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METROPOLITAN RAPID TRANSIT COMMISSION

REPORT

RAPID TRANSIT FOR THE
NEW YORK-NEW JERSEY METROPOLITAN AREA

JANUARY 1958

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September 10, 1957	Newark, N. J.
September 17, 1957	New York City

Copies of the reports, transcripts of the Public Hearings and other extensive materials are on file at the Commission's Office and are available to all members of the legislatures and others who may be interested in examining them.

METROPOLITAN RAPID TRANSIT COMMISSION

REPORT TO

His Excellency, Governor AVERELL HARRIMAN,
and the Members of the New York Legislature

His Excellency, Governor ROBERT B. MEYNER,
and the Members of the New Jersey Legislature

**RAPID TRANSIT FOR THE
NEW YORK-NEW JERSEY METROPOLITAN AREA**

JANUARY 1958

"It is essential to solve the rail commutation problem which has been somewhat neglected because it was left to private enterprise to a considerable extent. Naturally there has been some progress such as the City of New York taking over the subways and some of the surface transportation, which have been subsidized by the taxpayers because the fares do not cover the costs. Some communities share the deficit; for instance, around Boston several communities agree to share a metropolitan transportation system. The Metropolitan Rapid Transit Commission is studying the question of rail transportation. I hope that we can find some solutions because we would have a terrible time if all the people traveling by rail now were thrown on the highways. I don't know what we would do about it."

*(Gov. Averell Harriman on Radio Program—
"Metropolis in the Making"
Station WNYC—Dec. 3, 1957)*

"The problem is how can we get the railroads to continue to function in view of the increasing cost of operation and decreasing number of passengers using the facilities. This problem is being thoroughly studied by the Metropolitan Rapid Transit Commission. * * * We've got to look with considerable interest, and to give consideration to the recommendations made by the Commission which should be forthcoming soon. * * * Maybe we ought to have a Metropolitan Regional Transit Commission more than just for study, but with real authority."

*(Gov. Meyner on Radio Program
"Metropolis In The Making"
WNYC—December 10, 1957)*

METROPOLITAN RAPID TRANSIT COMMISSION

50 BROADWAY

New York 4, N. Y.

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FRANK H. SIMON — *Executive Director*

JAMES F. FINUCANE — *Assistant to the Executive Director*

ARTHUR W. PAGE — *Project Director*

CREATION AND DUTY

The Metropolitan Rapid Transit Commission came into being on June 14, 1954, as a bi-state agency created by Chapter 801, Laws of 1954, of the State of New York, and Chapter 44, Laws of 1954, of the State of New Jersey.

As stated in Section 5 of the legislation, the Commission was established to "study present and prospective rapid transit needs of the New York-New Jersey Metropolitan Area and develop, recommend and report as soon as possible measures for meeting such needs." The Commission has no governmental powers.

* Mr. Harkins resigned on June 1, 1957.

"At the heart of the problems of most metropolitan areas is the problem of mass transit. Because of the increasing use of private automobiles, the mass transit system is in serious difficulty, yet it is essential that it be preserved. The problem in each case is a regional one, but there can be no master plan which can apply in each case. Government should be prepared to meet the need for mass transit services, where private enterprise is unable to do so.

"One device for regional activity which can be extended across state lines is the independently constituted authority. Another method is the metropolitan district, with direct representation of the constituent localities on its governing board and with direct or indirect taxing power. Such a district may well provide the answer for a metropolitan area mass transportation system which cannot be self-sustaining."

*(From the Report of The Arden House Conference
on Metropolitan Area Problems—Sept. 21-23, 1957)*

"The proper solution of these traffic and transportation problems requires all affected communities to join together with their neighbors in the Metropolitan Regional Conference so that a united frontal attack may be carried through to a successful conclusion."

*(From the Report of the Traffic and Transportation
Committee of the Tri-State Metropolitan Regional
Conference—Dec. 19, 1956)*

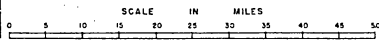
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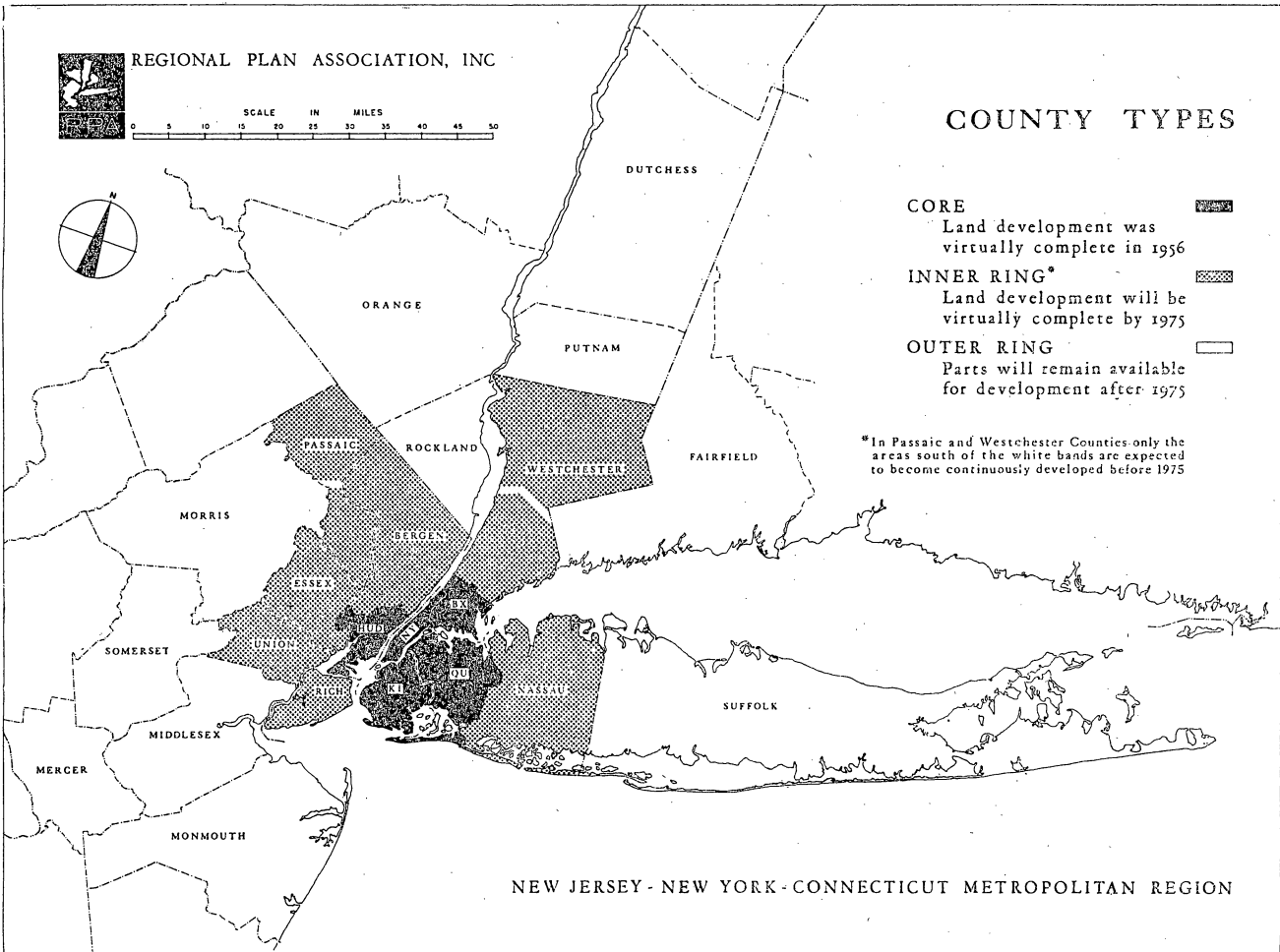
REGIONAL PLAN ASSOCIATION, INC



COUNTY TYPES

- CORE** Land development was virtually complete in 1956
- INNER RING*** Land development will be virtually complete by 1975
- OUTER RING** Parts will remain available for development after 1975

*In Passaic and Westchester Counties only the areas south of the white bands are expected to become continuously developed before 1975



NEW JERSEY - NEW YORK - CONNECTICUT METROPOLITAN REGION

METROPOLITAN RAPID TRANSIT COMMISSION

(created by N. Y. L. 1954, ch. 801; N. J. L. 1954, ch. 44)



Suite 3100
50 Broadway, New York 4, N. Y.
Whitehall 4-4151



January 4, 1958

To: His Excellency, Governor AVERELL HARRIMAN, and
the Members of the New York Legislature

His Excellency, Governor ROBERT B. MEYNER, and
the Members of the New Jersey Legislature

The Commission has the honor of submitting this report covering its two-year study of rapid transit needs and possible measures for meeting such needs in the New York-New Jersey Metropolitan Area. The Commission has had no power other than to study such needs and submit recommendations.

For the Commission's assistance \$800,000 was provided by The Port of New York Authority to be used solely for the interstate (trans-Hudson) part of the study, and \$150,000 was provided by each of the two States for the intrastate studies. The Commission employed an expert staff and retained outstanding consultants of national repute who functioned under the coordinating direction of an eminent Project Director, Mr. Arthur W. Page. It reviewed carefully all previous studies. It heard all parties who desired to propose plans, and it received many written memoranda and suggestions from many sources. It conducted public hearings in New York and New Jersey on the proposals recommended by the consultants and the Project Director. All proposals submitted and all views expressed at the public hearings have been thoroughly considered in reaching the Commission's findings.

The Commission has also heretofore filed with your Excellencies and Honorable Bodies Interim Reports dated February 18, 1955, March 1, 1956 and January 31, 1957, which fully recounted our procedures, progress and program as of such dates.

The studies made in the interstate and in the intrastate fields respectively have been as thorough, well-planned and complete as the aforesaid separate funds made possible. Such funds are now practically exhausted. These studies demonstrate that adequate mass transportation providing the means for the expeditious movement of people is essential to the economic and social vitality of this great interstate community. The Commission finds that public action and publicly-supported capital are necessary to meet this need effectively. It also finds that the Area is so complex that any realistic meeting of its rapid transit requirements will necessitate a major engineering plan, implemented with imaginative legal, administrative and financial measures to organize the great but dispersed resources and potentials of the region.

In this report the Commission presents a general program which, in its judgment, is the best of the many considered to meet the rapid transit needs of the New York-New Jersey Metropolitan Area. The heart of this Metropolitan Area's rapid transit problems, the part that demonstrates the greatest urgency for a solution, is rail transit between Manhattan and New Jersey. The Commission's recommendations are designed to place the Area and its community in a position to take positive action to face-up to that problem now and as the future may require.

As a first step and a base for the general program, the report recommends the establishment of a metropolitan district adequately empowered to implement the program in accordance with practical requirements as they develop. The district would, at least in the first instance, be bi-state in character and established by a compact between the States of New York and New Jersey. The compact would provide that Connecticut can join on suitable terms if it so requests. Draft legislation to carry out the recommendations is appended to this report (Appendix A).

In presenting this program, it should be emphasized that this Commission was formed by New York and New Jersey acting jointly as a result of the pressing realization that the key metropolitan problems of mass transportation must be resolved, if at all, on a regional basis which would not be limited by internal political boundaries. The New York-New Jersey-Connecticut Metropolitan Area is the largest and

most vital in the country. Its boundaries are expanding and hence are difficult to fix. It presently comprises parts of three states, and as many as 22 counties and more than 500 individual municipalities. By 1975 the area will have over 19 million people.

Based on the data furnished and the recommendations made by the consultants and the Project Director, this Commission is convinced that any adequate plan for mass transportation must be centered on the trans-Hudson situation. It must as far as possible take advantage of existing facilities, and seek to advance in this core of the whole Area its inherent potentials for great development. It must be adaptable for extensions of service throughout all other parts of the Area in conjunction with other means of transportation, and be capable of utilizing new technologies as they develop.

To this end this Commission is recommending in this report that in this core region there be, under administration by the metropolitan district above proposed, a loop system of rail mass transportation. The system would contact or cross all existing means of transportation on the New Jersey side, and on the Manhattan side would run through or adjoin the executive and commercial centers from the Battery to Fifty-ninth Street. It would utilize, as far as can be arranged with the New York City Transit Authority, existing subway facilities and transfer rights, and would be so planned as best to provide cooperative service for the other parts of the City and for Westchester and Long Island both presently and with mutual long-range planning for the future.

The consultants and the Project Director have presented several alternative plans based on such a loop. In this report this Commission concludes that what is designated as Plan 1 serves best as a base for meeting the rapid transit needs of the whole Area both as it now exists and as it may expand in the future.

This report also indicates the existence of intrastate needs though of lesser urgency than trans-Hudson improvements. So far as the limited funds available for intrastate studies made possible, a program for improvements in rail transit between the Westchester-Fairfield Sector and New York City, between Long Island and New York City, and for possible future rail transit improvements between Staten Island and Manhattan has been developed and is fully stated in the

staff report to the Commission submitted with this report. To further the orderly and most desirable development of the total regional improvement in practical stages, however, the Commission is referring the aforesaid developed program and the studies on which it is based to the proposed District for consideration as part of the total integration which would be a primary concern of the District.

Prior to the time that the Commission could suitably commence studies of intrastate rapid transit needs within New Jersey the Department of Conservation and Economic Development of the State of New Jersey requested that such studies be coordinated with larger studies of the Northeastern New Jersey region which that Department was planning. The Commission, which had already made its own broad preliminary study, agreed to the request and to participate. This is good regional planning, beginning with land-use and considering rapid transit as an integral part of a regional all-facility transportation system. The regional study has not as yet been completed.

The Commission is convinced that no small, cheap or piecemeal measures will or can begin to meet either the present urgent emergency or the multiplying necessities for the expansions of this Area in the next three decades, including facilitation of urgently needed means for Civil Defense.

The crisis and the opportunity call for bold, imaginative, unselfish and adequate thinking, planning and action. They also call for full realization that this vast Metropolitan Area is one economic and social unit, that all its parts are inter-dependent, and that their welfare and progress depend on and derive from the welfare and progress of the community as a whole.

It cannot be emphasized too strongly that a solution of the rapid transit problem would be of inestimable value to the economy of the metropolitan district and the economic well-being of all of the municipalities located therein. It would be a grave mistake to consider that the benefits to be derived from improved transit facilities would be limited to the commuters who actually use the service. It is conservative to say that suburban commuters earn well over two billion dollars a year in New York City and that a very large proportion of that vast sum is spent in their home communities. In addition, many

residents of New York City are constantly commuting or traveling for business or social purposes to the suburbs. Transportation is the very life blood of the district and is absolutely essential for the maintenance of its economy and for its growth and development.

The creation of this Commission by bi-state action and the Commission's studies and public hearings have energized a momentum and public interest which, once lost, may never be recaptured. Rising costs, the fast multiplying complexities, and the growing centrifugal forces within this vast Metropolitan Region daily bring adequate solutions closer and closer to the sheer brink of impossibility.

It is stark realism to say that the moment for action is now, or, perhaps never. The cost will be large; but the cost of inaction is already far larger and will progressively grow still larger.

The Commission keenly realizes the dismaying obstacles and complexities, economic, legal and operational, which have accumulated during the decades when repeated studies and proposals continuously failed of action because bi-state cooperation was absent and because the ever-present negative criticisms by private and sectional interests wrought paralysis. Nevertheless, this Commission has faith that, however late the hour, a way forward can yet be opened if the voices which concentrate on the public interest will not again be silenced by the self-interested voices of negation.

No recommendation can be devised that will immediately meet the desires and gain the support of each and every segment of our complex metropolitan society. Nor can anyone at this time define and prearrange eventual adjustments that will be demanded to reconcile the many interests that will be affected by actual construction and financing. Limited as the Commission is to studies and recommendations, it can presently do no more than state the lines on which progress can best and most feasibly advance.

Hence, the Commission is submitting its studies and its recommendations without any intention to present any rigid or exclusive plan or plans, or to claim perfection therefor. The Commission is fully cognizant that this is a community problem, to be approached and advanced realistically and with such modifications and adaptations as public opinion, experience and interest, now and in the future,

may guide and direct. The Commission conceives as basic to any solution the creation of an interstate district with adequate power to develop, adapt and implement, to modify where modifications become advantageous, to negotiate, contract and cooperate where necessary, and to be a center and clearing house for future intelligent thinking, constructive criticism and public needs.

The Commission's Report is designed not to be read and used as an academic treatise but as a guidepost for direction and a tool for action. It is designed not to bring a final solution to a problem that will pass but to bring progress to a problem that will be with us always in ever-changing form.

In this Commission's opinion there is no other effective way for this vast New York-New Jersey Metropolitan Area, the executive center of the nation and the Capital of the World, to face up to its indispensable rapid transit needs in the present and for its future.

Respectfully submitted,

METROPOLITAN RAPID TRANSIT COMMISSION

Commissioners from New York

CHARLES H. TUTTLE
Co-Chairman

ALLEN S. HUBBARD
Treasurer

CARL WHITMORE

ERNEST W. WILLIAMS, JR.

WILLIAM ZECKENDORF

Commissioners from New Jersey*

EDWARD J. O'MARA
Co-Chairman

WILLIAM F. YOUNG
Secretary

JOHN A. KERVICK

JOHN F. SLY

* As of this date there is one vacancy in the New Jersey membership.

FOREWORD

The Importance of Rail Transit

Transportation, and particularly rapid transit, occupies a position of unique importance and necessity in the New York-New Jersey Metropolitan Area unmatched in any other metropolitan area in this country. Virtually all those who work or live in the Area require some sort of transportation, public or private, from their homes to their places of employment, shopping, recreation or education.

Transportation by rail is the most efficient means of moving a large number of people in a short time. In this great Metropolitan Area 898,000 persons enter New York City from the suburbs on a typical business day, of whom 370,000 enter during the commuter period of 7-10 a.m. During the peak one-hour 204,000 persons enter the city. Many uncounted thousands of New York City residents travel in the opposite direction to employment in the surrounding areas.

Rail service is necessary to meet these travel needs. There is presently no other practical way to move the 208,000 railroad commuters who arrive in the city each morning. To attempt to accommodate them all in buses and private automobiles would clog all avenues of approach, would require the costly construction of additional tunnels on both sides of Manhattan, and would create within the business centers chaotic traffic congestion—hardening of the arteries—which could only lead to strangulation of the economic life of the city on which is based the well-being of the entire Metropolitan Area. Already the economic losses from traffic congestion are authoritatively estimated by the Citizen's Traffic Safety Board at over a billion dollars a year in New York City and may well pass a figure of two billion dollars annually in the entire Metropolitan Area. To attain freedom of movement without rail service would require the expenditure of staggering sums for additional highway, tunnel and crosstown facilities and would decimate the central urban areas to provide sufficient parking space.

The Area is experiencing a dynamic growth of population and business activity and also a decentralization of population and certain industrial and commercial activities. But Manhattan is continuing to develop, perhaps more strongly than ever, as the preeminent administrative, financial and management center of the nation. Indeed, it is the "head office" for much of the world's business, and as the amenities of suburban living become more and more attractive to the working population the volume of commuting travel in both directions will increase.

In any planning for major rapid transit needs in this Metropolitan Area, the problems of Civil Defense are an insistent consideration.

In the event of a threatened attack upon the United States the instinct of millions would be to leave the city as speedily as possible. The streets, tunnels and bridges would instantly be clogged by vehicular conveyances beyond the possibility of effective or adequate movement. Rail transit alone would provide swift mass conveyance. The construction of four trans-Hudson rapid transit tunnels, providing continuous rail operation over subway tracks running through the center of Manhattan from the Battery to 59th Street, would provide speedy and orderly escape for an enormous number of persons.

So, likewise, the New Jersey side of the loop, intersecting all railroads and highways, would be of vital service.

As stated by Colonel Carl Koenig, Civil Defense Director of Bergen County and a consultant to the Tri-State Civil Defense Planning Board, at our Commission's public hearing in Newark, "For that reason we feel we have a vital interest in transportation facilities in the Metropolitan Area and would like to register our interest in anything that would provide for the rapid movement of the maximum number of people".

Good and ever-improving rapid transit and suburban rail service are essential now and in the future, even at a large cost. The question is not whether the community can afford to pay the bill for rail service improvements but *whether it can afford not to*.

Need for a Comprehensive Solution

The problem is not one for the central urban areas alone but for the entire metropolitan region. The suburban communities rely for their very existence on the availability for their residents of the employment opportunities offered by the central urban areas. Suburban commuters earn in New York City over \$2 $\frac{1}{4}$ billion annually, the bulk of which is spent in the communities in which they reside. Correlatively, the business life of the central urban areas is dependent on the availability of the skills of their commuting employees. No single community can divorce itself economically from the others. Provincial thinking on regional problems belongs in the past, not the present or future.

Each means of transportation of people has its own role to perform in the total transportation network. Each should receive equal consideration in planning and equivalent public support. They should be planned and coordinated in a manner whereby each will

make a maximum contribution to the public good. In that way only can the public be offered the best possible transportation service at the least cost. There is no room in the public interest for ruinous discrimination and competition. A balance must be maintained.

That balance does not exist today. The automobile drivers and the bus operators make use of roadways, tunnels, bridges and central area terminals which are tax free and are either publicly maintained or publicly developed out of user taxes and user fees. Private railroad companies must raise the capital (and pay the interest on it) to build their rights-of-way and provide the operating facilities, and must maintain them and pay taxes on them. Since 1930, billions of public dollars have been spent, and are still being spent, by federal, state and local governments in the development of highways, bridges and other facilities for vehicular traffic, but no public funds whatever have been spent during the same period in promoting or improving mass transportation by rail between the New York and New Jersey portions of the Metropolitan Area.

The imbalance has resulted in a constant and relentless deterioration of suburban rail service. Ferries are being abandoned, train service is reduced, petitions are filed for abandonments, cars are getting older without being replaced. Repeated increases in fares in an effort to match rising costs and to establish earnings which can be used to improve the properties are resisted by public regulatory bodies. The result is more constriction of service by railroads, with consequent further reduction in passengers and consequent further congestion of highway facilities. One very grave consequence has been the creation of a stupendous cycle of traffic congestion in the streets, constantly calling for still further enormous expenditure of public funds for still further vehicular traffic.

Moreover, fare increases become subject to the law of diminishing returns and railroads are publicly contending that they have reached the point where they require public financial assistance for their rail suburban services, in the form either of tax exemption or direct grants, as the only alternative to total discontinuance or government ownership or operation,—thus duplicating the experience with the New York subways.

The crisis thus produced in suburban services by rail is fast accelerating to the point of an Area-wide catastrophe. To make the outlook more serious, at the present explosive rate of growth, the population of the Area, now at 15,000,000, will, it is estimated, be more than 19,000,000 by 1975; and the portions of the Area which are still suburban or semi-suburban will, by 1975, have reached saturation and new outer suburbs will be forming.

Such massive expansion will entail billions of dollars in new public and private investment, employment and values; but, if this growth is to serve the public interest, it will require very much more bold imagination and farsighted coordination and planning than has ever been displayed in the past.

This public crisis and threat of catastrophe for rail suburban services in this Area are not unique. It is the experience of every metropolitan region throughout the country. It is due to the rising costs of providing suburban rail services in the quantity and quality that are required and to the competition of new methods of travel and of tax-exempt or publicly-supported rights-of-way. The result has been the inescapable recognition that rail suburban service is a benefit and an essential service for the whole community, which demands public financial support, direct or indirect, as an alternative to intolerable deteriorations and fare schedules, or to complete abandonment or outright government ownership or operation.

Obviously, the people and the governments within this New York-New Jersey Metropolitan Area are now face to face with this looming crisis, and can no longer avoid it by conveniently looking the other way.

Immediacy of Trans-Hudson Improvements

To the utmost extent possible for the travel requirements of the public, mass transportation in all Sectors of the Area should be integrated to obtain maximum efficiency of operation, to provide coordination of schedules, to provide equal standards of service and to provide maximum usefulness of the system. There is need for a comprehensive program of transit improvements throughout the entire Metropolitan Area but no such program can be carried out at one time. The ultimate system of mass transit must be developed in stages in accordance with the urgency of each individual project and with the ability of the community to support the project.

The Commission finds that the most urgent need is the improvement of rail transit service across the Hudson River for the New Jersey commuters traveling by New Jersey railroads and New Jersey highways to their places of employment in the business district of Manhattan from 60th Street to the Battery. The great bulk of the funds available to the Commission was expressly limited to a study of that need. The funds provided to us for intrastate studies in New York were far too limited to permit more than the study of some selected needs of the Westchester, Long Island and Staten Island Sectors.

Hence, our recommendations are designed to lay the essential foundation for a comprehensive result by going primarily and directly to the core area of the whole region,—namely, the trans-Hudson suburban area.

Principles of the Recommendations for the Trans-Hudson Core Region

1. A Bi-State Transit Loop

Our consultants and our Project Director are unanimous in recommending some form of rapid transit loop for this core region and as a foundation and extensible center for connections with present and future rapid transit facilities.

We agree with them. Indeed, we see nothing else which would be realistic, adequate and commensurate with the size and necessities of the need viewed both presently and far-sightedly for the next twenty-five years.

Accordingly, this Commission has formulated its recommendations of a physical plan for this core region according to the following principles:—

a. The loop should take advantage of all existing transit facilities to an extent consistent with present and future requirements.

b. The loop should contemplate the use of the latest technology to provide the best and most modern service to the passengers at the lowest cost, and to place it in the best possible competitive position with other transportation media.

c. The loop should be extensible to areas beyond its initial routing in order to allow its development into a truly comprehensive regional system for the present and the future.

d. The loop should have adequate capacity to accommodate the additional future traffic attracted to it by the quality of its service and generated by the great increase of population and commerce in the Area.

e. In New Jersey the loop should connect with all railroads and major highways converging on midtown and downtown New York.

f. In Manhattan the loop should provide direct service as close as possible to the destinations of the bulk of the commuters from New Jersey and from suburban areas in New York.

g. The design and layout of the loop should be deemed flexible, so that whatever agency is hereafter charged with its construction can take into consideration the best adaptation for local needs in the area as future special studies and realities may demonstrate.

2. Suburban Railroad and Bus Services

a. The Commission finds that an adequate, modern rail transit system is not only required in the areas directly served by the loop but throughout the entire suburban region.

b. A new bi-state loop and the railroad and bus suburban services would plainly correlate with each other. Both are required in order to provide an essential public service to many communities and also to the whole area. The trans-Hudson loop will give central facility for such an over-all system and for the fuller and more advantageous use of existing facilities.

c. The public must be prepared to operate or to give assistance to those essential railroad suburban services which cannot longer be maintained by private enterprise.

3. A Metropolitan Transit District

The Commission finds, and it is common knowledge, that rail transit improvements of the character necessary will not be forthcoming through private enterprise and through private financing. Nor has any individual community within the Area the ability or the desire to provide by itself a regional project. Hence, a regional public agency established for the whole Area as it now exists or may expand in the future and unrestricted by inner political boundaries is, in our judgment, the only instrumentality through which the metropolitan community can take effective action.

Capital for the construction of the trans-Hudson loop must be raised by a public agency and bonds issued by it must have some measure of public guarantee to be saleable. Revenue bonds for transit purposes have a bad reputation in the bond market because of the financial history and condition of transit systems. While it would be desirable that the users of the loop would pay through fares the full capital and operating cost all experience conclusively demonstrates otherwise. On the other hand, the public interest requires that the fares be established at a level to foster maximum usage and utility of the system and provisions must be made for possible deficits. In addition, it must be recognized that capital for construction and equipment cannot be secured merely by evidence that revenues will equal costs.

The sources and means for such public support involve legal and political questions of great magnitude.

In the many public hearings which we have conducted numerous and diverse suggestions and recommendations have been made, in-

cluding guarantees by the two States, grants of federal funds, assumptions or contributions by existing Authorities, tax exemptions, extension of public credit through the governmental agencies of the localities served, and various combinations of such methods.

As set forth in the following report, it is the opinion of this Commission and also of its consultants and Project Director that the most feasible method for realistic progress is the organizing, on as equitable a basis as possible, of the resources of the benefited communities behind a project of mutual importance to all of them.

Accordingly the Commission has formulated its recommendations for a plan of administration and finance according to the following principles:—

a. The public interest justifies and requires some form and degree of public credit and assistance for adequate mass transportation by rail.

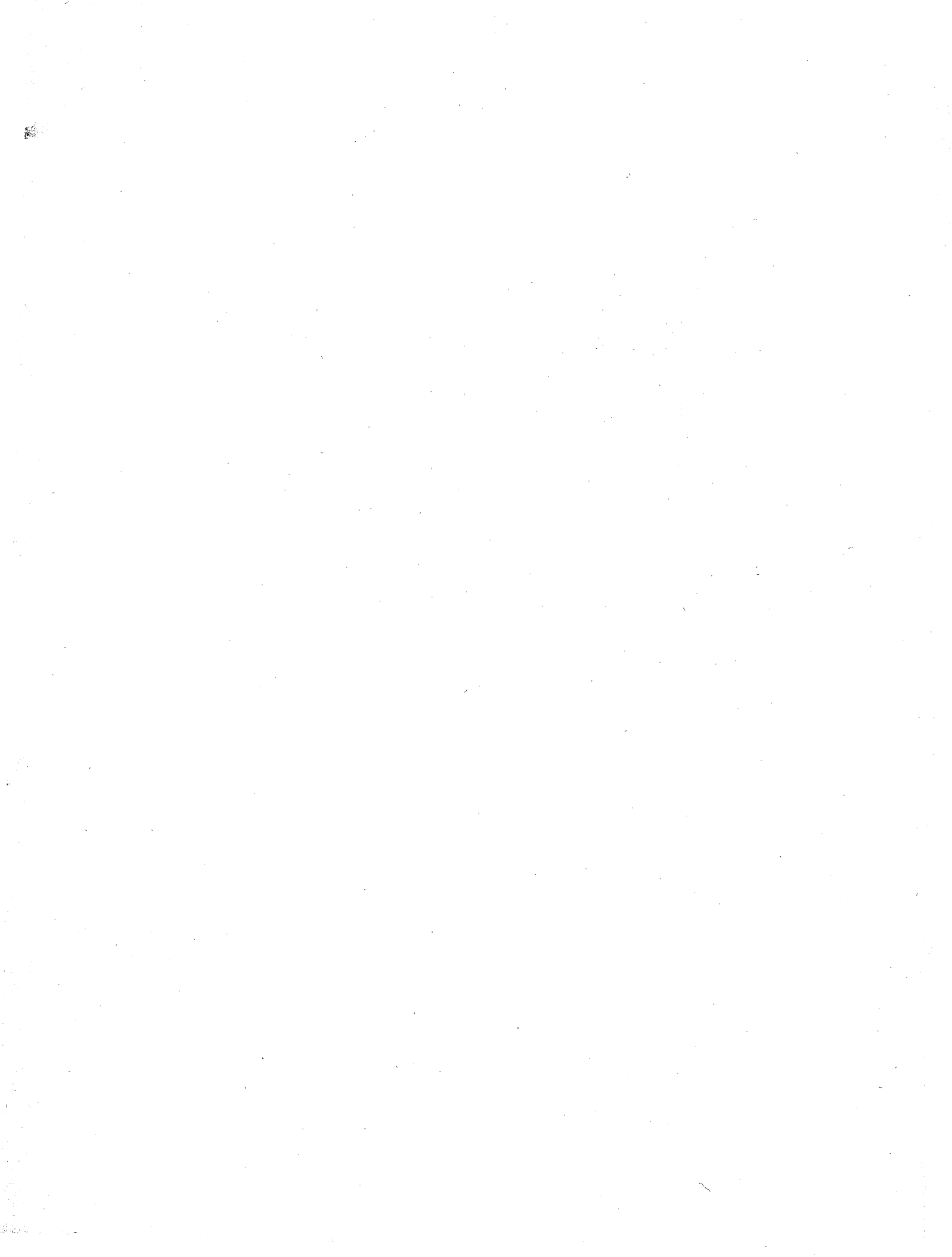
b. The problem is a regional problem and the solution will be a regional benefit without limitations of internal political boundaries.

c. The administration and financing of improved rail transit requires a new agency of metropolitan government organized with the cooperation of existing local governments in the area.

d. The governing body of the agency must be representative of each of the counties in the area served.

e. The agency must have the power to consult and agree upon local needs with the various counties in the region and to negotiate with the various railroads providing suburban transportation within the region. Only an agency so empowered can determine the details of a construction program and a suburban railroad operational program.

f. The agency must be required to obtain approval of the state legislatures for any major construction or operational project.



HIGHLIGHTS OF RECOMMENDATIONS OF THE COMMISSION

The Commission recommends

A Metropolitan Rapid Transit District

1. That the Legislatures of the States of New Jersey and New York create a new, permanent Metropolitan Transit District.

2. That the District initially include the counties of Orange, Rockland, and New York in the State of New York and the Counties of Bergen, Essex, Hudson, Mercer, Middlesex, Monmouth, Morris, Passaic, Somerset and Union in the State of New Jersey.

3. That the District be governed by a Council composed of representatives appointed by the governing bodies of each of these counties.

4. That the District be given authority which it will exercise from time to time in its discretion to:

Negotiate with commuter railroads, bus companies, transit agencies and other

transportation organizations; consider alternative plans with officials of the two States and of the affected local governments within the bi-state District; submit to the Governors and Legislatures a General Plan for the maintenance and improvement of mass rapid transit for trans-Hudson commuters and other suburban traffic, including a detailed physical plan and the formula for providing the public support necessary to carry out such plan.

5. Only upon the completion by the District and approval by the two State Legislatures of a General Plan of transit improvement, however, should the new Transit District be given the necessary powers to acquire, construct and operate such facilities for suburban rapid transit.

A Physical Plan for Rapid Transit

1. That the provision of a new bi-state rail transit loop to be operated in conjunction with feeder services by New Jersey suburban railroads and buses offers the most feasible overall solution to the problem of trans-Hudson rapid transit.

It would connect with all New Jersey railroads and major highways, cross the Hudson in two new tunnels at 59th Street and at the Battery and include a new subway in Manhattan under Madison and Fifth Avenues which will provide connections to principal New York City subway lines (Plan No. 1).

Plan No. 2, which would make use of the BMT-Broadway subway for the Manhattan portion of the loop, would be a useful alternate but only if a smaller capital cost is required and if arrangements can be made with the New York City Transit Authority for adequate use of that subway line.

Many proposals for a loop system have been presented to the Commission by its consultants and others. All have their own merits and demerits. All would be available to the new District for consideration in whole or in part. The finding contained herein represents the thinking of the Commission but it is not intended to restrict the new District either in general scope or in detailed design. The final choice should rest with the new District and

be dependent upon negotiations it will be empowered to conduct.

2. The maintenance and improvement of suburban railroad services are essential to any solution of the commuter problem since the rail lines, which collect and distribute commuters at their suburban towns, and the Rapid Transit Loop, which performs a similar function in New York City, combine to form one essential mass transportation system.

In the event that any essential suburban railroad or bus services cannot in any particular instance be maintained and improved by private enterprise the District should conduct negotiations and take such action as may be deemed necessary to provide adequate transportation services.

3. Of particular concern is the plight of the Hudson and Manhattan Railroad. Its downtown line is the most vital transit link between Newark, Jersey City and New York and its service is an absolute necessity to the people of those communities. It is presently being operated by a Trustee under the Bankruptcy Act, and it is problematical how long it can continue service without public financial assistance. The Commission stresses the need for prompt attention to this problem.

REPORT OF THE COMMISSION

SECTION I

PURPOSE AND PROCEDURE OF THE COMMISSION

New York and New Jersey Transit Commissions—1952-1953

In the face of serious public concern as to the rapid transit problems and needs of this area, the States of New York and New Jersey created by legislation enacted in 1952 and 1953, separate Metropolitan Rapid Transit Commissions which collaborated and coordinated their activities. On November 12 and 13, 1953, the New York Commission held public hearings in which the New Jersey Commission participated. These two Commissions, in a joint report of March 3, 1954 to the Legislatures and Governors of the two States concluded:—

1. "that comprehensive consideration must be given to the problem of bringing people in and out of Manhattan by mass transportation."
2. "that the solution of the problem between Manhattan and New Jersey, Manhattan and Westchester and Manhattan and Long Island may be developed independently as to physical considerations. It is important, however, to consider simultaneously the transportation needs of the whole region."
3. "It will be necessary to make thorough investigation of origin and destination of passengers in order to properly prepare plans, estimates of construction, operation and financing."
4. "The two Commissions are in full agreement that such consideration is needed and that the cost is thoroughly warranted and that the purpose can be best furthered by a merger of activities and the creation of a single bi-state commission."

Based on these conclusions, the two Commissions recommended to the Legislatures a consolidation of the New York and New Jersey Metropolitan Rapid Transit Commissions into

a joint agency to be known as the "Metropolitan Rapid Transit Commission" which would carry forward these studies.

Creation of Metropolitan Rapid Transit Commission—1954

The Metropolitan Rapid Transit Commission, which came into being on June 14, 1954, and which has been continued by appropriate legislation since then, is a temporary bi-state agency created by Chapter 801, Laws of 1954, of the State of New York and Chapter 44, Laws of 1954, of the State of New Jersey.

Under this legislation, the Commission was established to "study present and prospective rapid transit needs of the New York-New Jersey metropolitan area and develop, recommend and report as soon as possible measures for improving such needs." The Commission has no administrative authority. It is in effect an advisory agency with only two powers—to study and to report.

Realizing the limited funds available to the Commission and the magnitude of the task confronting it, and being deeply concerned with means of maintaining and improving the means of transporting people and goods within the Port District, The Port of New York Authority entered into a Memorandum of Understanding with the Commission in January 1955. Under this Memorandum, the Port Authority agreed to finance a large part of the expense of a comprehensive survey of all phases of the interstate rapid transit problem in the area. Under the agreement, studies were to be made for the Metropolitan Rapid Transit Commission for its review and policy recommendations and made available to The Port of New York Authority for use in its planning for development of projects within its scope and jurisdiction. Under this Memorandum, the Port Authority provided funds totalling \$800,000 for this work. In addition, the States of New York and New Jersey provided \$150,000 each, for

such intrastate studies as might be necessary in the furtherance of its total task.

In May 1955, the Metropolitan Rapid Transit Commission, with the concurrence of the Port Authority, designated Arthur W. Page as Project Director of the Metropolitan Rapid Transit Survey. Mr. Page is an outstanding business consultant and was formerly vice-president of the American Telephone and Telegraph Company and, more recently, the Director of the Working Group of the President's Cabinet Committee on Transport Policy. With the designation of Mr. Page as Project Director, and his subsequent employment of a small staff, leading consultants and the Regional Plan Association, Inc., were selected to carry out this comprehensive transit study.

Metropolitan Rapid Transit Survey Interstate Studies—1955-57

With the start of the survey in October 1955, the following consultants were engaged to make the required studies set forth in the Memorandum of Understanding:

The Regional Plan Association, Inc. of New York—"to undertake various economic studies to determine for the present, and to estimate for 20 years in the future, the distribution of population, employment, industry and commercial and cultural centers throughout the Metropolitan Areas as a basis for determining the future demand for mass transportation in the Metropolitan Area."

Charles E. DeLeuw of Chicago—"to conduct a survey of the present travel habits of passengers by rail, bus and auto, including origin and destination; to determine by canvass the factors that cause a commuter to choose a particular means of transportation; and to analyze the results thereof along with the data developed by the Regional Plan Association to determine the present and future demand for interstate mass transportation. As a separate study to make a preliminary evaluation of the physical and financial feasibility of four typical systems for improving interstate rapid transit, including new concepts of transportation media, and a detailed engineering and economic study if one or more of the systems is found to be physically and financially feasible." The engineering studies set forth in this report are

the primary basis of the Commission's physical plan recommendation.

Coverdale & Colpitts of New York—"for studies and recommendations relative to presently existing rail passenger service problems and methods of resolving them to maintain and improve existing services pending, or in lieu of, more comprehensive solutions."

Ford, Bacon & Davis, Inc. of New York—"to study means and methods of improving bus transportation by expediting travel time and providing off-street bus terminals where new investments in rail lines do not appear to be justifiable and of integrating feeder bus routes with interstate rail routes."

Dr. William Miller of Princeton, N. J.—"to conduct studies leading to recommendation of the financial and administrative devices to be used in the development and operation of a multi-community transit system, including methods of financing capital investments and of meeting deficits if they should appear to be inevitable." A copy of this report is transmitted herewith.

In addition, the firm of Ford, Bacon & Davis prepared a report on "Measures for Reducing Out-of-Pocket Losses of New Jersey Commuter Railroads Under A Public Agency." Also, Charles E. DeLeuw prepared reports on 1) "Proposed Integration of Commuter Services of the Hudson and Manhattan Railroad Company and the Central Railroad of New Jersey" and 2) "Rail Rapid Transit Extensions in the New Jersey Metropolitan Area." and made a limited survey of the feasibility of providing rail transit to Staten Island via Bayonne.

Intrastate Studies

For the intrastate phase of the problem, the Legislatures of the two states appropriated \$150,000 each to the Commission. These studies concern the Westchester, Long Island and Staten Island sectors, as well as a review of the rapid transit problems in the New Jersey area.

Consultants engaged by the Commission on the initial intrastate phase were:

Ford, Bacon & Davis, Inc.—"to conduct a study of origins, destinations and characteristics of commuter travel between the Westchester sector and other sectors of the metropolitan area."

William Wyer and Company of East Orange, New Jersey—"to conduct a general review and study of various economic and geographic characteristics of northeast New Jersey for the purpose of advising the Commission what proposals for the improvement of local intrastate rapid transit within the State of New Jersey merit study by the Commission." This study has been completed and a final report was submitted to the Project Director in July 1956.

Day & Zimmerman, Inc. of Philadelphia—"to conduct studies of origins, destinations and characteristics of travel between both Staten Island and Long Island sectors and other sectors of the metropolitan area." The contract also included a study of certain specific proposals for transit improvements in the Long Island sector and a study of the feasibility of providing rapid transit service from Staten Island to other parts of New York City via the Narrows Bridge.

Interim Reports

Three Interim Reports have been issued by the Commission, and have discussed the plans and progress of the Commission. In the Interim Report of February 18, 1955, the Memorandum of Understanding between The Port of New York Authority and the Metropolitan Rapid Transit Commission, dated January 4, 1955, is set forth in full. This Memorandum determined the scope and purpose of each group of studies of the interstate problem. The Interim Report of March 1, 1956 set forth the scope and details of the intrastate studies, as defined by the Commission.

Project Director's Report of May 1957

Under date of May 20, 1957, the Project Director submitted his report on the studies conducted under the Memorandum of Understanding. The Project Director's Report provided a complete review of the consultants' studies on the trans-Hudson or interstate phase of the rapid transit problem. It is discussed in more detail later in this report and a copy is transmitted herewith. While this report was limited to the trans-Hudson problem enough work has been done on the intrastate aspects of the subject, to convince the Commission that the plan proposed in this report may be safely carried out without fear of prejudicing the ultimate solution of the total problem—including the intrastate phase.

New York and New Jersey Public Hearings— June and September 1957

Following the submission of the Project Director's report, the Commission, without any endorsement of his recommendations, held public hearings in Newark and New York City in June and September 1957, in order to obtain public opinion concerning the proposals set forth in the Page report and to hear any possible alternatives. The Commission deemed it desirable to obtain the attitude of all interested parties concerning the Project Director's report, before making its own recommendations. The results of these hearings are summarized later in this report.

SECTION II

TRANSIT NEEDS OF THE REGION

Key Role of Transportation

An efficient transportation network is the blood stream of any metropolitan area. It is unnecessary to demonstrate the obvious interdependence of the central core areas and the suburban areas.

Every phase of economic activity, employment opportunities, development of property values, the availability of educational, cultural and recreational facilities, depend upon efficient means of transporting large numbers of people at least cost in time and expense to and from the various points within the region.

The Commission's consultants have underscored the importance and benefits of rapid transit, and studies of the transportation problems throughout the country have stressed the necessity of this vital service to the residents, business and economy of the area. In the Boston region despite the record of deficit operation of its Metropolitan Transit Authority, it has been recognized that improved rapid transit is an essential governmental service. An objective evaluation of that operation after many years of experience has concluded that "the impact of higher fares, less frequent service, crowded and unattractive equipment on the MTA therefore can only intensify the forces compelling businesses to move away. In economic terms this means depressed land values, mounting tax rates and a profound disjunction of the patterns of living and economic activity in the entire metropolitan area." In a word, it needs no figures to demonstrate that real mobility of people and goods can mean the difference between vital growth and stifling stagnation to that complicated system of working and living which we have come to recognize as a metropolitan area.

The Peak Hour Problem

A major characteristic of the transportation need of the metropolitan area is that the system must be adequate to carry people to and from their places of work during the peak hour movement in each direction. This means equipment and manpower greatly in excess of the need for the daily average volume of travel. A few simple figures make the point that a system which may carry 900,000 persons each day over a twenty-four hour period must be able to carry over 200,000 in the one hour between 8 and 9 a.m., as follows:

Mode of Transportation of Weekday Passengers From All Suburbs Into New York City—1955

(Thousands of Persons)

<i>Period</i>	<i>Rail</i>	<i>Bus</i>	<i>Auto</i>	<i>Total</i>
Total Daily	322	120	456	898
Commuters (7-10 a.m.)	208	63	99	370
Non-Commuters	114	57	357	528
Peak-Hour (8-9 a.m.)	136	29	39	204

The commuting hours of 7 to 10 a.m. account for 370,000 passengers from all suburbs into New York City. Of these, only 27% travel by private automobile. While the railroads carry only 36% of all daily passengers, they carry 56% of the commuters and as much as 67% of the peak hour traffic. From the New Jersey suburbs alone into New York City the railroads carry 38% of all daily passengers, 50% of the commuters and 64% of the peak hour traffic. Each form of transportation must be employed in an optimum manner, and it is apparent that the present rail transportation plays a key role in the critical peak periods when people are going to and from their places of work within the metropolitan area.

The present suburban origins of commuter traffic to New York City have been estimated by the consultants as shown in the following table:

Origins of Daily Commuters—1956

(Thousands of Persons)

County	Rail	Bus	Auto	Total
<i>New Jersey Sector</i>				
Hudson	14	7	3	24
Bergen	15	29	10	54
Passaic	2	3	2	7
Essex	13	6	3	22
Union	13	1	1	15
Morris	4	1	2	7
Somerset	1	—	—	1
Middlesex	4	—	—	4
Monmouth	4	—	1	5
Mercer	1	—	1	2
Orange	1	—	1	2
Rockland	2	—	1	3
Others	1	1	3	5
Total Sector	75	48	28	151
<i>Westchester-Fairfield Sector</i>				
Westchester	46	9	17	72
Fairfield	12	—	1	13
Dutchess-Putnam	1	—	1	2
Total Sector	59	9	19	87
<i>Long Island Sector</i>				
Nassau	62	6	49	117
Suffolk	12	—	3	15
Total Sector	74	6	52	132
Region Total	208	63	99	370

Decline in Transit Service

This public dependence upon railroads during the critical transportation hours especially has been accompanied by a continuing decline in the total railroad passenger traffic, a deterioration in railroad service, steadily increasing railroad fares, and constantly growing passenger service losses by the railroad industry. This somewhat anomalous situation has been caused by several basic transportation factors:

1) The adoption of the five-day work week by itself practically cut suburban passenger volumes by $\frac{1}{6}$;

2) The greater flexibility of the automobile and the bus has caused a decrease in the use of the railroads in other than peak hours, but a railroad cannot be run efficiently solely to serve peak hour traffic;

3) There has been a substantial shift in the origins and destinations of commuters due to the development of outlying residential areas not served by railroad lines, on the one hand, and to the expansion of the midtown portion of the central business district in Manhattan while the railroads remain oriented to serve their old areas.

During the peak travel hours, approximately $\frac{3}{4}$ of all suburbanites traveling into New York City are destined for the central business district of Manhattan south of 59th Street. The origin and destination surveys conducted by the Commission's consultants have shown that this traffic is largely centered in its destination along a line which follows the area east of 5th Avenue in uptown Manhattan and along the lower Broadway area at the southern part of Manhattan. Since 1925, the growing importance of midtown Manhattan as an office center has led to a definite shift in the destination of New Jersey commuters from downtown to the area between 34th and 59th Streets. This shift in destinations of places of work, together with the development of new residential areas, has meant that the routes of the established railroad lines in New Jersey have become inadequate for the present and future transportation needs of the region, particularly as to the crossing of the Hudson River. This inadequacy as to destinations does not extend to the railroads in the other Sectors of the region, which operate directly into mid-Manhattan.

The result has been a definite and continuing shift of commuting from rail to bus and automobile in New Jersey. Rail commuting in that Sector has declined 50% in the past 25 years. During the same period commuting by rail has increased in the Westchester-Fairfield and Long Island Sectors.

Commutation by automobile from New Jersey is growing in importance. In 1948 auto commutation to Manhattan amounted to 5% of the total and in 1955 it rose to 10% of the total.

From the viewpoint of railroad service, the loss of traffic coupled with the peak hour concentration of what remains presents serious operational problems. Equipment and manpower must be available early in the morning and late in the afternoon and there is no practical use for them during the period between the rush hours. Thirty years ago this pool of manpower and equipment was used during the day and on weekends to a much greater degree than at present. Labor costs and the cost of new equipment have risen drastically in recent years. Much of the railroad equipment is very old, expensive to maintain and to operate, and can be replaced only at greatly increased prices over its original cost.

All these factors have resulted in heavy deficits in the operation of both commuter railroads and in Hudson River ferry and rail crossings. The H&M railroad suffers from the same eco-

conomic conditions which plague the commuter railroads. The survey consultants have estimated that the current operating deficits of the New Jersey railroads and their ferry operations amount to some \$12.5 million per year.

These deficits have led to a continuing deterioration of rail service which is reflected in recurring applications for fare increases, for the abandonment of unprofitable train schedules and even for the total abandonment of service on some lines. These abandonments had been held in check as a result of a resolution passed early in 1957 by the New Jersey Legislature requesting the Public Utility Commission to withhold approval of such application by the railroads until the Metropolitan Rapid Transit Commission filed its report with the Legislatures. On November 25, 1957, the New Jersey Supreme Court held, in the Application of the Delaware, Lackawanna and Western Railroad Company, that the Public Utility Commission could not defer the exercise of its statutory discretion solely on the basis of a concurrent resolution of the Legislature. On December 10, the Public Utilities Commission accordingly granted the application of the New York, Susquehanna and Western, and on December 16 of the Delaware, Lackawanna and Western, for curtailment of service.

Metropolitan rapid transit systems, similarly, have not been able to operate on a private enterprise basis. In the last few years, studies of the urban transportation problem in all parts of the country as well as the Commission's own survey, demonstrate conclusively that the existence of deficits in connection with the operation of rapid transit railroad service must be recognized as a normal part of the transportation picture. Similar developments are apparent in many bus service areas. This tends to force private enterprise out of the business.

It is clearly evident that if transit service is essential and must be maintained, the public must recognize and accept the fact that some form of public assistance is required to meet these deficits.

While the general problems described above exist in all sectors of the New York-New Jersey region, they are most critical in the New Jersey trans-Hudson sector where immediate solutions are essential to the preservation of existing suburban transit service.

The alternatives to an adequate and useful system of suburban rail transit are either severe congestion of highways and urban streets resulting in a strangulation of movement and economic loss, or the construction, at a staggering price, of many new highways, river crossings, urban expressways and a tremendous volume of parking space in the high-cost central business areas. It has been well said, in the San Francisco study, that "without rapid transit the region will ultimately pay many times its cost in additional hours of travel time, in the additional cost of trucking goods over highways congested by automobiles, in diminished revenues from property depreciated by congestion, and in the premium costs of urban freeways and parking garages."

The Regional Needs

The rapid transit needs of the region are, thus, three-fold:

1. Maintenance of essential existing suburban transit services.
2. Improvement of those services, particularly the Hudson River crossings, to make them a more useful segment of the total transportation system.
3. Establishment of a regional agency to plan for and to carry out the solutions of the first two objectives for the benefit of all areas within the developing metropolitan region.

The Public Interest in a Solution

The crisis in metropolitan transit is not a commuter problem, even though its effect upon this segment of the population is most immediate. It is not a railroad problem even though the railroads are presently burdened with the financial losses. It is a public problem that calls for a public plan, in which all forms of transportation can be used most effectively to achieve an efficient overall transportation system. The public interest turns on the simple prudence of preserving a metropolitan transportation system which shows every sign of imminent breakdown of current service on the railroads and financial difficulties for many bus lines. It turns on the wisdom of planning and building now to meet the plainly foreseeable transportation needs of the next twenty-five years, if the anticipated growth over that period is to result in the greatest public benefit at least cost.

SECTION III

THE INTERSTATE STUDIES

Project Director's Report

The Project Director's Report, compiled by Arthur W. Page, is based on the results of the interstate phase of the Metropolitan Rapid Transit Survey and represents the Director's judgment and conclusions as to the best physical, administrative and financial plan for improving trans-Hudson transit.

That Report, based upon the separate reports of the five consultants, presented the following major recommendations:

First, the creation of a bi-state Metropolitan Rapid Transit District with wide powers to improve rapid transit service;

Second, that the District retain and improve suburban railroad service;

Third, that the District construct a bi-state loop, connecting with all New Jersey suburban railroads, including two new tunnels across the Hudson River (one in the vicinity of 59th Street, Manhattan, and the other at the Battery), and utilizing the BMT-Broadway line of the New York City subway system for the Manhattan portion of the loop.

Fourth, the total capital cost of the program was estimated at about \$400 million with an annual income deficit to the District of \$12 million, including the anticipated losses to be incurred by the District on such suburban railroad service as it may be obliged to provide.

Fifth, the required capital would be provided through bonds issued by the District and secured not only by the operating revenues, but also by the duty of the District to certify annual deficits to the benefited counties. The amount of the deficit so certified would be a mandatory charge on the budgets of the respective counties, which could be financed in any way their governing bodies determined.

Administrative and Financial Aspects

In undertaking the interstate transit survey, the Metropolitan Rapid Transit Commission recognized that one of the most important

phases of the study would include the "development of a constitutionally sound, financially practicable and politically feasible plan" for assuming and carrying out the suburban transit responsibilities in the New York-New Jersey metropolitan area. The Commission retained the services of Dr. William Miller of Princeton, New Jersey. Dr. Miller's report, which accompanies this report, makes available for the first time an impartial and expert study of the administrative and financial problems of rapid transit in the New York-New Jersey metropolitan area. His studies determined the operating deficits of the New Jersey commuter railroads and included a careful examination of the experience of rapid transit by rail in other metropolitan areas in the United States and Canada. These studies demonstrated conclusively the necessity for the principle of public aid to rapid transit.

Dr. Miller further concluded that there is little likelihood of Federal Aid becoming available for the provision of rapid transit facilities. As to the use of the credit of the States of New York and New Jersey, his survey examines this possibility and concludes that such State financing would probably be limited as to its nature and amount.

In the course of the studies undertaken by Dr. Miller on the legal, financial and administrative aspects of the transit problem, consideration was given to the possibility of utilizing existing public authorities as alternative sources of equity capital. In all, five of the public authorities operating in the metropolitan region were carefully studied by Dr. Miller for the purpose of determining their capacity and availability to finance the proposed rapid transit system. The fact that, historically, metropolitan rapid transit involves substantial annual deficits was necessarily an important factor in this study.

Dr. Miller's study established that the Commission "cannot look to any of the existing public authorities for the financial feasibility of a rail rapid transit program." To impose such responsibilities upon them would in some cases impair the obligation of the Authority's covenants with their bondholders; would seriously

affect their abilities to discharge the responsibilities for which they were established and to carry out the plans or commitments already undertaken. If any attempt were made to confer taxing powers upon them, this would require a complete change in their organization and concept. Dr. Miller further found: "In essence, there is room in the North Jersey-New York metropolitan region for the public authority which is confined to self-supporting revenue-producing projects and for another form of metropolitan organization which is concerned with tax-supported projects and governmental services."

The Project Director concurred and therefore recommended the creation of a metropolitan transit district with broad powers since the deficit nature of transit, its regional benefits and the requirements of new powers, not possessed by existing agencies, demonstrated the need for a new administrative agency responsible wholly for the development of bi-state transit. The Project Director concluded that it would not be feasible to rely on the pledging of the credit of the States or of any existing agency to provide the heavy capital investment involved or to meet the probable transit deficits. He proposed that the investment and deficit be supported to the extent necessary by the benefited areas, and that these areas should be represented in the determination of how their funds will be spent. To afford this representation the new metropolitan district would be created.

In the Commission's public hearings held in New York and New Jersey in June and September 1957, a great majority of the views presented by leading citizens and organizations in both States, approved and supported the recommendation that as the first order of business in achieving a solution of the problem, a new permanent bi-state Metropolitan Rapid Transit District should be established which would have all the necessary powers including the availability of public support to undertake a program of maintaining and improving commuter rail transit in this area.

On the basis of these careful and expert studies as well as the Commission's own examination of the transit problem in metropolitan areas throughout the United States, all of which confirm the deficit nature of commuter service,

the Metropolitan Rapid Transit Commission is entirely convinced and so recommends that a new bi-state Transit District be created to cope with this problem.

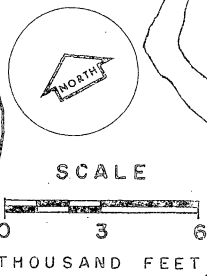
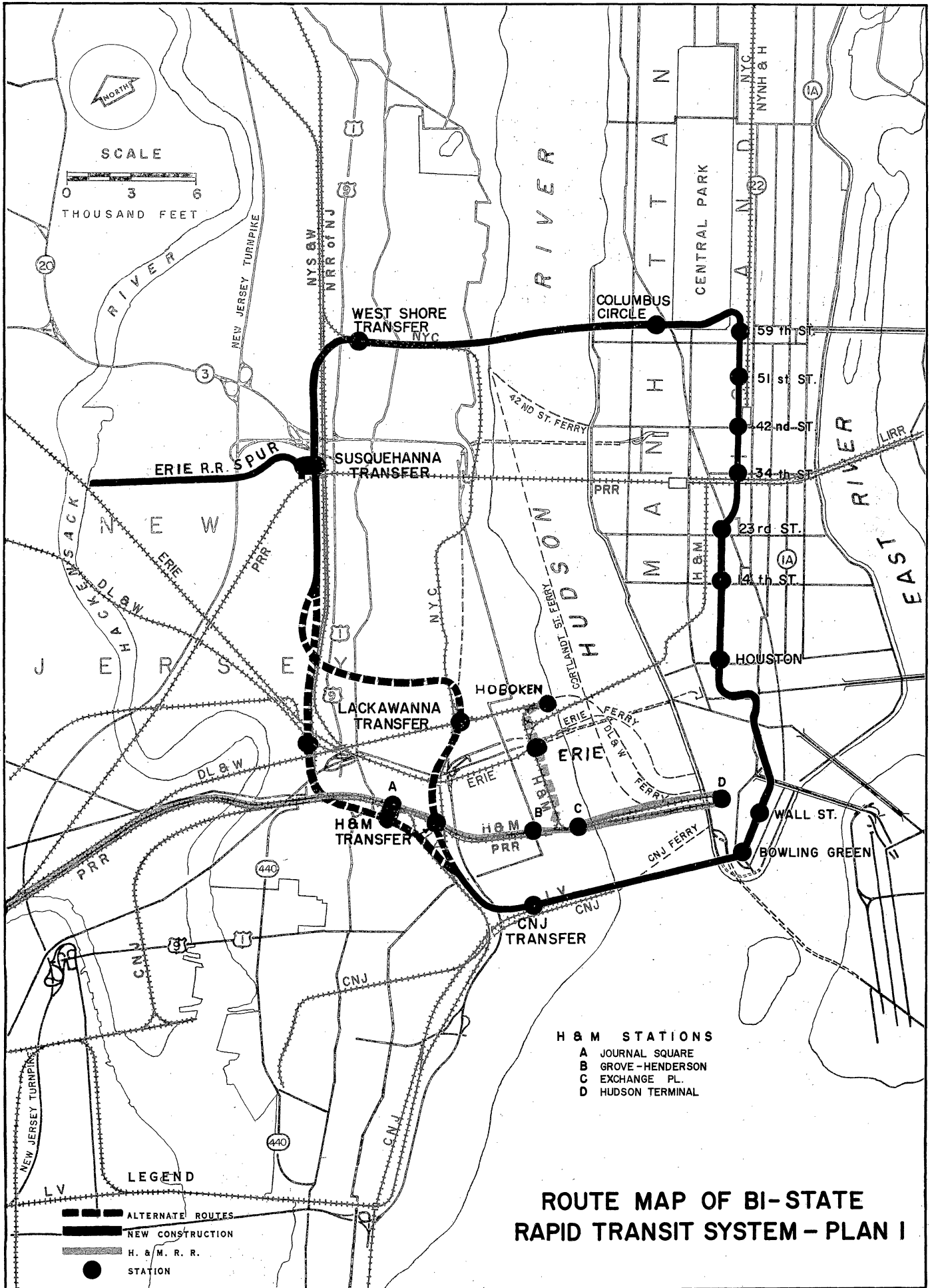
Proposals Studied by Consultants

Physical plans presented in the report by Charles E. DeLeuw and summarized in the Project Director's report include a detailed analysis of four basic transit schemes based on Manhattan subway distribution with the New Jersey railroads as feeders.

In addition, the consultants reviewed the feasibility of various transit schemes that had previously been advanced, such as extension of the New Jersey railroads to terminals in Manhattan or extensions of portions of the New York City subway to New Jersey. Consideration was given to proposals for radically new transit systems, such as monorail and aerial transit. These proposals have their merits and demerits. The Commission describes them in this report (Appendix B, pp. 57 *et seq.*) so that they will be available for understanding to whatever extent may at any time be found desirable.

A brief description of the detailed physical layouts for the four basic transit plans analyzed by the consultants is as follows:

Plan 1—This plan, favored by the consultant, would include the construction of an independent bi-state loop, as shown in Plate I. It would provide transfer connections with all suburban railroads in New Jersey, a new subway line in Manhattan under Madison Avenue and two new trans-Hudson subway tunnels, one in downtown Manhattan at the Battery and another at 59th Street in midtown. A spur of the Erie Railroad would be constructed from the point where its main line crosses the Hackensack River to the Susquehanna Transfer Station. The Hudson Terminal line of the H&M would be maintained and modernized, while service on the 33rd Street branch of the H&M would be discontinued. This plan would allow the use of all of the latest technology to provide comfort, speed, safety and efficiency such as rubber-tired cars and desirable systems of automation. The Commission favors this plan as offering the



- H & M STATIONS**
- A JOURNAL SQUARE
 - B GROVE-HENDERSON
 - C EXCHANGE PL.
 - D HUDSON TERMINAL

- LEGEND**
- ALTERNATE ROUTES
 - NEW CONSTRUCTION
 - H. & M. R. R.
 - STATION

**ROUTE MAP OF BI-STATE
RAPID TRANSIT SYSTEM - PLAN I**

most advantages and because the New York City Transit Authority has asserted that there would not be capacity in the existing BMT subway. (See Section V of this report.) The capital cost of this plan as estimated by our consultant is \$498.5 million.

Plan 2—This plan (Plate II) consists basically of a bi-state subway loop formed by the use of the New York City BMT-Broadway Subway and the construction of two new trans-Hudson subway tunnels. Transfer stations to all the suburban New Jersey railroads are provided similar to Plan 1. A spur of the Erie Railroad would be constructed from the point where its main line crosses the Hackensack River to the Susquehanna Transfer Station. The plan also includes the discontinuance of the present uptown Hudson and Manhattan Railroad service, while the downtown service to Hudson Terminal would be retained and modernized. This plan was endorsed by the Project Director. It is a useful alternate but only if a smaller capital cost is required and if the necessary arrangements for use of the BMT subway could be made with the New York City Transit Authority. The capital cost as estimated by our consultant is \$345 million.

Plan 3—This plan (Plate III, page 22) is similar to Plan 2, except that the segment of New Jersey rail trackage connecting the new trans-Hudson subway tunnels to uptown and downtown Manhattan is omitted. In effect, this plan resembles a horseshoe rather than a loop, with subway operations over the BMT-Broadway Subway as in Plan 2, but terminating at separate transfer stations in New Jersey, instead of the complete circuit or loop operation of the previous plans. This plan was rejected both by the consultants and the Commission as uneconomic. The capital cost as estimated by our consultant is \$348 million.

Plan 4—This plan (Plate IV, page 22) makes maximum use of existing transit facilities, with the least amount of new construction. Both uptown and downtown services of the Hudson and Manhattan Railroad would be retained and modernized. The modernized Hudson and Manhattan would have a downtown connection to the Lexington Avenue IRT Subway. A new trans-Hudson transit tunnel would

be provided uptown with a connection to the BMT-Broadway Subway for an operation similar to Plan 3. Transfer stations would be provided for all the suburban New Jersey railroads, as in the other plans. This plan was rejected by both the consultants and the Commission. In spite of a minimum capital outlay, its annual deficit would be close to Plan 2, but without the great advantages of flexibility and future growth that Plan 2 offers. The capital cost as estimated by our consultant is \$265 million.

Other Proposals Considered

In addition, four separate studies were carried out by Coverdale & Colpitts of possible immediate solutions to specific existing problems. The Commission has also studied in detail the various physical plan proposals which were offered by individuals during the course of the survey and since the release of the Project Director's Report. The Commission has considered each of these carefully. They are discussed in some detail in Appendix B.

PLATE II

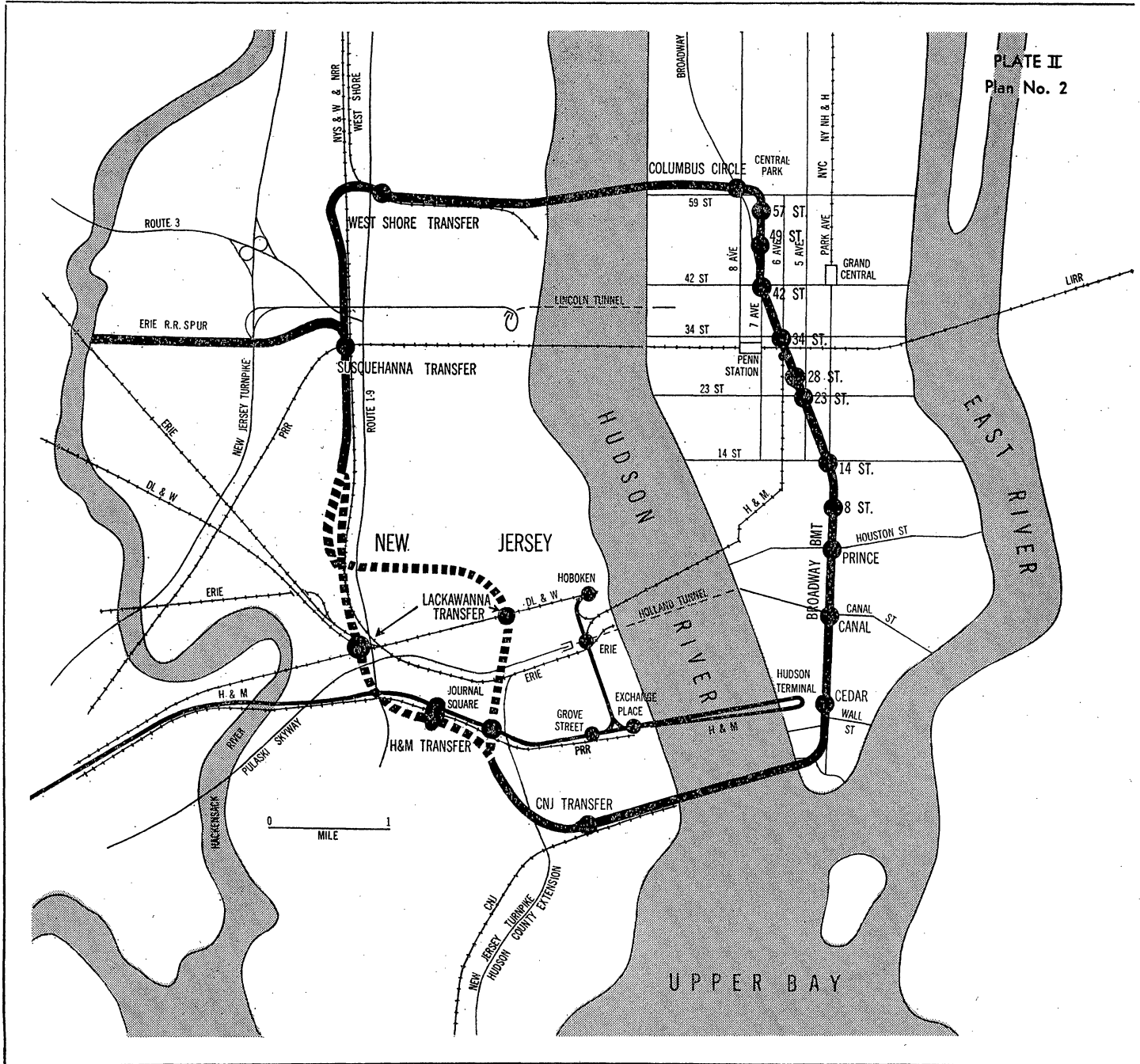


PLATE II
Plan No. 2

PLAN No. 2

A Bi-State Loop using the BMT subway in Manhattan

PLATE III
Plan No. 3

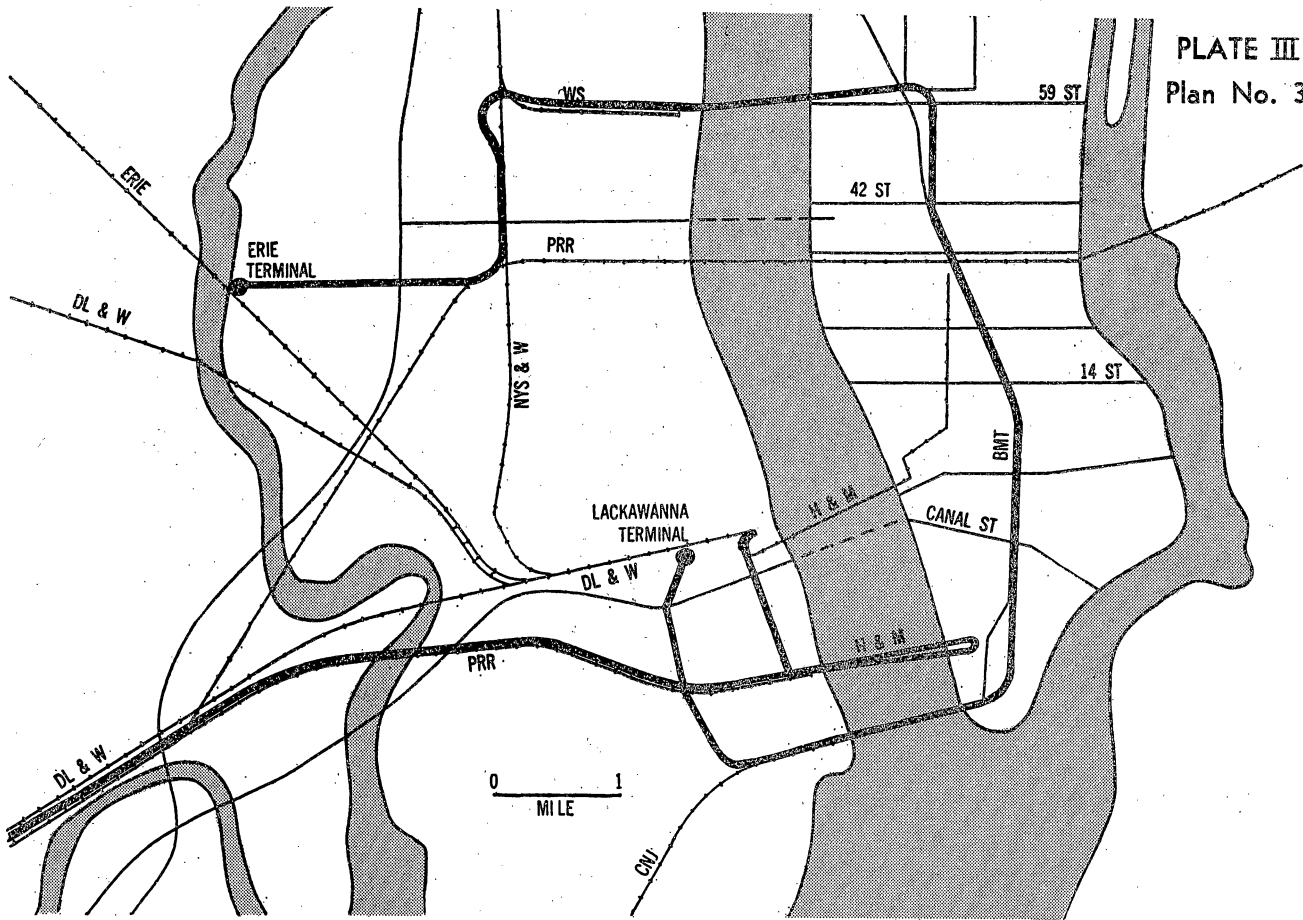
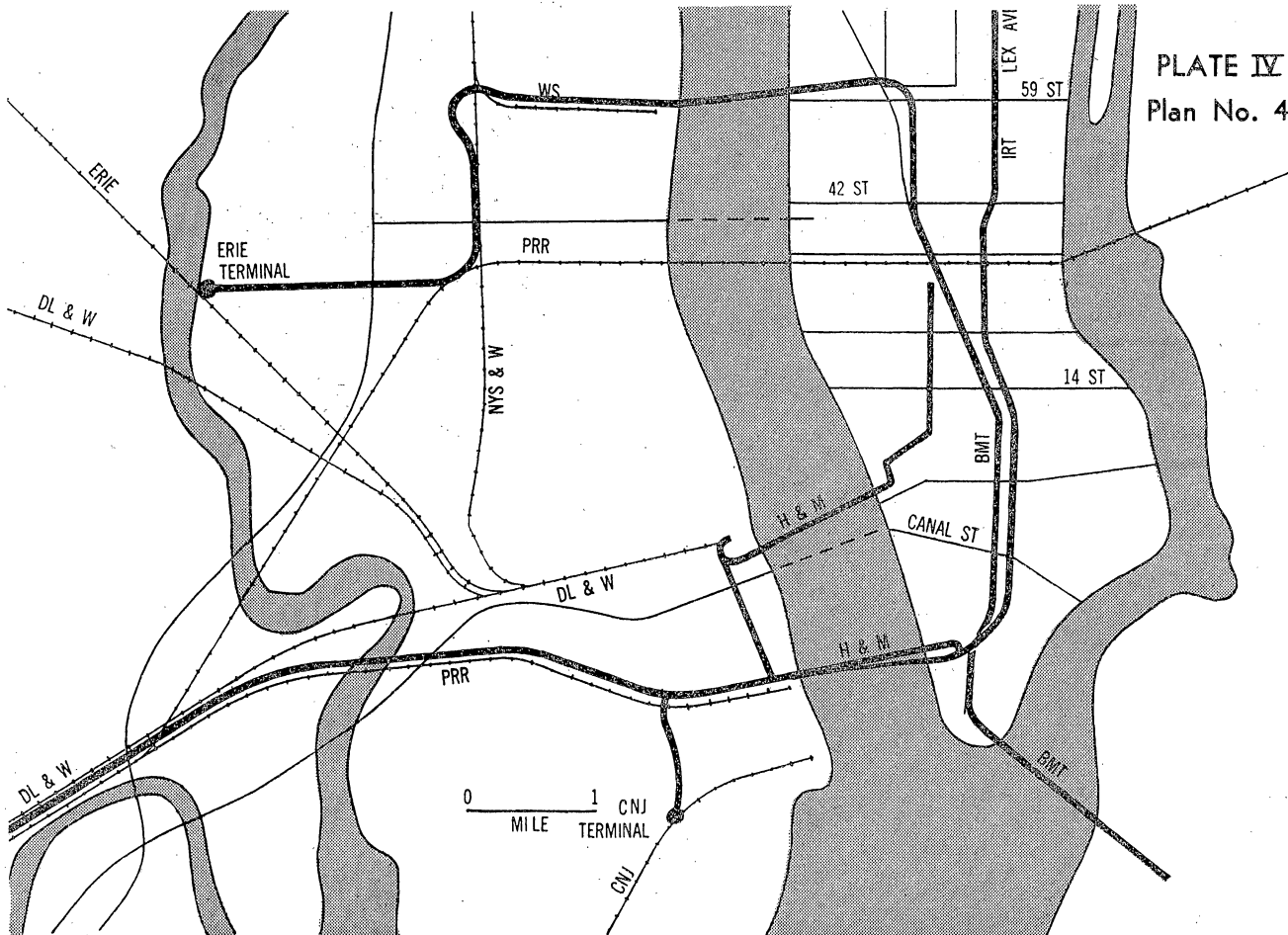


PLATE IV
Plan No. 4



Public Reaction to the Project Director's Report

Following its release on May 20, 1957, the Project Director's Report became the subject of much editorial comment and public reaction. The Commission scheduled a number of hearings during the early summer to explain the Report and to invite further study by interested individuals and organizations.

Two public hearings were held; one in New York on June 12 and the other in New Jersey on June 18. In addition, presentations were made to both the New York and New Jersey Chambers of Commerce in separate sessions. Members of the Commission and its staff also discussed the plan with a number of other civic organizations in both States. The main purpose of these early hearings was to set forth the basis of the problem and the nature of the Project Director's Report and to urge careful study of the proposals during the summer.

In the fall, public hearings were again held in New Jersey and New York on September 10 and September 17, respectively, to hear comments and suggestions from individuals and agencies aimed at helping the Commission to develop specific recommendations.

The Commission has carefully studied the various suggestions, criticisms and comments made by individuals, government officials, civic agencies and other organizations and has tried to give them due weight in arriving at its own conclusion.

The presentations indicated certain general areas of agreement. There were also expressed many conflicts of opinion on details of the physical and financial proposals.

Areas of Agreement

There was practically unanimous support of the proposition that rail transit improvements, of some type, across the Hudson River are required.

There was also practically unanimous support for the proposition that trans-Hudson rail transit improvements can only be accomplished through the creation of a new bi-state public agency for the purpose. Among those who specifically expressed favor were:—

New York Chamber of Commerce
Regional Plan Association, Inc.
Citizens Budget Commission
Avenue of the Americas Association
14th Street Association
The Trustee of the Hudson & Manhattan
Railroad
Henry K. Norton
The Mayor and Council of the Borough of
Dumont, N. J.
John A. Hastings
L. Alfred Jenny
Bergen County Transit Committee
Boonton Line Transportation Association
Northern Valley Commuters Association
Commerce & Industry Association

Many organizations expressed general approval, in principle, of the Project Director's plan without concurring in the details. Among them were:—

Commerce & Industry Association
Retail Dry Goods Association
New York Real Estate Board
34th Street Midtown Association
County of Rockland
Democratic Committee of Orange County
Fifth Avenue Association
West Side Association of Commerce
Monmouth County Planning Board
Citizens' United Transit Committee
Bayonne Planning Board
Some Locals of the Railroad Brotherhoods.

Reaction to the Physical Plan

As to specifics of the physical plan there were speakers who urged that the Manhattan portion of a transit loop should be in a new subway rather than by use of existing subway lines (an "independent" loop). Among them were:—

New York Chamber of Commerce
Boards of Chosen Freeholders of Union,
Morris and Passaic Counties
L. Alfred Jenny
Joint Committee of Municipal Groups of
Northern New Jersey
The Chairman of the New York City Transit Authority.

As the position of the Transit Authority on matters concerning the use of its subway lines is vital to the final scheme, some of the Chairman's remarks are quoted:—

"My comments on the report of the Project Director to the Metropolitan Rapid Transit Commission are concerned primarily with the effect of the recommendation made in the report on the operations of the New York City Transit Authority.

"The recommended plan for the proposed bi-state rapid transit loop includes the use of the BMT-Broadway Line as the Manhattan portion of the railroad.

"The Transit Authority is opposed to this plan for two reasons:

(1) It would require a reduction in the present BMT peak hour local service from Brooklyn from 21 to 15 trains per hour. This would reduce the car service from 151 to 120 cars per hour and would result in a peak hour loading increase on the remaining BMT trains from an average of 121 passengers per car to 152 per car. In the peak 20 minutes the loading increase would be from 129 to 169 passengers per car. In view of the proposed loading in the loop trains of 75 passengers per car in the northern tunnel and 121 in the southern tunnel, it would be difficult for us to justify to our present passengers an increase in the existing congestion, which is already at or above the level proposed for the New Jersey commuters.

(2) The plan would take up all existing unused capacity in the BMT-Broadway Line and would preclude us forever from using this capacity to accommodate riders from other areas of New York City. We are presently studying plans for such use.
* * *

"It is my personal opinion, based on my experience in the operation of main line railroads and the New York City Transit System that Plan #1 of the consulting engineers, or a similar plan for the construction of an independent bi-state loop, offers definite operating advantages. It would permit the use of completely modern high-speed equipment and would take advantage of all the latest advances in design, construction and operation of rapid transit lines. It would also provide the capacity for additional future lines." * * *

During questioning (pp. 100 to 104 of the Transcript), he indicated that no other Manhattan subway line has the capacity to accommodate New Jersey trains and that only the 7th Avenue Local service will be able to accommodate all New Jersey passengers if they should transfer to it.

Some speakers proposed that the Hudson & Manhattan Railroad be utilized as the base for trans-Hudson transit improvements. They included:—

The Trustee of the Hudson & Manhattan
Jersey City Chamber of Commerce
Jersey City Board of Retail Merchants
23rd Street Association
Citizens Transit Committee
Hoboken Chamber of Commerce

Mr. Morris Stein, Councilman of the City of New York, and also speaking for the President of the Borough of Brooklyn, urged that the trans-Hudson system be extended across the East River to Brooklyn to connect with the Long Island Rail Road.

Congressman Frank Osmer of Bergen County suggested that the loop should use the Hudson and Manhattan and the George Washington Bridge as river crossings.

Other speakers urged minor modifications of the route such as a routing through Journal Square in Jersey City, use of the Erie Rail-

road's Bergen Archways route instead of a new tunnel west of Hoboken, and the addition of a station on the north leg in West New York.

Reaction to the Financial Plan

As noted above there was general support for the creation of a new bi-state public agency and considerable approval of the subject plan, "in principle". On the other hand there were several objectors to the financial plan from New Jersey municipalities and counties, some objecting to being burdened at all with any part of a possible transit deficit and some objecting to details of apportionment such as the size of their individual share in relation to benefits obtained. There were, however, very few alternatives proposed. Among them were:—

1. Obtain a capital contribution from the federal government.

2. Require the Port of New York Authority to either assume responsibility for construction, pay all deficits or make a substantial annual contribution.

3. Operate at a fare level that would result in the passengers paying all operating and debt service costs.

4. Have the agency's bonds supported by the credit of the States. This proposal was forwarded by the New York Chamber of Commerce, the Newark Economic Development Committee, the Newark Chamber of Commerce and the Mayor of the City of New York. The statement read for the Mayor by City Administrator Charles F. Preusse said, in part:—

"The primary responsibility for financing any trans-Hudson transit plan, including possible deficits, should be assumed by the two States. New York State and New Jersey have existing or potential taxing powers which are broader, more flexible and more adaptable to meeting metropolitan needs than are the tax structures of the communities within the region. More extensive use of these State Tax sources than is provided in the Page proposal needs to be made. The jurisdiction and interest of the two States include both the urban and suburban areas involved in commuter transit plans. It may be noted that approximately two-thirds of New York State's population resides in the New York metropolitan area and that about 75% of New Jersey's population lives in the New Jersey portion of the metropolitan region."

Some New Jersey speakers urged greater New Jersey representation on the council of the new agency so long as the area west of the Hudson River would bear about two-thirds of any deficit whereas a New York City viewpoint was expressed that the City should have a greater representation on the council.

The Transcripts of all hearings are on file in the Commission's offices and are available for examination by anyone interested in the details of the presentations.

The editorial reaction in the metropolitan press was generally of the tone that rail transit, including suburban railroad service, is essential; that the financial position of the railroads will soon result in an emergency; and that the public must soon realize its responsibilities in the field of transit. Quotations from the press are included in Appendix C.

SECTION IV

THE INTRASTATE STUDIES

A. *New York State*

The Commission's studies of rapid transit needs in the Westchester-Fairfield, Long Island and Staten Island Sectors were necessarily restricted in scope by the limited funds made available for intrastate use. The intrastate studies are summarized and analyzed in the Staff Report prepared by the Commission's Executive Director, a copy of which is submitted with this report.

The New York intrastate studies indicate the continued and growing importance of the suburban railroad service; the need to maintain it; and the need to improve it both to better its usefulness as compared to the other means of transportation and to make provisions for an expected growth of commuters.

A general program for the future to meet those needs has been developed by the staff. They are based on the recommendations of the Project Director in the interstate studies and as extensions to them.

Westchester-Fairfield Sector

1. A program for replacing old and obsolescent railroad coaches to provide adequate comfort and speed for passengers and to provide for an increasing number of commuters.

2. Discontinuance of many local stops within the transit area in New York City in order to speed up service and to provide for the operation of additional trains to accommodate an increasing number of commuters.

3. Future inclusion of the Westchester Sector counties, including Fairfield County, Conn., in the new metropolitan rapid transit district to provide the means of assuring the maintenance and improvement of essential suburban transit services.

Long Island Sector

1. The eventual inclusion of Nassau and Suffolk counties in the new metropolitan rapid transit district. This will provide the means of taking any action which may be required to

assure the maintenance and improvement of suburban railroad service after expiration of the Railroad Redevelopment Corporation Plan under which the Long Island Rail Road will operate until 1966.

2. Construction of a new rapid transit line across the East River from Manhattan to Queens. The line could be built either by the City of New York as a part of the Second Avenue subway project or by a new metropolitan rapid transit district as an extension of a trans-Hudson loop system. All major transit improvements for Long Island must be based on construction of such a line.

3. Contingent upon the aforesaid extension of rapid transit across the East River, integration of the Port Washington Branch of the Long Island Rail Road into the new transit line. This would make available capacity for operation of additional trains into Pennsylvania Station from branches serving the most rapidly-developing areas on Long Island. It would allow the elimination of standees and would provide for an expected increase in the number of commuters.

4. Eventual extensions of city subway lines to the vicinity of the city limits in Queens or beyond.

Staten Island

Eventual provision of direct rail transit service to Manhattan via Bayonne and Jersey City and across the Hudson River in either a new transit loop or the Hudson and Manhattan.

B. *New Jersey*

The Commission, on April 26, 1956, retained the consulting firm of Wm. Wyer & Co. of East Orange, N. J., to conduct a general review and study of the various economic and geographic characteristics of Northeastern New Jersey, to conduct a review of previous transit studies in New Jersey and to provide expert advice to the Commission as to which areas within the State of New Jersey have requirements for intrastate transportation sufficient to merit study by the Commission. A report was submitted on July 13, 1956.

Mr. Wyer recommended that the Commission consider intrastate rapid transit studies, to be carried out in connection with interstate studies, in the following areas:

1. Hudson and Bergen Counties

The study would cover the heavily populated and densely developed area from Bayonne on the south through Jersey City, Hoboken, Union City, Weehawken, West New York, Guttenberg and North Bergen into the southern part of Bergen County. It would be directly related to services on the Jersey Central, West Shore, and the Northern Branch of the Erie Railroad, and also the north-south leg of any bi-state loop system or any Staten Island line that might be recommended in the interstate studies.

2. Newark Area

Any intrastate study in this area should include consideration of means of connecting the existing railroad lines more directly to the major employment centers of the area.

Mr. Wyer also recommended consideration of studies of the following for the Elizabeth-Newark-Paterson area:

(a) A Newark-Paterson transit route based on the Newark City Subway.

(b) An alternate Newark-Paterson transit route along the west bank of the Passaic River.

(c) Facilities for better distribution of passengers within Newark, including a subway under Broad Street, service to the heavy employment centers east and south of Newark, and connections with existing east-west rail lines.

(d) A transit route from Newark westward into Irvington, Maplewood and Union to provide better transportation for workers into the Newark area and to provide access to interstate transit lines.

Upon review of Mr. Wyer's report, the Commission concluded that any intrastate transit studies within New Jersey should be deferred until the completion of the interstate studies then underway. Intrastate transit must, of necessity, be closely coordinated with interstate transit and, in fact, some of the necessary local services might well be provided by any of the interstate improvements to be recommended.

Prior to the submission of the Project Director's Report on the interstate studies, the

Commission was advised by the State Department of Conservation and Economic Development that a Regional Master Plan Study for Northeastern New Jersey was being organized. The Department requested that the Commission cooperate by coordinating its transit studies with the other studies to be made. That procedure represents good planning and the Commission agreed to do so provided the rapid transit studies would be carried on by and for the Commission.

The Department of Conservation and Economic Development has advised the Commission that it plans to conduct the Regional Study as follows:

1. Over-all coordination by the Department through its State Planning Bureau.

2. The State Planning Bureau will conduct the primary reconnaissance of all the factors involved in planning in northeastern New Jersey.

3. The Bureau will conduct economic, demographic and land-use studies and advise all cooperating agencies of its findings.

4. The Bureau will conduct a bus and other mass transit survey, not to include rail transit.

5. The Metropolitan Rapid Transit Commission will undertake a survey and prepare a plan for intrastate rail transit and related feeder facilities.

6. The State Highway Department will prepare studies and plans of highways, including origin and destination surveys if possible.

7. The Planning Bureau shall make all other related studies of public facilities, with the cooperation of Federal, State, County and local agencies.

8. It will be the function of the Bureau of Planning to provide each agency with all of the data and studies obtained by all other agencies and to assure that all related factors will be coordinated and integrated into the final Plan to be published by the Department of Conservation and Economic Development.

The Bureau of Planning has advised the Commission that the regional studies will take two years to complete and should get under way in June 1958, after a detailed Study Plan has been developed and after the necessary funds, including a possible federal grant, have been obtained.

SECTION V

FINAL RECOMMENDATIONS OF THE TRANSIT COMMISSION

1. General Policies and Principles

As a result of the studies prepared by the consultants to the Transit Survey, of the Commission's analysis of the Project Director's Report, and of its careful consideration of public reactions to that Report, the Commission has arrived at the following general principles which it feels must govern its recommendations:

- (1) **The most urgent problem before the Commission—trans-Hudson transit by rail.**

There can be no question that in terms of the long range requirements an ultimate solution must be found for the entire metropolitan area. In the opinion of the Commission, however, the problems of the New Jersey railroads and of the trans-Hudson movement of rail passengers are so severe that first attention must be given to this sector of the metropolitan area.

- (2) **The problem requires a solution which will be adaptable to the entire region and to an expanding concept of the metropolitan area of the future, one which will be as adaptable for 1975 as for 1957.**

Although attention must be directed to maintaining and improving present rail service and preventing its further deterioration, changes in the regional land use and economic pattern indicated by the Commission's consultants indicate that provision should be made in any long range transit plans for such growth and changes as may be expected to develop.

- (3) **The solution must make the best use of the rail rapid transit facilities now available and still usable, consistent with the future growth of the area.**

The Commission believes that the existing New Jersey railroads, including the H & M, should be utilized to the fullest extent possible, consistent with other physical requirements, prudent investment and use of latest technologies in any future transit plan. Only those railroad lines where bus service would provide better service at lower cost, and the trans-

Hudson railroad ferries which are uneconomic and which provide poor service, should be eliminated from further use. Improvements to existing facilities should be made wherever possible, but it is false economy to invest in the old facility when it cannot meet the new requirements.

- (4) **Any solution which is dependent upon the use of excess capacity of the existing subway system of the City of New York would be inappropriate so long as the city authorities retain plans for future use of such capacity for other city needs.**

Although the Project Director in his report recommended a solution which would involve the use of the BMT-Broadway Subway as a Manhattan link of a transit loop, the Commission finds that it must give serious consideration to the views expressed by Chairman Patterson of the Transit Authority that all capacity of this subway is either in use or will be utilized by extensions and improvements currently under consideration by the Authority.

- (5) **The problem must be considered as a regional problem and the solution must be recognized as a regional benefit, without limitations of internal political boundaries.**

The Commission has adopted this policy as the keystone to its whole study and to its future program. Just as the existence and continued operation of the New York City subway system is of vital importance to the City of New York so, in the opinion of the Commission, is the existence of efficient suburban rail transit of vital necessity to the larger region. The Commission's analysis of the inter-relation between rail transit and other forms of passenger transportation in the area, primarily automobile and bus, leads to the positive conclusion that in a majority of cases existing rail transit service must be maintained.

Because of the regional benefit, the region as a whole and each of its communities have an important stake in the solution to the over-all problem and thus a responsibility to assist both

in providing and effecting the solution which is proposed.

- (6) **The solution which best meets the physical requirements and conditions found by the Commission must be based on some form of independent bi-state loop.**

The Commission finds that an essential part of any physical plan should be the provision of a new transit line to bring passengers from the New Jersey railroads and distribute them throughout Manhattan south of 59th Street. The Commission feels strongly that the existing ferry service supplied by certain railroads to get their passengers to Manhattan can no longer be considered an efficient or economic method for making the trans-Hudson crossing, and further that the ferry service is deficient in terms of such factors as convenience and time. The Commission finds that the job of transporting railroad passengers to Manhattan could not be adequately handled by the H and M either alone or in combination with rail-bus transfer service through the Lincoln Tunnel, both of which would require an additional transfer in Manhattan for most passengers.

Upon careful analysis, it is clear that any of the plans for bringing long-haul as well as commuter passenger trains to a Manhattan terminal, for bringing freight as well as passengers into Manhattan, for aerial transit, for monorail, for the extension of transit out into New Jersey, or for any other extensive expansion of service and facilities, are open to objections discussed in Appendix B.

- (7) **The public interest justifies and requires some form and degree of public credit and support for adequate mass transportation by rail. As in the case of every other metropolitan area in the country fares alone will not pay the full cost.**

At the present time, the New Jersey commuter railroads are operating at a heavy deficit, as are the trans-Hudson ferry services operated by the railroads. It is the Commission's opinion, based on its analysis of the reports of its consultants and Project Director, that operating deficits can be reduced to some degree but new

equipment for and modernization of existing rail service and necessary new construction and service will involve additional deficits. The Commission also is convinced that it is not practical to set fares at a high enough level to eliminate deficits. The Commission has noted carefully transit developments and studies in other parts of the country and finds that this is not a local phenomenon but is representative of a national trend towards a recognition that continuing deficits are inherent in commuter rail service.

The Commission, therefore, feels that the best method of providing the necessary subsidy is that it be supplied by the benefited areas prorated as closely as possible in terms of the benefit derived. The Commission feels that the possibility of federal subsidy for transit is extremely remote and cannot be seriously considered.* Furthermore, the intensive demands on the finances of both States for increased appropriations and capital expenditures on a state-wide basis, make it doubtful that the States would be in a position to provide anything but modest financial assistance to benefit only a limited area of each State. The Commission has noted suggestions that other governmental agencies provide the necessary subsidy. It agrees with the conclusion reached by its consultant and Project Director that it is not practical to rely on any such agency for the financial feasibility of a rail rapid transit system.

* At the New York City hearing on September 17, 1957, the following was stated on the subject of federal aid by Congressman Osmer, Ninth Congressional District of New Jersey:

"Now, because I am a Member of Congress, it is quite natural that a number of people have asked me about the possibility of Federal aid and Federal subsidies for a situation of this kind. I think it might be possible to get a Special Committee together to look over the subject and if the New York-New Jersey area were entirely unique from all of the other areas in the country, there might be something to talk about, but if we are going to contemplate a program of correcting rapid transit commuting in the rapidly growing metropolitan areas of the United States—shall we call it the 'suburbanization' that is going on in the United States today, where our large cities, many of them, are becoming slums and places of manufacture and of business, and the suburban areas are being built up for residence purposes—there wouldn't be enough money in the Federal Government to finance those kinds of programs, and I certainly would consider that, gentlemen, to be a rubber crutch, if you were going to lean on it very hard in the solution to this problem."

- (8) Adequate transportation for the metropolitan area and the effective operation of a bi-state loop require the continuation of essential suburban railroad services within the area, including public operation and support of such services as may be necessary to maintain them.**

It is the Commission's view that the attention of the proposed metropolitan rapid transit district must be given to maintaining in operation those commuter railroad services within the region which are essential to its economy and development. The urgent nature of the problem is found in the pending requests by the railroads for permission to cut back on service or to abandon lines entirely. Of particular concern is the plight of the Hudson and Manhattan Railroad. Its downtown line is the most vital transit link between Newark, Jersey City and New York and its service is an absolute necessity to the people of those communities. It is presently being operated by a Trustee under the Bankruptcy Act, and it is problematical how long it can continue service without public financial assistance. The Commission stresses the need for prompt attention to this problem. If the metropolitan rapid transit district is successful in finding methods to keep essential existing rail rapid transit services in operation, its attention can then be directed to studying methods of improving service to whatever extent is physically and economically possible. There are cases where minor railroad lines, particularly in the northern section of New Jersey, might be replaced more economically by bus service. In the case of commuter rail service provided by the Pennsylvania, Lackawanna, Jersey Central and main line of the Erie, however, it is the Commission's opinion that the substitution of buses or automobiles as the means of transportation in the areas served by these lines would have a seriously adverse effect upon the economy and public convenience of New York City and the entire metropolitan area.

- (9) The administration and financing of improved transportation in accordance with these principles requires a new agency of metropolitan government organized with the cooperation of existing local governments in the area.**

In their reports both Dr. Miller and Mr. Page stated that there is no existing agency which presently has both the legal power and the financial resources to undertake the programs of improving the suburban railroad service in the metropolitan area and constructing and operating rapid transit facilities across the Hudson River. The Commission feels strongly, therefore, that the first requirement for action in the field of maintaining and improving rapid transit service is the creation by the Legislatures of the two States of a new permanent bi-state transit agency. Such an agency would have powers not held by the current Commission, which would make possible the development of a detailed specific plan to solve the administrative and operational problems involved.

- (10) The details of a construction program and a suburban railroad operational program can be determined only by a new permanent bi-state agency empowered to consult and agree upon local needs with the various counties in the region and to negotiate with the various railroads providing suburban transportation within the region.**

The Commission has compiled a great deal of factual material and data on all phases of the rail transit question but, as a primarily advisory agency, it has not been able to meet with railroad or governmental officials to discuss details of finance and administration. The proposed permanent bi-state transit agency would be better equipped to carry out this necessary function which should be one of its first activities following its creation.

- (11) The purposes to be achieved require the creation of a permanent metropolitan transit district with a governing body representative of each of the counties in the area served by the District, and authorized to submit to the respective state legislatures a final plan for the construction of a bi-state loop and a negotiation plan to maintain railroad suburban service, as need appears.**

Following its negotiations the bi-state transit agency, which would consist of representatives from each of the counties in the area served, would then submit to the state Legisla-

tures a final physical and operating plan by which the railroad service could be maintained and the trans-Hudson loop constructed. This plan could be worked out carefully through negotiation with all interests and thus produce a plan representative of those interests which would be practical and possible of achievement.

2. Administrative Plan

As previously outlined, Dr. Miller's principal conclusion and recommendation was the establishment of a new bi-state governmental body which would assume the responsibility for developing, financing and operating rapid transit in this area. In turn, the Project Director endorsed this conclusion and submitted this proposal to the Commission as his main and fundamental recommendation. The Commission itself is fully persuaded that the first and fundamental step in the solution of our transit problems lies in the establishment of a new permanent bi-state metropolitan rapid transit district.

It is significant that in the Commission's hearings in New York and New Jersey there was strong support for the creation of such a new agency. It has previously been noted that while public reaction was rather sharply divided on certain issues, there was greater unanimity on the need for a new agency than for any other phase of the Project Director's proposal. Several leading civic and business associations limited their recommendations on this subject of rapid transit to the creation of a new bi-state governmental agency with authority and additional necessary governmental powers to carry forward the work of the Commission.

On the basis of the studies and recommendations of Dr. Miller and Mr. Page as well as its own examination of the problems involved, the Commission therefore provides, in the draft of proposed legislation which has been made a part of this report, for the creation of a metropolitan rapid transit district by interstate compact of New York and New Jersey. The first duty of such a new Metropolitan Rapid Transit District, once established by legislation enacted by the Legislatures and approved by the Governors and the Congress, would be the preparation and submission of a specific and definitive General Plan for financing, construct-

ing and operating the transit system. In accordance with the Transit District Act, the Transit District is authorized to issue the following:—

1. Negotiate with the affected railroad companies, transit companies, and transportation organizations to appear, for the construction of the existing and essential transit system, as well as for whatever other conditions are required for the operation of the transit system. This authority to arrive at tentative agreements on financial and other matters subject to final adoption by the Legislatures of both States is recommended plan to be submitted to the new Transit District.
2. Through discussions with the Legislatures of the two States and of the affected local governments within the bi-state district, develop a specific and definitive financial and administrative plan providing any public subsidy as may be necessary to carry out such transit improvements as may be developed in the future.
3. Submit to the Legislatures and Governors a General Plan, covering both financial and physical aspects, for the maintenance and improvement of mass public rapid transit for trans-Hudson commuters and other suburban passengers. This plan should incorporate the most effective use of both commuter railroads and buses to provide such service.

Under the assumption that the enabling legislation can be enacted early in 1958, which would permit the Transit District to come into being shortly thereafter, it would be expected that a General Plan embracing financial and physical aspects could be prepared and submitted to the Legislatures and Governors of the two States in 1959. The Transit District would not be authorized to proceed with the implementation of any General Plan or part thereof until such plan has been approved by concurrent legislation in the two States.

The recommended Statute further provides that upon a request from the Legislatures or

ernment and of regional responsibility for improvements which will be peculiarly of regional benefit.

2. The District shall finance its capital needs by issuing the bonds of the District secured by a pledge of its net revenues and by the duty of the District to certify its deficits annually to the constituent counties.
3. In turn, the interstate compact would make the deficits so certified a charge upon the respective county budgets, which could be financed in any manner the county governing bodies might determine. For this purpose the County of New York (Manhattan), would be deemed to be governed by the Board of Estimate of the City of New York.
4. The new district would thus become the corporate agency and instrumentality of the respective counties and the City of New York to assure, improve and provide essential transit facilities.

3. Physical Plan

The Commission has given careful consideration to a vast amount of material relating to a physical plan under which rail commuter service in New Jersey and the trans-Hudson crossing could be maintained and improved. The Project Director, after careful consideration of the detailed work carried forward by the consultants to the Transit Survey, recommended a bi-state loop connecting the commuter railroads in New Jersey to the BMT-Broadway Subway by two pairs of tunnels at the Battery and at 59th Street, known as Plan 2. The basic engineering studies were carried out by Charles E. DeLeuw who considered many possible solutions, but concentrated in his final report on four different variations of a loop scheme including the one selected by Mr. Page. Mr. DeLeuw recommended adoption of Plan 1.

Both Plan 1 and Plan 2 are for closed loops while Plans 3 and 4 are for open loops with no north-south segment in New Jersey. The service on closed loops offers more convenience to most passengers than would service on open loops. With a closed loop, passengers from the northern group of New Jersey railroads could ride to downtown New York on the west side

the Governor's
District Transit
Plan to meet its
critical need of such
financing elements.
In such a case the
District should be de-
termined as to the
views of the
an emergency
of consideration
pendent powers
two States as the financing
As it is and the estab-
lishment of the preparatory
vision of State Legislatures, of
Only a Transit District be given
a power to acquire, construct and
operating facilities for suburban service.
The Commission is convinced that the crea-
tion of a bi-state Transit District will
help forward in achieving a "con-
solidated, financially practicable and
feasible" plan and solution which
will maintain and improve
transit service in the New York-New
Jersey metropolitan area.

The Commission recommends, as its
recommendation, the creation, by
compact, of a new metropolitan
transit district which would be
responsible for developing a plan for fi-
nancing and operating rail rapid transit
in the metropolitan area and for
conducting the appropriate negotiations
with the City of New York, the affected
railroads and other public car-

operating body of the new Metro-
politan District, in accordance with
the plan adopted by the Commission,
the following elements are required:

The governing body of the District shall
be representative of the counties included
in the District—this is essential to
the principle of local self gov-

tures a final physical and operating plan by which the railroad service could be maintained and the trans-Hudson loop constructed. This plan could be worked out carefully through negotiation with all interests and thus produce a plan representative of those interests which would be practical and possible of achievement.

2. Administrative Plan

As previously outlined, Dr. Miller's principal conclusion and recommendation was the establishment of a new bi-state governmental body which would assume the responsibility for developing, financing and operating rapid transit in this area. In turn, the Project Director endorsed this conclusion and submitted this proposal to the Commission as his main and fundamental recommendation. The Commission itself is fully persuaded that the first and fundamental step in the solution of our transit problems lies in the establishment of a new permanent bi-state metropolitan rapid transit district.

It is significant that in the Commission's hearings in New York and New Jersey there was strong support for the creation of such a new agency. It has previously been noted that while public reaction was rather sharply divided on certain issues, there was greater unanimity on the need for a new agency than for any other phase of the Project Director's proposal. Several leading civic and business associations limited their recommendations on this subject of rapid transit to the creation of a new bi-state governmental agency with authority and additional necessary governmental powers to carry forward the work of the Commission.

On the basis of the studies and recommendations of Dr. Miller and Mr. Page as well as its own examination of the problems involved, the Commission therefore provides, in the draft of proposed legislation which has been made a part of this report, for the creation of a metropolitan rapid transit district by interstate compact of New York and New Jersey. The first duty of such a new Metropolitan Rapid Transit District, once established by legislation enacted by the Legislatures and approved by the Governors and the Congress, would be the preparation and submission of a specific and definitive General Plan for financing, construct-

ing and operating a coordinated commuter transit system. In carrying out this assignment, the Transit District would have a statutory directive and authority to accomplish the following:—

1. Negotiate with commuter railroads, bus companies, transit agencies and other transportation organizations, as need may appear, for the continued operation of existing and essential commuter services as well as for whatever additional operations are required for a new improved transit system. This would include authority to arrive at tentative understandings on financial and other commitments subject to final adoption by the Legislatures of both States of the ultimate recommended plan to be submitted by the new Transit District.
2. Through discussions with officials of the two States and of the affected local governments within the bi-state Transit District, develop a specific and detailed financial and administrative plan for providing any public subsidy as may be found necessary to carry out such transit improvements as may be developed now and in the future.
3. Submit to the Legislatures and Governors a General Plan, covering both financial and physical aspects, for the maintenance and improvement of mass public rapid transit for trans-Hudson commuters and other suburban passengers. This plan should incorporate the most effective use of both commuter railroads and buses to provide such service.

Under the assumption that the enabling legislation can be enacted early in 1958, which would permit the Transit District to come into being shortly thereafter, it would be expected that a General Plan embracing financial and physical aspects could be prepared and submitted to the Legislatures and Governors of the two States in 1959. The Transit District would not be authorized to proceed with the implementation of any General Plan or part thereof until such plan has been approved by concurrent legislation in the two States.

The recommended Statute further provides that upon a request from the Legislatures or

the Governors of the two States, the Transit District will prepare an immediate Emergency Plan to cope with special circumstances or critical developments which threaten the continuance of existing commuter rail services. In such an emergency situation, the Transit District would thus be available to submit its views and recommendations for solution of such an emergency transit situation. Implementation of these recommendations would be dependent upon the concurrent legislation of the two States.

As part of the General Plan, consideration will have to be given to the necessary powers of the Transit District insofar as the financing of its operations, its tax status and the establishment of fares and services without supervision or control by other regulatory bodies. Only upon the completion of the preparation, and approval by the two State Legislatures, of a General Plan of transit improvement, however, would the new Transit District be given the necessary powers to acquire, construct and operate transit facilities for suburban service.

The Commission is convinced that the creation of the new bi-state Transit District will be a major step forward in achieving a "constitutionally sound, financially practicable and politically feasible" plan and solution which will assure the maintenance and improvement of rapid transit service in the New York-New Jersey metropolitan area.

This Commission recommends, as its primary recommendation, the creation, by interstate compact, of a new metropolitan rapid transit district which would be responsible for developing a plan for financing and operating rail rapid transit facilities in the metropolitan area and for concluding the appropriate negotiations with the City of New York, the affected counties, railroads and other public carriers.

Within the framework of the new Metropolitan Transit District, in accordance with the principles adopted by the Commission, certain additional elements are required:

1. The governing body of the District shall be representative of the counties included within the District—this is essential to maintain the principle of local self gov-

ernment and of regional responsibility for improvements which will be peculiarly of regional benefit.

2. The District shall finance its capital needs by issuing the bonds of the District secured by a pledge of its net revenues and by the duty of the District to certify its deficits annually to the constituent counties.
3. In turn, the interstate compact would make the deficits so certified a charge upon the respective county budgets, which could be financed in any manner the county governing bodies might determine. For this purpose the County of New York (Manhattan), would be deemed to be governed by the Board of Estimate of the City of New York.
4. The new district would thus become the corporate agency and instrumentality of the respective counties and the City of New York to assure, improve and provide essential transit facilities.

3. Physical Plan

The Commission has given careful consideration to a vast amount of material relating to a physical plan under which rail commuter service in New Jersey and the trans-Hudson crossing could be maintained and improved. The Project Director, after careful consideration of the detailed work carried forward by the consultants to the Transit Survey, recommended a bi-state loop connecting the commuter railroads in New Jersey to the BMT-Broadway Subway by two pairs of tunnels at the Battery and at 59th Street, known as Plan 2. The basic engineering studies were carried out by Charles E. DeLeuw who considered many possible solutions, but concentrated in his final report on four different variations of a loop scheme including the one selected by Mr. Page. Mr. DeLeuw recommended adoption of Plan 1.

Both Plan 1 and Plan 2 are for closed loops while Plans 3 and 4 are for open loops with no north-south segment in New Jersey. The service on closed loops offers more convenience to most passengers than would service on open loops. With a closed loop, passengers from the northern group of New Jersey railroads could ride to downtown New York on the west side

of the Hudson River and avoid the more heavily-used facilities on the north-south route in Manhattan. Similarly, passengers from the southern New Jersey railroads traveling to the area north of 42nd Street in Manhattan could travel north more comfortably on the New Jersey side of the River. In all cases, passengers transferring to the loop would have a choice of directions and could choose the one best suited for their particular needs. Such a choice is not available with an open loop.

Plan 1, as an entirely independent line, could accommodate more passengers than any of the other Plans and for that reason is best suited for future extensions, including a possible line through Jersey City and Bayonne to Staten Island.

On the basis of its analysis of all pertinent data, the Commission has concluded that a bi-state loop offers the most feasible solution to the over-all problem of the New Jersey railroads and the trans-Hudson crossing. In stating this preference the Commission does not intend to exclude from all consideration the other DeLeuw plans, which are described here at some length, as alternatives in the event that future circumstances require appraisalment of their availability.

The Commission concludes that the statements made by Chairman Charles L. Patterson of the New York City Transit Authority at the New York public hearing to the effect that the BMT Subway could not absorb the additional loop traffic cannot easily be dismissed. Moreover, the use of an existing subway would impose serious limitations upon the character of equipment which might be used and of the operations which could be conducted. The added construction cost required for an independent loop, as called for in Plan No. 1, represents an investment in higher service standards, greater potential capacity and the ability to employ the most modern of equipment and operating methods. It provides that potential for expansion of service which growth will require while affording a thoroughly modern basic system from which extensions can be projected as future development may require, neither of which objectives is satisfactorily attainable with Plan No. 2. It offers a more valuable service to the passengers. It may not unreasonably command a higher fare and at the same time develop a larger traffic in the not distant future.

Thus the prospect of lower deficits is a natural result of the higher investment required for a superior facility.

The Commission therefore recommends as the most feasible physical plan an independent bi-state loop connecting all New Jersey railroads and major highways, crossing the Hudson by means of transit tunnels at 59th Street and at the Battery and with a new Manhattan subway line to be built under Madison and Fifth Avenues. (Plan No. 1)

The recommended Statute contained in Appendix A of this report proposes the establishment of a permanent Metropolitan Rapid Transit District which will have the responsibility for preparing a definitive General Plan of transit improvement. The new District would therefore decide on the final details of a physical plan including the route, stations, type of equipment, operating characteristics, etc. In turn, this General Plan would be submitted by the District to the Governors and Legislatures. The District would be authorized to proceed only upon the approval of specified projects by concurrent legislation of the two states.

Upon the basis of its comprehensive studies, however, this Commission concludes that the following general physical plan best meets the primary rapid transit need of the area:

- 1) Within the scope of the ultimate General Plan, the major existing New Jersey rail services should be maintained in order to assure their availability as an integral part of a coordinated rapid transit system.
- 2) A bi-state loop should be developed to connect with all New Jersey suburban railroads.
- 3) An alternate routing through Journal Square in Jersey City is available, though at a somewhat higher cost than a routing through Hoboken, but should be considered. The plan includes a spur of the Erie Railroad to be constructed from the point where the main line of that Railroad crosses the Hackensack River to the Susquehanna Transfer Station for the benefit of those passengers traveling to midtown Manhattan.
- 4) The loop would include two new tunnels crossing the Hudson River, one in the vicinity of 59th Street and the other at the Battery.

5) The Manhattan leg would require a new north-south subway route following an alignment from the Battery under Pearl Street, 5th Avenue to 23rd Street, up Madison Avenue and across to the uptown tunnel.

6) The loop would be designed to include the latest technologies such as the most modern cars operating on rubber tires, electronic controls for automatic operation and safety, the latest developments in road-bed design, acoustical treatment, modern stations, etc. to provide speed, comfort, safety and economy.

7) The required capital would be provided through bonds issued by the District. The deficits between the costs and income of such a system would be made up by the benefited areas on a formula to be determined by the District.

Benefits of the Physical Plan

1. The proposed trans-Hudson transit line would be a great benefit to commuters and other passengers traveling between the New Jersey sector and the Manhattan Central Business District from 59th Street to the Battery.

a. The average New Jersey commuter would save about 24 minutes a day compared with present travel methods, principally because of a faster trip between New Jersey rail terminals and the final destinations in Manhattan.

b. Trans-Hudson rapid transit service would eliminate at least one transfer for most present New Jersey rail passengers and would carry them to within walking distance of their final destination in Manhattan.

c. Service on the Manhattan portion of the loop would offer Westchester-Fairfield commuters an additional means of access from Grand Central to their final destinations and would provide a base for aiding commuters from Long Island.

d. Bus and auto passengers could board the transit line trains in New Jersey and have quick and convenient entry into Manhattan free from delays on river crossings and city streets and free from the problems of parking in the congested Manhattan areas.

The number of travelers directly benefited by improved services would be substantially in

excess of the 140,000-150,000 that would use the transit loop services on any particular day. In addition to commuters, there would be other riders such as shoppers and theatre-goers. In the course of a year, it is probable that most Northern New Jersey residents would have occasion, from time to time, to use the new service to travel into New York City.

2. Benefits would accrue to the City of New York, particularly Manhattan:—

a. Manhattan would also benefit from better service. The Wall Street area would be assured of the continued availability of New Jersey workers who rely on rail service to get to work. The growing Midtown area would be within easy access of potential commuters and shoppers living in rapidly developing suburban areas.

During the next 20 years, population growth of nearly a million will occur within the suburban areas less than one hour's travel time from Manhattan via the improved rail system. With the improved transit facilities many of these new residents, as well as some of the present suburban workers, could be expected to take advantage of Manhattan's unique employment opportunities.

b. The transit improvements will arrest and possibly reverse the trend of commuters to the use of private automobiles and will ease the City's growing problems of traffic and parking.

c. It will relieve the pressures for more subway construction for the New York City Transit System.

3. Benefits will accrue to the suburban communities from improved rail transit service.

a. Improved rail service will lessen the necessity for construction of additional highways which are not only costly but which remove much property from local tax rolls.

b. The proposals will prevent the deterioration of the railroad passenger service which, as an industry, not only pays local taxes but provides employment and compensation for thousands of suburban residents which contributes to the welfare and business of the communities in which they reside.

c. Commuter population in suburban communities can only be maintained by good transit service. The 370,000 suburban com-

muters are immensely important to the local communities. They earn approximately \$2¼ billion a year in Manhattan which they carry home to where they live. Decline of commutation as a result of worsening transportation can have disastrous results on the economy of suburban communities.

4. It will provide better public transit facilities for the growing number of New York City residents who are employed in suburban industrial plants, the bulk of whom must now rely on private automobiles for their daily journey to work.

5. Highway users would also benefit as this new service would accommodate present and future trans-Hudson commuters who would otherwise have to go by road and further congest the highways during peak commuter periods.

Cost of the Program

The first requirement of any large scale public project is sound finance. This has been the guiding objective of the Commission's work which has been expressed in its preference for a minimum capital outlay and a minimum annual deficit which would secure a solution of the rapid transit problem. The Commission has had the benefit of extensive estimates of construction cost and of financing costs, which are fully set forth in the reports and supplementary information from the consultants and the Project Director. Two factors, in the judgment of the Commission, must be accepted:

1) A satisfactory solution of the rapid transit problem will require a substantial capital outlay, if only because it deals with the largest metropolitan area, and;

2) An annual income deficit must be expected, but the size of the deficit is not necessarily in proportion to the size of the initial capital outlay, since some investments in new facilities will be more productive of net revenues than others.

The Commission fully recognizes the requisite of a firm figure of cost and a firm estimate of annual deficit. It must emphasize, however, that there are several elements of costs that can only be determined through the future negotiations and decisions of the permanent met-

ropolitan rapid transit district. The best estimates that are presently available must be considered solely as indicative of the magnitude of the problem, rather than as precise figures.

The following elements must be considered as qualifying any estimate of cost which may be made at this time:

1) The actual construction cost over a construction period of four or five years may reasonably vary from the engineering estimates.

2) The annual interest charge, which has been calculated upon an assumed rate of 4 per cent per annum, may also be higher or lower when the actual time comes to issue the bonds.

3) The amount of bi-state loop net operating revenue, before debt service, projected by the consultant, may very well vary with future traffic developments as well as changes in operating expenses.

4) The fare structure, which is obviously the key to future revenues, is left to future determination by the proposed metropolitan rapid transit district.

5) The amount of capital expenditures required for modernization of suburban railroad services will be finally determined only after the general plan is developed and approved.

6) Negotiations with the railroads, when and as the District determines to operate any particular suburban railroad service, would determine the actual railroad deficit from this source which is to be borne by the District.

The deficits of all the railroads for their suburban services were reported by the Project Director on the basis of his coordination of the data supplied by the consultants and represents the deficits that would occur if the District assumes operation of the suburban service on all the New Jersey railroads involved. Any deficit will be affected by the fares and the amount of service on which the District may decide as to the Loop and as to railroad suburban services.

PLAN 1

	<i>In Millions</i>
<i>The Bi-State Loop</i>	
Capital Cost (The Loop and H&M Improvements)	500 *
Annual Results	
Gross Revenues	22.8 †
Expenses (including depreciation)	7.1
	<hr/>
Net Revenue	15.7
Fixed Charges	23.6
	<hr/>
Deficit	7.9

* This estimate does not include the additional cost of locating the Loop in New Jersey so as to include Journal Square.

† Gross revenues were computed by the Project Director on the assumption of 20¢ for the trans-Hudson fare on the H&M, and 25¢ for the fare on the Bi-State Loop. Since the Project Director's report was issued, the trans-Hudson fare on the H&M has been increased to 25¢.

If the new District should determine that higher fares should be established there will be a lesser number of passengers but increased revenues and smaller deficits. The volume of traffic and the revenues at different fares have been estimated by our consultants and the deficits which would result with such fares are shown as follows:

<i>Loop Fares</i>	<i>H&M Fares</i>	<i>Annual Number of Passengers</i>	<i>Deficit</i>
35¢	30¢	85,100,000	\$2,300,000
30¢	25¢	90,300,000	4,500,000
25¢	25¢	95,570,000	7,000,000

	<i>In Millions</i>
<i>Suburban Railroad Services</i>	
Railroad Deficits as estimated by the Project Director	13
Less Savings under District Control	1
Ferry Losses eliminated by Loop	4
Operating Savings from New Cars	3 ‡
Operating Deficit	5
Fixed Charges on Improvements	4

‡ These savings are predicated upon an additional cost of \$40,000,000 for new and modernized railroad cars.

The Commission has not been able to determine the effect of higher fares on the deficits of the commuter railroads. However, for the purpose of information only, the \$9 million deficit as shown by the Project Director is 36% of the present railroad revenue from commuters.

The calculations thus presented by the Project Director are subject to the future actions and determinations of the District in determining what suburban railroad services (if any) it will undertake to operate and on what terms and at what fares.

The annual deficit on the loop itself as above stated is exclusive of whatever additional deficits may be assumed by the District insofar as it may conclude that suburban service on a particular railroad cannot be adequately or financially continued under private enterprise, and may effect satisfactory negotiations for operation of such suburban service.

These capital costs and deficits are moderate in relation to the huge area that would be served and its extensive resources. The assumption of such a public obligation should be the responsibility of direct representatives of popularly elected governing bodies in the City of New York and the counties within the proposed District.

The financial plan recommended by the Project Director is for the District to receive grants from the two states and possibly the Federal government and to issue its bonds secured by the net revenues of the District and the mandatory obligation upon the taxing units included in the District to pay their respective shares of the deficits certified by the District to the taxing units. It is recognized that this plan of financing may require a test suit to establish its legality before the bonds are sold.

The Commission's consultant and Project Director have concurred in proposing a specific method of apportioning the annual deficit between the City of New York and the suburban counties in proportion to population and full valuation of taxable property and, in turn, among the suburban counties in proportion to population and use of public transit to New York. There are, however, peculiar circumstances in every Plan as they affect the respective States and the various Counties in New Jersey that cannot be reflected in a specific formula at this time. The details of the final method of apportionment of any obligation are matters for future development and determination by the representatives of the governing bodies of the new District.

The Commission recommends that the question of costs, both capital and annual deficit, be left for further development of the general plan by the new Metropolitan Transit District which can be submitted for the approval of the respective Governors and Legislatures of the two states upon the firm basis of completed negotiations which the District should be authorized to undertake.

SECTION VI

RECOMMENDED LEGISLATION

The Metropolitan Rapid Transit Commission is firmly convinced of the essential requirement for good rapid transit service in the New York-New Jersey Metropolitan Area and of the critical demand for a prompt and effective solution to the present difficulties which will assure the maintenance and improvement of rapid transit service. The Commission also feels that the recommendations and proposals contained in the report of the Project Director offer the basic framework for achieving this solution.

At the same time, it is obvious to the Commission that the development of a sound and permanent solution requires a step by step progression in order to assure public understanding and acceptance. It is for this fundamental reason that the Commission has recommended, as the first step, the creation of a metropolitan rapid transit district of New York and New Jersey which, with certain governmental powers not available to the present Commission, would be empowered and directed to develop and submit a final and definitive General Plan of transit improvement for the consideration and approval of the Legislatures and Governors of the two States early in 1959.

Until such a General Plan is approved by concurrent legislation, the metropolitan rapid transit district would not have the power to go forward with the operation or construction of suburban transit facilities. At the same time, however, the Transit District would be available to develop an Emergency Plan to meet a specific critical transit situation if and when directed by the Legislatures or Governors of the two States.

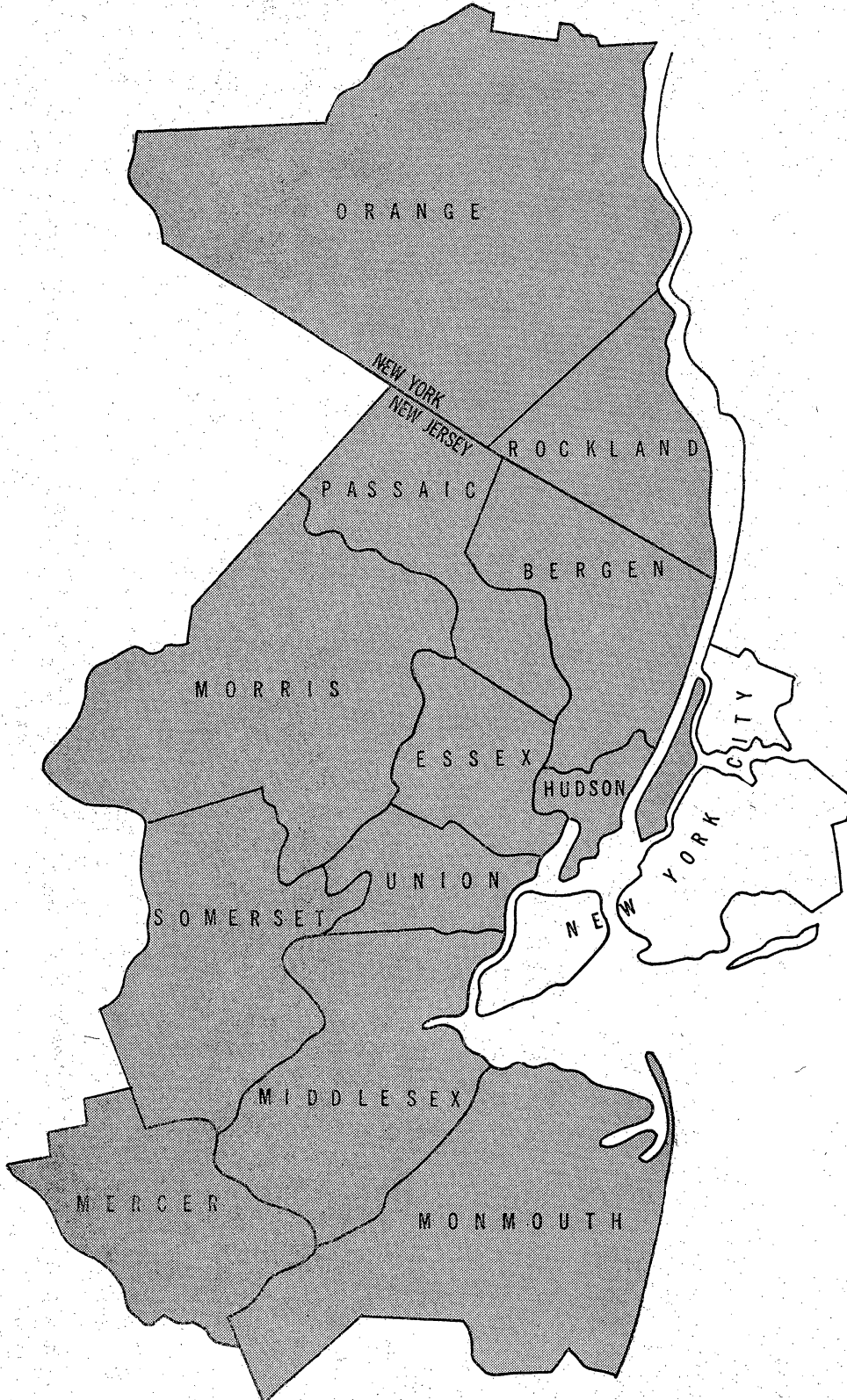
Under this progressive procedure and with direct representation on the Transit District of the areas benefited by suburban transit, the public itself, through its elected representatives in the Legislature and in the local county governing boards will decide and determine whether the area will go forward with a transit improvement plan.

The recommended Draft of Statute for the consideration of the two Legislatures in their 1958 session has been made a part of this final report. The major points which have been incorporated in the Statute include the following:

PLATE V

**Counties Included in the Proposed
Metropolitan Transit District**

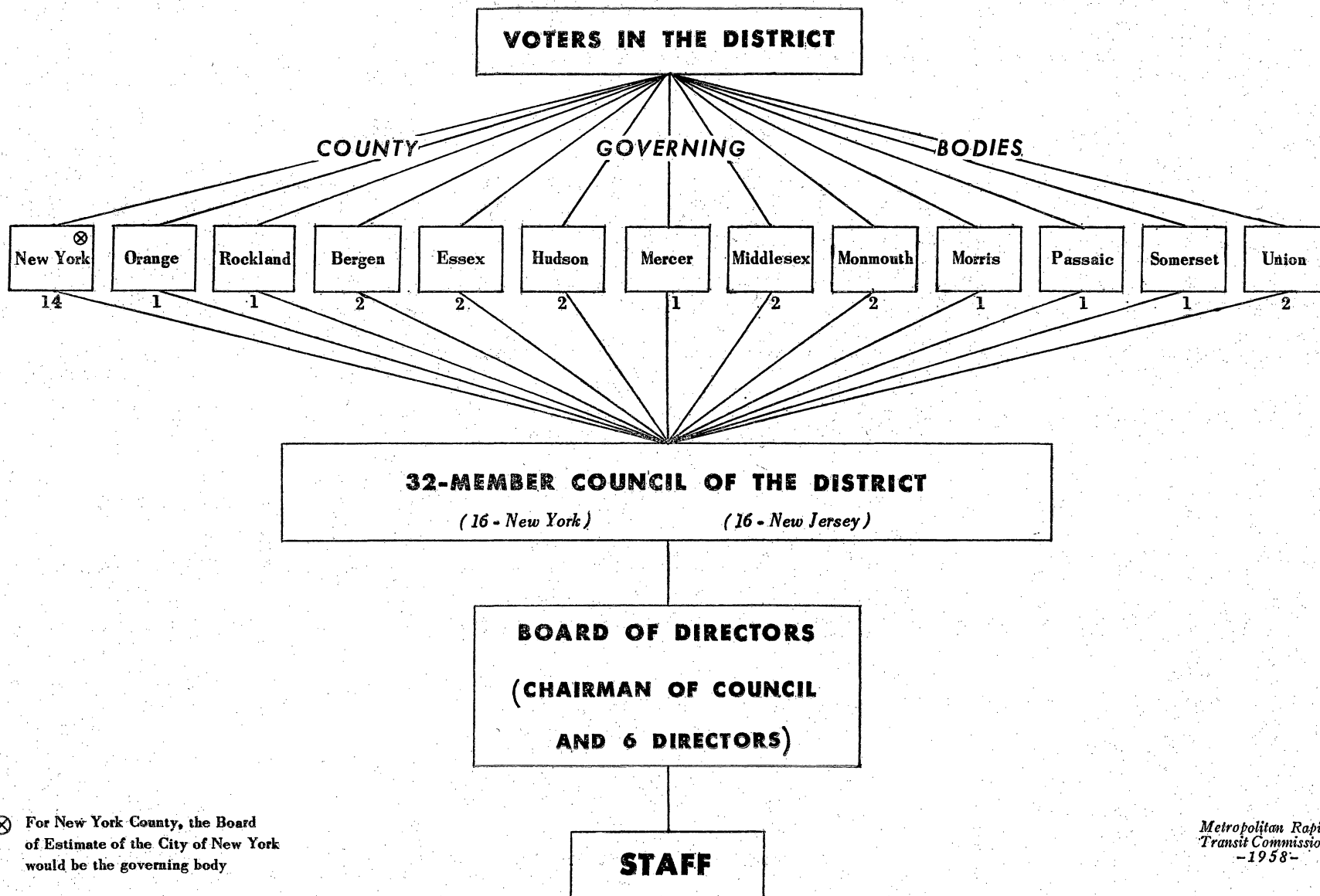
(Other counties may be added by
interstate compact.)



1. At the outset, the Metropolitan Transit District would include the counties of Orange, Rockland and New York in the State of New York and the Counties of Bergen, Essex, Hudson, Mercer, Middlesex, Monmouth, Morris, Passaic, Somerset and Union in the State of New Jersey. Provision would be made, however, to extend the boundaries of the District to include additional counties, including counties in Connecticut, upon the adoption of concurrent legislation by each of the States.

NEW YORK - NEW JERSEY METROPOLITAN TRANSIT DISTRICT

PROPOSED ORGANIZATION CHART



40

PLATE VI

⊗ For New York County, the Board of Estimate of the City of New York would be the governing body

2. Under the recommendations contained in the proposed Statute, the initial District would be governed by a Council whose membership would consist of 32 representatives, each of whom would serve for a term of five years and until the appointment and qualification of his successor. The governing body of each county in the metropolitan district would appoint one representative to the Council for each 500,000 of its population (or fraction thereof). On the basis of the formula proposed by Dr. Miller, the first Council would consist of the following representatives:—

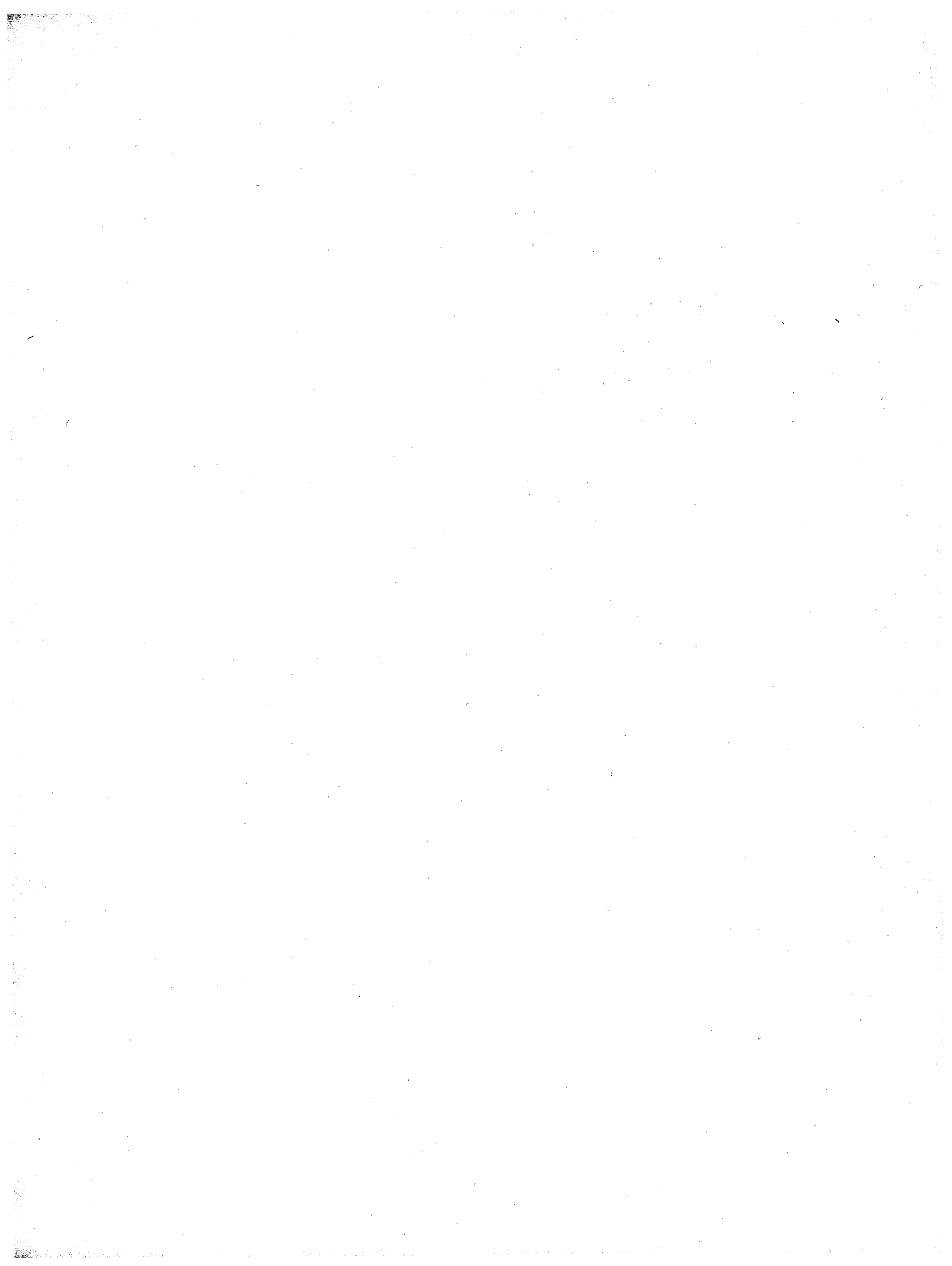
<i>County</i>	<i>Number of Representatives</i>
New York	14
Orange	1
Rockland	1
Bergen	2
Essex	2
Hudson	2
Mercer	1
Middlesex	2
Monmouth	2
Morris	1
Passaic	1
Somerset	1
Union	2
	—
Total	32

3. The Council would have all the powers and duties of providing for the organization and conduct of its business as well as the selection of a chairman and other officers from among its members. It would have the further duty of appointing six directors who, together with the Chairman of the Council, would constitute the Board of Directors of the Transit District.
4. The Council would meet at least annually in regular sessions and would meet at other times in special session. At its regular meeting it would adopt the budget for the ensuing calendar year.
5. The Board of Directors would be responsible for the internal organization and administration of the work of the Transit District, including the appoint-

ment of an executive director and other officers and employees of the staff who would be responsible for the day to day operations of the District.

6. The Board of Directors may constitute and appoint one or more Advisory Boards with such functions, powers and duties of an advisory nature as the Board may provide.
7. At the outset, the Transit District would have no financial and tax powers to raise funds. Until such time as otherwise authorized, this new agency would carry out its work through an annual appropriation of \$150,000 from each State which would cover the expenses of the new Transit District until it was in a position to raise funds of its own.
8. The Transit District would have the basic responsibility of preparing a General Plan or parts thereof for the improvement of suburban service, including construction of a trans-Hudson loop. This General Plan would be submitted to the Legislatures of both States. If and when the General Plan is adopted, the Legislatures would delegate such additional powers and duties to the Transit District as may be necessary or desirable to effectuate the General Plan.
9. At the direction of the Legislatures or the Governors of the two States, the Transit District would prepare an Emergency Plan to cope with any special critical developments which threaten the continuance of existing commuter rail services. Concurrent legislation would be required to implement any such Emergency Plan.
10. If and when the Compact as contemplated in the recommended Statute is adopted by the two States, copies would be transmitted to the Congress of the United States with the request for a Congressional resolution of consent.

The Metropolitan Rapid Transit Commission recommends and endorses prompt consideration and adoption early in 1958 of the legislation creating the new Metropolitan Transit District of New York and New Jersey.



APPENDIX

- A. DRAFT OF SUGGESTED LEGISLATION.
- B. OTHER PHYSICAL PLANS CONSIDERED BY THE COMMISSION.
- C. EDITORIAL REACTION.



APPENDIX A

DRAFT OF RECOMMENDED LEGISLATION

AN ACT to provide for an inter-state compact with the State of [New Jersey] New York to create a metropolitan transit district for the North Jersey-New York Metropolitan Area, and prescribing the functions, powers and duties thereof.

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

[The People of the State of New York, represented in Senate and Assembly, do enact as follows:]

SECTION 1. The State of [New York] New Jersey hereby agrees with the State of [New Jersey] New York, upon the enactment by the State of [New Jersey] New York of legislation having the same effect as this section, to the following compact:

ARTICLE 1

LEGISLATIVE FINDINGS AND POLICY

1.1. *Findings and Purpose.* The legislatures of the State of New York and the State of New Jersey, respectively, hereby acknowledge receipt of the report of the Metropolitan Rapid Transit Commission of the two states (New York Laws of 1954, Chapter 801 and New Jersey Laws of 1954, Chapter 44) and note its findings of fact and conclusions and recommendations. The respective legislatures hereby find and declare that:

Efficient mass movement of people to and from their places of work, business, education and recreation is essential to the commerce, effective government, civil defense and general welfare of all parts of the New York-New Jersey metropolitan area.

Improvement in existing facilities by public action is necessary and desirable to preserve essential service and provide for the needs of an orderly future growth of land use and population distribution within that metropolitan area.

The transportation needs of the area demand the coordinated efforts of private and public capital, the preservation of essential bus and railroad transit service, and the fully efficient use of all available means of mass transportation. It is the purpose of the states to provide for the preservation of such essential facilities and the addition

of new rail and other transit facilities as are urgently necessary for the health, safety and general welfare of the inhabitants of the region.

In view of the experience with rail rapid transit operations in all other comparable regions, as reported by the Metropolitan Rapid Transit Commission, a new agency could not provide such facilities in this area without an income deficit, and could not finance itself solely on the credit of its fares and other revenues.

The problem of public mass transportation is essentially a joint problem of urban areas and their surrounding suburbs. Its solution in a manner most consistent with the principles of local self-government can and should be accomplished through a regional agency—a metropolitan transit district. Such an agency would employ the fiscal resources of the region for such public support as may be voted by local representatives, and within the limits of authorization by the legislatures of the two states.

It is further found and declared that in the event of a serious public emergency resulting from the abandonment or curtailment of any essential transit service, the new district could be called upon to aid in protecting the public interest.

1.2. *The Means to be Employed.* The legislatures of the States of New York and New Jersey, respectively, further find and declare that the public mass transportation requirements of the New York-New Jersey metropolitan area require concurrent action of the two states to create a metropolitan district; and that the governing body of the district be appointed by and be responsible to the respective elected governing bodies of the City of New York and the separate counties within the area. It should be delegated such powers and duties as are necessary and desirable to meet the foregoing needs.

ARTICLE 2

GENERAL PROVISIONS

2.1. *Definitions.* For the purposes of this compact, and of concurrent legislation enacted in furtherance thereof, unless and until the context plainly requires a different meaning:

(1) "County" shall mean any unit of government designated as a county within a state party to this compact and included within the territorial jurisdiction of the district established by this compact.

(2) "District" shall mean the metropolitan transit district of New York and New Jersey, established by and pursuant to this compact.

(3) "Governing body" shall mean the board of chosen freeholders of a county in New Jersey, the county board of supervisors of a county in New York, provided that the governing body of the county of New York (Borough of Manhattan) shall be deemed to be the board of estimate of the City of New York (in the absence of specific provision to the contrary).

(4) "Council" shall mean the council established by and pursuant to this compact as part of the administrative organization of the district.

(5) "Population" shall mean the most recent enumeration, officially promulgated, of the decennial census of population conducted by the United States Bureau of the Census, or its successor.

(6) "Facility" shall mean any real property or personal property acquired, constructed or operated, or to be acquired, constructed or operated by or on behalf of the district for the purpose of providing suburban service.

(7) "Suburban service" shall mean public transportation service for the rapid transit movement of passengers and their baggage by rail or bus between points within the boundaries of the metropolitan district, including any and all incidental services necessary, useful or convenient for that purpose, or to integrate and coordinate such transportation service.

(8) "Concurrent legislation" shall mean a statute adopted by any of the states party to this compact which is concurred in by each of the other states party to this compact in the form of a like enactment.

2.2. *Interpretation of the Compact.* The states of New York and New Jersey intend by this compact to exercise the powers reserved to the states under the Constitution of the United States to facilitate inter-urban and suburban transportation of passengers and their baggage within the metropolitan district by main line railroad, rail and bus rapid transit facilities. This compact shall be liberally construed to effectuate these purposes.

ARTICLE 3

METROPOLITAN TRANSIT DISTRICT

3.1. *District Created.* The inhabitants of the territory of the district described below are hereby incorporated as a body politic and corporate, with perpetual succession, as the municipal corporate agency and instrumentality of the respective counties within the district, for the better discharge of their respective functions, powers and duties with respect to public transit.

3.2. *Name.* The name of this public corporation shall be Metropolitan Transit District of New York and New Jersey.

3.3. *Territorial Jurisdiction.*

(a) The boundaries of the district shall include all of the territory encompassed within the legal boundaries of the following counties of the State of New York:

Orange
Rockland
New York

and of the following counties of the State of New Jersey:

Bergen	Monmouth
Essex	Morris
Hudson	Passaic
Mercer	Somerset
Middlesex	Union

3.4. *Admission of Additional State or Counties.*

(a) The State of Connecticut may become a party to this compact by the adoption of concurrent legislation, concurred in by that state in the form of a statute having the same effect as such concurrent legislation. Additional counties may be added to the territory included within the district, before or after such action joining the State of Connecticut as a party, by the adoption of concurrent legislation providing for the enlargement of the boundaries of the district to include such counties.

(b) Concurrent legislation joining the State of Connecticut to the compact, or providing for the addition of any county to the district, shall provide for and consent to the terms upon which the district shall be enlarged, and may include provision for, additions to or modifications of the basis of representation upon the council, the voting powers of council members, the appointment, tenure and removal of representatives of any county, and the powers and duties of the district including any conditions or limitations upon the exercise thereof. Any such legislation joining the State of Connecticut as a party to this compact or providing for the admission of additional counties of any of the states party hereto which is otherwise authorized by this section shall be deemed to supersede any other provision of this compact which may be inconsistent with this section.

3.5. *Administrative Organization.* The district shall be governed by a council appointed by the constituent governing bodies, a board of directors appointed by the council, an executive director and other

officers and employees as may be appointed by the board of directors within the limits of available appropriations authorized by the council.

3.6. *Council; Appointment.* The governing body of the district shall be a council comprised of 32 representatives, each of whom shall serve for a term of five years and until the appointment and qualification of his successor. The governing body of each county in the metropolitan district shall appoint one representative to the council for each 500,000 of its population (or fraction thereof), provided that the first council shall consist of representatives apportioned among and appointed by the respective governing bodies in the following numbers:

<i>County</i>	<i>Number of Representatives</i>
New York	14
Orange	1
Rockland	1
Bergen	2
Essex	2
Hudson	2
Mercer	1
Middlesex	2
Monmouth	2
Morris	1
Passaic	1
Somerset	1
Union	2
	—
TOTAL	32

3.7. *Effect of Census of 1960.* The number of representatives to be appointed to the council from each county shall not be affected by the promulgation of the population enumeration for the federal census of 1960.

3.8. *Council Members; Term and Compensation.* Each of the members of the council shall serve for a term of five years and until the appointment and qualification of his successor. Vacancies in the office of member of the council occurring prior to the expiration of the term shall be filled in the same manner as an original appointment for the unexpired term only. Members of the council shall serve without compensation.

3.9. *Council; Powers and Duties.*

(a) The council shall, by resolution, provide for the organization and conduct of its business, and for the selection of a chairman and other officers from among its members. It shall also provide for the appointment of six directors who, together with the chairman, shall constitute the board of directors of the district; provided that so long as there are two states party to the compact, three of the directors shall be designated by the representatives of each of the states; and if Connecticut should become a party to the compact, the concurrent legislation adopted to that end shall provide for the number of directors to be designated by the representatives from each state.

(b) The council shall meet at least annually in regular session and may meet at other times in special session. At its regular annual meeting, the council shall adopt the budget of the district for the ensuing calendar year.

3.10. *Board of Directors.* The board of directors, constituted and appointed as provided by the compact, shall:

(a) Provide for the internal organization and administration of the work of the district;

(b) Exercise and discharge such functions, powers and duties of the district as are not delegated to the council;

(c) Appoint an executive director, and other officers and employees, to whom it may delegate such of its functions, powers and duties as it may deem desirable;

(d) Let and execute contracts to carry out the powers of the district, within the limits of the district budget;

(e) Fix the term and compensation of the officers and employees of the district, within the limits of its annual budget; and have such other functions, powers and duties as are provided by this compact, or by concurrent legislation.

3.11. *Advisory Board.* The board of directors may constitute and appoint one or more advisory boards, comprised of representatives of the transportation industry, citizens or citizen organizations, and municipalities, within the district. Such boards shall be appointed in such manner and shall have such functions, powers and duties of an advisory nature as the board of directors may provide.

3.12. *Powers and Duties of the District; General Plan.*

(a) The board of directors, with approval of the council, shall adopt, and may from time to time amend and supplement, a general plan in accordance with the provisions of section 3.13 of this compact.

(b) When and as authorized by concurrent legislation, the district may:

1. acquire, construct and operate facilities for suburban service including, without limitation thereto, a bi-state loop system of rail transportation with connections or transfers to and from railroads and buses providing suburban service and the New York City subway system;

2. acquire by purchase, grant, lease or otherwise, and operate or contract for the operation of such other and different facilities for suburban service as may be included in a general plan.

(c) The district shall not exercise any of the powers delegated by subsection (b) of this section unless and until the legislatures by concurrent legislation shall approve or adopt a general plan or part thereof for the improvement of suburban service.

(d) Upon the adoption of such a general plan or part thereof, or any amendments or supplements thereof, the legislatures may delegate such additional powers and duties to the district as may be necessary or desirable to effectuate this compact and the general plan.

(e) In the event of a public emergency caused by the actual or imminent suspension of one or more essential facilities for suburban service, as found and declared by the governors of the states party to this compact, the district shall, upon such declaration and upon direction of the governors, prepare and submit to the governors, legislatures and county governing bodies an emergency plan to maintain such suburban service. An emergency plan shall be in such form and relate to such matters as the governors may direct. Such an emergency plan or any part thereof shall take effect in accordance with its terms when adopted by concurrent legislation.

3.13. *General Plan.* A general plan shall set forth such projects as the district may propose, to supplement, preserve, coordinate and improve suburban service within the metropolitan district, including the method or methods of financing thereof. In the preparation of such a plan, the council, board of directors and officers of the district shall consider the report, recommendations and supporting documents of the Metropolitan Rapid Transit Commission, the studies and recom-

mendations of state, regional, county and municipal planning agencies, and the plans and projections of other public bodies and privately owned carriers related to the means of public mass transportation within the district. The district shall transmit its general plan and any amendments or supplements thereof to the governors and legislatures, respectively, of the states affected. Upon the approval, by concurrent legislation, of such a general plan or any part thereof, or upon the approval of any amendments or supplements thereof, the district shall have authority to finance, construct, acquire, operate, maintain, develop and effectuate such projects and only such projects as are included in such general plan, or part thereof, or in such amendments or supplements, so approved.

3.14. *Powers and Duties; Additional Powers.* The district may:

(a) Survey and study the origin and destination of passenger travel within the metropolitan district by all of the various means of transportation, and the capacity, adaptability and best utility of each of such means of transportation;

(b) Provide for, acquire and adopt detailed engineering, administrative, financial, and operating plans and specifications to effectuate any part of the general plan;

(c) Negotiate and enter into contracts for the effectuation of the general plan (or any part, amendment or supplement thereof) with railroads and other common carriers rendering suburban service, and with the City of New York, or its Transit Authority, relating to the leasing of lines, trackage rights, equipment rentals and use, stations and appurtenances, necessary or useful for rendering suburban service; and, as incidental thereto, for the sharing of fares, and for the operation of trains, signal systems, buses, parking lots, yards, shops, equipment or services.

3.15. *Powers and Duties; Auxiliary Powers.* The district, in furtherance and aid of the powers otherwise conferred by this compact, may:

(a) Adopt a corporate seal, and adopt, amend and repeal corporate by-laws regulating the administration of its business;

(b) Sue and be sued;

(c) Contract and be contracted with;

(d) Hold, buy, sell, mortgage and lease real and personal property, and grant leases, licenses and concessions for the use of its property;

(e) Appoint and remove officers and employees, and provide for their tenure, compensation, insurance and retirement;

(f) Negotiate with any duly constituted agency of the government of the United States for such loans, grants, or other financial aids, as may be lawfully available to finance or assist in financing the cost of any authorized project or the cost of preparing detailed plans and specifications therefor, and to receive and accept such federal aid upon such terms and conditions, and subject to such provision for repayment, as may be required by federal law or as the board of directors may deem necessary or desirable;

(g) Receive and accept such advances and appropriations toward its capital and operating expenses as may be authorized by concurrent legislation;

(h) Exercise such additional powers as may be delegated to it by concurrent legislation.

3.16. *Reports.* The district shall make and publish an annual report to its constituent governing bodies and to the governor and legislature of each of the states party to this compact, of its programs, operations and finances. It may also prepare, publish and distribute such other public reports and informational materials as it may deem necessary or desirable.

ARTICLE 4

FINANCES AND MISCELLANEOUS

4.1. *Power to Borrow.* The district shall have only such power to borrow money and issue its negotiable bonds and notes as may hereafter be delegated to it by concurrent legislation.

4.2. *State and Municipal Credit Excluded.* The district shall have no power to pledge the credit of either or any state party to this compact or to impose any obligation upon a state, directly or indirectly, or to pledge the credit or impose any obligation upon any county or municipality, unless and until such power should be expressly granted by concurrent legislation, or by the consent and agreement of any county or municipality.

4.3. *Advances by the States.* Each of the states further covenants and agrees to appropriate the sum of \$150,000 annually for the payment of the current operating expenses of the district during each of the first five years after this compact is approved by the Congress.

4.4. *Power of Counties.* Each of the counties is delegated by its respective state full power to participate in the government of the district, and the Transit Authority of the City of New York is empowered to negotiate and execute contracts with the district, in accordance with the provisions of this compact and any concurrent legislation enacted hereunder.

4.5. *Quorum.* A quorum of the council shall consist of a majority of those members who have been appointed and qualified within 30 days after the Congress consents to this compact. Following that event the governors of the two states shall convene the first meeting of the council at a time and place which is mutually agreeable to them. The council shall at its first meeting organize for the conduct of its business, and adopt by-laws which it may from time to time amend, revise and repeal.

4.6. *Withdrawal.* Either state may by appropriate enactment under its constitution withdraw from this compact in the event that a general plan shall not have been approved by both states on or before July 1, 1959. Such withdrawal shall be certified to the governor of the other state by the governor of the withdrawing state, and upon the making of such certification this compact shall thereupon be abrogated.

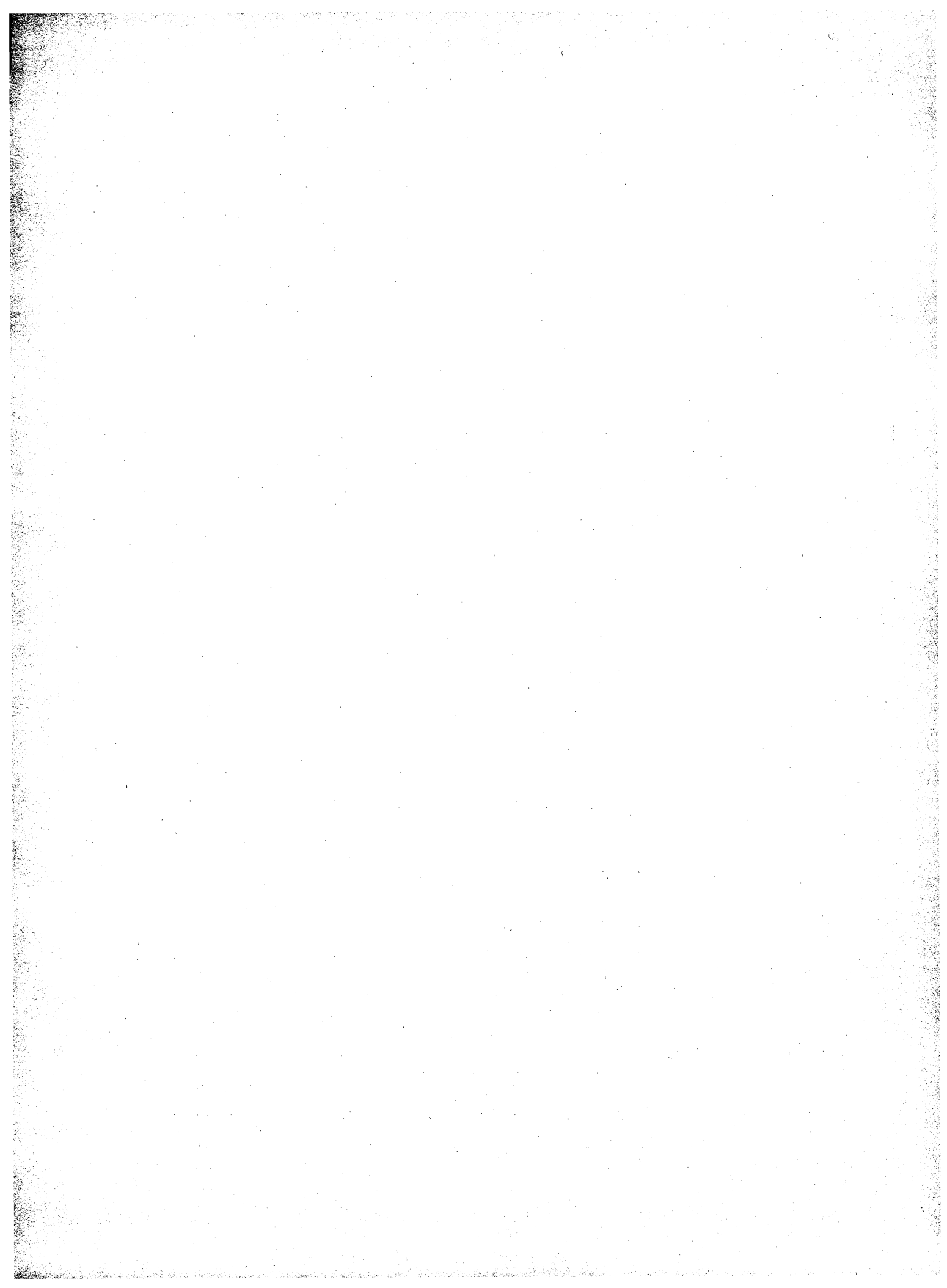
4.7. *Amendments.* Amendments and supplements to this compact to implement the purposes thereof may be adopted by concurrent legislation.

4.8. *Severability of act.* If any part or provision of this act or the application thereof to any person or circumstances be adjudged invalid by any court of competent jurisdiction, such judgment shall be confined in its operation to the part, provision or application directly involved in the controversy in which such judgment shall have been rendered and shall not affect or impair the validity of the remainder of this compact or the application thereof to other persons or circumstances and the States hereby declare that they would have entered into this compact or the remainder thereof had the invalidity of such provision or application thereof been apparent.

4.9. *Short Title.* This compact shall be known and may be cited as the New York-New Jersey Metropolitan Transit District Compact.

SECTION 2. This act shall take effect upon the enactment by the State of [New Jersey] of legislation having an identical effect with New York this act; and if that state has already enacted such legislation, this act shall take effect immediately.

NOTE: Identical bills would be introduced in both States, and upon enactment would constitute the Compact. Duly authenticated copies would be transmitted to the Congress, according to established procedure, and a congressional resolution of consent would be requested. In addition to the Compact itself, some independent legislation would be required in each state, delegating appropriate powers to the respective counties, and to the Transit Authority of the City of New York, to participate in the district and to enter into the contemplated contractual arrangements. It may also be desirable to enact legislation authorizing the existing carriers to enter into the agreements which may be required by a General Plan. All such legislation could come at the time that a General Plan is approved by the respective legislatures.



APPENDIX B

OTHER PHYSICAL PLANS CONSIDERED BY THE COMMISSION

Several physical plans other than the four plans analyzed in detail by Mr. De Leuw have been considered by the consultants and by the Commission. All have their own merits and demerits and all are available for further consideration. The plans as presented are on file at the Commission's office and are open for inspection by any interested party.

A discussion of the major plans studied follows:

1. Plans for Subway Extensions to New Jersey—The consultants investigated the possibility of

(a) Connecting the local tracks of the *IRT-Seventh Avenue* line with new trans-Hudson tunnels at 63rd Street and at the Battery. The north and south extensions in New Jersey would follow either the same routes as those in Plan 3, or else they could be connected in a loop similar to that shown in Plans 1 and 2. By providing for 10-car train operation (after completion of the current program of extending the length of IRT local station platforms), only 13,200 passengers could be carried in one direction during the peak hour. This capacity would be completely inadequate.

(b) An extension to New Jersey of the *IRT-Flushing* line from its present terminus at Times Square. It would bring passengers of the Erie, Susquehanna, West Shore (and possibly the Boonton Branch of the Lackawanna) Railroads from transfer points as far west as Secaucus to Manhattan stations at Times Square, 5th Avenue and Grand Central, which are within walking distance of many offices, stores, theaters, and terminals. Free transfers to north and south routes of the 7th Avenue and Lexington Avenue IRT lines and the BMT-Broadway subway would be available. The principal disadvantage of this scheme is that it would require passengers with downtown destinations to transfer to other subway lines and would impose added traffic burdens on those already heavily used subway lines and on the two busiest subway stations in New York City—at Grand Central and Times Square.

(c) Extension of the *14th Street-Camarsie* line of the BMT to a connection with the Erie and Lackawanna Railroads at a point near Tonnele Avenue in Jersey City. This extension would not serve passengers from all New Jersey railroads. Most passengers on this line would not be directly served to their final destinations and all passengers with downtown and midtown destinations would be required to make an additional transfer to other lines of the New York City Transit System.

(d) The Stichman Plan

In June 1957, the Trustee of the H&M publicly proposed to the Commission a modification of Plan #4 which has since become known as the Stichman Plan. The major deviations from Plan #4 are—(1) closing the loop in New Jersey and (2) connecting the new 60th St. tunnels to the IND Subway at Columbus Circle, running along the Sixth Av. Line to 34th St. and then connecting to the Hudson & Manhattan to close the loop, rather than connecting the new tunnels to the BMT-Broadway Subway.

On October 11th, Mr. Stichman published another proposed modification of Plan #4. This time he left out the connection from Hudson Terminal to the Lexington Av. Subway and left out the new 60th St. Tunnel. He did propose making the H&M-Subway connection at 33rd St. and 6th Av., and an extension of the H&M from Journal Square north to North Bergen. This latter extension is unnecessary as the passengers on the railroads to be served by that extension already have access to the H&M at the existing stations in Hoboken and Jersey City. The only service improvement promised is that passengers on the 6th Ave. line of the H&M would be able to ride two stations farther to 50th St.

As to construction cost, Mr. Stichman stated it would be "minimal" but no estimates are given. As to revenues and expenses Mr. Stichman stated he would expect an increase of \$4 million in revenues and an increase of \$2 million in operating expenses. He did not include any cost of operating trains over the lines of the Transit Authority, any sharing of fares with

the Transit Authority or any debt service charges.

More important than costs in the consideration of this proposal is whether the scheme can practically be operated. Mr. Stichman offered two Manhattan alternatives:

(a) A connection between the H&M and the 6th Av. Subway at 33rd St. extending H&M trains to 50th St. or 59th St., and later to New Jersey through new Hudson River tunnels in the vicinity of 60th St.

(b) A connection from the H&M at Hudson Terminal to the Lexington Av. Line of the New York City Transit System, with a possible later extension from 59th St. and Lexington Av. through new Hudson River tunnels to New Jersey.

The First Alternative, contemplating gauntlet tracks in the 6th Av. Subway to accommodate cars of different width, would be cumbersome and costly for the sole purpose of giving Hudson & Manhattan passengers service to only 2 or 3 more stations, which service they can presently get by transferring at 33rd St. to the 6th Av. Subway.

The portion of the 6th Av. Subway between Columbus Circle and 42nd St. (6th Av.) is a 2-track line and is now used to full capacity during commuting hours by trains from Washington Heights and from the Bronx. As subway trains are too large to operate on H&M lines the two services could not be joined, and any H&M trains would have to be in addition to existing subway trains. This was verified by the Chairman of the Transit Authority at the September public hearings (pp. 103-104 TR). Since that time actual construction has commenced on the Chrystie St.-6th Ave. connection and the announced operating plan would preclude use of the 6th Ave. facilities by the H&M.

The Second Alternative was contemplated in DeLeuw Plan #4 but only in connection with construction of a new tunnel across the Hudson at 60th St. With the connection to the Lexington Av. Line the H&M tunnels would have a peak one-hour capacity of 39,600 passengers per hour. After closing railroad ferries, and without the 60th St. tunnel to carry some of the load, the H&M would be called on to carry as many as 46,900 passengers in the peak hour.

It does not have the capacity to do so. Mr. Stichman stressed the drop in H&M traffic from 113 million passengers annually to 37 million annually and stated that the line could easily absorb 17.5 million annual ferry passengers. Annual figures are misleading. The H&M traffic volume covers 24 hours daily, 7 days a week but the ferry passengers are concentrated in the peak periods (2 hours in each direction) 5 days a week. Transit capacities and traffic must be considered during the peak commuter hours only. At our Public Hearings, the Chairman of the Transit Authority stated (page 103 of the Transcript) that he doubted that the Lexington Av. subway has available capacity to absorb New Jersey traffic.

Another element is the fact that present IRT cars are too large to operate in the H&M and therefore hundreds of new cars would have to be purchased to provide through-service from New Jersey to terminals on the Pelham Bay Park line in the Bronx.

The Northerly Connection—Mr. Stichman proposed that any new northerly Hudson River tunnel be connected to the 6th Av. subway at (a) Columbus Circle or (b) 50th St. and 6th Av., or connected (c) to the Lexington Av. line at 59th St. Mr. DeLeuw recommended it be connected to the BMT-Broadway Subway at 57th St. and 7th Av. which is the only north-south subway line terminating in that area.

As discussed previously, any connection to the 6th Ave. subway is impractical for the reason that there will be no capacity for the operation of New Jersey trains on that line.

The Lexington Av. connection would feed trains into the most heavily traveled subway line in New York and could not be accomplished. If New Jersey trains were terminated at 59th St. and passengers required to make a physical transfer, they would have to use Lexington Av. local trains at the point of heaviest loading. Although that local service could possibly be increased by a maximum of 20% (with longer trains after station platform lengthening) it could not accommodate all New Jersey passengers.

Summary—Use of the H&M as the base of any trans-Hudson transit improvements would restrict the entire concept to the use of small-sized cars and would restrict the use of the latest technological developments. It would eliminate the possibility of future expansion of

trans-Hudson improvements in New Jersey when the need develops. As represented by Plan #4, it would show very little financial benefits over other plans—certainly not enough to balance the service benefits of the other plans.

The question which faced the Commission is whether to base its recommendations on an inadequate, obsolete system which has already lost most of its traffic or on a modern system which will be more competitive with other transportation media and which can be expanded to meet future needs.

2. Extension of New Jersey Railroads into Manhattan—

(a) The All-Railroad Loop

The best system of rail facilities for New Jersey passengers would provide direct, no-transfer service from the various suburban railroad stations to the major centers of employment, shopping, and entertainment in Manhattan. Consequently, the Commission's consultants studied a bi-state railroad loop on the same alignment as the proposed independent rapid transit loop. The river tunnels and subways of this loop would be substantially larger than on a rapid transit loop in order to accommodate standard railroad rolling stock.

A two-track loop would have insufficient capacity to accommodate the present number of rush hour trains with the result that many commuter trains would have to terminate at New Jersey transfer stations and their passengers would be required to transfer to and stand in the remaining through-trains. Furthermore, the congestion and confusion in the Manhattan stations would be appalling in the evening rush hour. Passengers would accumulate on the platforms while waiting for their particular train of the many going to the various branches of the six railroads.

In this plan a small terminal for long-distance passenger trains could be provided on this loop at a location such as between 36th and 41st Streets. The consultants estimate the total cost of the railroad bi-state loop, including the long distance terminal and new electric locomotives, at \$585 million. Annual debt service alone would amount to \$28 million.

(b) A Union Railroad Terminal

Our consultants investigated a plan for a stub-end terminal in Manhattan similar in function to Pennsylvania Station or Grand Central Terminal. Such a plan has been proposed many times over the years. The plan studied was conceived as a two-level structure located between 47th and 49th Streets and extending from 8th to 10th Avenues. It would require a four-track tunnel under the Hudson River plus tracks between North Bergen and Newark which would connect with all railroads except the Pennsylvania. The consultants' principal objection to this plan is that the terminal would be located within walking distance of the Manhattan destinations of only 7,200 commuters. The great majority of peak-hour rail passengers therefore would have to transfer to already-crowded subway and bus lines. The capital cost of this plan would amount to \$500 million, while annual debt service would be about \$24 million.

Other locations for a terminal have been proposed by others. A terminal at a more convenient location such as 49th Street and 6th Avenue, would be even more costly. A terminal location at 23rd Street and Fifth Avenue, as has been proposed, would not greatly add to passenger convenience. No matter what location could be chosen only a relatively small percentage of passengers would be directly served and the cost would be high.

The railroads presented their views to the Commission in a memorandum on November 1st, 1954, which read, in part, as follows:

"The construction of a single Manhattan station, to be reached by all of the New Jersey railroads, and handling commutation as well as other passenger traffic, is impracticable and not desirable from the standpoint of making a genuine and lasting contribution toward improved service to the public."

The Pennsylvania Railroad, which has had the advantage of such an entrance since 1910, has the biggest passenger deficit of all New Jersey railroads—\$5 million a year—39% of the total New Jersey passenger deficits. The New York, New Haven and Hartford, with entrance to a prime location in New York City, is petitioning for public aid to reduce its passenger deficit, and the New York Central has expressed its desire to be relieved of all the commuter traffic possible.

The cost of acquisition of property and construction of such a terminal would be very large indeed. Revenues from railroad passenger trains using it would be negligible, if any. Payment through construction of an office building and lease of air-rights is completely speculative. Only 30 long distance passenger trains daily would be served and with a forecast of further diminution because of severe competition from air travel, the added value to an office building because of its location over a railroad terminal is difficult to assess and surely not of long duration.

In the opinion of the Commission, neither the railroad loop nor the stub-end terminal is functionally and economically feasible. The relatively small benefit of a short seated ride across the Hudson for some of the railroad passengers would not compensate for the additional congestion created in Manhattan subways and stations and the prohibitive cost of the construction of these facilities. The Commission believes that if a seated ride to Manhattan is to be provided for some commuters, it would be better done on rapid transit trains operating over a few major rail lines in New Jersey and entering Manhattan by way of the recommended independent rapid transit loop.

(c) The Jenny Plan

Col. L. Alfred Jenny, a railroad consultant, has been a student of trans-Hudson transit for many years and has proposed many plans from time to time. His latest proposal, presented to the Commission in March 1956, is for construction of an independent transit system similar to Plan 1 in Manhattan and as to the river crossings, but in the form of an open loop with no New Jersey connection between the two river crossings.

The Jenny Plan calls for a new rapid transit line from a point below Lyndhurst to North Bergen, connecting with all railroads from the north. From North Bergen this line would go under the Palisades and the Hudson River to about 50th Street in Manhattan; over to Madison Avenue, down Madison Avenue and other streets to the Battery. From the Battery a new tunnel is provided under the Hudson River to the terminal of the Central Railroad of New Jersey at Jersey City. For Long Island Commuters, Col. Jenny suggests a new station at

34th Street and 5th Avenue for Long Island Rail Road trains, providing transfer there to the new facility.

The railroads now terminating at Hoboken or Jersey City would continue to be served either by ferry or the Hudson & Manhattan Railroad. A link between these carriers and the proposed new line could be accomplished by building a new link over existing railroad tracks between the west end of Jersey City and the terminal of the Central Railroad of New Jersey; it would also serve as a direct link with Journal Square.

A new 2-track railroad would be built from Newark Airport to the rapid transit line at North Bergen to accommodate the railroads coming from points south or west of Newark. This new artery would provide a direct railroad link between the eastern part of Bergen County and the City of Newark, or between the Airport at Newark and mid-Manhattan.

The plan calls for dimensions to permit operation of standard railroad equipment for access to a Union Passenger Terminal of one north-south city block located west of Avenue of the Americas between 47th and 50th Streets for the long distance passenger trains of the New Jersey railroads. As an alternate, Col. Jenny suggests that this terminal be located near North Bergen. Col. Jenny proposes that freight be handled during the off-peak hours via a connection to the New York Central's west side freight line in Manhattan.

Cost is estimated at "about Five Hundred Million Dollars." Col. Jenny foresees that "some form of deficit financing will be required of all plans" and would seek a federal subsidy of 50-90% of the cost. He also suggests that the Port Authority contribute to the deficit.

The rapid transit portion of the plan is essentially similar to and offers no advantages over Mr. De Leuw's Plan 1 and as stated earlier, the cost of the long distance railroad portion cannot be justified.

Col. Jenny stated that the haulage of trans-Hudson railroad freight on new trans-Hudson transit lines would be a valuable source of net income. The Commission's staff and consultants have made some investigations into this matter.

In general, there would be very little, if any, demand for freight service along the Manhattan route of the recommended system. The

financial district and the midtown districts centered on Fifth and Madison Avenues do not contain industries which generate railroad car-load freight business. As stated earlier in this report the trend in Manhattan is towards a reduction of manufacturing activities and an increase in administrative and service activities. There has never been a demand for freight service on the New York City Transit System and there will not be any for service on the bi-state Loop.

The only remaining possibility would be to utilize the proposed 60th St. Hudson River transit tunnel for bringing freight cars from New Jersey railroads to the West Side freight line of the New York Central in Manhattan. This would require construction of a collecting yard in North Bergen, a considerably larger size of tube and easier grades in the Hudson River tunnel, construction of an expensive connection in Manhattan between the transit tunnel and the New York Central line and construction of additional freight yard and station facilities in Manhattan. Our consultant has estimated that the increased cost of the tunnel and the connection to the New York Central, without the other New Jersey and Manhattan facilities, would be \$53 million. The annual cost for interest and amortization alone would exceed \$2.5 million.

The railroads, exclusive of the New York Central, have reported that the annual movement of merchandise freight across the Hudson River to Manhattan totals just under 2 million tons. Therefore the interest cost alone would exceed \$1.25 per ton of freight. At present, the total cost of floating freight is less than that interest figure alone. One of the longest floating operations in the harbor is from the Pennsylvania Railroad at Greenville, N. J. to the Long Island Rail Road at Long Island City and accurate cost figures are maintained because of the requirements of the contract between the railroads. The current (November, 1957) cost of that operation, including interest on investment, taxes, depreciation and 10% profit is 55¢ per ton. The railroads would be unwilling to use a facility on which the rental charge alone would have to be at a level higher than total present operating costs.

The proposed transit lines would be served by passenger trains operating on fairly close headways except from 1 a.m. to 5 a.m. It is

doubted that 4 hours daily would be sufficient to handle the volume of freight. In addition, railroad freight service is subject to severe truck competition and freight services must be tailored to meet the requirements of the shippers. Freight loaded at Manhattan terminals must be moved promptly after close of the business day to assure connections farther west and to assure arrivals at western destinations before the beginning of a business day. As a result, most of the freight is moved across the river from 5 p.m. to 9 p.m., the hours of the heaviest passenger movements on the transit lines. For example, Erie freight trains for the west are scheduled to leave Croxton Yard (Jersey City) at 5:30 a.m., 10 p.m., 10:30 p.m., and 1:30 a.m. Lackawanna westbound freight trains leave Hoboken at 6 p.m., 8 p.m., 9:30 p.m., 10:45 p.m., and 4 a.m. Restricting the freight movement across the Hudson River to the hours of 1 a.m. to 5 a.m. would cause a loss of desirable business to the railroads.

There seems to be no possibility of earning any net revenue for the transit lines from providing facilities for handling railroad freight traffic across the Hudson.

(d) The Hastings Plan

Mr. John A. Hastings has proposed a plan which, in essence, calls for the construction of deep-level railroad tunnels from New Jersey across midtown Manhattan to Long Island City. It would connect with and integrate all New Jersey and Long Island railroads. He proposes fast lightweight equipment, a concrete roadbed with rubber pads under the rails and a new type low fare structure.

The cost of this plan would be tremendous (Mr. Hastings quotes \$900 million for Manhattan, Long Island and Staten Island alone), the tunnels would have insufficient capacity to accommodate all the traffic (Mr. Hastings estimates 1.175 billion passengers annually) and the plan would have the disadvantage of all "crosstown" proposals in that a large number of passengers would be required to transfer to already crowded north-south subway lines to reach their final destinations.

Mr. Hastings' estimates of revenues appear to be too large. The major portion of his proposal serves Long Island and yet, with sharply reduced fares, he estimates passenger revenues

of \$262.5 million against Long Island Rail Road 1956 revenues of \$50 million. Mr. Hastings estimates freight revenues at \$90 million against Long Island Rail Road 1956 revenues of only \$16 million.

There can be no argument with Mr. Hastings' thesis that modern car equipment and modern road-beds are desirable. It is his application of these to a crosstown subway link that cannot be accepted as the most desirable improvement for suburban commuters.

3. New Transit Methods

(a) Monorail

Studies were made of the applicability of the monorail system of transit to serve trans-Hudson commuters. Investigations included review of the following specific proposals presented by officials of the Monorailway Corporation:

1. The Hudson River crossing would consist of tunnels in locations selected by the consultant in the trans-Hudson transit survey;

2. For the north-south leg in Manhattan, a location for the monorail elevated structure was suggested above the New York Central freight line on the West Side or along either Tenth or Ninth Avenues. A location on any north-south thoroughfare east of Ninth Avenue was deemed impractical by the sponsors of monorail;

3. Monorail structures would be installed above all of the suburban railroads in New Jersey finally selected as a part of the recommended rapid transit scheme. Station facilities serving monorail lines would be installed in the vicinity of existing suburban railroad stations.

The ultimate development of suburban rapid transit to serve the New Jersey commuting areas would consist of direct monorail service from the trans-Hudson loop along the principal railroad routes now offering commuter service. Monorail cars and trains eventually would operate from the outer termini of the suburban railroads over the railroad rights-of-way to the bi-state loop and thence to Manhattan.

While the physical problems of building monorail over the streets in Manhattan would be difficult and expensive, even greater prob-

lems are envisioned in the future in connection with building monorail over the existing tracks and rights-of-way of the railroads operating suburban service in New Jersey.

An obvious disadvantage of the suspended car is that any portion of a rapid transit system designed for its use could not be integrated with any other existing system such as the New York subways or the suburban railroads.

Advocates of monorail, duorail and other types of suspended rapid transit operation have claimed as advantages of their vehicles such features as high speed, quiet operation, light weight and air conditioning. None of these features is peculiar to a suspended car, and all could be incorporated in the design of any new rapid transit car. Similarly, the cost of operation would be essentially the same for any type of modern transit car whether it were hung from above or supported from beneath.

The high speed features common to all modern transit equipment, however, could not be used to full advantage on a monorail system. The Budd Company specifications for car equipment for single rail operation provide for maximum sway of individual cars of as much as 20 degrees from the vertical. The greatest horizontal displacement would occur approximately at the floor line. At all stations, therefore, the cars would have to be held at a proper clearance from the edge of platforms. This would require a funneling device in advance of each station to dampen the sway of the cars and guide them in a narrow channel. This operation would either have to be carried on over a distance of several hundred feet in advance of each station or trains would have to slow down to a speed at which impact with the funneling device would not cause injury or excessive discomfort to seated or standing passengers. It is estimated that this slowing down in advance of each station would increase the running time around the 18-mile bi-state loop by about five minutes with a corresponding increase in operating costs and a decrease in attractiveness to the average passenger.

Tunnels under the Hudson River would have to be built to excessive dimensions to provide clearance for free sway of cars traveling at maximum speed. It is contemplated, therefore, that a stabilizing device would have to be de-

veloped which would probably be used in combination with a reduction in speed.

The free sway at curves has been cited as an advantage because it would minimize the sensation of centrifugal force. While this might hold true if cars were operated singly, a car on a curve could not sway freely if held rigidly by other cars in the train on tangent track ahead and behind.

As noted above, the monorail sponsors have suggested that the only thoroughfares in Manhattan which might be suitable for monorail installation would be on or to the west of Ninth Avenue. There would be no direct midtown connections with any of the New York City subways.

The stations would be remote from most of the destinations of New Jersey commuters and inconvenient with respect to transfer to the network of subway lines in Manhattan. It would provide little improvement, therefore, over the Hudson River ferry and suburban bus services now available to the commuters.

The conclusion is drawn that monorail transit would provide no improvement in convenience; that it would fail to gain public acceptance; and that the substantial capital investment involved in its construction would not be justified from any viewpoint.

(b) Aerial Transit

A review has been made of a report entitled 'Aerial Transit in the New York Metropolitan Area' dated October 1955. This report was prepared through the cooperative efforts of men widely experienced in transit and transportation fields with the assistance of the executives and chief engineers of an impressive list of engineering organizations and equipment manufacturers and was presented to the Commission by Mr. Henry K. Norton.

In essence, aerial transit would consist of modern rubber-tired cars, singly or in trains, automatically operating on special roadways. These roadways could be at surface grade in the outer portions of the system. They could be either underground or overhead in the more congested sections of the route. The plan shows elevated lines on 5 midtown avenues, 5 downtown north-south streets and several short stretches of other downtown streets.

There are many general areas of agreement between the Commission and the proponents of aerial transit. There is no room for a difference of opinion, for example, on the importance in modern transportation systems of safety, comfort, convenience, rapidity of movement, quiet operations, attractive design of equipment, and moderate cost to the passenger.

It is also agreed that the car as proposed could be designed and built, and that trains could be automatically controlled as to starts, stops and speeds. In fact, these are included in the recommended plan.

However, the aerial transit proposal has the disadvantage that it could not be readily integrated with any presently existing transit facilities without considerable modification which would necessarily eliminate many of the advantages claimed for it. Some 920 route-miles of new trackage in New York and New Jersey would be required for the system proposed in the 1955 report. The cost would be enormous, obviously, because no existing railroad tracks or operating subways are incorporated in the plan.

The proponents contemplate the operation of numerous short trains giving frequent non-stop service between each suburban station and Manhattan, these short trains to be coupled into longer trains for the major portion of each trip. Coupling and uncoupling would be accomplished while the trains are at a standstill. This time-consuming operation would have to be provided for in the schedule. Furthermore, the proposed non-stop service for each station would provide no intrastate service. No plan based on this concept would be acceptable to this Commission.

The aerial transit report is based on the premise that "subways would be impossible in Manhattan" and that "any effective form of rapid transit must operate above the street level in built up areas" (except for the possibility of going underground in super-congested areas).

There are several locations where the Commission considers there is no chance whatsoever of gaining public acceptance or official consent to aerial transit structures, either on the sidewalk or in the center of the thoroughfare. In reviewing this phase of the proposal it was borne in mind that there is public sentiment, or perhaps prejudice, against elevated

structures of any type in public thoroughfares in areas of concentrated commercial activity. This, in the opinion of the Commission, will persist despite the possibility of building reasonably attractive structures over which rubber-tired trains could be operated without objectionable noise.

The investment in physical plant and car equipment, as estimated by the proponents, would amount to the impressive figure of \$1.4 billion. Such a sum would, in the Commission's judgment, far exceed the amount of capital which could be raised for the construction of improvements in suburban transit. The aerial transit report contains insufficient detail to permit any comment on the estimates of expenses and revenues.

The authors of the aerial transit report have placed the community in their debt, however, for their bold thinking; for proposals for modern rubber-tired rapid transit vehicles; and, finally, for expounding the possibilities of improved electronic control and the principles of automation as applied to railroad operation.

By William F. Young:

The aerial transit vehicle, its structures, its labor saving devices and its advance toward automatic operation are readily adaptable to the physical plan recommended by the Commission. None of it has to be "aerial" at all. The structure would be very well-suited to the suburban railroads' roadbed or could be placed along-side it at reasonable cost. In my opinion, this is the one proposal received by the Commission that stands fairly on the threshold of the future. I recommend to the District these aspects of the Norton group's proposal for inclusion in further studies as a possible opportunity to enable us to thrust forward now toward the transportation standards of Tomorrow —1975.

4. Improvements of Existing Transit Facilities Pending More Comprehensive Solutions

(a) Use of the Hudson & Manhattan Railroad to replace railroad ferries

(1) Our consultants studied several schemes for a connection between the Jersey Central Lines and the Hudson & Manhattan Railroad. Connections could be made by extending the H&M from a point east of Journal Square to Communipaw; by extending the H&M from a point west of the Hackensack River to the Jersey Central tracks at South Kearny with transfer stations at Newark Airport or Elizabethport; and by modifications of those two basic routes. Our consultants also studied the feasibility of providing direct train service from

Jersey Central stations as far as Raritan to Manhattan via the H&M.

The aim of these plans would be to provide a faster and more direct service for Jersey Central commuters, to eliminate the need for the continued operation of the Jersey Central Railroad ferries which operate at a loss of \$1 million annually and to provide additional revenue for the H&M which that bankrupt road so sorely needs.

From the standpoint of providing adequate service to the commuters, our consultants concluded that the only feasible plan would be to extend the H&M to Communipaw via the route of the National Docks Railroad. The H&M has available capacity to accommodate Jersey Central passengers during the peak hours on the basis of service at the rate of 12 trains during the peak hour. During the peak 15-minute period the load per car would average 100 passengers (44 seated, 56 standing) with some trains carrying as many as 135 passengers per car (44 seated, 91 standing). Passengers with downtown destinations would save about 4 minutes in travel time and passengers with destinations along 6th Avenue to 33rd Street could save as much as 13 minutes.

This extension would cost \$13.4 million, including cars. The entire investment could only be utilized permanently if Plan #4 were adopted as the trans-Hudson solution. With the recommended Plan #1 all but a small part of the investment would be abandoned upon completion of the Plan #1 improvements.

(2) Our consultants studied the feasibility of suspending the operation of the Lackawanna and Erie ferries and offering ferry passengers service to Manhattan via the Hudson & Manhattan Railroad. This would require some joint fare arrangements between the railroads.

The main point in this matter is whether the Hoboken services of the H&M Railroad have sufficient capacity to accommodate the additional peak hour passengers who now use the ferries. Our consultant's study indicates that without expensive lengthening of station platforms, including those in Hudson Terminal, to allow the operation of 10-car trains the Hoboken-Hudson Terminal line of the H&M could not accommodate the passenger traffic during the peak 25-minute period.

(3) Our consultants reported on the ability of the H&M Hudson Terminal line to accommodate all present ferry passengers of the Jersey Central Lines, the Erie and the Lackawanna.

The study indicates that with the present physical conditions the H&M could not accommodate all passengers during the peak commuting periods. To acquire the necessary capacity would require complete reconstruction of Hudson Terminal Station, lengthening of other station platforms, replacement of the signal system, improvements in the power distribution system and purchase of new cars. These would allow the operation of 10-car trains on a headway of 90 seconds and it is doubtful that such a close operation would be feasible. Even so, for a few minutes at the traffic peak in Hoboken some passengers could not board the trains.

It therefore can be concluded that any plan to utilize the H&M as the sole Hudson River transit crossing with suspension of railroad ferry services can only be feasible if the line were connected to the Lexington Av. line of the New York City Transit System, as contemplated in Plan #4.

(b) Rail service on the George Washington Bridge

Our consultants studied a plan for bringing trains from Bergen County railroads across the George Washington Bridge to a terminal in the vicinity of the subway station at 175th St. and Fort Washington Avenue. They conclude that the plan is physically possible at a cost of approximately \$68 million. But the Project Director concluded that such a plan was not feasible because of the moderate benefits which would be obtained. The line would serve 9,500 daily passengers in each direction of whom 6,600 would travel in the peak one-hour. The service to Central Manhattan would be an improvement for only 10% of the passengers and would be worsened for 60% of the passengers. Most important, however, is the fact that the Washington Heights IND Division subway line does not have any capacity available for accommodating the 6,600 additional peak-hour passengers.

(c) Substitute Bus Service for the New York Central Weehawken Ferries

The New York Central System has received permission from the Interstate Commerce Commission to abandon its ferry services from Weehawken to Manhattan. The abandonment has been deferred pending litigation. The court exercising jurisdiction has ruled against the ICC but an appeal can be expected. Prior to the ruling of the ICC our consultants studied the feasibility of substituting bus service for the ferry service to relieve the railroad of the deficits incurred by the ferries. They have concluded that the construction of a train-bus transfer station in the vicinity of the Weehawken portal of the Lincoln Tunnel, at a cost of \$100,000, and operation of bus service to the Port Authority Terminal at 8th Av. and 41st St. would be feasible. Lease restrictions at the Port Authority Bus Terminal would require that the bus service be operated by a properly certificated common carrier between New York and Weehawken as a regular bus route and not as an integral part of railroad service.

The service to the public would be superior in convenience and travel time to the present ferry services. On the basis of fares that would not involve an increase of travel cost to passengers, the substitution of buses for ferry services would effect a savings of at least \$1 million annually to the New York Central System.

This substitution of bus service for ferry service can only be effectuated through action of the New York Central railroad with the approval of public regulatory bodies. As the Commission has no governmental powers beyond making the study and submitting this report it can take no initiative beyond making public the results of the study and making available to all concerned the report of our consultants.

5. Miscellaneous Sources of Revenues

It would be most desirable if the passenger revenues of a new trans-Hudson transit line could be implemented by the profitable carriage of goods such as mail, newspapers, freight, and express, and by revenues from various concessions. The Commission's staff and consultants have made some investigations into these matters.

(a) **Mail**—The Post Office Department has retained a consultant to make a detailed study of the flow of mail in this area and to recommend changes in the handling of mail. They are considering the use of transit lines for carrying mail. At the time of writing this report the study had not been completed. The new District, when established, should seriously consider the results of the Post Office study and make every effort to profit from the carriage of mails.

(b) **Newspapers**—The carriage of newspapers on the proposed transit line for distribution to the New Jersey suburban railroads can be a profitable operation. The Commission did not have the resources to study the volume of such movement and the revenue to be obtained from it.

(c) **Freight**—This was discussed on pages 60 and 61 of this Appendix.

(d) **Express**—Railway express is usually collected from the shipper by truck and taken to facilities where it is loaded directly into railroad cars. The use of transit facilities would require extra handling and increased cost and therefore express does not seem to represent a source of additional net revenues.

(e) **Concessions**—The consultant's estimates of revenues include income from the usual concessions in transit stations and cars.

APPENDIX C

EDITORIAL REACTION

During the time the Commission was conducting its studies, holding public hearings and preparing its final report, the newspapers of the metropolitan area showed great interest in all developments, and on many occasions gave voice to their opinions. The following are excerpts from editorials which appeared in representative metropolitan newspapers.

NEW YORK

HERALD TRIBUNE—May 18, 1957—“Now we refuse to believe that the metropolitan region is willing to allow a bad situation to get progressively worse. There is growing concern over traffic congestion and more awareness that railroads can be a helpful complement to highways. Also a lot of people are beginning to realize that if the automobile is subsidized by tax-free facilities, then it is only fair to give equal consideration to rail transport. In short, the commuters must have the railroads, but since this service loses money and direct charges can never make up the deficit the only reasonable conclusion is that some form of public assistance is essential.”

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HERALD TRIBUNE—May 23, 1957—“But surely it must be agreed that the regional transit problem cannot be allowed to deteriorate year after year. It is high time to appreciate that railroads are absolutely necessary. Now let us get ahead with the debate and then be sure to act with vigor and vision.”

* * * * *

LONG ISLAND PRESS AND STAR JOURNAL—May 24, 1957—“Anyone familiar with the history of transit in this region, however, will grant that extension of transit has benefited the city and the suburban areas as well. The city cannot live without the suburbs. The suburbs cannot live by themselves.”

* * * * *

JOURNAL-AMERICAN—May 24, 1957—“However the (Page) plan is so gigantic that a number of hearings will be necessary before all of its controversial aspects can be compromised. But at least it is a wel-

come start toward working out a regional transit problem which becomes more complex each year with neglect.”

* * * * *

HERALD TRIBUNE—Aug. 21, 1957—“Where the downward spiral (in railroad commuter services) may lead is yet uncertain. But the unhappy example of the Hudson Tubes ought to make government and civic leaders think. The regional proposals of the Metropolitan Rapid Transit Commission, for instance, deserve more consideration than they have been getting. The automobile is a wonderful device for getting around, but mass transportation needs the railroads as well.”

* * * * *

NEW YORK TIMES—Sept. 12, 1957—“The Metropolitan Rapid Transit Commission does come as close to this purpose (solution of the rail transportation problem on a regional basis) as anything we have. In a sense it is engaged in a last-chance work. If it fails, it is unlikely we shall recover from the lost momentum for years. So we hope that the present Page plan and others that may follow will receive more sympathetic and constructive attention than they have, not only for themselves as representing imaginative, careful study, but for what they signify as an opportunity that may never come again to salvage and improve the region’s rail transportation and prevent a growing chaos of traffic congestion.”

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WORLD-TELEGRAM—Sept. 19, 1957—“Hearings by the Metropolitan Rapid Transit Commission on the proposed loop linking New Jersey commuter railroads with New York subways have produced as many criticisms and alternatives as there were witnesses.

“Nevertheless it’s encouraging that there’s a growing awareness of the need for a rapid transit arrangement linking city and suburbs.”

* * * * *

HERALD TRIBUNE—Sept. 19, 1957—“Now there are two indisputable points—first, that good mass transportation is absolutely essential for every part of the metropolitan region; second, that an effective program demands co-operative recognition that there has to be solid financial backing.

“Can the states get together and organize a permanent agency to work out the details. We hope so. This is the very minimum. There is already a point of beginning in the Page plan. Now let us proceed from that blueprint.”

* * * * *

NEW YORK TIMES—Oct. 8, 1957—“The Metropolitan Rapid Transit Commission’s very existence is recognition, by the states of New Jersey and New York, that the commuter railroads’ healthy survival is of vital interest to the public welfare. In the Arthur W. Page plan submitted to the commission two points are essential: Improvement of railroad convenience for passengers must underlie any solution of the New Jersey problem, and secondly taxpayer subsidy must be accepted as basic to this improvement. These principles cannot be confined to the New Jersey phase of the problem.

“The fundamental question is whether government is to be the master of transportation development or is to abandon its own function of planning and direction of destiny. If it adopts a hands-off policy, and lets matters take their haphazard course, then the Metropolitan Rapid Transit Commission has no assignment except to wind up its work and turn in its suit. But that would be a sad confession of the inadequacy of government to serve the public interest.”

* * * * *

DAILY MIRROR—Nov. 21, 1957—“As the population that works in New York City, amounting to several millions, lives outside the city, the commuting railroads are very important.

“It is impossible for automobiles to take care of the entire load of commuting traffic. Where are these cars to be parked?

“And why should a family be forced to own two cars when it can only afford one? And what about the crowding of roads and parkways, until each one is practically valueless during the rush hour? So, we still need the commuting railroads. * * *”

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DAILY NEWS—Nov. 21, 1957—“Suppose rail commuter service were dropped or seriously reduced in the metropolitan area. The roads would be worse congested with automobiles than ever. City parking problems would be intensified. A lot of suburbanites and exurbanites would be forced into the city, to the grave damage of the suburbs and exurbs. The whole subject demands, we believe, the earnest and sympathetic attention of city, suburban and state officials, with demagogic cracks at the railroads sidetracked.”

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NEW JERSEY

NEWARK STAR-LEDGER—May 23, 1957—“Anyone familiar with the history of New York City knows that both Manhattan and the outlying areas have profited enormously from extension of the subway system. The outlying areas have been built up, but not at the expense of Manhattan, which has grown as a commercial center and has been able to trade tenements and slums for high-income housing because of the program.

“The extension of the benefits of the New York subway system to New Jersey and Rockland County through a rapid transit loop would further rationalize Manhattan’s development while greatly stimulating residential development in New Jersey and Rockland.”

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JERSEY JOURNAL—May 23, 1957—“The men behind today’s report on rapid transit for the New Jersey-New York metropolitan area are thinking big. And that’s the only way to attack this commuter problem.”

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RED BANK REGISTER—May 23, 1957—“But it would appear, at long last, that serious study is resulting in forward planning for better commutation. And that is to be welcomed by our entire region.”

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PATERSON NEWS—May 24, 1957—“A measure of the relief must be sought in methods other than highway building. It is to be hoped therefore that something will come of the recommendations of the Metropolitan Rapid Transit Commission for construction of a rail loop connecting New York and New Jersey.”

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ELIZABETH DAILY JOURNAL—May 25, 1957—“At least we have emerged from the dream phase of metropolitan rapid transit solution. The time for action is now at hand and in this age of wonders cure for our nagging commuter ills may be nearer than even the most optimistic believe.”

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BAYONNE TIMES—May 25, 1957—“Modern multilane highways and river crossings run into the tens of millions, and whenever a new one is completed it has the frustrating effect of attracting additional traffic which soon overloads it—making new multilane highways necessary at fabulous cost. The rapid-transit plan provides the hope that for a modest annual subsidy we will be able to get along with a far less elaborate highway network than now seems necessary, and it carries the promise that the day may come when it will be possible to go to New York without the near-certainty of getting into a traffic jam.”

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BERGEN EVENING RECORD—May 25, 1957—“* * * Let it be noted that our lack of rapid transit has not prevented growth and all that goes with it. We have merely been crippled in our efforts to deal with it. We have inflicted on ourselves strange and disorderly patterns of population; we have been forbidden to distribute growth rationally, where there's room to grow; in immediate personal terms we have made suburban living a twice-daily ordeal and hazard, inordinately expensive no matter where you live and work.”

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TEANECK SUNDAY SUN—May 26, 1957—“Mayor Brown summed the situation up very nicely when he said the Commission's report and suggestions may well determine the growth or stagnation of this area for the next generation.

“He went on to term it as the most important event in the recent history of Bergen County.”

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ASBURY PARK PRESS—May 26, 1957—“Certainly New Jersey has much to gain by a new rapid transit system that will reverse the trend toward building more highways which induce more auto traffic in a metropolitan area that seems bent on choking itself to death through traffic congestion.”

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PLAINFIELD COURIER-NEWS—May 27, 1957—“Some way must be found to get these commuters into New York other than by motor vehicle. Imagine the jam on highways, tunnels, bridges and on New York streets if today's train commuters were forced to resort to cars or buses!”

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RAMSEY JOURNAL—May 30, 1957—“It is generally conceded that mass transportation into New York is the only solution to the traffic problem. The plan of the commission would carry 85 million passengers a year. All of the present tunnels and bridges would have to be increased several times to handle comparable traffic.”

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PASSAIC HERALD-NEWS—June 6, 1957—“Local officials are saying the (Page) plan sounds like a scheme to bail the railroads out of their red-ink commuting service and ask why the taxpayers should foot such a bill. This argument overlooks the fact that for every dollar spent many more persons can be moved by rail than can be moved over the highways that will be needed if a rapid transit plan isn't adopted.

“Another factor is the vast meadowland industrial expansion which is on the way and which will affect all of North Jersey. The heavy industrial plants may not be able to find the type of labor they want here. Unless there is some way to tap the labor market in Manhattan and Brooklyn by a rapid transit system, New Jersey may not be able to get the industry it wants to help pay the tax bills.”

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NEWARK EVENING NEWS—June 7, 1957—“But if the past can be a guide, it will not be long before the expanded Lincoln Tunnel facilities will be overtaken—and thus their benefits offset—by a corresponding increase in traffic. This, indeed, should be incentive enough to maintain momentum toward an overall program for the metropolitan transport problem.”

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EAST RUTHERFORD LEADER FREE PRESS—July 3, 1957—“Rapid transit is needed. It is needed now. It must be provided. And is going to be provided. Either leaders will see the need for rapid transit or the people are going to see the need for new leaders.”

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ELIZABETH JOURNAL—Aug. 1, 1957—“These daily migrations of thousands of workers between home and employment are equally important and must be preserved. No adequate substitute for the train, furnishing a maximum of speed and convenience in relation to costs and revenues, has been devised.”

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BAYONNE TIMES—Sept. 10, 1957—“And it must be remembered that highways are not cheap. They call for vast outlays of tax money. The choice, therefore, is not between a subsidy for rapid transit and no cost at all for reliance on highways. The choice is between a predictable subsidy for rapid transit and unknown costs for more and more roads. It stands to reason that we can move more people at lower cost in trains than in separate motor cars.”

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NORTH ARLINGTON LEADER—Sept. 12, 1957—“Meanwhile, the problem has become worse. Commuters who should be on trains are on buses and private cars, tangling up the highways. Business is slipping away from the cities and finding temporary berths on the highways. Still the politicians do nothing. And when something is proposed they complain about the cost.

“As we said cost is immaterial in this picture. Results are needed. If the results are successful the cost will take care of itself. Yet the politicians refuse to accept this.

“On the other hand there isn't a word of protest over the fact millions are being poured out yearly for better airports and better highways. How about the commuter? Shouldn't he get a break now and then.”

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NEWARK EVENING NEWS—Sept. 12, 1957—“The need for a modern transit system is inescapable and the longer we wait, the more it will cost.”

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NEWARK STAR LEDGER—Sept. 13, 1957—“Improvement of rapid transit is of vital concern to North New Jersey; the economic development of the area is, in large measure, dependent on commutation facilities. There are still enormous areas in New Jersey which could be developed. Their development certainly would be speeded if better rapid transit could be offered.

“If commuting facilities are inadequate, moreover, prospective Jersey residents will go elsewhere when they are looking for a suburban location to buy a home and settle with their families.

“The latest in a long line of rapid transit proposals is now being pushed by the Metropolitan Rapid Transit Commission. The plan has encountered a mixed reception, but no one expected it to be greeted with unanimity.”

“Some of the opponents criticize the plan sharply as providing too little for too much. The plan would cost too much money, the critics say, and benefit only 75,000 commuters. This may be a weakness in the plan. But it should be pointed out that 75,000 commuters represent a much greater number of residents—probably close to 300,000. They also would benefit by the suggested improvements. What’s more, there is no reason to assume the number of commuters will remain at a fixed figure. Improved service could bring an increased number of commuters * * * to help carry the financial load.

“* * * The commission proposes that the deficit be made up by assessments against several North New Jersey counties and New York City. This appears to be a broad enough base to carry the subsidy and a sound suggestion.

“Improvement of rapid transit has been stymied in the past over the problem of how to pay for it. The commission has approached this problem realistically, and its plan certainly merits at least further exploration.”

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BERGEN EVENING RECORD—Sept. 22, 1957—“The first step is setting up the (two-state transit) region. The members of the Legislature are responsible. They should go to work.”

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NORTH ARLINGTON LEADER—Sept. 26, 1957—“There seems little doubt the commission will recommend the creation of an authority-like agency and a broad plan of attack on the commuter problem. Our Legislature should be ready to act promptly on the recommendation.

“Some elements of the rapid transit plan are not too happily envisioned. But the one basic element that everybody feels necessary is the creation of the bi-state agency that has power to put some kind of solution into effect.”

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BERGEN EVENING RECORD—Oct. 11, 1957—“Now, two questions:
“1. Why not now, forthwith, create our district authority through bi-State or (better get Connecticut in on this) tri-State compact and give it 5 years to come up with a technically and politically acceptable answer—subject to referendum?

“2. And why not finance it with a tax of a mill or so on the ratables of the area concerned while its research is in progress?

“This is by no means negative. Nobody’s saying no, period! Being proposed here is courageous realization that, as far as this thing

is concerned, we are living in the year 2000 and that the methods of 1890 or indeed 1957 are not worthy of the problem or of ourselves.

“A 5-year plan would establish target dates for specific tangible accomplishment, from the establishment of the district up to the Governors’ opening the throttle and taking the first rapid-transit train out across the Hudson—a train that will be the look of the future, not a reiteration of the past. This thing can be done. Let’s do it—or else.”

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ELIZABETH JOURNAL—Nov. 5, 1957—“The danger to commuter hopes lurks not in the disputes over the cost or engineering details, but in the attitude of surface transport segments of the pattern that new facilities are not essential. These antagonists overlook the real threat of the railroads to decrease the parsimonious service they now allow, which is buttressed upon the contention that they operate even that at a painful loss. Nor did the surface interests disclose where in Manhattan (or in many New Jersey areas, either) how they will dispose of additional thousands of idle motor vehicles, private cars or public carriers. Furthermore, river crossings commonly are choked to capacity, or worse, during the peak hours of the interstate migrations.”

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NEWARK STAR LEDGER—Dec. 11, 1957—“While Jerseyans can be thankful for their good fortune in not feeling the full effects of this strike, they should recognize it as a dramatic example of the importance of keeping commuter trains running.

“Any disruption of commuter service linking New Jersey with New York City would be just about as intolerable as the subway strike. And it would tie auto traffic on the west side of the Hudson into the same sort of knots that have snarled traffic east of Manhattan in this strike.”

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