometimes greater speed than subway riders. Some 80,000 midtown employees drive to work each day. Of these, 50,000—more than half—are New York City residents whose alternative in most cases would be the subway.

Importance of subways to the whole Region

New York City subway service is important to the whole Region, extending far beyond the City's boundaries.

It is the bloodstream of Manhattan's central business district, on which the whole Region's economy
About a third of the Region's 6.7 million jobs are located in this nine-square-mile area. Of the 3,349,000 persons entering the district on a typical business day, 57 percent use the subway. Of the 848,000 persons entering during the morning peak hour (8 to 9 a.m.), 72 percent come by subway.

There is no reasonable alternative to this dependence on the subway. While a single subway track under the East River brings more than 60,000 persons from Queens in the peak hour every morning, a single lane of the Lincoln Tunnel, carrying buses and cars, brings in only 8,700 persons. A single lane of limited-access highway for automobiles (F.D.R. Drive) brings in only 3,300 persons. If buses ran on highway lanes reserved exclusively for them, they could carry up to 30,000 persons an hour, but this is still far below subway capacity.

Clearly, Manhattan's intricate web of business relations could not be maintained without the subway. More than 2 million people work in close compass between Central Park and the Battery. They crowd together in order to work conveniently with each other. They work in constantly shifting groups which, link on link, chain together most of the activities that go on there. Because the relations-
or the suburbs? People do care about subway quality. Wherever service on a line has improved even a little bit, passengers have increased significantly.

Finally, good subway service is potentially important to areas outside New York City's boundaries that are close enough to Manhattan to be served efficiently by subway extensions.

**Growing role of transit**

Despite a gradual decentralization of population and jobs in the suburbs, metropolitan areas throughout the United States are planning new rail transit systems. San Franciscans voted a year ago to support a bond issue for a completely new three-county system which will cost each household an average of $27 a year in property taxes. In Los Angeles, Washington, D.C. and Atlanta, detailed rail transit plans have been proposed to supplement large-scale expressway networks serving their downtowns. Cleveland, Toronto, Chicago, Montreal and Philadelphia have extended rail rapid transit in the last decade or are currently doing so.

Expressways are not able to carry enough rush hour passengers without delays and congestion or, as in Los Angeles, without more decentralization than urban activities apparently can tolerate. For example, in Atlanta, a metropolis only one-fifteenth the size of this one, an engineering study projected a need for 120 expressway lanes into and out of downtown by 1970 if rail rapid transit is not initiated. This, the study said, would be a physical impossibility. In some cities, San Francisco most notably, residents objected to the disruption of neighborhoods and to the appearance that additional expressways would create.

All of these reasons for relying on rail transit to the central business district of a metropolis apply even more to the New York Region than to other regions. Jobs are more centralized, space is more limited, cost of highway construction is greater, and there is an existing network of rail rights of way. So the cost of rail transit compared to the cost of wholly new highways which would be needed instead is much lower in this Region than elsewhere in the country.

The downward trend of subway patronage in New York City ended in 1958. In the four-year period through 1962, riders increased by 5 percent. Some projections, including the study of the Region's future by a Harvard University research team from 1957 to 1960, have pointed to increases in jobs in the Manhattan central business district over the next decades. Therefore, current proposals to improve the New York City subway system are timely and of prime importance to the entire New York Region.

**The greatest needs**

New York City subway service falls short of the need primarily in three ways.

*Job locations do not match subway capacity.* Between 40th and 60th Streets in Manhattan—the largest concentration of jobs in the country—70 percent of the jobs are east of 6th Avenue, 30 percent are west. Yet subway track capacity is just the reverse: only 28 percent is east of 6th Avenue and 72 percent is west. (See Chart II.)

The trend in new office building location continues to be east. Since 1947, 63 percent of the new office space was built in east midtown, 14 percent in west midtown, 23 percent downtown.

*Residential growth has not been matched by subway capacity.* Since 1940, Manhattan has lost nearly 200,000 people and Brooklyn 70,000, while the Bronx was gaining 30,000 people and Queens half a million. No additional subway capacity entering Manhattan has been built since then. In fact elevated lines from the Bronx and Queens have been eliminated.

As a result, capacity and demand do not match.

<table>
<thead>
<tr>
<th>From North of 81st</th>
<th>From Brooklyn</th>
<th>From Queens</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>37%</td>
<td>40%</td>
</tr>
<tr>
<td>Persons entering central business district by subway, 8-9 a.m. on business day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subway track capacity into central business district</td>
<td>33%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Queens has the lowest mileage of subway tracks per square mile and per capita of the four boroughs (outside Staten Island). In addition, the Queens subways carry a large number of Nassau and Suffolk County commuters—almost as many during the peak hour as ride the Long Island Rail Road. As a result, Queens subways are inhumanly packed and the Long Island Expressway within Queens and inner Nassau has become the symbol of highway incapacity in the Region. Furthermore, Queens is expected to grow in population by more than 100,000.
Many trips are too long for normal tolerance. Standing, or even sitting, for any period in a crowded and frequently hot subway may be utterly intolerable to some people—for any length of time. To others, deft at reading or dozing under such conditions or addicted to daydreaming or studying faces, the length of time may not be important. But it is our guess that a subway ride of 35-40 minutes is about all most people will take each morning and evening. In any case, few people ride a subway longer than that now.

Express trains average 20 to 22 miles per hour. The person who gets on an express—even if he doesn’t have to switch to a local—can therefore ride no more than 13 miles within this 35-40 minutes. On many lines, average speed is much slower, however. Stations in southern Brooklyn, southern Queens and northern Bronx only 6 to 10 miles from Manhattan are even beyond the 40-minute limit. (See Chart III.)

Little can be done to increase the average speed of most subway trains. Acceleration and braking are limited by the ability of the standing passenger to keep his feet; it’s about as fast as can be expected now. Length of stops is governed by the skill and liveliness of passengers in boarding and off the trains the moment the doors open, though an end to overcrowding would speed loading and unloading. Top speed could be increased at great expense, but it would affect only a few lines which have long runs that can be made at top speed.

It seems unlikely that technological changes will extend 40-minute subway service farther than 13 miles. For areas beyond this range, service more akin to that of suburban railroads is necessary both for the extra speed appropriate for the longer distances and extra space and comfort needed for longer rides at higher speeds. However, there is a sharp difference in fares between the subway and monthly commuter tickets on suburban railroads. In areas where they are competitive, commuter railroad fares are three to five times subway fares.

Proposed transit improvements

To these problems, the New York City Transit Authority, the City Planning Commission and the Citizens Budget Commission addressed recent proposals.

Transit Authority proposals. Several major improvements (from relatively minor investments in some cases) are nearly completed: the BMT 60th Street tunnel will have 25 percent greater capacity when station platforms in Manhattan are lengthened to allow 10-car trains instead of 8; similarly, Lexington Avenue locals now operate 10-car trains instead of 9 and Flushing trains will use 11 cars instead of 10 when platform lengthening is finished and new cars are delivered. When the new 6th Avenue deep tunnel opens, 30 express trains an hour could be added.

In addition, the Transit Authority last spring proposed some major expansions in capacity and extensions in areas served. Limited by its area of responsibility, the possibilities for expansion that the Authority considered are within its geographical jurisdiction and the methods of operation and sources of financing already staked out for it.

Authority proposals are aimed at speeding service from the Bronx, which now takes more than the “tolerable” period, and expanding capacity from the two areas where subways are most crowded—from the Bronx (overloaded by 30,000 persons) and Queens (overloaded by about 22,000 persons). A limited stop rush-hour service was proposed for the Bronx under Central Park (burrowing deep in the rock to avoid disrupting the surface). This would have joined a new semi-express service to expanding areas of Queens through a new tunnel at 76th Street (which now has been replaced in the plans by a 64th Street tunnel). South of Central Park, the new lines would run through the 6th and 7th Avenue-Broadway tunnels where capacity is available or being added. This proposal would relieve congestion on the Lexington and 8th Avenue lines (doubling, in fact, the number of 8th Avenue express trains from Washington Heights, with its new Port Authority station for New Jersey buses). It would not, however, provide any service to the crowded and poorly served East Side business area around Grand Central or the growing and underserved Upper East Side residential area.

In Queens, the Transit Authority tentatively proposed three subway extensions. (See Chart IV.) These would be two-track lines, i.e., there would be no express service, but stations would be spaced one mile apart instead of two-fifths to three-fifths
Areas within 35 minute trip by subway
Close-in residential areas beyond 35 minute trip by subway

III. Short-time subway service to Manhattan, present and possible. The gray shading represents areas within a 35-minute trip by subway to downtown or midtown Manhattan (whichever is closer), including walking time from home to subway. The shorter the subway riding time, the wider is the area within which commuters can walk to the station and still complete the total trip in 35 minutes. At the outermost stations in the shaded areas, the subway ride itself takes just about 35 minutes so almost no walking time is included, leaving the shaded area around the station very small. The shaded areas are generally developed to high densities. Red crosshatching shows areas which are geographically close to Manhattan but are beyond 35 minute travel time by present subway service. Most have relatively low population densities (less than 100 persons per net acre compared to the 200 to 600 persons in most of the shaded areas). Speedier service in some of the crosshatched areas and new subway extensions in others might attract increased apartment development.

of a mile as at present so that service from Flushing would be faster than present local service but not quite as fast as express service. This plan was prepared after consideration of several proposals by the Queens Chamber of Commerce Transit Committee in February 1962. (See Bibliography.)

The City Planning Commission proposals. Having a much wider frame of reference than the Transit Authority and a recent practice of looking even beyond city boundaries to the whole metropolitan area, the City Planning Commission arrived at a somewhat different conclusion, one that is meant to serve more people at less cost and to relieve the worst burdens more quickly by tying into suburban railroads and mixing transit and railroad services.

First the Planning Commission considered the capacity the Long Island Rail Road might have for serving subway users, including Nassau and Suffolk residents (who just about equal the present rush-hour overcrowding on the Queens lines). Noting that a single subway tunnel under the East River brings in 60,000 riders in an hour while two Long Island Rail Road tunnels are bringing in only 33,000 passengers, the Commission proposed several minor modifications in signaling, junction facilities and arrangements in the Jamaica and Pennsylvania stations which could quickly add 50 percent to the Long Island's peak-hour capacity, some 16,000 persons.

The Commission felt, however, that high fares would keep many people from using the railroad despite its greater speed and comfort than the subways and proposed a new kind of service for Queens with lower fares and somewhat less space per person than on present suburban railroads. The federal government has given the City and Nassau County a demonstration grant to see whether the City might save money by subsidizing railroad fares from Queens, instead of trying to build new sub-
IV. Rapid transit extensions proposed by the 1952 plan, the 1962-63 Transit Authority plan, and the 1963 City Planning Commission plan. Crossed lines show proposed use of existing railroad tracks, uncrossed lines show proposed underground lines.

The original 1952 plan called for connecting the East River tunnel to the Long Island Rail Road mainline tracks at Sunnyside in Queens. From there, subway trains would use the fifth and sixth tracks of the LIRR to Rego Park. From Rego Park, 3.3 miles of existing City-owned tracks of the Rockaway line would be reactivated.

The 1963 Transit Authority proposal (line C) envisages, instead, a short connection between the unused Rockaway line and the local tracks of the Queens Boulevard IND subway near 63d Drive, thus integrating IND lines in outer Queens into one system. Though service to Woodhaven and Ozone Park via local Queens Boulevard tracks would be about 6 minutes slower than via LIRR mainline tracks, it would still cut about 11 minutes from the present circuitous trip through Brooklyn to midtown, greatly increasing the accessibility of southwestern Queens. It would have the added advantage of permitting subway transfers from central Queens to Brooklyn and southern Queens, thus increasing the use of the present Rockaway line, particularly in summer.

The City Planning Commission proposal does not envisage reactivating the Ozone Park section of the unused Rockaway line, stressing instead access to outer Queens and Nassau.

In northern Queens, the 1963 Transit Authority proposal envisages a 10.3 mile, two-track $219.4 million Northern Boulevard semi-express subway to provide essentially local access to an underserved section of Queens with development potential (line A).

The City Planning Commission proposes, instead, operating subway trains over the Long Island Rail Road North Shore tracks serving essentially the same area. It is assumed that LIRR trains from Port Jefferson (7 per peak hour, at present) can be operated on the same track with 15 or so subway trains so that the Planning Commission proposal would greatly expand North Shore service at nominal cost. On the other hand, the Northern Boulevard subway, aside from providing better local access to northern Queens, opens long-range possibilities of replacing the Roosevelt Avenue elevated structure if the Flushing line were re-routed over new tracks parallel to the North Shore LIRR division, possibly in conjunction with a proposed expressway through the area. The removal of the Roosevelt Avenue elevated and the concentration of service on Northern Boulevard and the North Shore LIRR might bear consideration.

In southern Queens, the Transit Authority proposes a 4.3 mile two-track subway extension of the Fulton Street IND along Linden and Merrick Boulevards and replacement of the inadequate Liberty Avenue elevated (2.3 miles) on the present line at a cost of $116 million (line B). Travel time to midtown from the present terminus at Lefferts Boulevard already is very high (46 minutes), even without the added 4 miles. Faster service to Springfield Gardens and Laurelton could be provided at much less cost by using LIRR trackage either as the Planning Commission proposes or in several other ways.

In summary, the cost of Transit Authority and Planning Commission proposals for Queens excluding the 64th Street tunnel approaches, adds up as follows:

<table>
<thead>
<tr>
<th>Transit Authority</th>
<th>City Planning Commission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miles of new subway</td>
<td>17.4</td>
</tr>
<tr>
<td>Existing RR track utilized</td>
<td>3.3</td>
</tr>
<tr>
<td>Total cost</td>
<td>$375.3 million</td>
</tr>
</tbody>
</table>

The Planning Commission proposed to rely on Long Island Rail Road tracks for longer range expansion of service, also. (See Chart IV.) In Queens, the Commission noted, 17 percent of the residents live within a half-mile of LIRR stations, but only 8 percent live near stations on the subway extensions proposed by the Transit Authority. In addition, the Commission noted that some areas it proposed for expanded service are ripe for renewal, presumably at higher densities if good service is available.

The Long Island's East River tunnels are the bottlenecks limiting capacity from Queens to Manhattan. The proposed 64th Street tunnel would break that bottleneck, allowing the Long Island's underused tracks in Queens to be used for the new type of railroad service proposed for experiment, whose cost, speed and comfort fall part way between the subway and present suburban railroads. This would add fast express service from distant points in Queens as well as enlarging peak-hour transit capacity. The Commission claimed this could be done without cutting into present suburban service of the Long Island.

The Commission agreed with the Transit Authority that added capacity from the Bronx deserves high priority and that a two-track express line is the solution. It notes, though, that a 2d Avenue subway could serve the Bronx almost as well as the proposed Central Park line and, in addition, could provide service to the growing East Side residential area. South of 62d Street it would run under Madison Avenue, joining the BMT tunnel at Madison Square (23d St.).

The Planning Commission also urged study of improved transit to Brooklyn and Staten Island, including a reconsideration of the long-proposed Nostrand Avenue line extension or other alternatives to serve the southern part of Brooklyn.

The Citizens Budget Commission proposal. The Citizens Budget Commission, a non-profit civic organization, has proposed "triple-tracking" as the solution for subway rush-hour congestion. Triple-tracking involves a fundamental change in subway
operations, designed to expand rush-hour service on existing facilities. Three tracks of a four-track subway would be operated in the direction of major traffic flow and only one track in the opposite direction, instead of the conventional two tracks in each direction. The principle is analogous to reversible traffic lanes on a highway.

The Citizens Budget Commission proposal for the IND Queens Boulevard Line would clear the second express track east of Queens Plaza during rush hours by re-routing or discontinuing the relatively empty trains now going in the direction opposite the main passenger flow. This cleared express track would then be used for super-express trains in the main direction of flow between Jamaica and Manhattan. (See Chart V.) These super-expresses, which would be in addition to regular local and express trains, would run nonstop from Continental Avenue-Forest Hills through the proposed 64th Street tunnel into Manhattan, where they could run into either the existing 6th Avenue or 7th Avenue lines or any future north-south trunk line. In the morning rush-hour, there would be one local track and two express tracks used inbound to Manhattan; in the evening rush-hour, both express tracks would be reversed, resulting in three tracks outbound. According to CBC, express capacity ultimately could be doubled (up to 60,000 more riders in an hour) and platform delays and transfers greatly reduced.

CBC asserted that its proposal would give better and more direct service to more subway riders at less capital cost and cost per ride than any other plan, and that, since it would use only one track of the proposed tunnel and so leave one track free, it is compatible with City Planning Commission proposals for increased use of Long Island Rail Road trackage via the proposed tunnel.

The Citizens Budget Commission further stated that the principle of triple-tracking is applicable to other congestion problems on the subways as well, particularly on the IND 8th Avenue line and the Lexington Avenue line. It asserts that other transit objectives, such as service to poorly served areas, speed and comfort, are dependent on solving the rush-hour congestion problem.

**Some broader implications of subway planning**

The Transit Authority and Planning Commission's expectations of increasing population in certain areas of the City and on Long Island agree in general with Regional Plan Association's. The Harvard Study for Regional Plan supports their expectation of increased jobs in Manhattan's central business district. But many questions remain unanswered:

How *many* additional jobs can be expected in Manhattan? At what point will improvements or deterioration in transportation affect the number of jobs? Where will the additional workers live?

Regional Plan expects a continuing shift of Manhattan jobs from manufacturing and wholesaling to white collar, but we do not know how many nor do we know where the people live whose jobs will be leaving the central business district nor where their new jobs will be. Present trends indicate that many of the blue collar employees may have to find jobs in the suburbs and beyond; out-commuting is increasing. The white collar workers in their middle years tend to live in the lower density areas on the edges of the City or in the suburbs, and the suburbs are stretching far out so that average suburban commuting distances are likely to stretch. On the other hand, there are increasing numbers of older and younger white collar workers who can be expected to want apartments in or near Manhattan.

All of this points up the constant interaction between the quality of transportation and locations people choose for homes and jobs, and the reciprocal effect of location decisions on the demand for transportation. It is, therefore, not enough to base subway plans on the land use in being or expected; they should be based as much on the land use desired. For example, in many ways, the 2d Avenue subway proposed some years ago would better serve the East Side residences and offices and better balance subway service between the East Side and the West than the Planning Commission's proposed Madison Avenue subway. But the pull of a new subway line also must be considered. If more midtown office buildings are constructed over the next decades, would it be better for them to be located east of the present new construction, which a 2d Avenue line probably would encourage, or south of it, filling in the valley between midtown and downtown, which a Madison Avenue subway might encourage? Also, the Planning Commission's estimate of the number of people who would be living within a half mile of proposed subway extensions apparently
V. Citizens Budget Commission proposal for added express service on the Queens Boulevard IND line by running three of the four tracks in the direction of main traffic flow during the rush hours. Citizens Budget Commission sets the cost at about $2 million for signalling changes, plus the cost of one track of the proposed 64th Street two-track tunnel. In the initial phase, 45 expresses and 15 locals into Manhattan would be operated in the peak hour, compared to 30 expresses and 12 locals now.

...does not consider the magnetism of a new subway, particularly since part of the Transit Authority's proposed Northern Boulevard line runs in an area of unusually low population density for a close-in part of the City.

A broad look at transit needs in the Queens-Long Island sector, with experimental operations, is being made jointly by New York City and Nassau County, financed partly by a $3,189,000 mass transit demonstration grant from the U.S. Housing and Home Finance Agency. It is supervised by a committee made up of the Chairmen of the New York City Planning Commission and the Transit Authority, New York's Deputy Mayor for Administration, the County Executive of Nassau County, and the President of the Long Island Rail Road. At the same time, the Tri-State Transportation Committee, a large research agency responsible to the three governors, is studying both public and automobile transportation throughout the Region. These studies should contribute to long-range physical and financial plans for the subway system.

A final consideration. Not only do conditions on the subways contrast harshly with other living conditions of most residents of the metropolitan area, but conditions outside the trains do, too, despite some improved lighting and new paint. The dreariness, filth and stench of most stations. The noise and ugliness of remaining elevated structures. Must we accept these as inevitable conditions? Couldn't subway extensions, for example, be planned to replace unsightly elevated structures like those on the Flushing IRT and Jamaica BMT lines? The increase in land values alone, such as occurred along 3d Avenue when the el was torn down, might justify elimination of blight-producing elevated structures apart from aesthetics.

Financing

Between 1948 and 1961 (inclusive), New York City invested $885 million in the subway system, an average of $63 million a year. In the last six years, the average annual expenditure was $91 million a year; the $40 million that had been spent annually until then was supplemented by funds from a $500 million bond issue voted in 1952. With this investment, a large number of unspectacular projects brought very significant increases in services and capacity and replaced a large number of old cars. Further rehabilitation and car replacement will not be required on a large scale for some years. Capital investment now can be shifted to major building projects like those proposed by the Transit Authority and Planning Commission. If capital spending were continued at the postwar rate, $1 billion
VI. Other Regional Rail and Transit Proposals.

Proposed improvements of suburban railroad service

1. Nassau County "loop plan" for frequent high-speed suburban rail service.
2. Nassau County proposal for Long Island Rail Road link to Grand Central Terminal.
4. Four-tracking of the Pennsylvania Railroad from Newark into Penn Station, with a new Hudson River tunnel, proposed by Morris County Board of Public Transportation.
5. Re-routing of Jersey Central trains into Newark via Lehigh Valley tracks, planned by the Division of Railroad Transportation, New Jersey State Highway Department.

Proposed replacement of rail service by subway-type operation

6. Nassau County proposal to convert the LIRR Atlantic Avenue line to Transit Authority subway operation.
7. Hudson Tubes extension to a Secaucus transfer station, proposed by the Port Authority and the New Jersey Division of Railroad Transportation.

Proposed peripheral extensions

9. Morris County Board of Public Transportation proposal to extend the Flushing Avenue IRT under the Hudson River to Paterson.
10. Morris County Board of Public Transportation proposal to extend the Newark subway over Erie-Lackawanna Greenwood Lake division tracks.
11. Committee for Better Transit proposal to link Idlewild Airport to the IND Rockaway line.

Proposed elimination of rail passenger service

12. Passenger rail service to be eliminated under the New Jersey Division of Railroad Transportation plan.

... could be invested over the next fifteen years. The City Planning Commission estimates that its proposals would cost about $477 million (not including improved rail transit service to southeast Brooklyn and Staten Island). The Transit Authority's plans are estimated at about $700 million.

In addition to City funds, federal aid might become available. A bill to provide substantial federal aid for public transportation passed the Senate but probably will not be acted on until 1964 by the House.

Nevertheless, capital financing is never easy. The City provides almost all capital funds for the Transit Authority. The one exception is the con-
tribution by the Authority of half the cost of 600 new stainless steel cars, recently ordered. The Authority raised its share through revenue bonds, permitted on a limited basis by the State legislature.

Although there is perpetual pressure on the City’s capital budget, it seems reasonable to expect a continuation at the very least of the $40 million allocated annually to the subway system before the $500 million bond issue. At that rate, it would take 12 years to complete the Planning Commission’s proposed program, 17 1/2 years to complete the Transit Authority’s—even if no federal aid becomes available in addition to the New York City-Nassau County demonstration grant. A new City bond issue for subway extensions, allowing much faster improvement, is not impossible. Some observers feel that taxpayers will not approve another bond issue for transit improvements because they were promised a new 2d Avenue line when they voted for the last bonds and never got it. Since a good case can be made for most of the improvements that were made with that money, it does not seem likely that New Yorkers will hold up clearly needed subway improvements forever because the Transit Authority changed its plans eleven years ago.

Over six of the past nine years, the Transit Authority has managed to break even on operating expenses as it is required to do (excluding costs of transit police and fare reduction for school children which legitimately can be charged to other City programs). The City’s contribution to capital investment has been averaging about $100 million a year in debt service.

Three theories of rail service

There have been many other proposals for subway and suburban railroad changes voiced recently. (See Chart VI.) Basically they fall within three theories of rail service.

Separate rail systems, linked at the ends. Suburban railroad service could be limited to the suburbs, leaving rail transit to distribute people within the Region’s Core. This is done to some degree in Paris, for example. It is the formula of the Palmer Plan in the New Jersey sector of this Region under which most suburban railroad service would terminate at enlarged stations of the Hudson Tubes (now called the Port Authority Trans-Hudson), a subway system taking riders to several points in Manhattan. (Where relatively simple to arrange, however, the Plan calls for additional trains directly into Manhattan through the Pennsylvania Railroad tunnel.) The Palmer Plan would result in considerable savings for the railroads and would provide better service for many New Jersey rail commuters. For others, service would not be greatly inferior since riders already leave the train in New Jersey and take a ferry or make a less efficient connection with PATH.

The Port Authority George Washington Bridge bus terminal, where riders transfer to the subway, is a similar arrangement.

If this theory were applied to other sectors of the Region, however, the results might not be as satisfactory—e.g., if Long Island trains stopped in Jamaica or the New Haven and New York Central stopped in the Bronx and riders had to continue by subway, if Pennsylvania Railroad trains stopped in Newark and passengers transferred to PATH. These rail commuters now ride directly into the employment heart of the Region. For almost all of them this change would bring inferior service.

Whatever the theoretical saving on rail operations, proposals to have all rail riders change to the subway at outlying stations will not increase over-all transportation efficiency unless all suburban rail riders stay on the rails. Many who now have convenient transportation into Manhattan are likely to reject a long subway ride tacked on to a 15-40 minute suburban rail run and try an auto or bus instead.

A weakness in any approach that substantially slows or complicates railroad service is that suburban development already is spreading far from Manhattan and commuting time is growing beyond what many would call tolerable. We can expect even longer average commuting distances over the next few years. Slowing the total trip and adding discomfort at the end seems the wrong direction to serve the Region’s transportation needs.

Equally important, the opportunity for a high-speed rail system from Boston to Washington, integrated with present suburban railroad service and tying together intermediate cities and suburbs, seems much more appropriate a goal for rail service
along the Eastern Seaboard than truncating the railroads.

On the other hand, we must see the social implications, too. Providing fast and comfortable railroad service at high fares compared to slow and uncomfortable subway service at very low fares might encourage further separation of poorer and richer. As traffic rises over the years, the choice for the typical worker will no longer be to commute by automobile or commute by public transportation. The commuting choice for most people with city jobs will lie among possible home locations, each with a particular kind and pattern of public transportation and its particular time-distance. If subways cannot attain a minimum standard of speed and comfort—at least enough space to read—while suburban railroads retain present standards or improve them, the suburbs will have one more competitive advantage over the city for city workers who can afford to live outside the city. Even today, when suburban rail service is far from good on many lines, poor subway conditions surely constitute one reason why families choose to go all the way to the suburbs to find a house rather than finding a neighborhood within the City toward the outer edge.

There are other considerations, of course. Fast rail service would buttress centralization of high-level business activities in Manhattan, but it would extend the metropolitan area. On the other hand, it would help to magnetize urbanization around key rail stations, making it easier to protect open space between.

Separate but overlapping rail systems. In Berlin, suburban railroads not only bring commuters to the center of the business district, they also make enough stops there so that few riders need to change to a transit system to reach their destination. Added suburban rail stops in Manhattan have been proposed many times—connecting Pennsylvania and Grand Central to provide both East Side and West Side stops, a completely new East Side station for Long Island and Pennsylvania trains, and continuation of New York Central and New Haven trains downtown with through service to New Jersey and Long Island.

New York's present rail system is a mixture of the first and second theories. The Transit Authority's proposals anticipate a continuation of this pattern.

Mixed and integrated railroad and transit. The Planning Commission, on the other hand, recommends a meld of railroad and rail transit operations looking toward three levels of service: conventional subway, suburban rapid transit and suburban railroad, each with its own radius of service but sharing tracks and rights-of-way, in part. While apparently offering opportunities for economy as well as more convenient service for many riders, this pattern raises technical and administrative problems the others do not present.

Summary

The Transit Authority and Planning Commission have begun to plan for expansion of subway service. New York City needs better transit not only to maintain the role of Manhattan in the nation's business activities but also to make the City more attractive as a place to live.

The Planning Commission has conceived a new kind of rail service between Manhattan and residential areas ten to twenty miles away—service based on suburban railroads, but offering lower fares with somewhat less space and comfort. It has received financial support to test the possible savings to the City of subsidizing such railroad service rather than expanding subway service.

The Transit Authority plan, which emphasizes building new subway lines, and the Planning Commission plan, which emphasizes using under-utilized railroad tracks, will be evaluated while a new tunnel—which can fit either proposal—is designed and built under the East River near 64th Street. The triple-tracking proposal for Queens ought to be evaluated at the same time.

Three questions will have to be answered promptly:

1. Should the new East River tunnel connect in Manhattan to a new tunnel under Madison Avenue and/or to the 6th Avenue complex, or should it tie into the railroad facilities of Grand Central and Penn Station as proposed by Nassau County (Chart VI)?

2. Should the new tunnel to the Bronx run under Central Park or under 2d Avenue? (These are related decisions, since the Central Park line is designed to connect with the 6th Avenue line.)
3. Should the new East River tunnel be used for local and semi-express service from Queens, for the new type of railroad transit system, for the reversible track subway system which provides an extra express track in the direction of the main flow, or for a combination of these?

In answering these questions and planning to meet other transportation needs, the City should consider: (1) the probable residential location of the kind of people expected to be working in Manhattan; (2) the growing reverse commuting from the City and expected trends; (3) the advisability of extending subway service to areas of relatively low population that are within reasonable subway range of midtown Manhattan (up to 13 miles); (4) the effect on subway demand of much improved railroad service to distant suburban areas; (5) the social effects and the effects on the City’s population of speeded and improved suburban railroad service if subway service is not greatly improved, and the effects of significant subway improvements compared to railroad service; (6) the location changes that might follow from transportation changes, particularly in Manhattan office space.

In short, solutions to immediate transit problems are more significant than they might seem. They affect, and are affected by, where people live and work; they help to determine not only the whole Region’s transportation system but the shape of the Region and quality of living for generations into the future.

**Bibliography**


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A search in the underlying philosophy of our society for solutions to urban maladjustments.

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An examination of the "wasteland" we are creating and specific proposals for raising esthetic standards of subdivisions, highways, commercial areas, historic areas, and parks. Mr. Pushkarev is senior planner of Regional Plan Association.

CITIES IN THE SUBURBS by Humphrey Carver. University of Toronto Press, 1962. 120 pp. $4.95
A suggestion that community centers in suburban areas might help North American cities solve the social and governmental problems of spread and scattered development.


Essays prepared for, respectively, a Resources For the Future forum and an Institute for Urban and Regional Studies, Washington University, seminar on The Foundations of Urban Life. Cities and Space contains a paper on open space by Regional Plan Association's Planning Director, Stanley B. Tankel.

An idea for neighborhood centers: mass produced pavilions to enliven housing projects, downtown expressways, and other drab areas.


Reports of conferences on goals for the Detroit and San Francisco metropolitan areas.

A compilation of methods for reserving open land in urbanizing areas.

Agencies and individuals in the New York Region who know where various statistics on the area may be found.

A study of the advantages and disadvantages of existing and proposed garden apartment developments in the Borough of Bloomdale, New Jersey.

Results of an investigation of property transactions in the East New York section of Brooklyn, with suggestions on how bankers, realtors and the public can prevent neighborhood panic when a minority group family moves in.


PUTNAM COUNTY, NEW YORK, GENERAL COUNTY PLAN. Prepared for Putnam County Planning Board by Goodkind & O'Dea. 1963.

A survey of current problems caused by rapid metropolitanization in seventy American cities and some solutions they have found.
Joint Action, Goals

Programs of MRC Cooperation

The Metropolitan Regional Council has arranged local government cooperation in law enforcement and weather warning this fall. A new MRC Law Enforcement Committee, composed initially of 150 police officials of New York, New Jersey, and Connecticut localities in the Region, will exchange information on the movements of known criminals and on new crime-fighting techniques. They are considering the pooling of personnel for special assignments and lending of personnel by one agency to another in emergencies.

Also through MRC, local governments in the New York Region will be alerted to threatening weather conditions. A direct line will carry warnings from the United States Weather Bureau's regional office in New York to key centers in Newark, Hawthorne and Mineola, from where they will be transmitted by police teletype to affected communities.

Establishment of a regional air pollution warning system is awaiting agreement on the amount of determination that should set the system in motion. In the meantime, a new civic organization, Tri-State Air Pollution Foundation, has been formed by Col. Serge Obolensky and prominent business and civic leaders to organize public support for effective control, following the success of a similar group in Los Angeles, according to the Foundation. Paul Alley, 445 Park Avenue, New York 22, Pl. 3-0750, is director of information.

Goals for the Region's Counties

Nassau, Orange and Rockland Counties have begun to build on Regional Plan Association's Goals for the Region Project of last spring.

Nassau's Planning Commission has named a Goals for Nassau County committee headed by Olindo Grossi, dean of architecture and planning at Pratt Institute, which is investigating both social and physical living conditions.

Orange County Community College arranged a Goals for the Hudson-Delaware Region conference November 2, co-sponsored by the County Planning Boards of Orange, Rockland, Sullivan and Ulster, the Regional Chamber of Commerce Council and Regional Plan Association.