a master plan for TRANSPORTATION

72

NEW JERSEY DEPARTMENT OF TRANSPORTATION

PREPARED BY
NEW JERSEY DEPARTMENT OF TRANSPORTATION
IN COOPERATION WITH
U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

New Jersey is now the most densely populated State in the Nation. Its problems of urbanization will continue to mount along with its growth in population, industry, commerce and recreational facilities and with the State's increasing importance as the geographic center of the Northeast "megalopolis."

In the past, this growth has meant:

- The highway system has been unable to keep pace with travel demand. The density per lane-mile of daily travel has increased by 56.7 percent over the past 20 years.
- Paradoxically, coincident with a significant decline in suburban passenger rail service, there has been, in recent years, an increased public demand for improved commuter rail service. At present during the morning peak hour over 54,000 people make the trip between New Jersey and Manhattan by rail.
- Bus service has shown a continual decline in the last decade, yet in the morning peak hour more than 55,000 persons travel by bus from New Jersey to Manhattan.

- Although there has been an overall statewide increase in the number of general aviation airports over the last 20 years, the number of airports has declined steadily in the critical urban areas.
- A 32 percent increase in population through 1990 will result in the changing of more than 1,300 square miles of land from rural use to urban use.
- By 1990, motor vehicle registrations in the State will rise to 5,384,000 – up 42 percent.
- Annual vehicle miles of travel on the State Highway System will increase 109 percent through 1990, registering a total of 28.1 billion vehicle miles.
- As a result of increased personal income and leisure time there will be a significant increase in recreation-oriented travel on the State's highways.
- Passenger rail patronage will experience a 75 percent increase to total 626 thousand daily riders in 1990.
- Bus ridership will increase to 1.6 million daily riders by 1990, an increase of 24 percent.
- There will be approximately a 216 percent increase in total aircraft operations through 1990.
- A comprehensive plan to meet the 20-year needs resulting from this growth in the future is estimated to cost almost $7.0 billion. It includes:
- The highway plan will total $4.276 billion including $900.0 million for completion of the Interstate System, 1.866 billion for the construction of other freeways, $734 million to dualize presently undivided facilities, $588.0 million for widenings and $188 million to correct troublesome spot locations.
- On the State's passenger rail system, including commuter rail and rapid transit, the costs will amount to $1.897 billion.
- An additional $278 million is the estimated cost to provide bus riders of the State with adequate, modern service.
- The recommended plan to preserve an adequate network of airport facilities throughout the State will cost $49 million.

The above breakdown of estimated costs does not include the anticipated escalation in costs over the 20-year time frame of the plan.

I.
TRANSPORTATION—WHERE DO WE STAND

"...a great deal more must be done for both rail and roads if our State is to avoid the waste and expense associated with traffic strangulation."

Governor William T. Cahill

January 1972

Second Annual Message to the Legislature

JOHN C. KOHL
COMMISSIONER

STATE OF NEW JERSEY
DEPARTMENT OF TRANSPORTATION
1035 PARKWAY AVENUE
TRENTON, N.J. 08625

A Report from the Commissioner of Transportation

In accordance with the requirement of the Transportation Act of 1966 that the Commissioner of Transportation shall "...*develop, from time to time revise and maintain a comprehensive master plan for transportation development...,*" there is herein presented an update of the first master plan, completed in 1968.

That plan recognized the changing needs in transportation, particularly the increasing concerns over improving public transportation. The 1972 effort carries forward the basic long-range program with increased attention to public transportation as well as the strengthing of the highway system, and includes for the first time a program to develop the State's aviation resources.

A plan of this type by its nature cannot be fixed or unalterable but must be assessed with the realization that as the State's transportation needs and objectives change, so must the program change to meet those needs and objectives.

It is with this dynamic concept that this 1972 Master Plan is presented to the citizens of New Jersey to provide a necessary background for decisions which must be made to maintain the transportation services vital to the welfare of the State.

John C. Kohl
Commissioner of Transportation

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FOREWORD

New Jersey's rapidly changing patterns of land development, its shifting travel demands and population growth require a continuing reappraisal of the State's transportation needs. If New Jersey is to enjoy the benefits of growth and change, plans must be developed and implemented through which the State's transportation services will make a positive contribution.

This report, the 1972 Master Plan for Transportation, presents the results of an evaluation of the State's needs on those transportation systems for which the New Jersey Department of Transportation is responsible. It is a plan encompassing various travel modes, outlining the needs of each mode to serve travel demand through 1990 and recommending specific improvements for highways, railroad and bus operations, and airports.

The character of present-day travel as well as future trends were analyzed in preparing the Master Plan. An effort was made throughout to place transportation policy in a historical perspective as well as to incorporate new concepts where appropriate and to employ accepted principles of transportation planning.

To insure that the plan reflects statewide concerns and is truly representative of statewide needs, advice and suggestions were sought from citizen organizations, regional and county transportation agencies, chambers of commerce and other officials.

Much of the data utilized in preparing this report were obtained through a detailed review of the results of the recently completed National Transportation Needs Study. This study, sponsored by the federal government, was a tremendous undertaking by every State. It resulted in a report to Congress early in 1972 outlining the Nation's total transportation needs through 1990.

The Department recognizes the necessity for a continuing reappraisal of New Jersey's transportation needs. Coincident with tentative plans by the Federal Government to update the National Transportation Needs Study every two years, the Department will seek to update this Master Plan on a similar schedule.

SUMMARY

New Jersey is now the most densely populated State in the Nation. Its problems of urbanization will continue to mount along with its growth in population, industry, commerce and recreational facilities and with the State's increasing importance as the geographic center of the Northeast "megalopolis."

In the past, this growth has meant:

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I.
TRANSPORTATION—
WHERE DO WE STAND

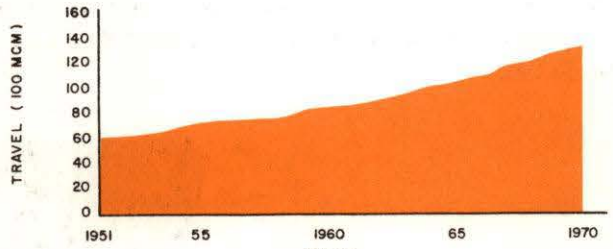
New Jersey's transportation facilities have evolved from a series of Indian trails serving the needs of the earliest settlers to a complicated and interrelated network attempting to meet the needs of the Nation's most urbanized State.

Highways

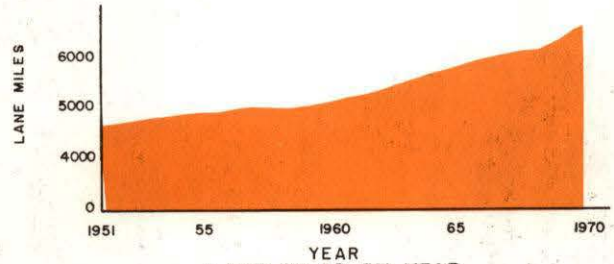
The State Highway System, created more than a half century ago, has grown from the original 700 miles of roads to the total of 2,046 miles in operation today. While this amounts to only 6.4 percent of all of the road mileage in the State, the State system carries 33.8 percent of the annual vehicular traffic.

Although the annual vehicle miles of travel on the State Highway System has doubled during the past 20 years, there has been less than a 50 percent increase in lane-miles contructed during the same period.

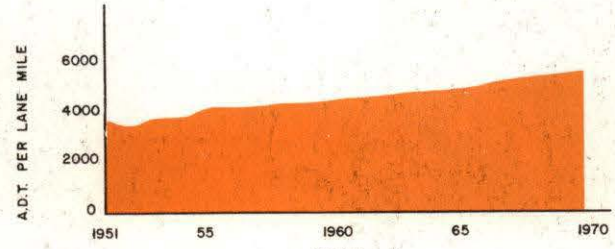
These statistics are especially significant in analyzing the marked increase in the density of travel on State highways during the same time period. Density rose from an average daily two-way traffic volume (ADT) of 3,660 vehicles per lane-mile in 1951 to 5,570 vehicles in 1970 – up 56 percent.



VEHICLE MILES OF TRAVEL BY YEAR



LANE MILES BY YEAR



TRAVEL DENSITY PER LANE MILE BY YEAR

Passenger Rail Services

The commuter railroad system is operated by five companies which provide service to an average of 166,130 weekday passengers on a total of 467 route miles.

Rapid transit services are provided by two public agencies and one public company on a total of 26 route miles providing service to an average of 192,400 weekday passengers.

The total network of passenger rail systems provide service to 15 of the State's 21 counties, the exceptions being Burlington, Cumberland, Gloucester, Salem, Sussex and Warren Counties.

In 1950, there were approximately 1,100 route-miles of track in existence in the State providing commuter service to 20 counties, and there were more than 349,000 passenger trips a day. The decline in service over the past 20 years has resulted in only 467 route-miles of track remaining in use today, providing service to 15 counties with only 166,000 passenger trips daily.

However, existing rapid transit facilities provide service for an additional 192,000 passengers per day. Total rail utilization now averages 358,000 passenger trips per day.

Although there has been a significant decline in annual rail trips between New Jersey and New York, rail patronage during the commuter peak periods has remained constant.

While still providing service, the Penn Central, Reading and Lehigh Valley Railroads have gone into bankruptcy in recent months. The Central Railroad of New Jersey has been in bankruptcy since 1967.

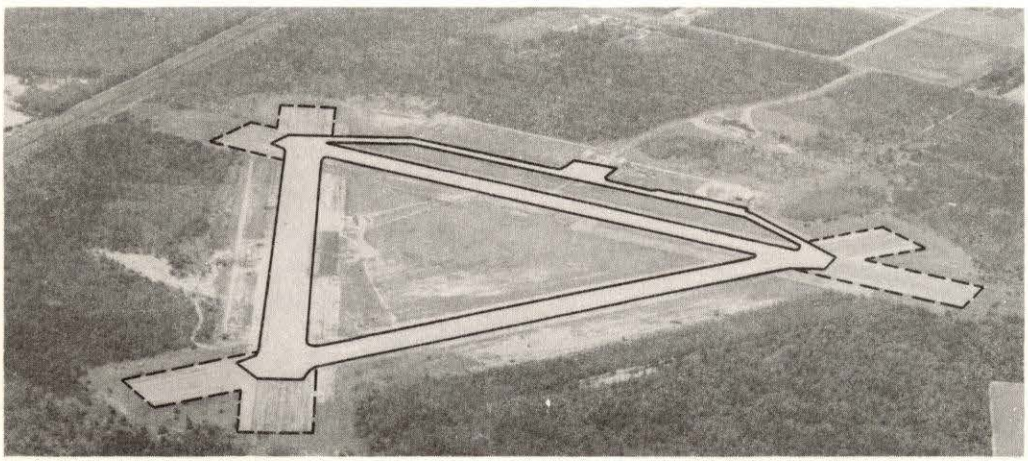
Buses

The statewide bus network is comprised of 274 companies with a total of 4,714 buses which carry 313 million passengers a year.

Bus service in New Jersey has shown a continual decline in the last decade. This decline has been most pronounced in local service in the suburban areas and in the smaller cities.

In the State's northern core areas, which encompass the City of Newark and other communities, local service has shown a lesser degree of decline.

Suburban service to the major cities in and adjoining New Jersey has been relatively stable with evidence of increased patronage on routes serving outlying areas. Major decreases in bus patronage has been closely associated with specific suburban rail improvements.



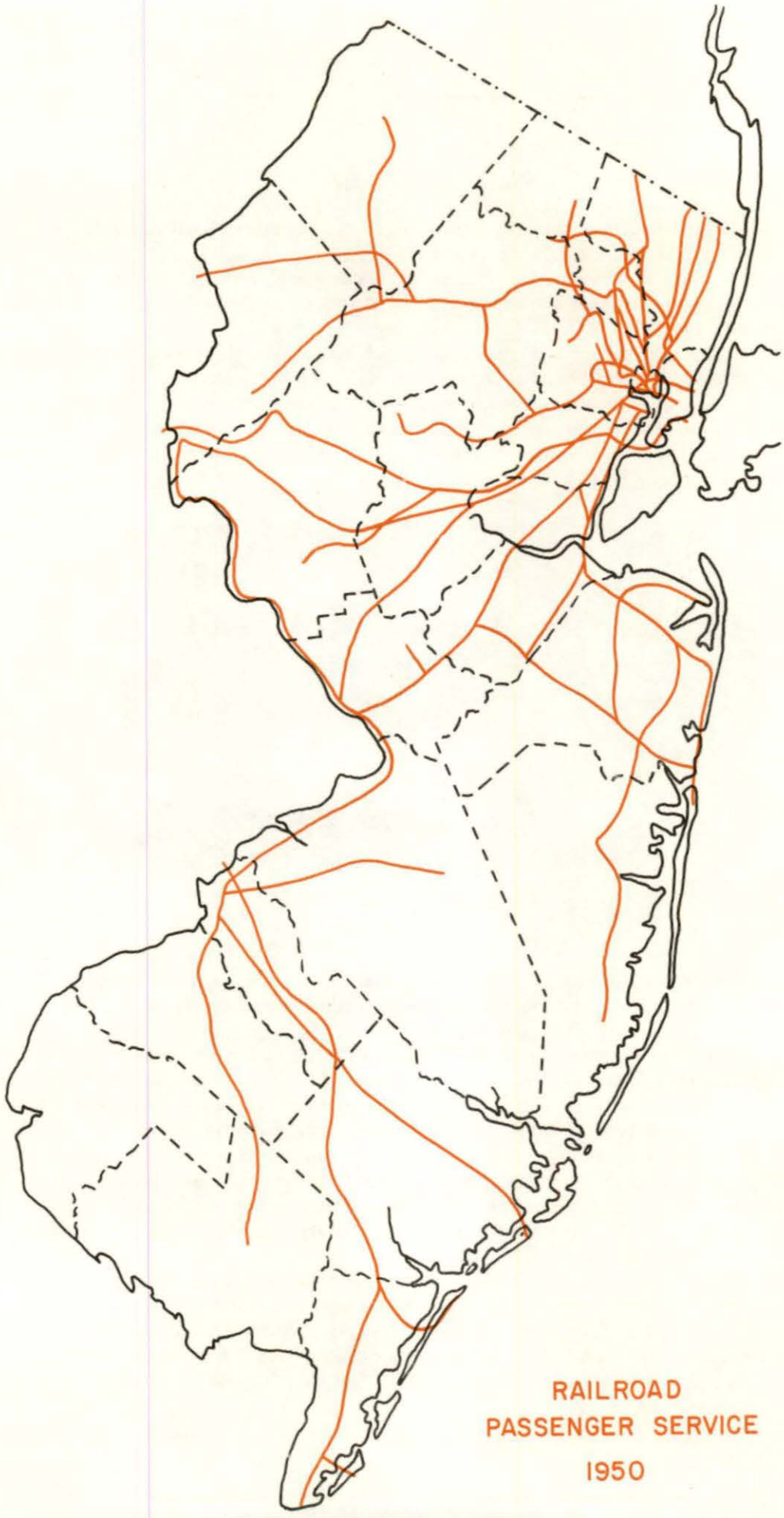
Aviation

New Jersey has a total of 84 conventional airports licensed for public use. Together with an additional 13 heliports available for public use, these facilities serve a total of 3,400 aircraft registered in the State.

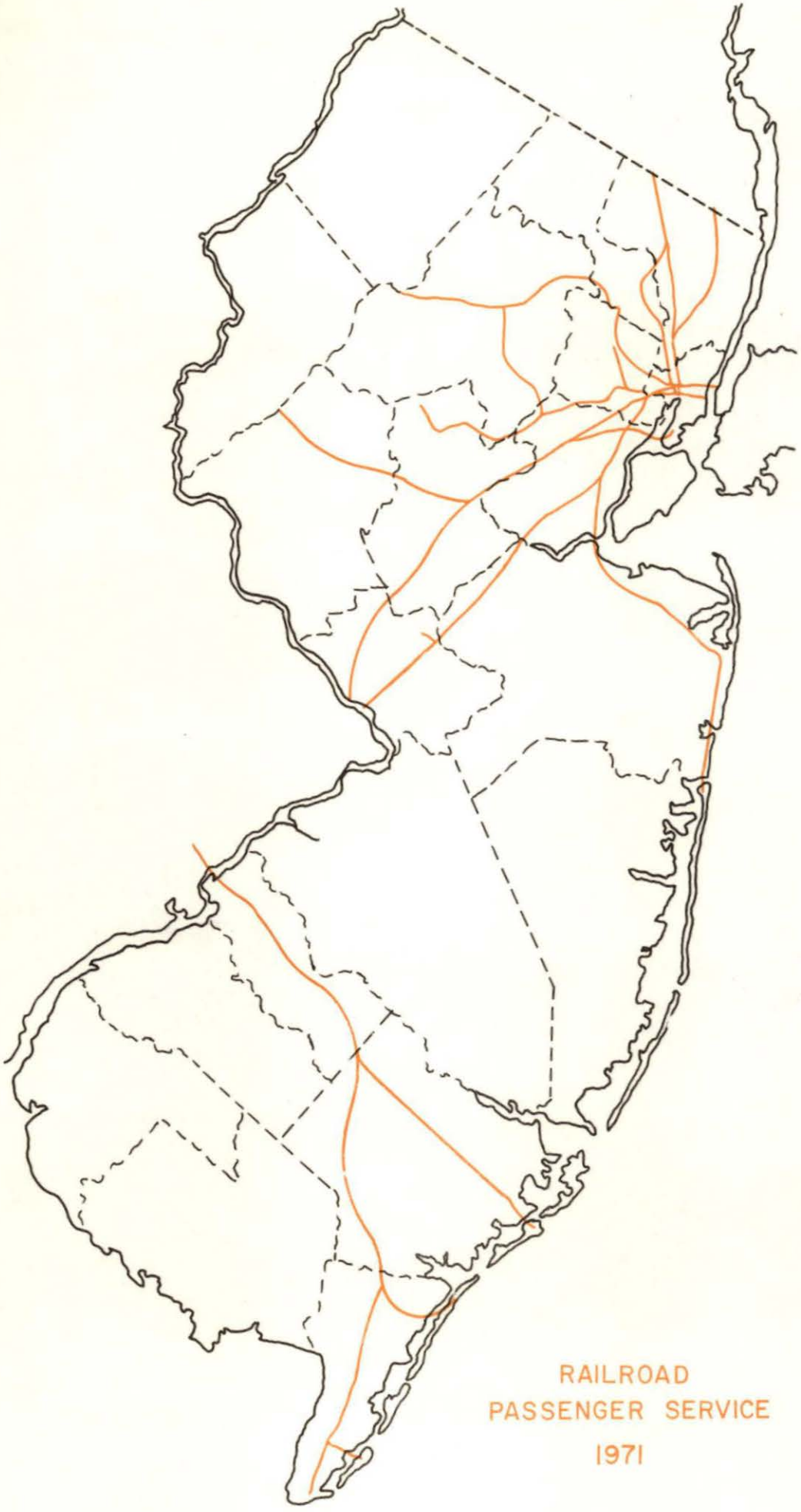
One facility, Newark Airport, is used by jet-equipped commercial air carriers. Other facilities in the State that are physically capable of handling large commercial jet aircraft are the military installations at McGuire Air Force Base and Lakehurst Naval Air Station, and the Federal Aviation Administration installation at Pomona (NAFEC).

New Jersey ranks first in the Nation in the number of aircraft per square mile and the number of aviation facilities in the State has been increasing during the past two decades. At the same time, there has been a trend of airport closings in those areas where, because of population density, there appears to be the greatest potential demand for air transportation.

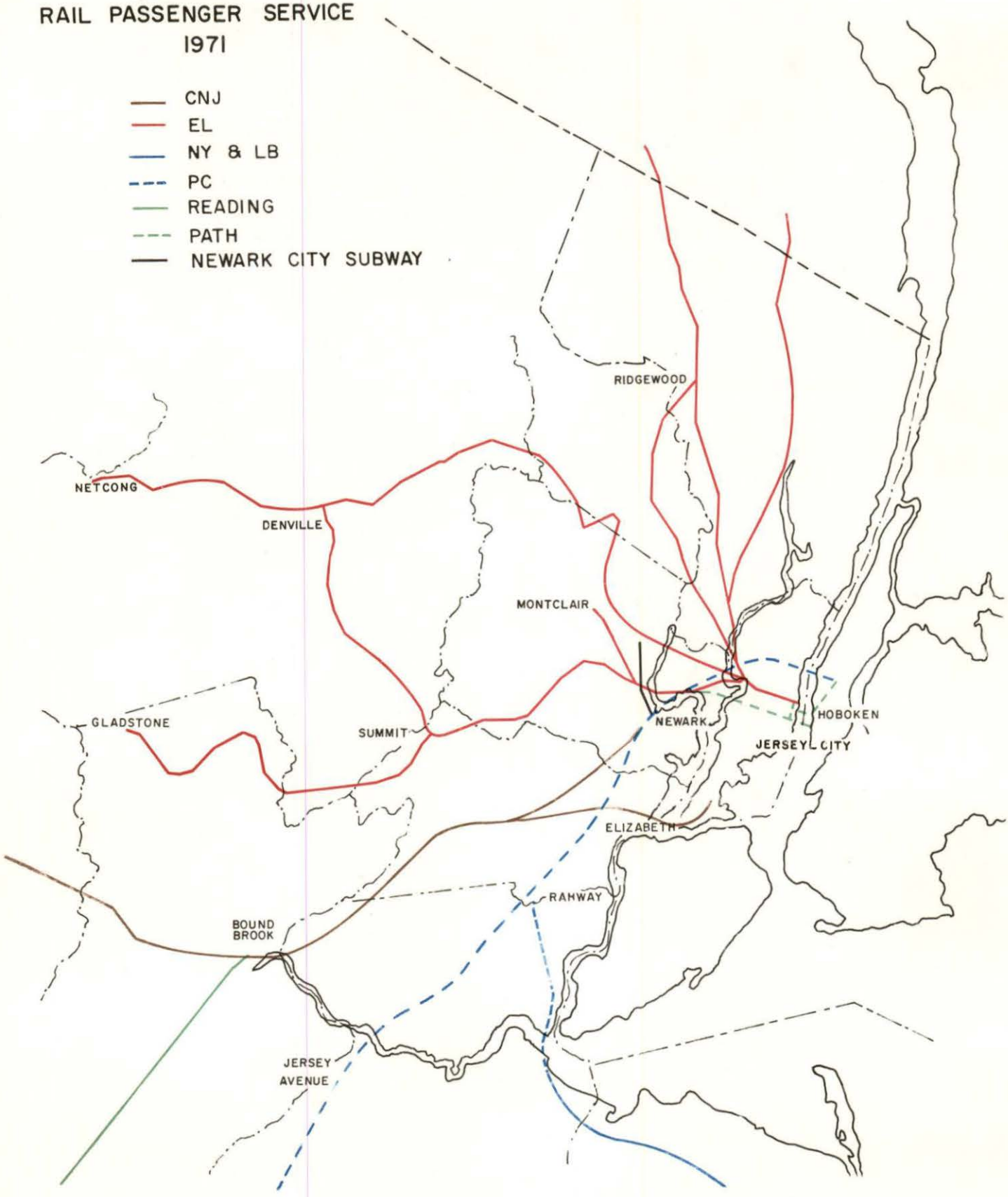
The number of aviation facilities has grown steadily from 60 public use airports (not including two military installations, McGuire and Lakehurst) in 1951 to 84 public use airports in 1971. This increasing number of airports, however, is a misleading indication of adequacy since two-thirds of all airports closed during this period were located in the critical areas, such as Passaic, Middlesex and Camden Counties.

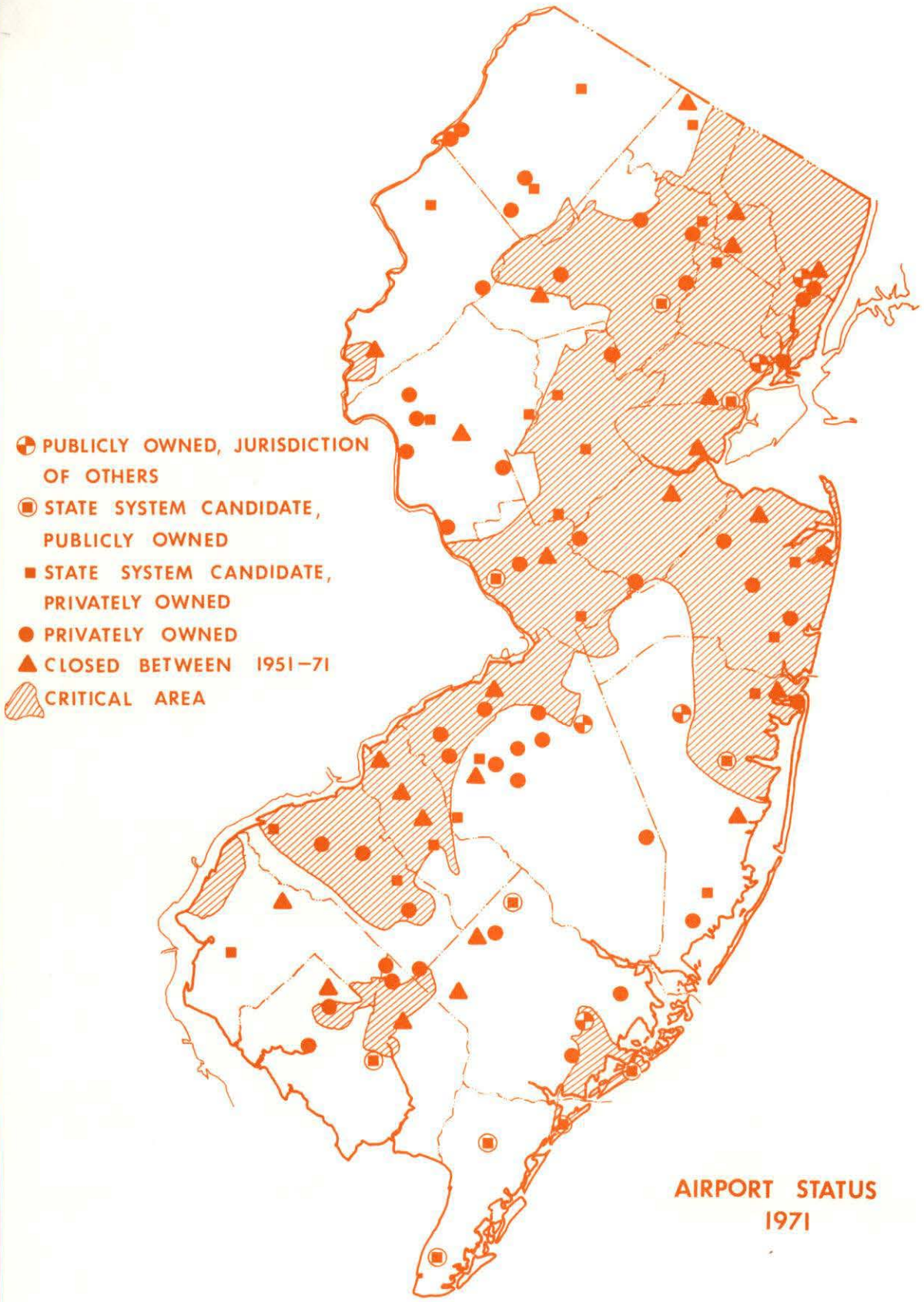


RAILROAD
PASSENGER SERVICE
1950


RAILROAD
PASSENGER SERVICE
1971

PUBLIC TRANSPORTATION
EXISTING
RAIL PASSENGER SERVICE
1971





AIRPORT STATUS
1971

II.
THE PROBLEM

By its nature, a Master Plan projects the kinds of development required to cope with the needs of the future. This plan should have a historical perspective, be based on conditions as they exist when the plan is created, and provide for conditions as they are expected to exist in the future. Thus, the heart of the problem facing transportation planners in New Jersey is the condition of transportation facilities and services today and the projection of social and economic trends of the future.

The Department's responsibility to provide a balanced transportation network capable of handling the traffic demands of the future is complicated by the inadequacies of our present systems to satisfy today's demands. The lack of proper capital investment on a timely basis has resulted in the overloading and deterioration of the total transportation network. The necessity to "catch up", while simultaneously constructing for the future, presents the greatest challenge to the transportation planner.

The transportation needs of New Jersey fall into two groups. The first is the "backlog" needs, or those items which improve or provide relief for the most overloaded facilities. An indication of the magnitude of backlog needs is provided by Federal government estimates that on a national average approximately 30 percent of the total highway needs on State, county and local systems over the next 20-year period appear as backlog needs.

This problem is even greater on the State Highway System, where the immediate needs, to a large extent resulting from unaccomplished work in the past, amount to some 38 percent of the total identified construction needs in the Master Plan.

The second group of needs can be identified as those required to meet the future growth of travel in the State. The magnitude of these needs can be related to future year indicators of potential growth, such as population, motor vehicle registration, labor force, income, industry, markets and recreation.

Population

The distribution of the State's population is a major factor in determining transportation needs. With the continuing increase and redistribution of population, a sizeable portion of business and industry will follow to suburban areas. Land use will change, forest and farm land will become residential subdivisions, shopping centers, and industrial sites. Despite these changes, the central business districts of the State's metropolitan areas still will contain tremendous economic activity.

New Jersey, with an estimated population density of 1,260 persons per square mile in 1990 as compared to 950 persons per square mile in 1970, will continue to be the most densely populated State in the Nation.

Results of the 1970 census indicate that the State's population has grown to 7.168 million, up 18 percent from 1960. It is estimated that by 1990 the population will total 9.457 million, an increase of 32 percent over the most recent census figures.

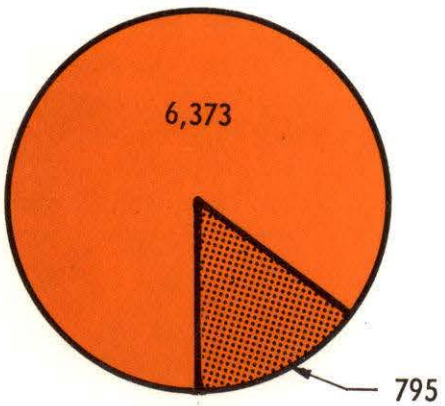
The majority of the State's population is located in the 11 counties located between New York and Philadelphia. From 1950 to 1970, the population in New Jersey has spread in all directions, with the greatest increase occurring in the suburban region surrounding the New York-Northeast New Jersey urbanized complex. Also experiencing significant growth, is the region surrounding the Philadelphia-Camden area.

1970

EXISTING URBANIZED AREA

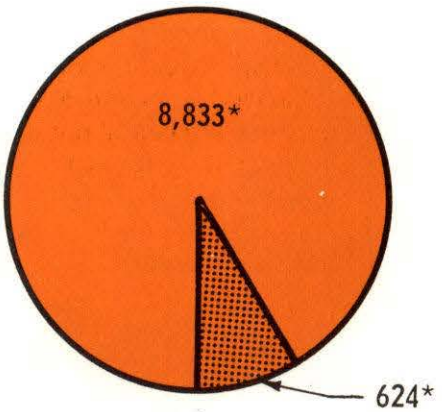
1990

PROJECTED URBANIZED AREA



1970

TOTAL POPULATION= 7, 168



1990

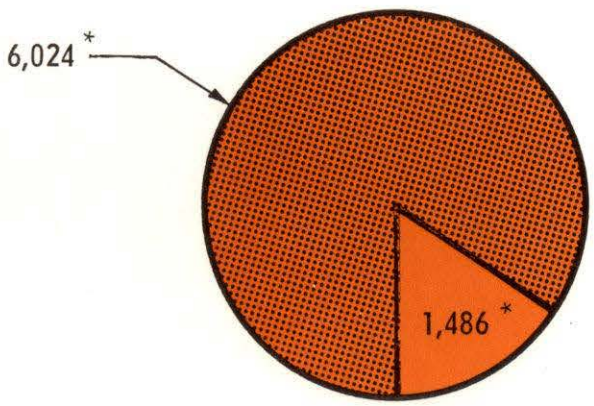
TOTAL POPULATION=9,457*

POPULATION

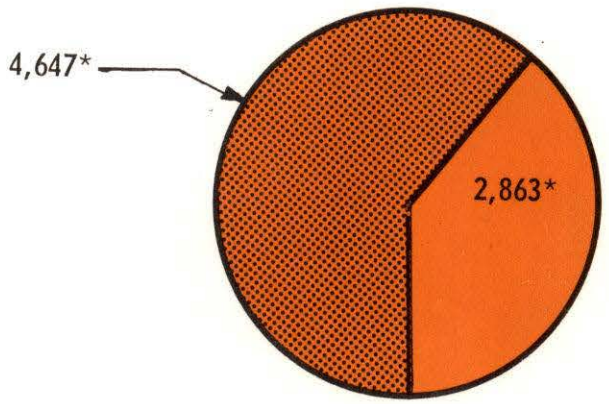
THOUSANDS OF PEOPLE

URBAN

RURAL



1970



1990

TOTAL LAND AREA = 7,510

LAND AREA

(SQUARE MILES)

URBAN

RURAL

* ESTIMATED

The concentration of population in the State today is distributed among seven urbanized areas and 20 smaller centers of urban population. These areas account for 89 percent of the total population. By 1990, the urbanized areas of the state will account for 93 percent of the total population, and the land area occupied by urban sprawl will be nearly doubled.

Registration

Motor vehicle registration in New Jersey totalled 3,794,000 in 1970. Total registrations are expected to reach 5,384,000 by 1990, an increase of almost 42 percent. Careful examination of trend based data indicates that the ratio of people to motor vehicles will level off in the future at something less than 1.7 persons per vehicle.

Labor Force

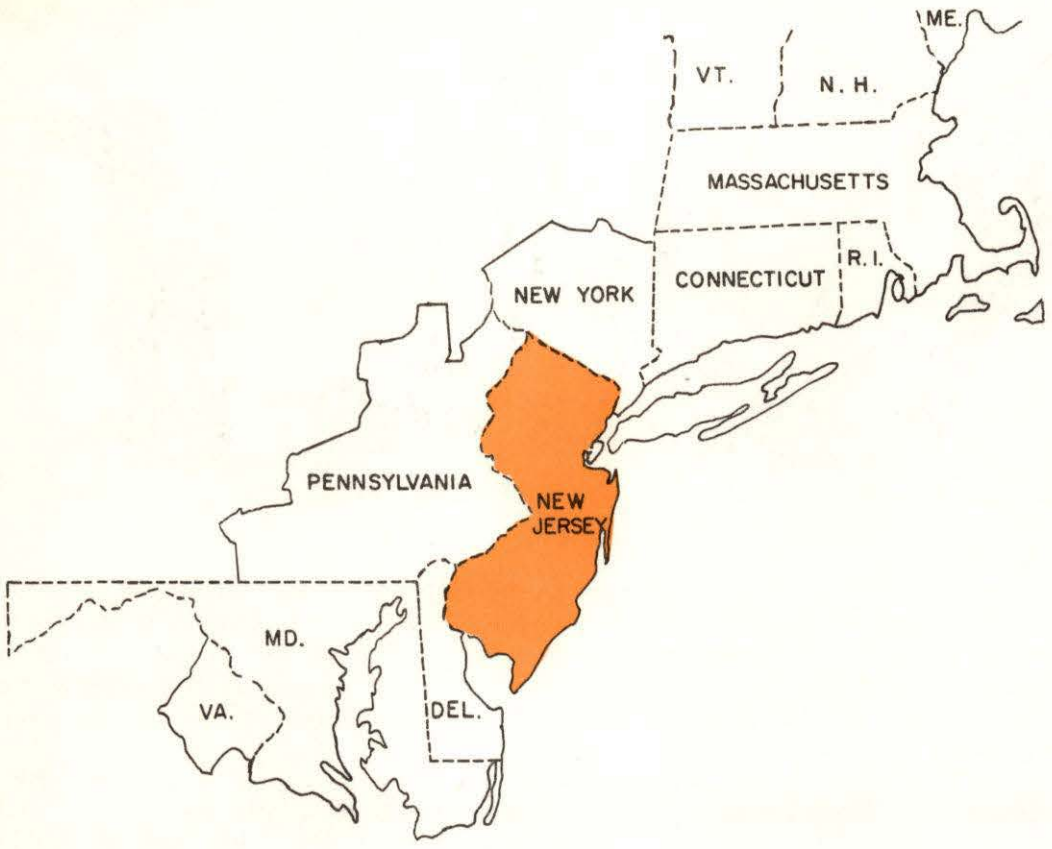
The latest available estimates indicate that employment in New Jersey will increase from 2,791,000 in 1966 to 3,704,000 in 1986, an increase of 33 percent. Much of this increase will occur in areas that are now rural, which implies that more people will travel more miles to work.

Income

Total personal income and per capita income has grown steadily during the past decade, a trend which can be expected to continue. The consequent higher standard of living means that more people will be able to afford automobiles, an indication compatible with the 1990 estimates of Statewide registration totals.

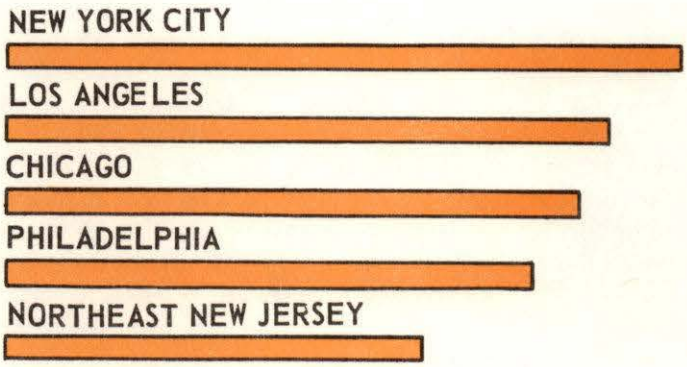
Industry

New Jersey is in the middle of the largest, richest and most concentrated market in the world. It provides an industrial corridor between New York City and Philadelphia which serves as an important reason for the State's highly diversified industry. This attractiveness to industry is evidenced by the fact that 85 of the 100 largest corporations in the country have operations in New Jersey. Since most of the industry is concentrated within the corridor, it only seems natural that the urban expansion of the future will be associated with increased industrial development.



Markets

New Jersey is strategically located in the geographical center of that section of the Eastern Seaboard, between Maine and Virginia, known as megalopolis. By use of the highway network, one-third of the nation's population is within overnight shipping distance of New Jersey's manufacturers. Within the area encompassed by New Jersey's nine northern counties is concentrated a buying power ranking fifth among all of the metropolitan markets in the country and exceeded only by New York, Los Angeles, Chicago and Philadelphia.



Recreation

The present demands in New Jersey for outdoor recreational facilities of all forms are great. This demand will continue to grow as the number of people increases and as the average person acquires more time and money to spend on outdoor recreation. A visit to New Jersey's shore resorts during the summer months will demonstrate the demands put on our recreation facilities, not only by State residents but also by people from neighboring states.

The New Jersey Open Space Recreation Plan emphasizes that, based on today's demand alone, an additional 158,000 acres of developed State facilities are needed – and are needed now. This does not provide for future demand which, with increasing population, income and leisure time, must follow an upward spiral. To provide for tomorrow's demand, the capacity of developed recreation facilities must increase about 90 percent by 1980 and about 200 percent by the year 2000.

In addition to the facilities outlined in the Open Space Recreation Plan, two federally sponsored projects will have a significant impact on our transportation system.

The Delaware Water Gap National Recreation Area, also known as Tocks Island, will provide recreation facilities on the upper reaches of the Delaware River. As presently proposed, the park area will be situated around a 37-mile-long lake resulting from construction of an earth-filled dam at Tocks Island. The park facilities will be located on both sides of the Delaware River extending from the Delaware Water Gap to Port Jervis and will serve an estimated 10.5 million visitors annually. On a summer Sunday an estimated 26,700 vehicles per day will be added to the New Jersey highway network with approximately 45 percent of this total emanating from the New York metropolitan area.

The second major project, The Gateway National Recreation Area, will be concentrated in the area of Raritan Bay and Lower New York Bay, encompassing Breezy Point, Jamaica Bay and Floyd Bennett Field in New York State and Sandy Hook in New Jersey. The completion of this project will provide much-needed recreation facilities for the heavy concentration of population in the New York metropolitan area. The area will serve a secondary function by providing a new "welcome" to immigrants and visitors entering this country via Kennedy Airport. While the specifics of the project have not yet progressed to the level of development of the Delaware Water Gap National Recreation Area, the estimated 180,000 daily visitations in Phase I development of Breezy Point and Sandy Hook can only mean an additional burden to the surrounding transportation system.

Hackensack Meadowlands

The Hackensack Meadowlands, located in the northeast section of the State along the Hackensack River, encompasses a tract of land larger than the island of Manhattan. Its geographic location puts it at the center of the New York-New Jersey metropolitan area, thus surrounding it with some of the most highly urbanized and richest development in the world.

While a large part of the tract has been developed, mostly for transportation and industry, very few people live in the Meadowlands – a condition that is about to change.

The New Jersey Legislature, fearing that tremendous opportunities for developing the Meadowlands were being lost to the State, created in 1968 a commission to develop the Meadowlands in a manner that would best serve the interests of the public.

The "Hackensack Meadowlands Comprehensive Land Use Plan" provides an insight as to what this development of the future will look like. Some of the main features of the plan are:

- A water-oriented business, shopping, civic and cultural complex.
- Transportation centers that will include office buildings.
- 1,000 acres of public park and 500 acres of commercial recreation space including marinas and golf courses.
- Complex residential communities.
- Island residential clusters built along the Hackensack River.
- A sports complex.

The citizens of New Jersey can reap tremendous benefits from full utilization of the Meadowlands – a goal that can be achieved only with an adequate, highly-integrated transportation system.

The Corridor State

While the above indicators can be related to growth within the State's boundaries, New Jersey also is in the unusual position of experiencing considerable travel across her boundaries. Because of this, New Jersey has been aptly termed the "Corridor State."

This considerable interstate movement is attributable in part to New Jersey's location in the geographic center of megalopolis. The influence of the great urban centers of New York City and Philadelphia has caused the number of people crossing between New Jersey and Pennsylvania to be ranked highest in the Nation while the movements between New Jersey and New York is second highest.

The largest single movement – commuter travel between New Jersey and Manhattan – amounts to 480,000 person-trips daily. Of this number, slightly less than 50 percent use some form of public transit – rail or bus. The morning and evening peak-hour movements are especially significant. During one peak hour in the morning more than 123,000 commuters cross the Hudson River into Manhattan. Of this total, 87 percent use some form of public transit.

While the commuter problem is not as severe between the Camden area and Philadelphia, the same trend has emerged. One result has been the construction of the Lindenwold High Speed Line aimed principally at meeting the demand for interstate commuter travel.

With the expectation that many of New Jersey's rural areas will become suburban "bedroom communities" for the highly concentrated urbanized areas, it is expected that the density of travel across the State's borders will become even more significant in the future.

The impact of "corridor" travel in the northeastern States has been recognized by the Federal government as evidenced by the "Northeast Corridor Transportation Project," a study undertaken by the U.S. Department of Transportation. The study limits encompass an area extending from Washington to Boston and represents one of the most comprehensive analytical efforts ever undertaken in the field of transportation. Its objective is to relieve future problems of short-haul intercity passenger transportation in the region by giving consideration to all modes of travel.

The report was completed during the latter part of 1971. The conclusions and recommendations of the study were submitted to the New Jersey Department of Transportation and have been considered in the compilation of this Master Plan.

Demand Indicators

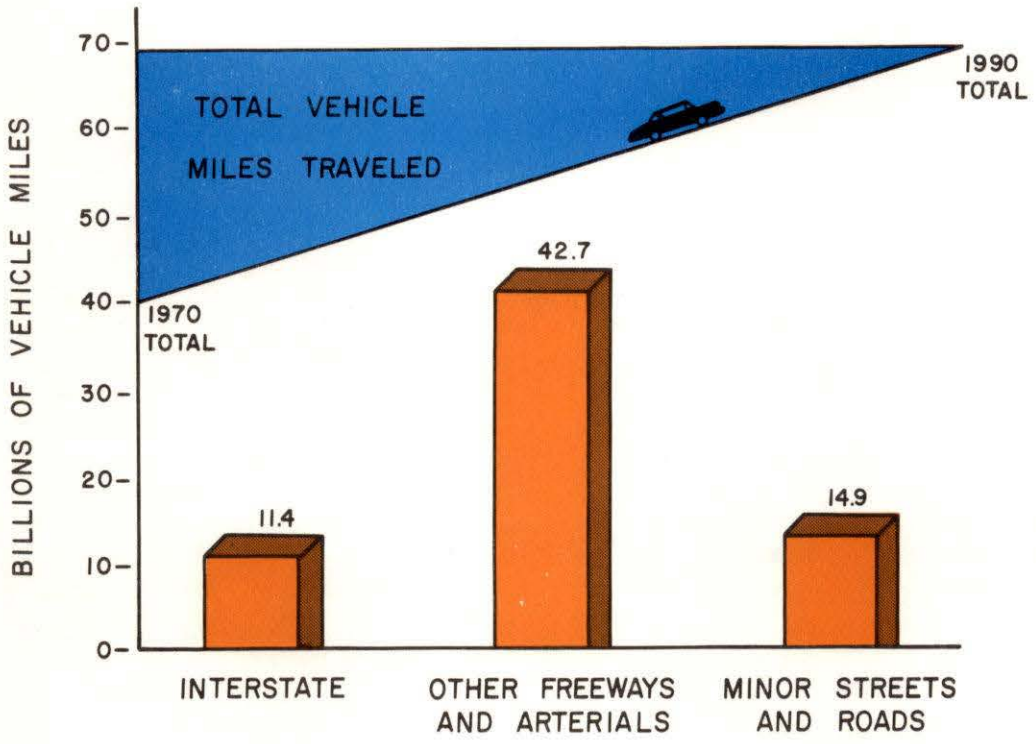
Assessment of the five principal underlying generators of travel – population, motor vehicle registrations, labor force, income and recreation – can provide some highly significant indications of future travel demands and the extent of the future burden on New Jersey's transportation network.

The annual vehicle miles of travel on State, county and municipal roads in New Jersey will increase by 1990 to 69 billion vehicle miles – up 73 percent from today. Of this total, the Interstate System will register 11.4 billion annual vehicle miles, while 42.7 billion will occur on other freeways and arterials and the remaining 14.9 billion on minor roads. From this total travel figure for the State, there will be 28.1 billion vehicle miles of travel, 41 percent of the total, on the State Highway System alone.

Rail transit patronage will see a 20-year increase to 626,476 daily person trips — up 75 percent from today. The bulk of this patronage will continue to occur in the highly urbanized areas adjacent to New York City and Philadelphia.

Bus patronage is expected to increase by 24 percent to a 1990 demand of 1.6 million riders daily.

Total annual aircraft operations in the state can be expected to rise to 7,924,000 — an increase of 216 percent above today.



ANNUAL VEHICLE MILES OF TRAVEL

1990

III.
SATISFYING THE NEEDS

Before a plan can be developed outlining a solution to serve the transportation needs of the State, a set of objectives – specific goals toward which effort is directed – must be derived. Such a listing of objectives can lead to policy guidelines defining the atmosphere in which transportation needs can be met.

Transportation Objectives

- Provide a transportation network equitable to all segments of the State populace
- Increase comfort and convenience of travel
- Reduce adverse impacts on the natural environment
- Promote desired pattern of land development
- Increase safety
- Reduce travel time and cost per trip
- Provide a choice of travel modes
- Be realistic in terms of physical, social, financial and environmental restraints

Policy Guidelines

HIGHWAYS

- Provide the minimum capacity needed to meet existing and forecasted travel demands on the system.
- Provide for the safety of motorists by constructing divided highways wherever feasible.
- Insure that proposed new and improved highways are compatible with the environment.
- Provide for an integrated highway network.
- Provide a highway system that interconnects all urbanized areas, as well as, other significant major traffic generators such as important resort areas and large industrial or commercial complexes.
- Coordinate highway planning with State, regional, county and local land use plans.
- Avoid or ameliorate social and economic impacts that might adversely affect the present housing shortage and employment.
- Avoid, wherever possible, encroachment on park lands, recreational areas and historic sites. Whenever such encroachment is unavoidable total effort in location and design will be afforded toward minimizing the damage to the existing or proposed development.

COMMON CARRIER

- Maintain and strengthen the existing rail and bus system by replacing obsolete equipment.
- Improve the efficiency and quality of rail and bus operations.
- Extend service to areas deficient in service.
- Improve coordination within the total transportation system.

AIRPORTS

- Provide for the development of a system of airports that will keep abreast of the State's needs.
- Minimize airport-related environmental problems such as air and noise pollution as well as problems of zoning and compatible land use.

IV.
THE ENVIRONMENT

Environmental Considerations

Before presenting the 1972 Master Plan for Transportation a few words should be addressed to perhaps the most controversial subject on our minds today – the environment.

When discussing the merits of a transportation plan one must certainly evaluate it in terms of its effect on the environment. However, care must be taken that this evaluation is done relative to the total environment and not just selected aspects of the whole. The environmental impact of a transportation network deals with more than just wildlife or natural resources, it deals also with people. In this vein the environment can be considered as "the aggregate of social and cultural conditions that influence the life of an individual or community."

The ability of people to move is perhaps one of the dominant factors in molding a society's cultural and social characteristics. Would today's society be as dynamic if the mobility we enjoy were suddenly taken from us? Certainly not! The life of a city depends upon its transportation system. Inefficient transportation services increase the costs of local industry and commerce. They rob citizens of their time and comfort. They penalize especially the poor and the handicapped. Consequently, when evaluating the merits of the proposed transportation plan one must weigh the consequences of a negative evaluation based on the physical aspects of the environment alone. One must consider the consequences of denying people ready access to jobs or recreational facilities or of prohibiting the free flow of goods and services to the peoples of not only the State but of the region.

The evils of denial of mobility have already surfaced as evidenced by the ills besetting most of our larger metroplitan cities. These ills are caused in no small part by the inability of our existing transportation facilities to provide the mobility necessary for the concentrations of people in the core cities to adequately function in today's society. Industry and jobs are leaving the inner cities and locating in the suburbs. Without mobility these same inner city residents are denied access to the relocated jobs, retarding their opportunity to maintain an adequate standard of living. Add to this the flight of colleges and other social institutions to the suburbs and their isolation from health services, recreational areas and social contacts outside the immediate neighborhood, one can easily see the plight experienced by the peoples of our larger cities.

It is felt that this Master Plan has addressed itself to the total problem of environmental compatibility by minimizing direct impacts on the physical aspects of the environment and by preserving existing social and cultural structures as well. This has been accomplished through the implementation of two broad policy resolves.

a. The demand for mobility in the larger urbanized areas has been satisfied by extensive improvements to the bus and rail systems with but a minimum of highway construction. This policy will have the least impact on the acute housing supply, have a less disruptive effect on communities and hopefully retard the increasing hazard of air and noise pollution.

b. The demand for mobility in the suburban and rural areas has been accommodated by improvements to the highway system. The majority of highways on new location have been located in the undeveloped rural areas of the State providing service to inter-city and interstate travel.

With these few environmental considerations in mind, the 20-year Master Plan for Transportation is presented.

THE 20 YEAR PLAN

The 1972 Master Plan for Transportation represents the best judgment of the New Jersey Department of Transportation at this time as to the magnitude and kinds of facilities necessary to serve the State for the next 20 years.

In preparing a workable plan it is virtually impossible to adhere in all instances to a rigid set of policy guidelines. There must be flexibility which permits exceptions to be made because of economic considerations, right of way limitations, intensity of development or other influential factors. Good judgment dictates where such exceptions will occur, and it is in this vein that the plan is believed to be realistic, a plan which accommodates "what can really be done."

The following summary denotes the total funds necessary to achieve this plan. There are integral parts of the plan that the Department anticipates will be constructed by other public agencies. These costs have not been included in this summary.

Highways	**$4276**
Railroad Passenger Service	**1897**
Bus Service	**278**
Airport Development	**49†**
TOTAL	**$6500**

(All amounts in millions)
†includes only the cost of preserving selected existing general aviation airports.

V
HIGHWAYS

The proposed highway improvements are divided into four categories depending upon the type improvement to be made.

Freeways

This category consists mostly of new routes on new location and includes both the Interstate System and other freeways. These facilities are characterized by complete control of access at all points along the right-of-way and the grade separation of all interchanges.

Work on the Interstate System in New Jersey has represented the major part of the Department's highway construction effort since the Interstate program was instituted in 1956, and completion of this system will continue to represent a major portion of the State's program through 1975, the present legal cutoff date for allocation of Interstate funds.

A significant amount of the needs listed as Other Freeways, over $500 million, represents a commitment to provide adequate service to the Delaware Water Gap National Recreation Area. Much of this commitment depends on the continual rapid development of this area.

Dualizations

In keeping with the Department's policy of providing for safer and more efficient flow of traffic a significant amount of existng highway mileage will be dualized. These improvements will provide a center barrier on presently undivided facilities and will include grade separated interchanges at the higher volume cross roads. In most cases the reconstruction will include the addition of two or more lanes.

Widenings

This kind of improvement is confined to providing additional capacity on highways presently in place. Most of the highways to be widened are now divided facilities. However, there are some instances where an existing undivided highway will be widened rather than dualized. These instances occur where;

- development along the highway obviates the acquisition of the necessary right-of-way.
- the character of abutting land use prohibits the focusing of left turn movements to a selected few signalized intersections.
- the majority of traffic utilizing the facility is more concerned with access to abutting land uses rather than utilizing the facility as a through route.

Spot Improvements

A number of spot locations throughout the State have been identified by their poor record of safety and ability to handle traffic. These troublesome spots include major intersection revisions, traffice circle revisions, jughandles, structure replacements and others.

20 YEAR PLAN

The total highway improvement package amounts to $4.28 billion dollars during the next 20 years. As already indicated, some 38 per cent of this total is to meet backlog needs.

	Miles	Dollars (million)
Interstate System	96	$ 900
Other Freeways	568	1,866
Dualizations	477	734
Widenings	231	588
Spot Improvements	—	188
TOTAL		$4,276

STATE HIGHWAY SYSTEM

(Existing plus committed)

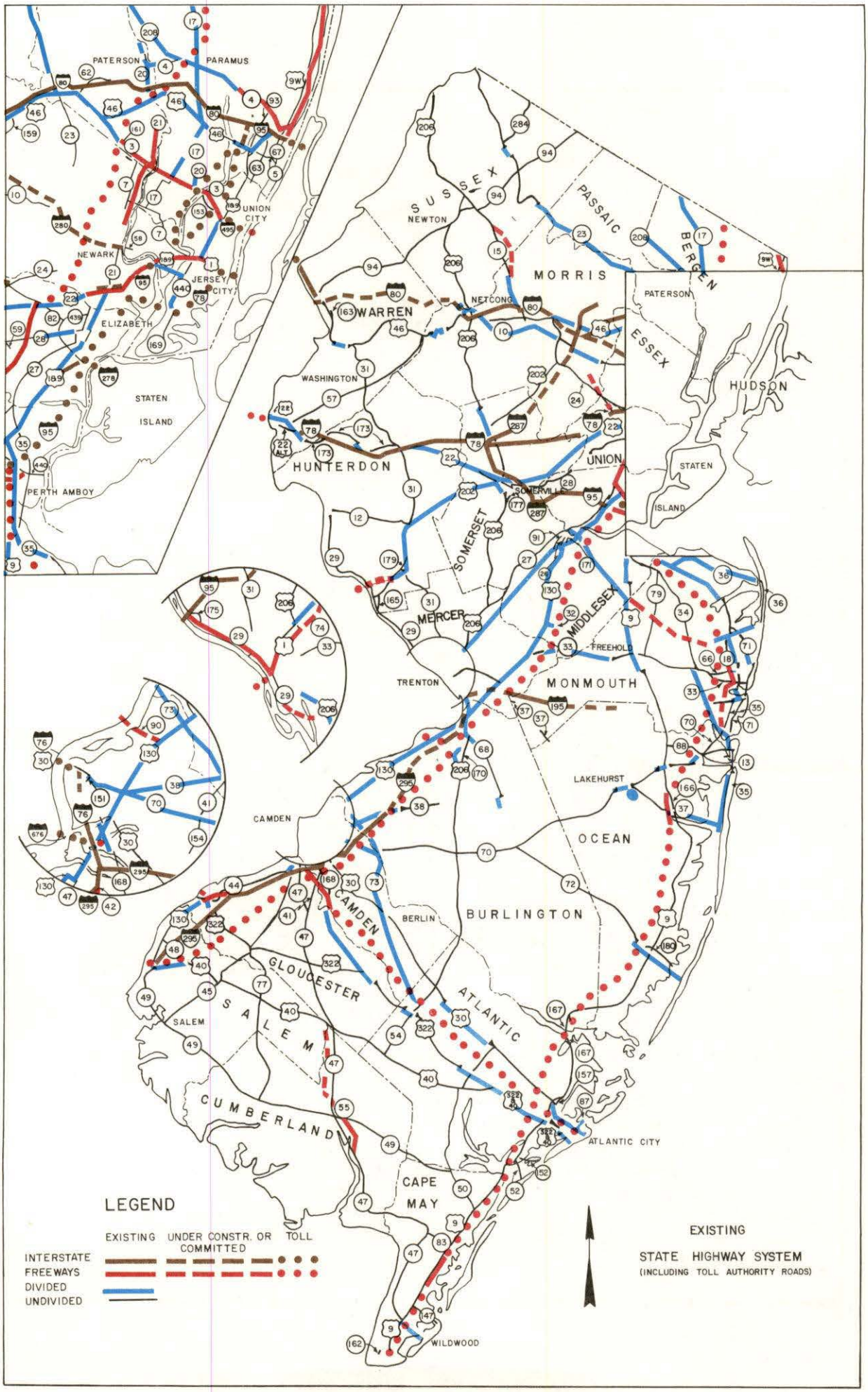
	1970 Miles	1990 Miles
Interstate System	319*	415*
Other Freeways	121	689
Divided	543	1,020
Undivided	1,267	792
TOTAL	2,250	2,916

*Includes 47.4 miles of toll facilities

Other Considerations

Because of the rapid urbanization occurring in New Jersey and the resulting intense land development, the Department believes it would be prudent to establish a revolving fund of $10 million per year for the advance purchase of right of way. The use of such funds to purchase right of way before inevitable increases in land costs would mean significant savings for the State.

In urban areas where extensive development discourages highway improvements, additional capacity and more efficient use of the highway investment can be achieved by eliminating parking from arterial facilities. To further this suggestion, consideration should be given to a joint effort by State and local governments to develop off-street parking facilities.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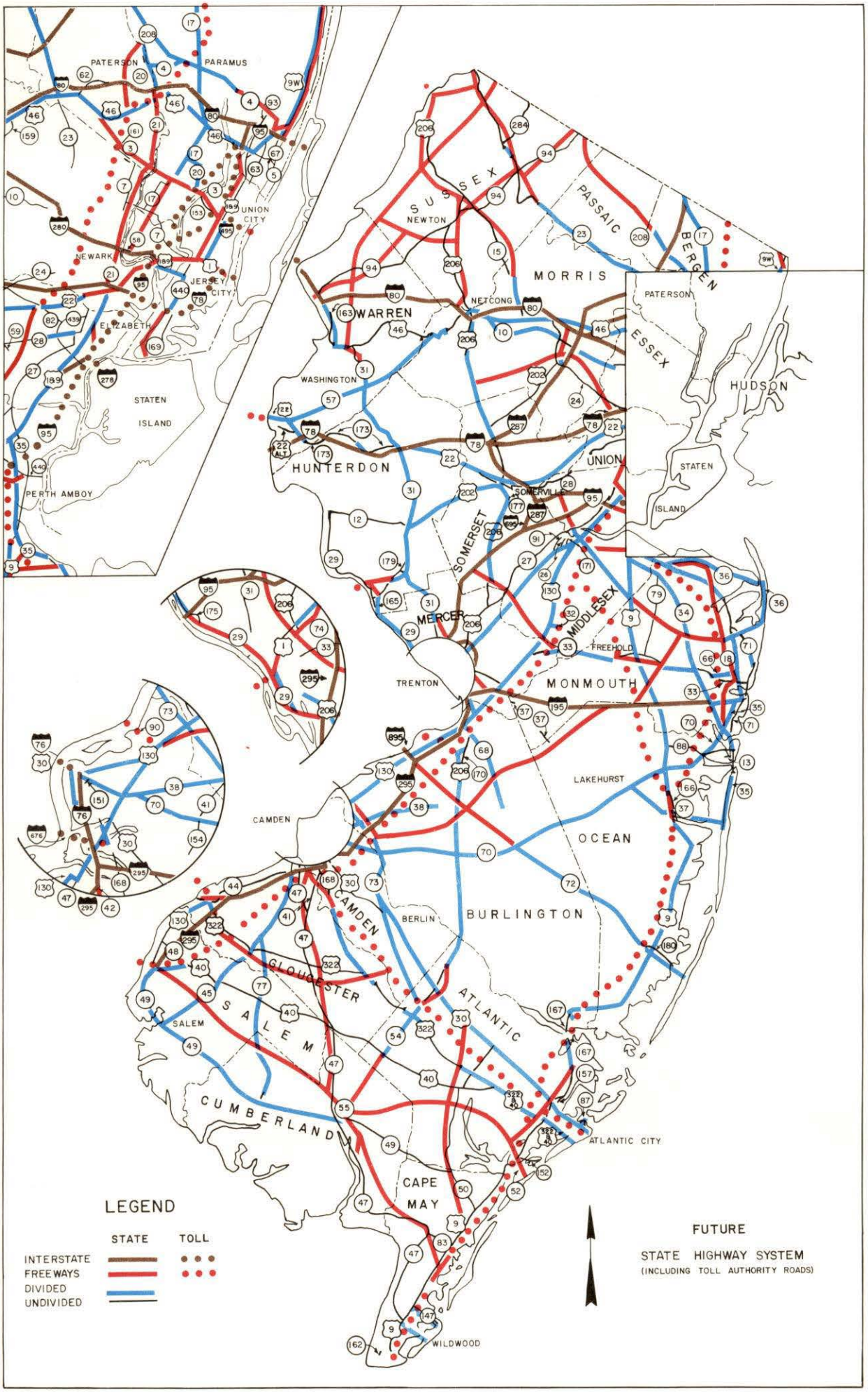
UNION CITY
NEWARK
JERSEY CITY
ELIZABETH
STATEN ISLAND
PERTH AMBOY
SUSSEX
NEWTON
PASSAIC
BERGEN
MORRIS
NETCONG
WARREN
WASHINGTON
HUNTERDON
ESSEX
HUDSON
UNION
SOMERSET
MIDDLESEX
MERCER
TRENTON
FREEHOLD
MONMOUTH
LAKEHURST
OCEAN
CAMDEN
BERLIN
BURLINGTON
GLOUCESTER
ATLANTIC
SALEM
CUMBERLAND
ATLANTIC CITY
CAPE MAY
WILDWOOD
LEGEND
EXISTING
UNDER CONSTR. OR COMMITTED
TOLL
INTERSTATE
FREEWAYS
DIVIDED
UNDIVIDED
EXISTING
STATE HIGHWAY SYSTEM
(INCLUDING TOLL AUTHORITY ROADS)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WARREN
WASHINGTON
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CAMDEN
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BURLINGTON
GLOUCESTER
ATLANTIC
SALEM
CUMBERLAND
ATLANTIC CITY
CAPE MAY
WILDWOOD
LEGEND
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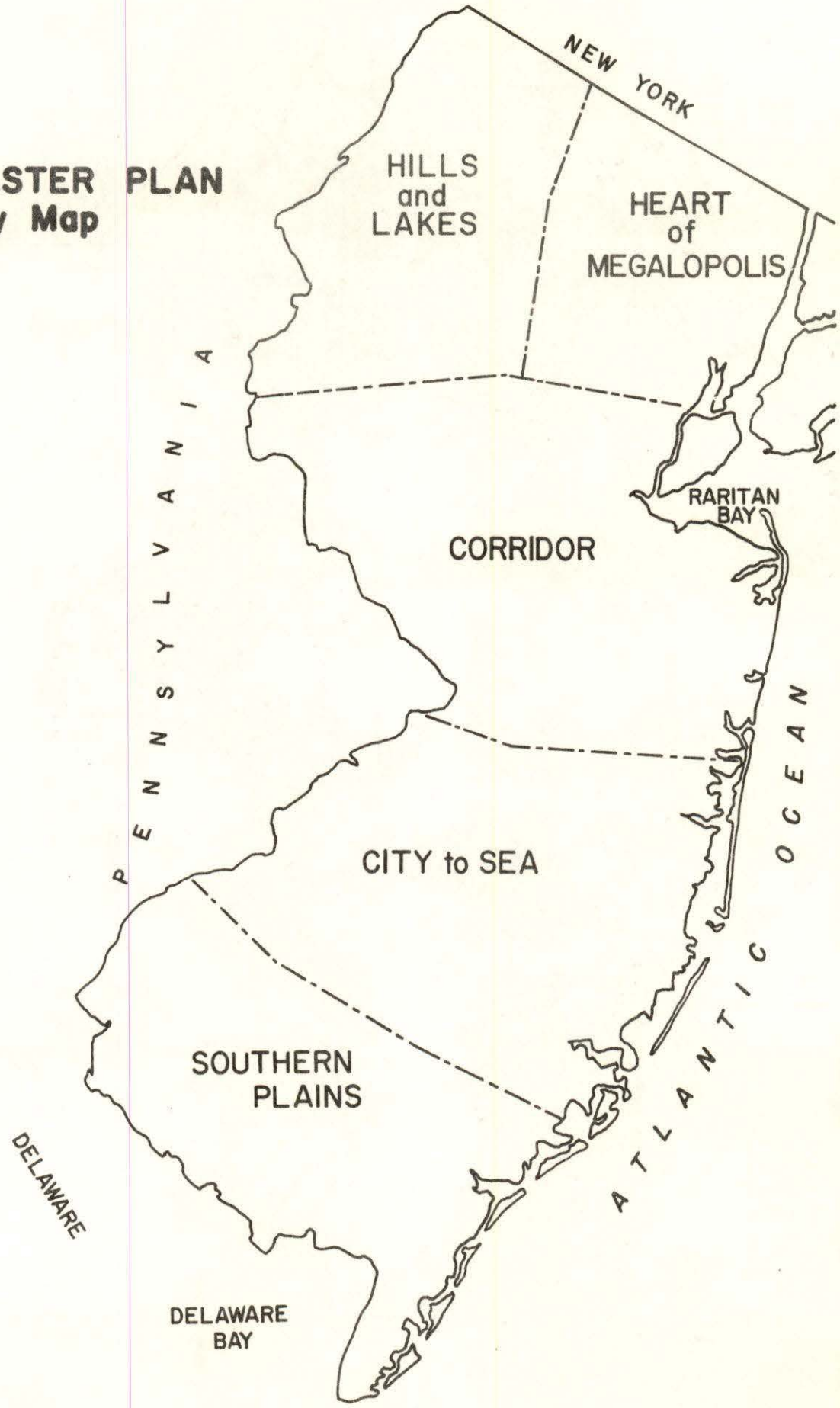
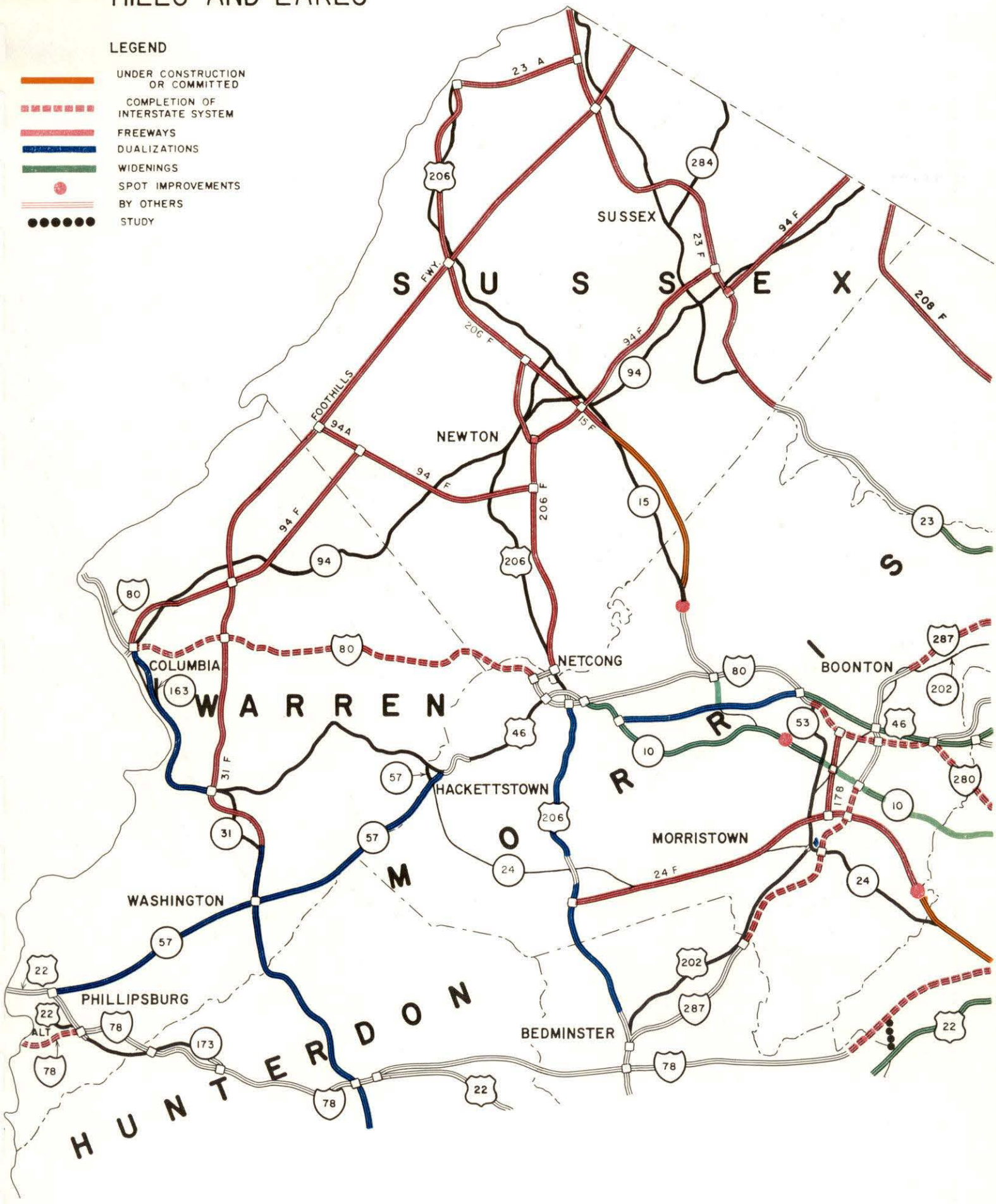
FUTURE
STATE HIGHWAY SYSTEM
(INCLUDING TOLL AUTHORITY ROADS)

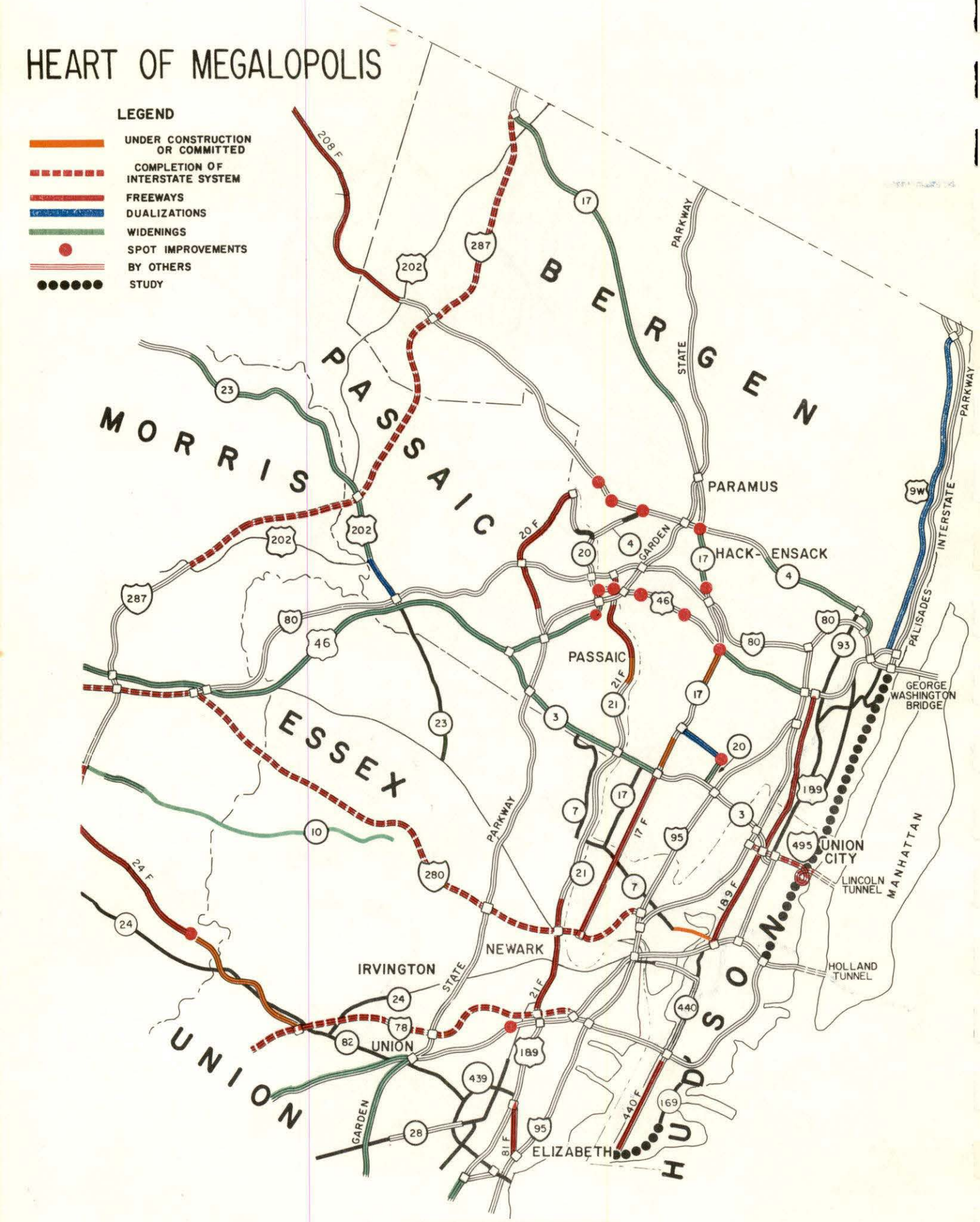
MASTER PLAN
Key Map



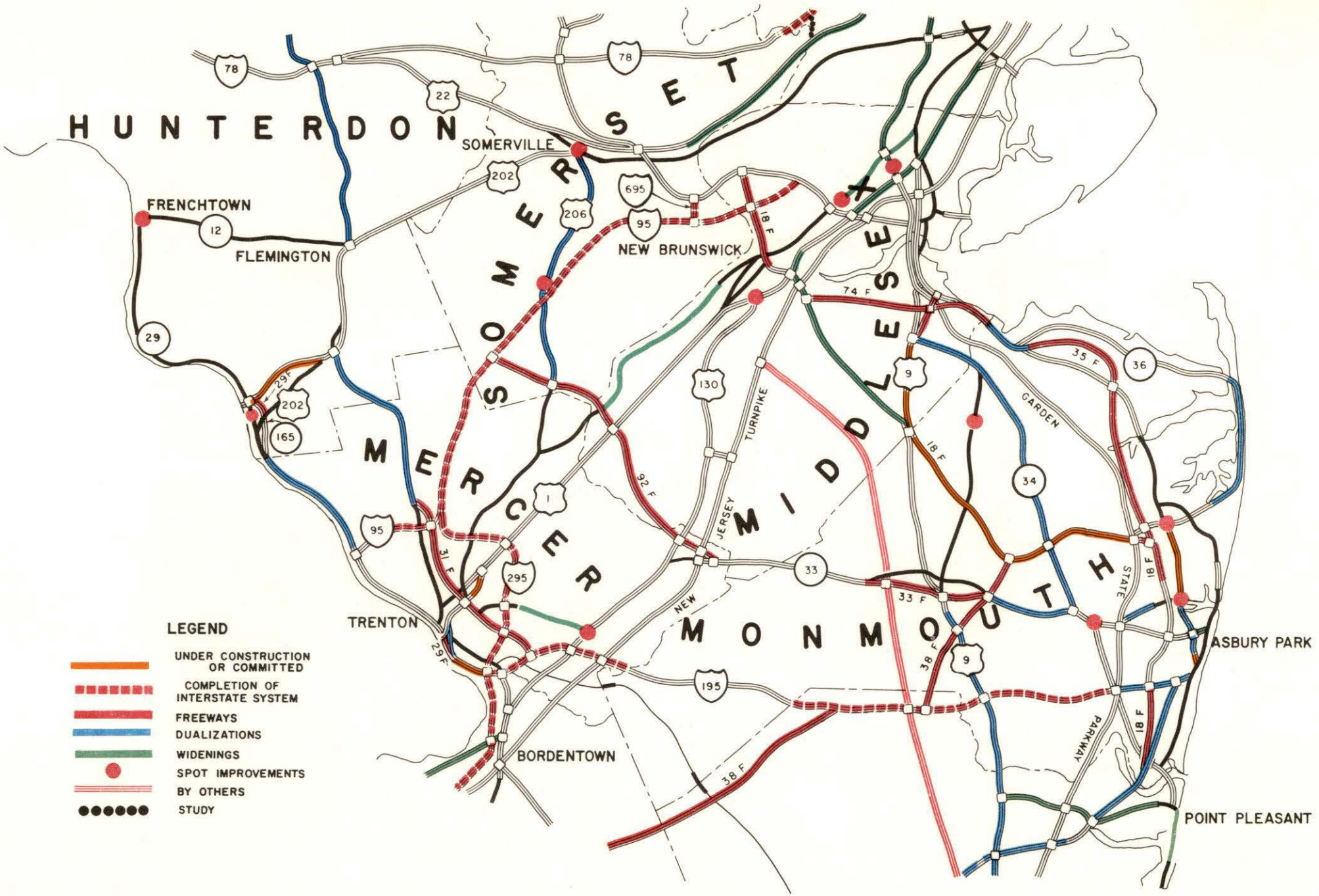
HILLS AND LAKES



HEART OF MEGALOPOLIS



CORRIDOR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SOMERSET
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MIDDLESEX
MONMOUTH
FRENCHTOWN
FLEMINGTON
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BORDENTOWN
ASBURY PARK
POINT PLEASANT
JERSEY TURNPIKE
GARDEN STATE PARKWAY
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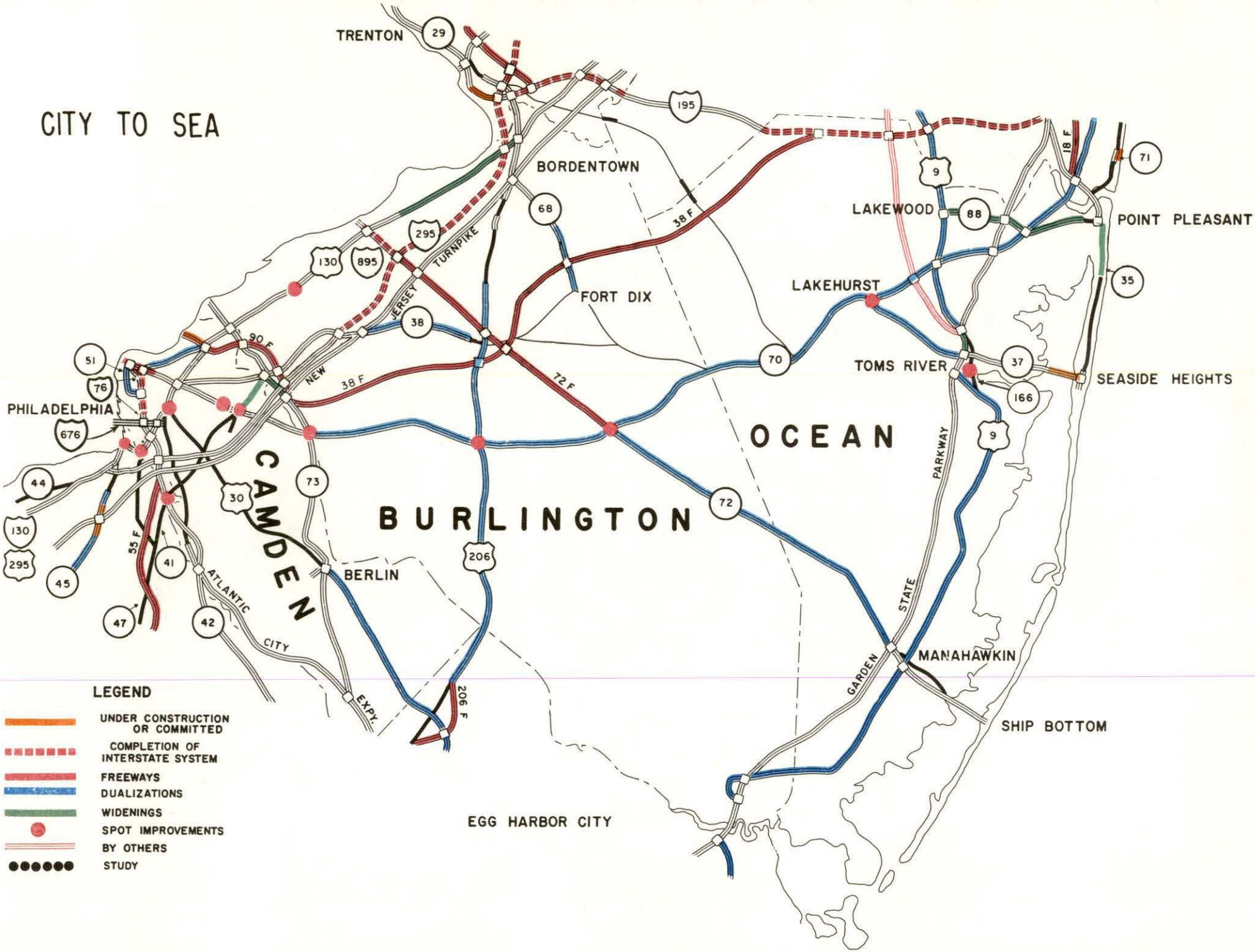
LEGEND
UNDER CONSTRUCTION OR COMMITTED
COMPLETION OF INTERSTATE SYSTEM
FREEWAYS
DUALIZATIONS
WIDENINGS
SPOT IMPROVEMENTS
BY OTHERS
STUDY


CITY TO SEA
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CAMDEN
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BERLIN
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POINT PLEASANT
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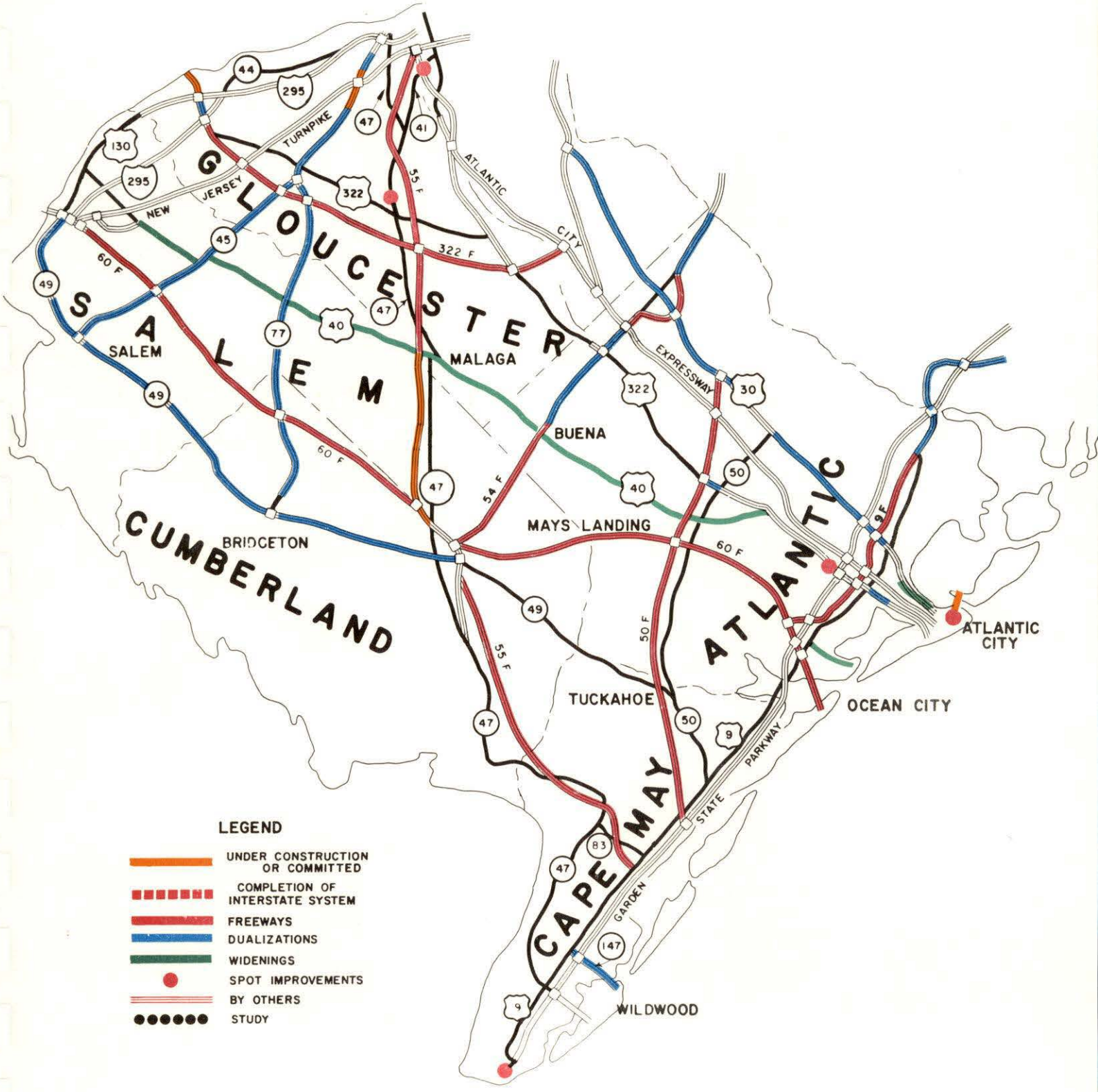
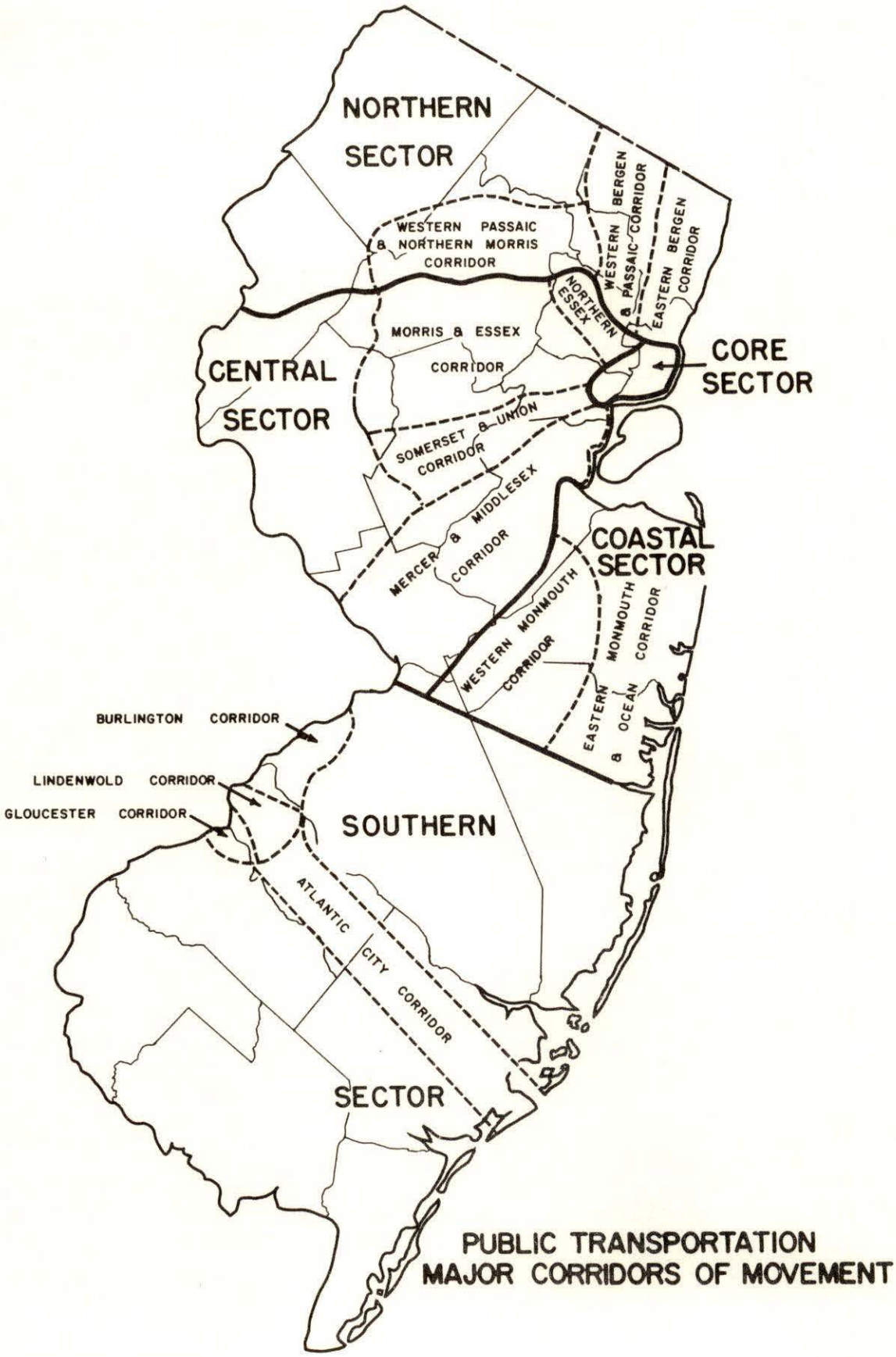
LAKEHURST
TOMS RIVER
37
166
SEASIDE HEIGHTS
OCEAN
PARKWAY
9
STATE
GARDEN
MANAHAWKIN
SHIP BOTTOM
EGG HARBOR CITY
LEGEND
UNDER CONSTRUCTION OR COMMITTED
COMPLETION OF INTERSTATE SYSTEM
FREEWAYS
DUALIZATIONS
WIDENINGS
SPOT IMPROVEMENTS
BY OTHERS
STUDY

SOUTHERN PLAINS



VI.
RAILROAD PASSENGER SERVICE



PUBLIC TRANSPORTATION
MAJOR CORRIDORS OF MOVEMENT

For the purpose of assessing public transportation services and the requirements to provide improvements, the State has been divided into five sectors: Northern, Core, Central, Coastal and Southern. Within each sector are one or more travel corridors or patterns which are discussed in terms of existing and future rail and bus services.

Northern Sector

The northern sector consists of the area lying north of New Jersey Route 3 and U.S. Route 46. Rail service in this sector is provided on the Erie Lackawanna Railway's Pascack Valley route, the Main Line, inluding the Bergen County cutoff, and a portion of the Boonton Line west of Great Notch. All service operates from the former ferry terminal at Hoboken and connecting rail service to Manhattan is provided by Port-Authority-Trans Hudson (PATH) trains. Travel in this sector is directed primarily by rail to lower Manhattan, with the larger volume of travel to midtown Manhattan predominantly by bus.

The recently completed re-equipment of Erie Lackawanna non-electrified lines, as well as other improvements under way or programmed, represent the majority of improvements to rail service in the northern area that can be justified without better access to Manhattan. The major need in this sector is direct access to midtown Manhattan.

Depending on the capacity of the Penn Station tunnels and demands placed on Penn Station by other existing and planned rail services, interim access to midtown Manhattan may be possible for this area. However, any interim access scheme could accommodate only a small fraction of the demand for midtown service from the northern sector. Any significant improvement in the northern sector rail routes will depend on a new Trans-Hudson rail tunnel. The construction of a new tunnel and the development of the lines connecting to it form the basis for the plan for this sector.

NEW HUDSON RIVER TUNNEL — Additional rail access to Manhattan will be provided by a four-tracked tunnel under the Hudson River. This tunnel will be two levels, carrying a double-tracked railroad line on the upper level and a double-tracked rapid transit line on the lower level. This tunnel will extend from a portal on the west side of the Palisades to a terminal in the vicinity of 48th Street and 8th Avenue in Manhattan. The tunnels and terminal will be designed to accept full-sized cars used in suburban service. Design specifications for both commuter rail and rapid transit facilities will be based upon train lengths of 1,020 feet and a minimum capacity of 30 trains per hour on each level. The Manhattan terminal will be designed to connect with the proposed 48th Street crosstown people-mover as well as the Broadway, 7th Avenue and 8th Avenue subways.

The upper level of the tunnel will be intended primarily to serve the northern sector rail lines. However, railroad connections to the new tunnel and any additional connections to the Penn Station tunnels will be designed to permit considerable flexibility in operations so that both facilities will be used to their greatest capacity and so that service can be maintained in the event of an emergency.

The lower level of the new tunnel is intended to serve the rapid transit lines of the northern sector. These lines will terminate on the lower level of the proposed Manhattan terminal.

NORTHERN SECTOR RAIL CORRIDORS – The Northern Sector includes three primary corridors: the East Bergen corridor, the West Bergen-Passaic corridor and the West Passaic-North Morris corridor. The two easternmost of these corridors extend into New York State and will undoubtedly be developed in conjunction with the Metropolitan Transportation Authority.

Major reconstruction of the rail lines serving these corridors will be required in order to make full use of the new Hudson River tunnel. Each of these corridors has several potential rail routes available within it. The use of several routes presently used only for freight and the possible construction of relatively short new connections increase greatly the options for potential service.

It is likely that each of the three corridors will be able to support only one major route, although limited peak period service could possibly be provided on other routes within the corridors. The major routes would be those with access to midtown Manhattan. A high standard of service would be provided, including frequent off-peak as well as peak period service. The physical plant needed for such service would include electrification, high-level platform stations with automatic fare collection and ample parking, and high performance equipment with rapid-loading capability. Operations either would be integrated with that of the existing rail carriers or be provided on separate trackage within the same right of way. The decision as to the appropriate mode of operation will depend on the capital and operating cost tradeoffs possible with each mode.

Although the route locations for each of the three corridors are yet to be developed, certain key segments are apparent. The prime route for the southern half of the East Bergen corridor, both from the point of view of its physical plant and its traffic potential, is the Penn Central West Shore Line. The northern portion of the corridor is best served by the Erie Lackawanna Pascack Valley Branch. The most appropriate means of serving both of these route segments is a matter for further study.

The West Bergen-Passaic corridor development will of necessity follow the route of the Erie Lackawanna-Main Line north of Ridgewood Junction. South of that point several alternatives are possible, including use of the Susquehanna Railroad Line via Hackensack and both of the Erie Lackawanna routes via Rutherford or via Paterson. Again, further examination is needed to find the best route or combination of routes.

The West Passaic-North Morris corridor again is confined to a single route: the western portion of the Erie Lackawanna Boonton Line. East of Mountain View, several alternatives are available. Travel time to midtown Manhattan could be substantially shortened by a connection to the Erie Lackawanna Main Line, either via Great Notch or by joint use of the right of way of Interstate Route 80. Use of the existing route via Montclair and the presently programmed Montclair connection, would undoubtedly be the least costly. A decision on the future prime route for this corridor will be largely dependent on an assessment of potential growth in what is now a relatively sparsely developed area in Morris County.

Core Sector

The core sector includes all of Hudson County, Newark, and the adjacent portions of the municipalities surrounding Newark. Travel in this sector has several distinct patterns. The Newark portion is heavily oriented to the Newark Central Business District, with a relatively low level of travel to Manhattan. The Hudson County portion of the sector has

a large amount of local, relatively short distance, travel. Trips to Manhattan are most prevalent from the area north of the Lincoln Tunnel. Most travel in the core sector is by bus. The only major rail movements are on PATH, between southern Hudson County and Manhattan, and on the Newark subway. Rail improvements in this sector will be designed to improve travel to and within the Newark CBD and to solve the specialized problem of access to Newark Airport.

NEWARK AIRPORT ACCESS – Rail access to Newark Airport will be designed to provide service to a variety of points including Manhattan and the Newark central business district.

This access would be provided by an extension of the tracks of the Port Authority Trans-Hudson Corporation – (PATH) from the present terminus in Penn Station – Newark. A transfer station will be located on airport property west of the Newark Airport terminal complex. This station will permit passengers to transfer to and from the proposed Inter-Terminal Transportation System (ITTS) which will inter-connect the three terminal buildings of the new complex.

The rail access proposal will connect with and use tracks on the Central Railroad of New Jersey right-of-way near Elizabethport Yard and will continue westward to a terminus that must be determined. A park-ride facility near the crossing of the CNJ main line and the Garden State Parkway is one possible terminus. Extension of the service to either Plainfield or to the Raritan area is also being considered.

NEWARK IMPROVEMENTS – Of the two possible improvements potentially the most valuable for Newark, one is improvement in line haul service in the area of the core sector extending southwest from the Newark CBD. This area produces the largest amount of travel to the Newark CBD and its overall shortage of street capacity indicates the need for a transit facility operating on an exclusive right-of-way. With the Newark subway available for the CBD portion, it would be desirable for any system that is developed to be compatible with the subway. With these constraints, the design and location of any proposed transit facility would be based on the determination of cost, passenger usage and the redevelopment potential along the route.

Newark's other major need is for improved circulation within the Newark CBD. The Newark subway runs at right angles to the predominant direction of traffic movement and any facility designed for CBD circulation should improve access to both Penn Station and the Erie Lackawanna station in addition to strictly internal movement. To provide such improvement will require a low cost, relatively low capacity facility designed specifically for short distance travel with frequent service and with numerous stations.

Central Sector

The Central Sector includes the area of the State extending from New Jersey Route 3 and U.S. Route 46 on the north to and including the New Jersey Turnpike between Perth Amboy and Bordentown on the South. Suburban rail service is provided in three major corridors by the Morris and Essex Line of the Erie Lackawanna, including the Gladstone Branch; the Main Line of the Jersey Central and the Main Line of the Penn Central. Additional suburban service is provided on the Greenwood Lake and Montclair Branches of the Erie Lackawanna and the New York Branch of the Reading. Travel in this area is largely oriented to Manhattan with a secondary focus at Newark. The majority of commuter travel to Manhattan is by rail, with some bus travel to midtown Manhattan. Most travel to Newark is by bus, with rail travel important only for the longer distances.

Rail service in the central sector is oriented to three Manhattan entry points. These points of entry are the Penn Central tunnel and the Midtown and Downtown PATH tunnels serving the 33rd Street and World Trade Center areas respectively. Access to Newark is at two points; the Erie Lackawanna and Penn Stations. With the exception of the Morris and Essex, all lines have access to all Manhattan entries. The only direct service provided to Penn Station, Manhattan, is from the Penn Central Main Line. Access from other lines to Penn Station, New York, as well as, all access to Manhattan via PATH, requires a transfer. One of the principal goals of planning for this sector is to improve Manhattan access, including access to Penn Station, New York, for all lines and direct service to some point on Manhattan for all lines.

While it would be desirable for all lines to have direct access both to midtown via Penn Station or the new tunnel and to lower Manhattan via PATH, such dual service does not appear practical in the immediate future. It should be considered a long-term goal, however, and all design for new facilities should take this possibility into account. From the point of view of improved passenger service and maximum use of equipment and manpower, much of the benefit of a dual operation can be achieved by having one or more lines rebuilt for operation on PATH lines while other carriers primarily serve Penn Station, Manhattan.

PENN CENTRAL MAIN LINE — MIDDLESEX-MERCER — This route will be fully modernized to high density suburban rail service standards. Stations all will have high-level platforms; they will be designed for train lengths of 1,020 feet and will be equipped for automatic fare collection. Parking will be provided on the basis of expected demand and land availability. Where practical, station sites will be developed as multiple-use facilities, including parking garages. All suburban service will be operated with high performance multiple unit equipment. Cars will be designed for rapid loading and unloading.

Although not programmed at this time, it will be necessary to provide high performance MU equipment for all of the Philadelphia-New York trains operated during peak periods in order to obtain the maximum use of Penn Station. This re-equipment effort apparently will have to be a joint project, possibly with participation by the New Jersey Department of Transportation, the South Eastern Pennsylvania Transportation Authority and AMTRAK.

ERIE LACKAWANNA MORRIS AND ESSEX DIVISION-MORRIS-ESSEX — A track connection to the Penn Central Mail Line will be provided to permit operation of service from this route into Penn Station, Manhattan. Re-electrification of this route will provide

compatibility with the Penn Central thus allowing such access. Westward extension of the electrified territory from Dover to Netcong is also contemplated. The route will be modernized to high density suburban service standards as described for the Penn Central Main Line, except that the Gladstone Branch will be modernized to moderate density suburban service standards with single track operation and half length platforms at some stations. Ultimately, all grade crossings will be eliminated, but for the foreseeable future, some crossings will remain and will be protected by automatic gates.

OTHER HIGH PRIORITY DEVELOPMENT AREAS – Another improvement which is considered of high priority but not included in the immediate program is for the Union-Somerset corridor. The main line of the CNJ will continue to be the prime route in this corridor. While the basic route is largely fixed, a major question remains open as to the type of system to be used. The options are a PATH extension over this route or extension of CNJ service to Penn Station, Manhattan. The former, an extension of PATH, would provide through service for the greatest number of commuters on this route. It also would improve passenger flow and train movement at Newark and eliminate duplication of equipment and personnel inherent in an end-to-end transfer. A Manhattan Penn Station based operation of the CNJ would provide a more desirable off-peak service and a somewhat higher level of comfort. In addition to the system choice, the desirability of integrating service in this corridor with Newark Airport access is being explored.

The remaining Central Sector corridor is not included in the high priority program for upgraded rail service. The North Essex corridor is served by the inner part of the Boonton Line. If this line is rerouted via a connection to the Erie Lackawanna Main Line, the area south of Mountain View or Great Notch will have to be provided with alternative service. As this line serves a heavily Newark-oriented area, and as it is not well oriented for Manhattan travel, an extension of the Newark subway seems most appropriate for this route, using either a connection in the vicinity of Orange Street or a connection from the end of the existing subway. If the inner part of the Boonton Line is not available, an alternate possible extension of the Newark subway would be east to the Erie Lackawanna Newark Branch and north to a connection with the Main Line in Clifton.

Coastal Sector

The coastal sector includes the area of the State roughly bounded by a line east of and parallel to the New Jersey Turnpike and a line from Trenton to Toms River. Suburban rail service is presently provided in the Eastern Monmouth and Ocean Corridors by the New York and Long Branch Railroad. As with the central sector, travel in this area is largely oriented to Manhattan with a secondary focus at Newark.

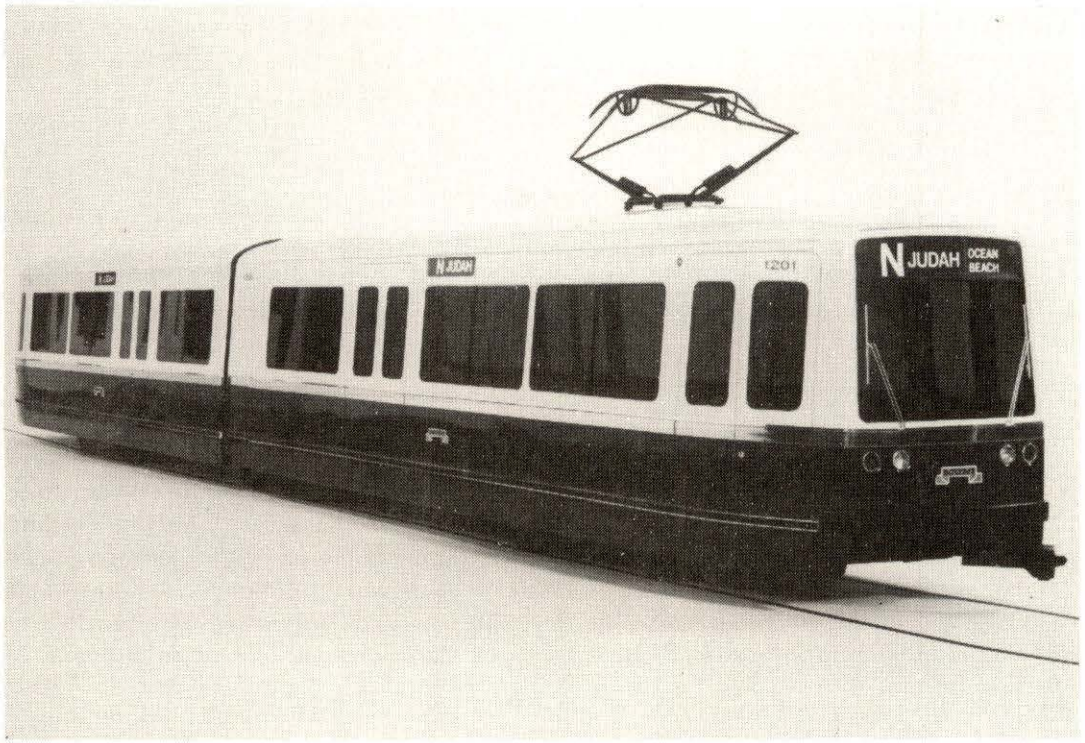
Rail service in the coastal sector is also oriented to three Manhattan entry points; the Penn Central Tunnel and the Midtown and Downtown Path Tunnels. Access to Newark is via Penn Station.

NEW YORK AND LONG BRANCH-EASTERN MONMOUTH – This route will be modernized south to Red Bank to high density suburban service standards as described for the Penn Central Main Line. From Red Bank, the route will be extended south using the Southern Division of the CNJ to park-ride terminals at the intersection of Route 18 and the Garden State Parkway in Eatontown and a similar facility near Lakewood. Electrification will be extended from South Amboy to Eatontown and Lakewood. The portion of the line from Red Bank to Bay Head is not included in this project.

The CNJ line between Matawan and Atlantic Highlands, known as the Seashore Branch will serve as the means of rail access to the proposed Gateway National Recreation Area. The volume of people projected to visit this area, when opened, is such that this rail access is a necessity.

OTHER HIGH PRIORITY DEVELOPMENT AREAS – The southern portion of the New York and Long Branch is also considered of high priority but is not included in the immediate program. This route segment is too valuable to abandon but its inadequate physical plant and insufficient traffic potential do not justify its upgrading to a high density suburban service. Some type of feeder service connecting to the main rail line at Red Bank will be required. The development of a light electrified railway that could provide both the feeder service as well as local service to the shore communities appears to be the most promising alternative. Other possibilities include conventional rail feeder service with limited through service in the peak period, the use of the right-of-way for an exclusive bus roadway, or some form of unconventional low cost, grade-separated transit facility.

The remaining coastal sector corridor, the Western Monmouth County Corridor, was not included in the high priority program for upgraded rail service. This corridor, as well as the inland portion of the Eastern Monmouth County Corridor could require additional rail facilities if present growth trends continue. Several potential routes are available, including the Freehold Branch and the Southern Division of the CNJ and parts of the Freehold Branch of the Penn Central. At this time, however, the Matawan-Freehold Branch of the CNJ appears to have the most potential for development. A thorough study will be required before improvements are undertaken.



Southern Sector

The southern sector includes that part of the State south of a line between Trenton and Toms River. Most suburban travel in this area is oriented to Philadelphia and originates from the area within 15 miles of the Benjamin Franklin Bridge. The Port Authority Transit Corporation's Lindenwood Line provides a high quality rail service in the highest volume corridor in the Philadelphia suburban area. In this corridor, suburban travel is predominantly by rail. Elsewhere in the sector, suburban travel is almost exclusively by bus. Rail improvements in the souther sector will be based on the PATCO system.

PATCO EXTENSIONS – All extensions of PATCO will be built to the same design standards as the Lindenwold Line and will be operated as part of PATCO. The two extensions that appear most desirable are an extension of the Lindenwold Line to Atco using the right-of-way of the Pennsylvania-Reading Seashore Lines route to Atlantic City, and the development of a second route in the Moorestown corridor. This route will use the right-of-way of the Pemberton Branch of the Penn Central to Moorestown and will turn south on new alignment to a terminal in the vicinity of the junction of Routes 38 and 73.

The Moorestown corridor route would be extended to the Willingboro-Burlington area in the second phase. This extension would be entirely on new alignment, largely parallel to and possibly sharing right-of-way with Route I-295 north of Rancocas Creek. The line will turn west to a terminal in the vicinity of Route 130.

An important near-term project is the proposed Park-Ride facility at Woodcrest. This station, to be constructed east of the Lindenwold line's crossing of Route I-295 and the N.J. Turnpike, is intended to attract ridership from areas served by those roads.

A study of the feasibility of a transportation center in the vicinity of Berlin will also be undertaken. Such a facility would accommodate auto, bus and rail rapid transit passengers allowing a quick and convenient modal transfer. The possible use of this facility in conjunction with a STOLport facility will also be considered.

Estimated Costs

A detailed summary of estimated costs is listed in the Appendix of this report.

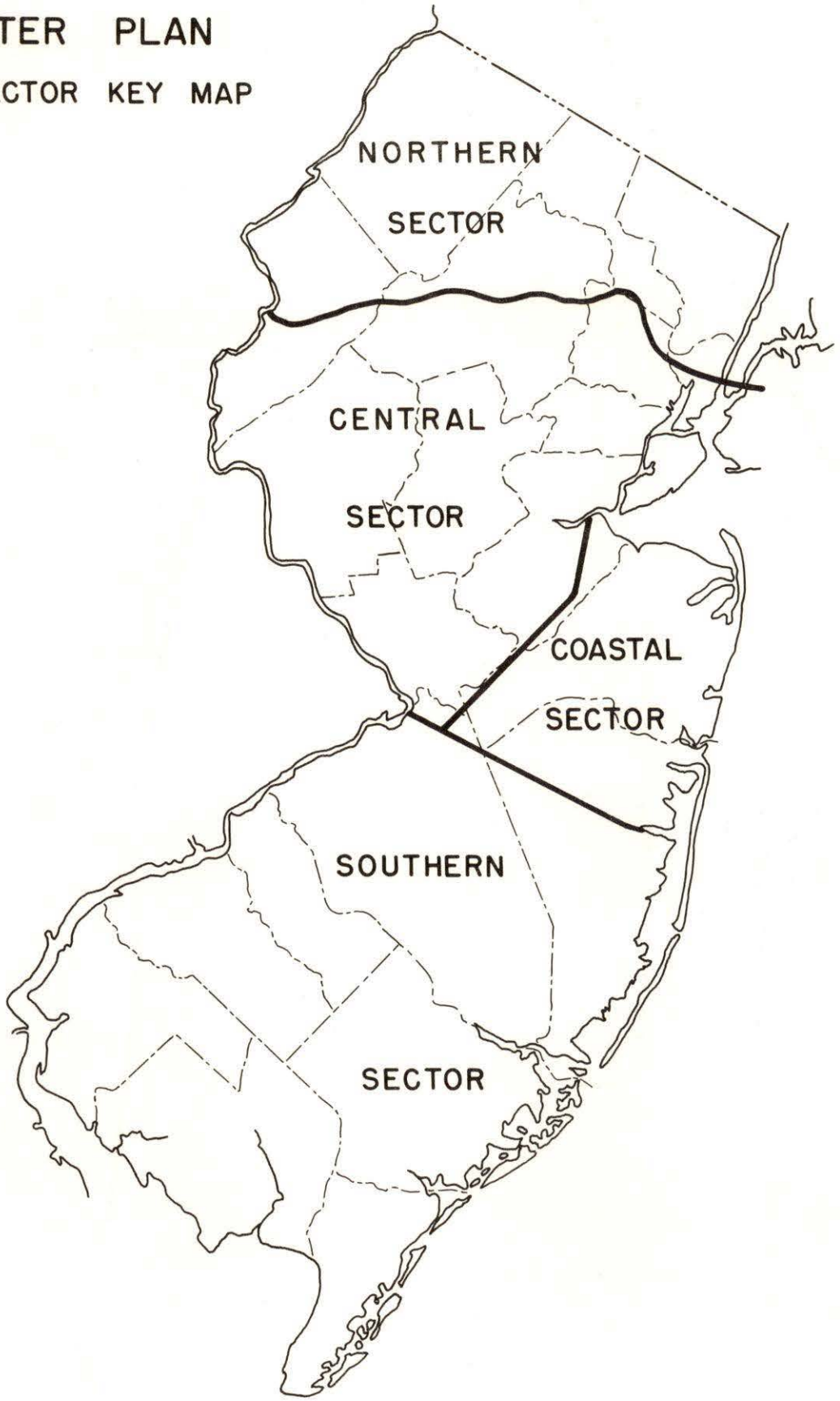
Future Possibilities

Although shown in the Master Plan there are some items of potential long-term development that at this time, are not expected to be needed within the 20 year time frame of this study. However, work must proceed on studying the feasibility of including more definite proposals for these projects in future Master Plans.

Among these possibilities are an exclusive right of way internal-circulation system for the proposed Meadowlands development; an exclusive right of way route running the length of the Hudson County Palisades, and an extension of PATCO to Atlantic City.

MASTER PLAN

RAIL SECTOR KEY MAP



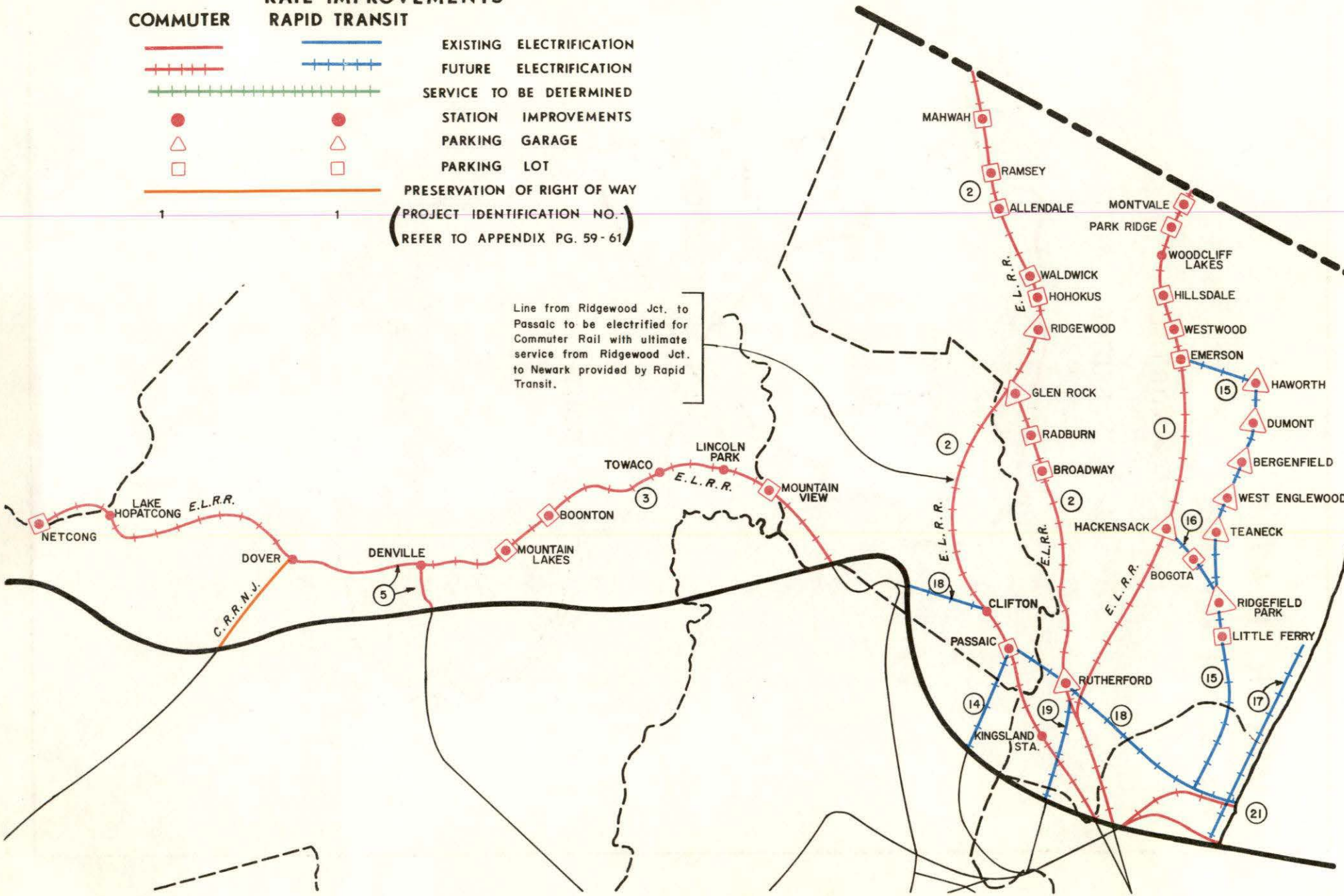
NORTHERN SECTOR

RAIL IMPROVEMENTS

COMMUTER RAPID TRANSIT

EXISTING ELECTRIFICATION
FUTURE ELECTRIFICATION
SERVICE TO BE DETERMINED
STATION IMPROVEMENTS
PARKING GARAGE
PARKING LOT
PRESERVATION OF RIGHT OF WAY
(PROJECT IDENTIFICATION NO.-
REFER TO APPENDIX PG. 59-61)

Line from Ridgewood Jct. to Passaic to be electrified for Commuter Rail with ultimate service from Ridgewood Jct. to Newark provided by Rapid Transit.



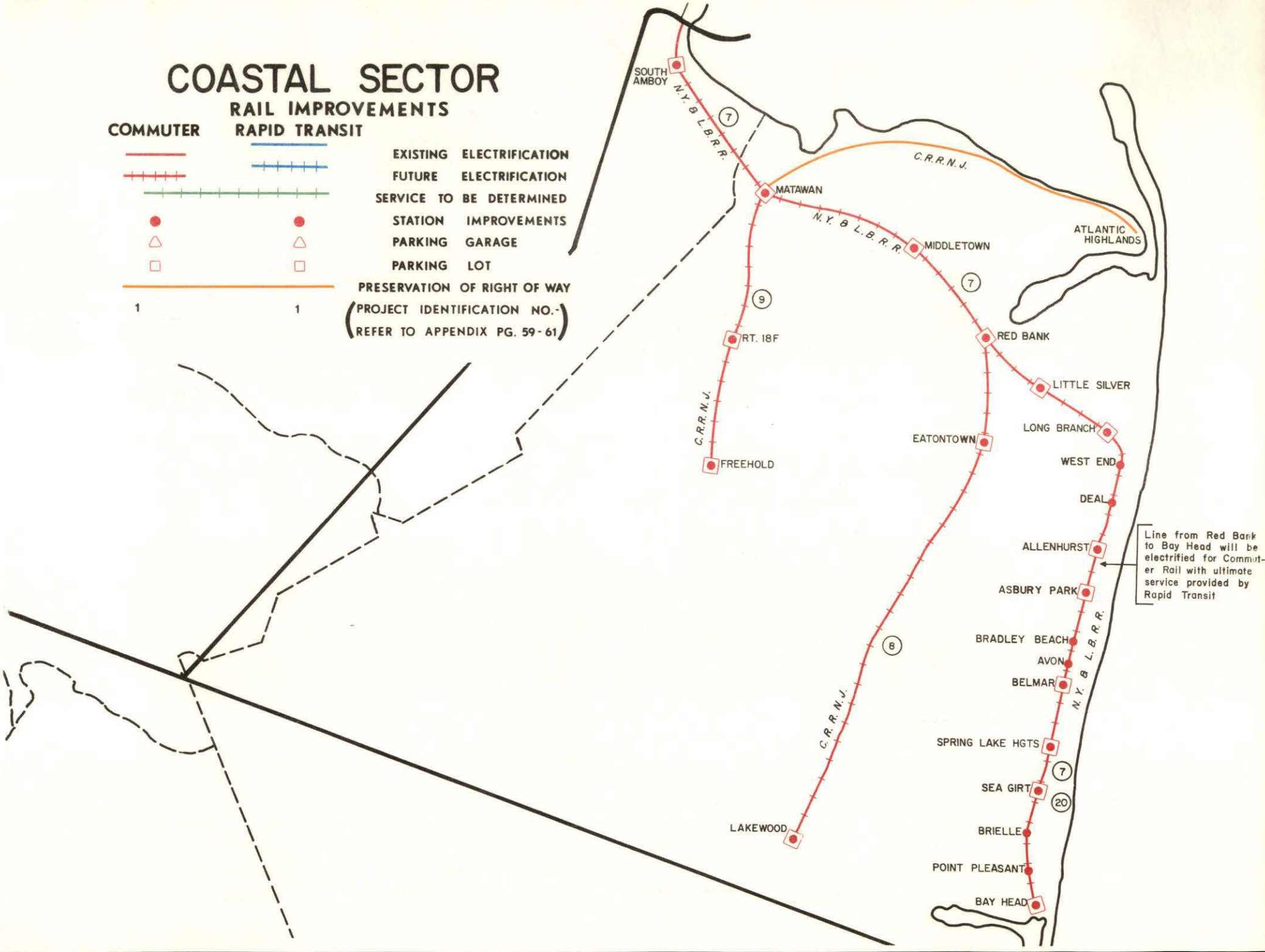
COASTAL SECTOR

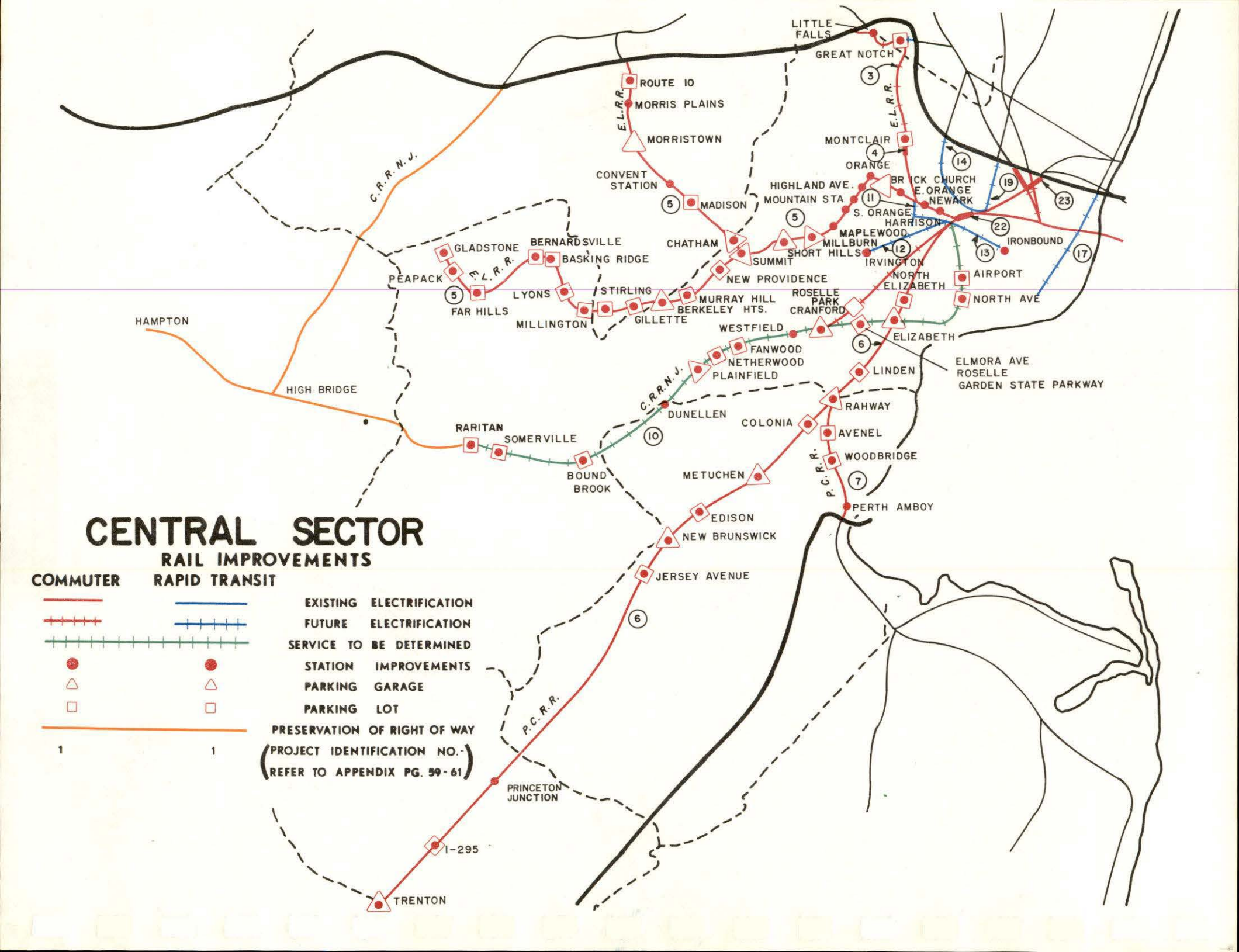
RAIL IMPROVEMENTS

COMMUTER RAPID TRANSIT

EXISTING ELECTRIFICATION
FUTURE ELECTRIFICATION
SERVICE TO BE DETERMINED
STATION IMPROVEMENTS
PARKING GARAGE
PARKING LOT
PRESERVATION OF RIGHT OF WAY
(PROJECT IDENTIFICATION NO.- REFER TO APPENDIX PG. 59-61)

1 1





CENTRAL SECTOR

RAIL IMPROVEMENTS

COMMUTER RAPID TRANSIT

EXISTING ELECTRIFICATION

FUTURE ELECTRIFICATION

SERVICE TO BE DETERMINED

STATION IMPROVEMENTS

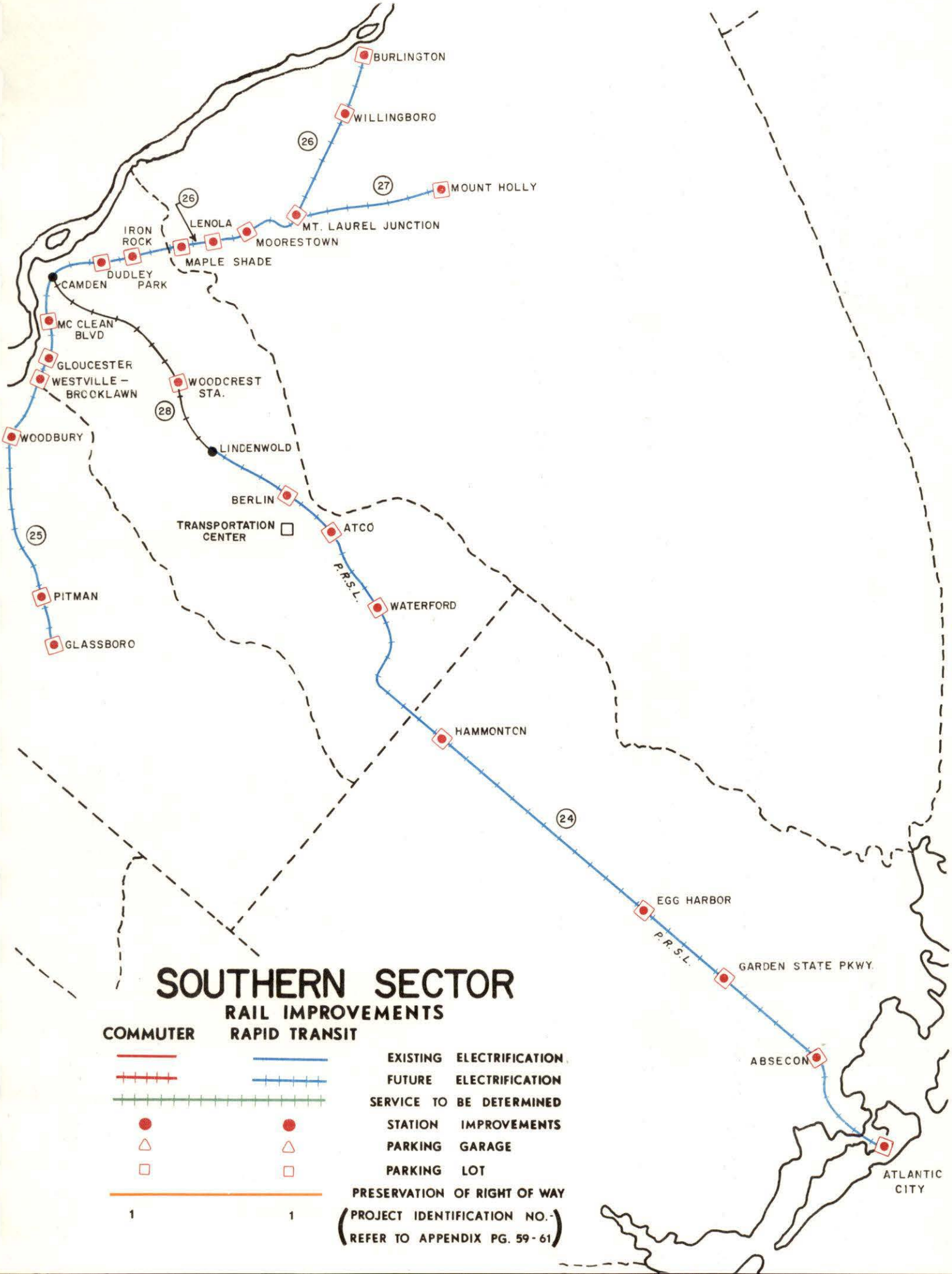
PARKING GARAGE

PARKING LOT

PRESERVATION OF RIGHT OF WAY

(PROJECT IDENTIFICATION NO.-
REFER TO APPENDIX PG. 59-61)

1 1


BURLINGTON
WILLINGBORO
26
27
MOUNT HOLLY
26
LENOLA
MT. LAUREL JUNCTION
IRON ROCK
MOORESTOWN
MAPLE SHADE
DUDLEY PARK
CAMDEN
MC CLEAN BLVD
GLOUCESTER
WESTVILLE – BROOKLAWN
WOODCREST STA.
28
WOODBURY
LINDENWOLD
BERLIN
TRANSPORTATION CENTER
ATCO
25
P.R.S.L.
PITMAN
WATERFORD
GLASSBORO
HAMMONTON
24
EGG HARBOR
P.R.S.L.
GARDEN STATE PKWY.
ABSECON
ATLANTIC CITY
SOUTHERN SECTOR
RAIL IMPROVEMENTS
COMMUTER
RAPID TRANSIT
EXISTING ELECTRIFICATION
FUTURE ELECTRIFICATION
SERVICE TO BE DETERMINED
STATION IMPROVEMENTS
PARKING GARAGE
PARKING LOT
PRESERVATION OF RIGHT OF WAY
1
1
(PROJECT IDENTIFICATION NO.-
REFER TO APPENDIX PG. 59-61)

VII.
BUS SERVICE

The rail improvements previously described must be coordinated with a greatly revised suburban bus operation. The provision of bus feeder service to rail lines will enable some local suburban bus services to survive which otherwise would not continue. Major bus operations will remain in the Northern Core and on those suburban routes that do not closely parallel rail service.

Bus service will continue to be an important mode of travel in many parts of the State, and a State sponsored program is necessary to allow continuation of this service.

The program of support for bus service is not assigned any priority level as it is intended to be a continuing program throughout the planning period. The program consists of three parts: replacement of equipment, traffic improvements and consolidation of service.

Bus Replacement

This part of the program will involve the purchase of a pool of modern buses for lease to operators throughout the State. Essential features of the replacement pool will be:

STANDARDIZATION – Buses will be purchased according to NJDOT specifications. They will not be modified for each operator except for such readily changeable items as route signs and fare collection equipment.

STATE OWNERSHIP – Buses will remain the property of the State and will be leased to operating companies on a short-term basis.

INTERCHANGEABILITY – Buses will be transferred among operators as demand changes or as ownership of routes change.

REGULAR ROUTE USE – Buses will be designed for regular route transit service. Buses for charter and long-haul service will not be purchased. Buses may be used for charter work only when not required for regular route operation.

EXCHANGE REQUIREMENT – Operators who receive buses will be required to transfer to the State an equal number of used buses. These buses will be inspected and those that can be economically refurbished will be assigned to a pool to supply equipment to operators of minor lines and those operators who are unable to meet the maintenance requirements of new buses. This program will reach its peak in the near future as the backlog of overage equipment is replaced. It will then taper off as the effects of rail improvements become more widespread.

Traffic Engineering Improvements

The second part of the bus program will concentrate on developing traffic engineering projects designed to improve bus operations. These include exclusive highway lanes for buses, systems of priorities for buses on freeway ramps, changes in traffic signalization and revisions in traffic and parking regulations to favor bus operations.

Efforts have already been expanded in this area as evidenced by the trial use of an exclusive bus lane on Route I-495 in the northeastern part of the State.

The project is a major part of the United States Department of Transportation's Urban Corridor Demonstration Program, a program which endeavors to demonstrate how the use of technological and managerial tools can be combined to relieve congestion in major travel corridors that lead to and from job centers.

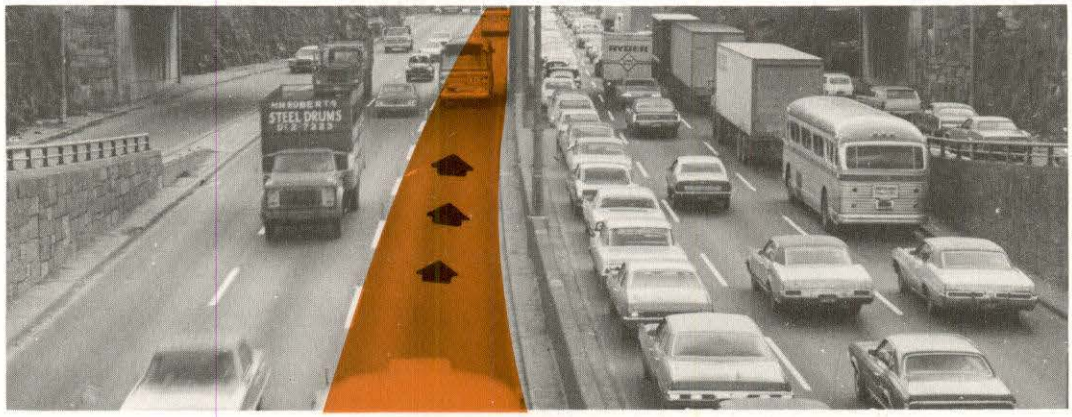
The two and one-half mile section of Route I-495 between the New Jersey Turnpike and the Lincoln Tunnel is an expressway with three lanes in each direction and serves as one of the major feeder routes from New Jersey to Manhattan via the Lincoln Tunnel.

On December 18, 1970 one of the westbound lanes was officially opened as a lane exclusively for use of eastbound buses during weekday morning peak hours.

During all of 1971, the trial year, more than 206,000 buses and 8,700,000 riders used the lane experiencing a time saving of from 10 to 25 minutes per trip into Manhattan.

Because of the obvious success of the experiment at the end of the trial year, arrangements are now underway to make the exclusive bus lane a permanent fixture along this route and an integral part of the New Jersey to New York commuting pattern.

This program will be concentrated in the Northern and Core Sectors on high volume approaches to the central business districts. Outside of these areas, bus volumes are generally insufficient to warrant much effort of this type.



Consolidation

The third effort in the bus program will be to develop means, including financial incentives, for encouraging and directing the consolidation of bus operations into a more efficient pattern. Such means will include mergers among operating companies, transfers of routes among companies, and the selective abandonment of services which duplicate or closely parallel each other. The goal of these efforts will be to develop a bus system which not only is more efficient but also is more responsive to changing conditions.

Estimated Costs

The total estimated costs of bus system improvements including vehicle replacement, maintenance and garage facilities amounts to $278 million. The bulk of these costs are attributable to the bus replacement program.

Future Considerations

The plan presented above can only be considered a first step if buses are to remain an integral part of the urban transportation system of the future. This first step is aimed at streamlining and enhancing the operations of existing bus companies as a means towards self-sufficiency.

However, it will not be enough to streamline existing bus operations. Although new bus routes, more buses and traffic engineering improvements will significantly increase the mobility of residents, most bus trips will still be unnecessarily long, tiresome and expensive. Buses limited to fixed routes will not meet the total needs of urban areas — greater mobility must be provided to the low income groups. Improvements must be made in the technology of bus operations as they are known today.

Fortunately, research and development is already underway as evidenced by the Dial-A-Ride demonstration project inaugurated in the Haddonfield area of the State early in 1972. This project, sponsored by the New Jersey Department of Transportation under financial assistance from the United States Department of Transportation, provides a new concept in public door-to-door transportation service. The system anticipates fully automated routing to pick up and deliver persons from place to place in a most efficient manner and without restrictions as to routing and scheduling, except as local traffic regulations, congestion, or demands require.

A bus-type system is activated by the potential passengers via telephone after which a computer logs the calls, origins, destinations, location of vehicles and number of passengers, and then selects the vehicle and dispatches it.

As more ideas of this nature develop each will have to be tested and evaluated on its own merits but it is obvious that bus operations cannot remain static in the rapidly changing world of today.

VIII.
OTHER PUBLIC TRANSPORTATION IMPROVEMENTS

Park-Ride Programs

The suburban areas served by the rail and bus systems have developed and will continue to develop in such a manner and to such densities that a large part of the ridership will be able to reach the line-haul facilities only by automobile. Even the development of effective feeder bus services will result only in a small reduction in the demand for parking in the outlying areas.

The greatest need for parking space will be at rail stations; where provisions for parking will be provided on the basis of expected demand and land availability. Where feasible, station sites will be developed as multiple-use facilities, including parking garages. However, because of the prohibitive cost of constructing garages exclusively for commuter use, most parking will be in open areas.

In addition, to serve areas remote from rail service as well as to meet short-term needs until the rail program is further advanced, park-ride facilities will have to be provided for bus commuters.

Water Transportation

A unique opportunity exists to provide transportation service to an area without good land access by use of the waterways of New York Harbor. The desirability of such a service is further enhanced by the opportunity to make multiple use of high-cost watercraft. These would be placed in commuter service from the Bayshore area of Monmouth County during peak travel periods. Outside of the peaks and during weekends, the craft would be used to serve the Sandy Hook portion of Gateway National Park. The exact type of watercraft to be used is under investigation. Possibilities include high-speed displacement vessels, planing craft and air cushion vehicles.

IX.
AIRPORT DEVELOPMENT

Aviation Trends

Most privately owned airports in the State were developed prior to the introduction of land-use zoning and as a result are affected by changing patterns of land use. Local opposition to airport operations has developed to a point where in certain instances smaller airports may be classified as non-conforming land use. A non-conforming airport is not permitted to expand without municipal approval. Also, if an airport should become inactive for any reason, the municipality may prevent its reactivation or reopening.

During 1970-71, an estimated 73 percent of the available aircraft capacity was in use. However, it is projected that total capacity will be reached in less than three years. Proposals for the early expansion of airport facilities should be encouraged to meet the expected 10 percent annual increase of aircraft based in New Jersey.

Calculations can be made and approximations established for New Jersey on the basis of national figures. The following tables provide an indication of relative usage and approximate numbers of aircraft and hours flown.

GENERAL AVIATION ACTIVITY 1971

	Number of Aircraft in N.J.	%	Hours Flown by N.J. Aircraft	%
Business and Executive Transportation	583	18.8	127,500	21.1
Personal	1690	54.5	184,300	30.5
Instructional	375	12.1	163,200	27.0
Aerial Application	140	4.5	34,400	5.7
Air Taxi	136	4.4	53,800	8.9
Other	177	5.7	41,100	6.8
TOTALS	3101	100.0%	604,300	100.0%

NATIONAL AVERAGES

	Number of Aircraft 129,372	Number of Hours Flown (000) 25,220	Average Hours Flown – ea. Aircraft 194.94
Business and Executive Transportation	24,338	5,324	218.76
Personal	70,500	7,694	109.13
Instructional	15,655	6,826	436.03
Aerial Application	5,788	1,427	246.54
Air Taxi	5,642	2,238	396.67
Other	7,399	1,711	231.25

SOURCE: FAA Statistical Handbook, 1970, p. 194

MERCER COUNTY AIRPORT

From these figures it can be seen that the Personal category, or 55 percent of the New Jersey aircraft, accounts for 31 percent of the hours flown by all aircraft in the State. These sectors represent the largest percentage in each aircraft use classification.

The first two categories, Business and Executive Transportation and Personal, may be considered more than the others to be the least specialized, or the categories most likely to use intrastate and interstate airport facilities. The remaining categories, Instructional, Aerial Application, Air Taxi, and Other either are based on and use one field or are programmed to fly certain preplanned routes. The first two categories, those not on regular schedules or preplanned flights, comprise 73 percent of the aircraft and fly 52 percent of the total hours flown by general aviation. General aviation is that portion of civil aviation which is engaged in recreation, commercial and business flying other than certified air carrier.

It is not unreasonable to assume that most of these aircraft are based and the hours of flying time they record is concentrated near the larger business centers.

Air Carriers

New Jersey has one exclusive air carrier airport — Newark — able to accommodate large jet aircraft and three additional facilities capable of handling jet traffic. However, two of the three are military bases, McGuire Air Force Base and Lakehurst Naval Air Station; and one is a Federal Aviation Administration facility at Pomona (NAFEC).

During 1970, Newark handled 6.46 million passenger enplanements. It has been estimated that this number could increase by 63 percent by 1975 and by 156 percent by 1980. Passenger flights at Newark Airport account for about 68 percent of total operations at that facility today and it has been projected that this could rise to almost 76 percent in the 1980s. The remainder of these flights at Newark Airport are air taxi, military, general aviation, corporate, and air freight.

The amount of freight handled through Newark Airport in a one-year period approaches 70,000 tons. That is equivalent to loading three of the largest air cargo freighters to capacity every two days. Of this 70,000 tons, more than 23,000 tons is comprised of United States and foreign mail, or about 64 tons of mail each day.

Newark Airport is capable of handling virtually all types of jet passenger and freight operations, but because of the limitations of usable runway lengths, not all planes can be operated economically and profitably. Technical Studies and technology improvements may allow better utilization of the facility in the future. In anticipation of increased traffic, the Port of New York Authority is carrying out a $200 million expansion and development program at Newark Airport.

Aviation Activity Forecast

In planning for future airport facilities, aeronautical activity must be projected on the basis of established growth patterns. Based aircraft operations were considered as principal factors in the evaluation.

The acceptable annual average general aviation operations per year per aircraft as pointed out by a general aviation study prepared by R. Dixon Speas Associates is approximately 800 in 1967. Using the 1971 figure at 3,300 general aviation aircraft based in New Jersey, the estimated total operations is 2.77 million for year 1970-71, (assuming a 5 percent increase over 800 average operations).

The forecast of aircraft operations has been derived by adjusting the number of operations per based aircraft and assuming an operations growth factor. This growth factor was based on 1969 aircraft operations increasing 107 percent to 1975, 112 percent to 1980 and 122 percent to 1990. The based aircraft figures for New Jersey were projected using the same growth rates as forecasted by the Federal Aviation Administration. New Jersey's share of the projected national activity was based on the State's percentage of national active general aviation fleet as well as its present and future percentage of the nation's population and industry.

New Jersey State Airport System Plan

STATE AIRPORT SYSTEM PLAN – Under the provisions of the Federal Airport and Airway Development Act of 1970 to be eligible for Federal financial assistance, each state must develop a State Airport System Plan and have it approved by the Federal Aviation Administration. The New Jersey Department of Transportation is currently developing such a plan and expects to have it completed late in 1973.

The proposed State Airport System Plan will have a document which specifies the planned location of airports within the state, and sets forth the timing and estimated cost of various phases of airport development and related facilities.

THE AIRPORT SYSTEM – A system of at least 43 publicly owned, well equipped aviation facilities is desirable for development during the 20-year period of this plan. The Airport System Plan, which must be within the scope of the National Airport Plan is divided into the following types of airports:

Existing No. of Airports	New	Classes of Airports	Code
16	3	Basic Utility Airports	BU
8	3	General Utility Airports	GU
7	–	Basic Transportation	BT
–	8	Stolports	STOL
31	14		

A total of 43 aviation facilities is recommended for the plan, 31 are existing airports, and 12 are suggested future sites. Of the 12 future sites, six are conventional airports and six are stolport proposals. The total of eight candidate stolport sites shown above includes three in Hudson County. It is anticipated that two of the three sites may be dropped from consideration as a result of a feasibility study currently in progress. The 31 existing airports recommended for the plan include 10 publicly owned and 21 privately owned. NAFEC, Newark, and Teterboro were not considered for development under this plan.

OWNERSHIP – The proposed airport system is recommended for public ownership either county, municipality, or public authority.

Privately owned airports play a vital role in general aviation. However, until some method of financial assistance is established, such as some form of tax relief or by providing State Funds for the development of terminal navigation aids, these airports are susceptible to bankruptcy and abandonment. In addition, intense economic pressures generated by land developers often make it impractical for private owners to continue airport operations.

Publicly owned airports are eligible for Federal funds totaling up to 50 percent of the cost of improvements and additions, including land, runways, taxiways, and lighting, but privately owned airports are not eligible for this assistance.

FINANCING – The Federal Airport Development Aid Program (ADAP) would provide a substantial portion of the funding for the implementation of the State Airport System

Plan once developed by the Department and approved by the Federal Aviation Administration. This program would support up to 50 percent of airport improvements and real estate costs. The State of New Jersey and local governmental jurisdictions in which the airport is located would share the remaining 50 percent matching costs. This aid also applies to construction of new airports, where required.

While this plan identifies existing as well as proposed candidate airport sites the costs associated with this plan will focus only on those costs necessary to acquire the existing private airports included in the system plus an adequate buffer zone for each. Planning for the new candidate airport sites is still in the preliminary stages and locations are general in nature rather than specific. Consequently, reliable cost estimates of land acquisition for this class of sites are not available.

The estimated cost of acquiring the necessary land for these 21 existing sites listed below, totals $49.0 million. As mentioned previously, up to 50% of these monies are eligible for federal funding.

Existing Private Candidate Airport Sites

Caldwell-Wright
Monmouth
Burlington
Princeton
Solberg
Blairstown
Sussex
Bridgeport
Lincoln Park
Aero-Haven
Trenton-Robbinsville
Kupper
Somerset
Manahawkin
Cross Keys
Lakewood
Sky Manor
Aeroflex-Andover
Albion
Nairobi
Salem

***Order does not indicate priorities**

Although New Jersey ranks first in aircraft per square mile it has received a modest share of federal aid to airports. The State does not make use of all the federal aid funds available to it under the 1970 Airport Development Aid Program. In order for New Jersey to take its proper place in aviation development and satisfy a growing demand for airport facilities the required matching funds must be provided.

CANDIDATE GENERAL AVIATION SITES

STATE AIRPORT SYSTEM

NOTE:
NEWARK AIRPORT, A PUBLICLY OWNED AIR CARRIER FACILITY, IS NOT SHOWN ON THIS MAP.

LEGEND

EXISTING		NEW
●	BASIC TRANSPORT	
▲	GENERAL UTILITY	△
▼	BASIC UTILITY	▽
	STOL SITE AREA	+

NOTE: GENERAL AVIATION AIRPORTS THAT ARE NOT IN THE STATE AIRPORT SYSTEM BUT INCLUDED ONLY FOR IDENTIFICATION ARE MARKED WITH AN X

◯ DENOTES PUBLICLY OWNED AIRPORTS

X.
FINANCES

Financial Considerations

The ability of the Department to successfully implement this Master Plan over the next 20 years is tied inextricably to the annual funding of its construction programs.

The financing of highways, under existing federal programs, is fundamentally different from the programs for the other modes in that is is based on annual apportionments to the various states based on a pre-set formula — whereas UMTA and FAA furnish federal capital funds on a grant basis for each proposed project for which an acceptable application has been filed.

Fiscal projections based on historic data assure that normal transportation funding will have to be augmented by substantial amounts of additional monies annually.

As stated earlier in the report all indicated costs are based on present day estimates and have not been escalated to reflect inflationary costs. No attempt has been made to establish priorities during the development of the Master Plan. Consequently, the individual projects have not been scheduled or programmed. It would therefore, not be realistic to attempt to expand the cost of the individual components without precise knowledge as to the year of contract award.

On the other hand, it would be fair to assume that the economic history of this country proves there will be an increase in these costs over the next 20 years.

FUNDING GAP TO IMPLEMENT 20 YEAR PLAN

Highway Construction		$4276.0	
Federal and State Matching Programs		2332.0	
	Deficiency		—$1944.0
Railroad Passenger Service		$1897.0	
Federal UMTA Grants		1264.7	
	Local Matched Share (State)		—$ 632.3
Bus Service		$ 278.0	
Federal UMTA Grants		185.3	
	Local Matched Share (State)		—$ 92.7
Airport Development Program		$ 49.0	
Federal Aviation Administration Grants		24.5	
	Local Matched Share (State)		—$ 24.5
	TOTAL FUNDING GAP		$2693.5

(All Amounts in Millions)

APPENDIX

FREEWAY

ROUTES 1 & 9

At present, Route 1 & 9 in Hudson and Bergen Counties is a heavily travelled land service highway running along the west base of the Palisades Ridge. A combination of thru trips and the demand for access to the industrial and commerical development along its length has led to frequent breakdowns in service. Although some measures have been taken to improve vehicular movement and improve safety by the installation of traffic signals, jug handles and center barrier curb, the only long range solution can be a freeway on new alignment. This facility will be located west of the existing Route 1 & 9 extending from the Pulaski Skyway in Jersey City to Route 46 in Ridgefield Park Township, a distance of 7.6 miles. The estimated cost of this facility is $98,800,000.

ROUTE 9

Route 9 is a major north-south land service route serving the Atlantic City urbanized area. A combination of substandard geometrics and inadequate capacity renders this section of highway incapable of accommodating the traffic demands placed upon it, especially during the summer months. The concentration of commercial development along Route 9 in this area negates the feasibility of constructing adequate improvements on the existing alignment. Although the best possible solution would be a widening and selected interchange improvements on the Garden State Parkway it may not be possible to construct such improvements. Therefore, this plan indicates the construction of a new freeway parallel to Route 9 extending from Route 60 Freeway north to existing Route 9 in the vicinity of Smithville, a distance of 14.2 miles. The estimated cost of this improvement is $34,700,000.

ROUTE 9

This freeway will begin at Route 9 in Madison Township and extend northeasterly along the western boundary of Cheesequake State Park to a connection with Route 35 in the vicinity of Sayreville Borough. The construction of this facility is necessary to remedy the existing traffic problems on Route 9 between Route 34 and Route 35, a situation caused by the convergence of two major arterials. The estimated cost to construct this 3.7 mile Freeway is $16,900,000.

ROUTE 15

The extension of Route 15 from Woodruff's Gap in Sparta Township to Route 206 at Ross's Corner will serve a dual purpose. First, it will in conjunction will Route 206 Freeway, provide access to the upper reaches of the Delaware Water Gap National Recreation Area for traffic emanating from the Northeast-New Jersey and New York City metropolitan areas. Second, it will encourage the rapid expansion of the central Sussex County communities thru which it passes. The estimated cost to construct this 6.6 mile facility is $30,000,000.

FREEWAY

ROUTE 17

The development of the Hackensack Meadowlands in Bergen County to its fullest potential can only be assured with the development of an adequate transportation network providing the necessary access. As part of this transportation network there arises the need for a high type north-south connector between Route I-280 and Route 3 in the Route 17 corridor. Since Route 17 does not exist south of Route 7, and since development along its right of way north of Route 7 negates the possibility of adequate improvements, a freeway will be constructed on new alignment from Route I-280 in Newark to Route 3 in Rutherford. The estimated cost of this 5.0 mile freeway is $50,000,000.

ROUTE 18

The construction of Route 18 Freeway, from New Street in New Brunswick to Route I-287 in Piscataway Township, represents a vital link in the State's highway network. The completion of this section of freeway will provide the increased trans-Raritan River capacity that is vital to the orderly growth of the New Brunswick area. It will also serve inter-regional traffic in the corridor extending from north central New Jersey to the northern shore areas. The estimated cost to construct this 6.9 mile section of freeway is $34,000,000.

ROUTE 18

Route 18 Freeway through Monmouth County is in various stages of completion. The section of highway between Route 38 and Poplar Road in Ocean Township is open to traffic and funds have been made available to construct the portion from the Garden State Parkway to Route 9. Two additional sections require funding before the completion of this vital facility can be realized. The connection between the Brielle Circle and Route 38 covers a distance of 5.1 miles and will cost an estimated $10,600,000 to construct.

ROUTE 18

The section of Route 18 Freeway from Poplar Road to west of the Garden State Parkway represents the completion of this facility thru Monmouth County. The estimated cost of constructing this 3.6 mile section of freeway, including an interchange with the Garden State Parkway, is $16,500,000.

FREEWAY

ROUTE 20

Route 20 Freeway represents a long time commitment by the State to provide a peripheral highway for the city of Paterson. This Route will relieve the traffic congestion experienced in center city, as well as, improve the economic growth potential of the community. The freeway, now in various stages of planning and design, will extend from Valley Road to McClean Boulevard, a distance of 4.2 miles. The estimated cost of $46,000,000 to construct this facility excludes the portion of Interstate funds involved in constructing the interchange at Route I-80.

ROUTE 21

The improvement of existing Route 21 in Newark from Route I-78 to Ogden Street will coincide with a massive urban renewal project in the vicinity of Penn Plaza. The changing land use patterns of the area coupled with the traffic demanding an improved facility will necessitate the upgrading of this 3.8 mile section of highway to a freeway. The estimated cost of this improvement is $129,200,000.

ROUTE 21

The construction of Route 21 Freeway northward from Belleville along the Passaic River has progressed steadily over the last several years. When completed to Route I-80, this facility will serve the need for an unimpeded highway connection between the Newark and Paterson areas. The traffic desiring to make this trip today must use local streets in both Passaic and Clifton producing intolerable traffic conditions in these two municipalities. The completion of this Freeway from Monroe Street in Passaic to Route I-80 in East Paterson, a distance of 3.7 miles, will require an estimated $26,200,000.

ROUTE 23

The existing Route 23 land service road between Stockholm & Port Jervis was constructed in 1927 & has very poor grade and hazardous horizontal curves. Because of its poor engineering features and the large amount of adjacent residential and commercial development along its right of way, improvements on existing alignment are not feasible. A relocation of Route 23 to freeway standards is necessary to provide adequate access for the metropolitan areas of New York — Northeast New Jersey to the northern reaches of the Delaware Water Gap National Recreation Area. This freeway will also serve as an important link between the metropolitan areas and Route I-84 in New York State. It is estimated that $61,500,000 will be required to construct this 24.6 mile section of freeway.

FREEWAY

ROUTE 23 ALTERNATE

The construction of Route 23 Alternate would satisfy the need for a direct route from the Route 206 bridge over the Delaware River at Montague to Route 23 Freeway. This route would serve the dual purpose of providing access to the Minisink area of the Delaware Water Gap National Recreation Area as well as provide an alternate route for traffic on Route 23 desiring to travel west on Route I-84 in Pennsylvania. The estimated cost to construct this 6.2 mile facility is $12,700,000.

ROUTE 24

Route 24 Freeway is either under construction or committed to Brooklake Road in Florham Park. The freeway will be continued westward to Route 206 providing a high type east-west facility to the ever expanding western limits of northeast urban expansion. Route 24 does not presently exist west of Morristown and traffic now travelling this corridor must utilize a two-lane county road which has poor vertical and horizontal alignment. The estimated cost to extend this freeway for a distance of 18.4 miles is $74,300,000.

ROUTE 29

At present all of the proposed Route 29 Freeway connecting Trenton with Interstate Routes I-295 and I-195 has been built or is committed to construction except for the small section between Federal Street and Lalor Street. This facility will link the city of Trenton with the Interstate System for access to the seashore areas and to the southern parts of the state as well as provide a southwesterly bypass of the city. People now travelling this corridor must use local streets and encounter considerable congestion during the peak hours. The estimated cost to complete the remaining 1.0 mile section is $13,500,000.

ROUTE 29

Route 29 through Lambertville consists of a two-lane city street in very poor structural condition. This route experiences considerable congestion at its intersection with Route 202, a condition which becomes especially critical during the summer months. While the realignment of Route 202 north of the city will provide some measure of relief, a considerable amount of traffic will still be destined to the quaint shops of the Lambertville-New Hope area. The construction of this easterly bypass of Lambertville from the junction of Routes 165 & 202 to Route 29 north of the city will provide considerable relief to the through traffic on Route 29. The estimated cost to construct this 1.2 mile facility is $3,000,000.

FREEWAY

ROUTE 30

The construction of the northern portion of Route I-76 in Camden will be located along Linden Street and Penn Street. Since these streets now serve as the link between Admiral Wilson Boulevard and the Benjamin Franklin Bridge a new connector must be constructed between these limits. The estimated cost to construct this 0.5 mile section of freeway is $5,500,000.

ROUTE 31

The existing Route 31 goes from Trenton at the south through the gently rolling countryside of Hunterdon and Warren Counties to Route 46 at Buttzville. The terrain from Oxford to Buttzville is much more rugged than the southern portion of the route. It would not be economically feasible to improve Route 31 on its existing location from Oxford to Route 46. Therefore, it is proposed that a freeway on new alignment be built in this area that would extend beyond Route 46 to the proposed Foothills Freeway at Route I-80 providing access to the Delaware Water Gap National Recreation Area. The length of this project is 13.5 miles and the estimated cost is $25,000,000.

ROUTE 31

The Trenton metropolitan area will soon be bounded by a peripheral freeway system consisting of Interstate Routes 95, 195 & 295 and Route 29 Freeway. Route 31 Freeway will serve as one of the radials connecting center city with this loop system by its construction from the Brunswick Circle north to the Pennington Circle and south to Route I-195 in Hamilton Township. Much of the right of way has already been purchased for the northern section and the estimated cost to complete this 10.6 mile facility is $75,000,000.

ROUTE 33

This proposed route will be a freeway on new alignment bypassing the Freehold area. The extensive development along existing Route 33 in this area makes improvements on the present alignment economically unfeasible. The development of this project is well along the way as much of the right of way has already been purchased and design plans are nearing completion. The estimated cost of constructing this 6.6 mile facility is $20,800,000.

FREEWAY

ROUTE 35

The need for relief to Route 35 in northern Monmouth County was recognized by the establishment of legislation in 1971 of Route 35 Freeway extending from Route 18 Freeway to an appropriate connection with Route 74 Freeway. This route will do much to relieve the congestion and hazardous conditions the travelling motorist experiences on existing Route 35, a condition that can expect to grow worse with the completion of Route 74 Freeway. The magnitude of development in the Keyport — Matawan area necessitates that a small portion of existing Route 35 be utilized to serve as the connection between Route 35 Freeway and Route 74 Freeway. The cost to construct this 14.9 mile freeway is estimated at $53,100,000.

ROUTE 38

Route 38 Freeway will extend from Route 73 in Mount Olive Township to a connection with I-195 in Jackson Township, run common with Route I-195 for a short distance and then continue in a northeasterly direction to a connection with Route 18 Freeway in Atlantic Township. This route will satisfy the need for a direct high-type connector between the Philadelphia-Camden area and the northern shore areas of Monmouth County. It will also serve as an important inter-urban connection between the Philadelphia-Camden area and the Southern most reaches of the ever expanding Northeast-New Jersey urbanized area. The estimated cost to construct this 43.7 mile freeway is $100,600,000.

ROUTE 50

In addition to providing the stimulus for the development of central Atlantic County, Route 50 Freeway will provide a more direct route to the Cape May County Shore resorts for travel emanating from the metropolitan areas of Philadelphia-Camden and Trenton. This route will extend from the Garden State Parkway in Dennis Township north to Route 30 in Mullica Township, a distance of 29.0 miles. The estimated cost to construct this freeway is $48,700,000.

ROUTE 54

The construction of this freeway will extend Route 54, a land service road, from the vicinity of Route 40 in Buena Borough south to Route 55 Freeway in Millville. The extension of this route will provide service for traffic generated in the Millville-Vineland area having a northerly destination which must presently use secondary roads. The construction of this 9.2 mile freeway will cost an estimated $18,400,000.

FREEWAY

ROUTE 55

The construction of Route 55 Freeway is necessary as a parallel route to Route 47, a land service road having poor capacity and horizontal alignment which experiences points of considerable congestion as it passes through Millville and Vineland. The completion of this Freeway in its entirety from the Garden State Parkway in Middle Township to Route 42 in Deptford Township will do much to accelerate the residential, commercial and industrial development of Gloucester, Cumberland and Cape May Counties as well as provide direct access to the Cape May peninsula. That portion of the freeway between Port Elizabeth and Route 40 is in various stages of completion or construction and this project will extend the freeway south from Port Elizabeth for a distance of 20.0 miles to its southern terminus at the Garden State Parkway. The estimated cost to construct this section of freeway is $33,300,000.

ROUTE 55

This projects represents the completion of Route 55 Freeway and will extend the facility from Route 40 in Franklin Township to Route 42 in Deptford Township, a distance of 19.3 miles. The estimated cost to construct this section of freeway is $40,300,000.

ROUTE 60

The construction of Route 60 Freeway from Route 40 at Deepwater to Ocean City will provide access to the southern coastal area for traffic entering New Jersey from the Delaware Memorial Bridge. This route will not only have considerable impact on the economic development of the urbanized areas of Millville-Vineland and Atlantic City but should also encourage development of the entire southermost section of the State. The cost to construct this 58.4 mile freeway is estimated at $115,500,000.

ROUTE 72

Route 72 Freeway will be a continuation of Route I-895 and will extend from Route I-295 in Burlington Township to Four Mile Circle. This freeway, in combination with Route I-895, will increase the attractiveness of the entire New Jersey shore area to the expanding residential and industrial complex in Bucks County, Pennsylvania, as well as, provide the expanding Willingboro populace with a direct route to both Pennsylvania and the New Jersey shore. The total length of this freeway is 16.6 miles and it will cost an estimated $38,600,000 to construct.

FREEWAY

ROUTE 74

The need has long been recognized for an adequate high speed east-west route in Northeastern Middlesex County, an area characterized by expanding suburban development and concentrations of heavy industry. With the exception of Route I-287 north of the Raritan River, all existing east — west routes in this corridor are two lane local roads which do not have the capacity to adequately serve the transportation needs of the area. This need was recognized in 1962 as evidenced by the passage of legislation providing for a new freeway to be added to the State Highway System. The route was designated as Route 74 Freeway "beginning in East Brunswick Township, Middlesex County, at State Highway Route 18 on the West and from thence in an easterly direction to State Highway Route 35 South of Cheesequake Creek, in Middlesex County, on the East." It has been estimated that $64,700,000 will be required to construct this 10.6 mile Freeway.

ROUTE 81

The construction of Route 81 Freeway extending from the New Jersey Turnpike to Route 1 & 9 in Elizabeth will serve a two-fold purpose. Traffic from the south destined to the Port Elizabeth facilities must now use Route 1 & 9 and North Ave., a route which is extremely congested and hazardous. This freeway will alleviate the problem by providing direct access from the New Jersey Turnpike to Port Elizabeth. This facility will also provide improved access to the expanding Newark Airport facilities presently being constructed. The estimated cost of this 1.5 mile freeway is $11,200,000.

ROUTE 90

The construction of a new Delaware River crossing between Delair in Camden County and the Bridesburg section of Philadelphia is now underway. The distribution of traffic utilizing the new bridge to its destinations in New Jersey, in a safe and efficient manner, requires that the bridge be tied into the regional highway network. The construction of Route 90 Freeway will provide this vital service as it extends from Route 130 at Morrisville to Route 73 in the vicinity of Church Road in Mount Laurel Township. Partial funds have already been allocated for the purchase of right-of-way and it is estimated that an additional $55,200,000 will be required to complete this 7.0 mile facility.

ROUTE 92

The construction of Route 92 Freeway will provide a continuous freeway type facility between Route 33 in Hightstown and Route I-95 in Somerset County. In addition to providing northerly bypasses of Hightstown and Princeton the completion of this facility, in combination with Route 33, Route 206 and Route I-287, will provide an important circumferential route around the ever expanding urbanization of the northeastern portion of the State. The cost to construct this 17.2 mile facility has been estimated at $53,100,000.

FREEWAY

ROUTE 94

Although portions of Route 94 in Warren and Sussex Counties will provide service to the Delaware Water Gap National Recreation Area, its primary function will be to serve as the main diagonal route connecting Route 611 in Pennsylvania with Routes 6 & 17 in New York State. The anticipated growth in this corridor caused by both a population spillover from the metropolitan areas and the industrial development generated by completion of the Interstate System will merit improvements to this route. Improvements to the existing road are not feasible because such improvements would destroy much of the developed areas through which this route passes. One such area is the town of Newton in Sussex County where the magnitude of internal movements require a bypass to allow for the orderly growth of the community. This section of freeway, commonly known as the Newton Bypass, is incorporated in this project which extends from Route I-80 in Columbia to Route 206 Freeway southeast of Newton where it will utilize a small section of Route 206 Freeway and then proceed again in a northeasterly direction parallel to existing Route 94. The estimated cost to construct this 42.0 mile facility is $96,200,000.

ROUTE 94A

Route 94A Freeway from the Foothills Freeway to Route 94 Freeway in Stillwater Township will provide an important link in the transportation network serving the Delaware Water Gap National Recreation Area. The construction of this facility will provide an alternate route of travel for the mainstream of traffic destined from the east via Route I-80 to the Kittatinny area of the park. In conjunction with Route 94 Freeway this route will provide the same alternate access to the Kittatinny area for traffic originating in northwest Sussex County and adjacent areas in New York State. The estimated cost to construct this 3.4 mile freeway is $7,000,000.

ROUTE 178

With the construction of Route 24 Freeway and Route I-80 a significant increase in traffic will be experienced in the Route 53 corridor. Route 53 is a two lane facility with poor horizontal and vertical alignment and inadequate capacity which renders it incapable of satisfying the demands that will be placed upon it. Numerous restrictive locations along its right-of-way make improvements on the existing alignment impractical. The construction of Route 178 Freeway from Route 24 Freeway in Morris Plains Borough to Route I-80 in Parsippany-Troy Hills will provide the additional capacity needed in this corridor. The cost to construct this 3.9 mile freeway is estimated at $16,000,000.

FREEWAY

ROUTE 206

This section of freeway is intended to serve as a relief route for the town of Hammonton in Atlantic County. At present, Route 206 terminates at the intersection of Route 30 and Route 54 just north of town. Route 54 continues to the south through the center of Hammonton and interchanges with the Atlantic City Expressway. The construction of this freeway would allow thru traffic to bypass the residential and business areas of town reducing congestion and providing better access to the Atlantic City Expressway and points south. The length of this project is 7.0 miles and the estimated cost is $17,100,000.

ROUTE 206

Route 206 Freeway from the Netcong — Stanhope Bypass to Montague will serve a dual purpose. First, in conjunction with Route 94 Freeway south of Newton, it will provide a complete bypass of this "Hub City" of the Tocks Island impact area allowing for the orderly development of this expanding community. Second, it will serve as one of the main feeder routes to the Flatbrook-Minisink area, the largest of the Tocks Island complex. The estimated cost to construct the entire 30.5 mile freeway is estimated at $104,400,000.

ROUTE 208

At present, Route 208 terminates at Route 202 in Bergen County. Its extension into upper Passaic and Sussex Counties will fulfill the need for a high type facility through this area. The construction of this freeway from Route 202 in Oakland to the New York State line in Vernon Township will serve as an increasingly vital arterial to the towns of Ringwood and Wanaque and to southern Greenwood Lake and its associated communities. The cost to construct this 20.0 mile freeway is estimated at $65,000,000.

ROUTE 322

The construction of a new Delaware River crossing between Chester and Bridgeport is well under way. As travel along the Route 322 corridor develops, a freeway on new alignment will be necessary to connect the bridge with other major regional highways in the area. Its extension from I-295 in Logan Township to the Atlantic City Expressway will also help to improve service to the Atlantic City urban area. This route has a length of 27.2 miles and an estimated cost of $40,900,000.

FREEWAY

ROUTE 440

The anticipated growth of Staten Island resulting from construction of the Verrazano-Narrows Bridge will cause a significant increase in traffic passing through Bayonne via the Bayonne Bridge. The need is recognized for a freeway type facility through Bayonne connecting Route 440 north of the New Jersey Turnpike extension to the Bayonne Bridge. There has been considerable opposition to the location of Route 440 Freeway along Newark Bay. This has led to the undertaking of a study to determine the feasibility of reconstructing Route 169 on the eastern side of Bayonne. Pending the outcome of the study, Route 440 Freeway will continue to be shown in its original location. The estimated cost to construct this 3.7 mile freeway is $22,300,000.

FOOTHILLS FREEWAY

The Foothills Freeway will be an entirely new route running along the base of the Kittatinny Mountains extending from Route I-80 in Hope Township to the New York State line in Wantage Township. This route will serve a twofold purpose by first, serving as the major access route to the New Jersey side of the Delaware Water Gap National Recreation Area and second, by serving as an important connector of two interstate routes; namely Route I-80 in New Jersey and Route I-84 in New York State. The estimated cost to construct this 36.1 mile freeway is $80,100,000.

DUALIZATION

ROUTE 9

If Route 9 Freeway is constructed in the Atlantic City area, provision should be made for improvements to existing Route 9 from the vicinity of Smithville north to the Garden State Parkway bridge over the Mullica River. This section of highway will be incapable of providing the necessary service because it is a two lane undivided facility. It will be necessary to dualize this 3.8 mile section of highway to four lanes at an estimated cost of $5,100,000.

ROUTE 9

Traffic on Route 9 in Burlington and Ocean Counties has not grown as fast as on the more northern sections of this route. Nonetheless, to provide for the additional capacity and safety requirements of the travelling motorist, this 35.4 mile section of two-lane highway extending from New Gretna to South Toms River will be dualized to four lanes at an estimated cost of $39,100,000.

ROUTE 9

As Route 9 proceeds north from Route 166 in Toms River the traffic using this route increases significantly. This project would continue dualization of Route 9 to County Road 524 near Adelphia providing for added capacity and the elimination of hazardous curves. The completion of this improvement would provide a continuous divided facility on Route 9 from the vicinity of Atlantic City to Route 1 in Middlesex County. It is estimated that $38,500,000 is necessary to complete this 16.3 mile dualization.

ROUTE 9W

Heavy traffic volumes, caused by a combination of local movements and traffic destined to the George Washington Bridge, have produced congested and hazardous conditions along Route 9W from Fort Lee to the Palisades Interstate Parkway. These conditions become especially severe during the peak hours. To alleviate this undesirable situation the existing highway which fluctuates between two and four lanes will be dualized to a continuous four lanes. This project will cover a distance of 11.1 miles and will cost an estimated $20,700,000.

DUALIZATION

ROUTE 20

Paterson Plank Road in Rutherford will serve as an important feeder route to the proposed Hackensack Meadowlands facilities, especially the new sports complex. To accommodate the anticipated traffic volumes the 1.5 mile section of this highway between Route 17 and Washington Avenue will be dualized to four lanes. The estimated cost of this improvement is $3,100,000.

ROUTE 23

Much of the New York-New Jersey metropolitan area traffic destined for the Delaware Water Gap National Recreation Area and upper Passaic and Sussex Counties will utilize Route 23. Traffic destined from the urban core to Route I-287 will also use Route 23, putting tremendous pressure on this facility. This project will dualize to six lanes the existing four lane section of highway from Route I-80 to Route 202, a distance of 1.2 miles. The cost of this improvement is estimated at $9,200,000.

ROUTE 29

Route 29 has been improved north of Trenton to Route I-95 and improvements are committed south of Trenton to the junction of Routes I-195 and I-295. To accommodate the north-south traffic created by construction of the new bridge across the Delaware River at Lambertville, and the other improvements to Route 29, the 8.5 mile section of this highway from Route I-95 to Lambertville will be dualized to four lanes at an estimated cost of $15,900,000.

ROUTE 30

Route 30 has in the past served as a major cross-state arterial between the Camden area and Atlantic City. There are indications that this route will, in the future, serve as the major arterial for an urban strip evolving in this corridor as evidenced by the urban areas developing around Hammonton and Egg Harbor. The section between Elwood and Egg Harbor was dualized some years ago but most of the portion between Route 157 in Absecon and Route 73 in Berlin still consists of four undivided lanes. The dualization should be completed for the remaining 29.8 miles between these limits at an estimated cost of $34,400,000.

DUALIZATION

ROUTE 31

In the future, Route 31 will serve as the main arterial between the State Capitol of Trenton and the anticipated suburban residential and recreation areas in the northwest region of the State. The anticipated traffic demands on Route 31 will necessitate an improved facility to insure better traffic flow and increased safety. This project will dualize Route 31 from the Route 31 Freeway in Pennington to Route 202 in Flemington and will have a length of 10.4 miles and an estimated cost of $16,200,000.

ROUTE 31

This project will continue the dualization of Route 31 from Route 202 north of Flemington to Route 31 Freeway near Oxford. As with the previous project, this improvement is necessary to allow one of the major north-south routes in the State to adequately serve its role in the State's highway network. It is estimated that $37,400,000 will be necessary to complete this 23.9 mile dualization.

ROUTE 33

The recent dualization of Route 33 from Hightstown to Manalapan, coupled with construction of the Freehold Bypass, will provide this route with four divided lanes to Jerseyville. This project will continue the dualization to Route 34 providing the necessary capacity for traffic destined to Asbury Park and surrounding shore communities. The length of this project is 4.0 miles and the cost is estimated at $5,400,000.

ROUTE 34

By nature of its spacing between Route 9 and the Garden State Parkway, Route 34 will serve as one of the major north-south arterials in the ever expanding urbanized portion of Monmouth County. The section of highway north of Route 33 was constructed some forty years ago and while experiencing some improvements at major intersections it still remains, for the most part, a two-lane facility. The entire 17.9 mile section from Route 33 north to Route 9 will be dualized at an estimated cost of $29,200,000.

DUALIZATION

ROUTE 35

Although it will experience some measure of relief by the construction of Route 18 Freeway, Route 35 will remain as one of the major land service highways of Monmouth County as it continues to serve heavy volumes of north-south traffic. Characterized by substantial commercial development along its right-of-way and several busy signalized intersections, the accident rate on this route is far from being acceptable. The Department of Transportation has been proceeding with the improvement of this highway in other areas of Monmouth County for some time and as part of the continuing effort the 5.1 mile section from the Brielle Circle to Route 71 will be dualized. The estimated cost of this improvement is $13,500,000.

ROUTE 35

There are currently two dualization projects underway on Route 35 in Monmouth County. The first extends from the Shark River to Ridge Avenue in Neptune and the second from Route 66 to Route 36. This proposal would connect these two active projects and in combination with the preceding improvement would provide a continuous divided facility on Route 35 in Monmouth County from the Brielle Circle to Route 36. The limits of this project extend from Ridge Avenue to Route 66, a distance of 2.0 miles. The estimated cost of completion is $4,100,000.

ROUTE 35

A significant amount of traffic will be added to the section of existing Route 35 that will connect the eastern terminus of Route 74 Freeway and the northern terminus of Route 35 Freeway. To provide the necessary capacity as well as to provide a high-type connector, this 2.4 mile section of highway will be dualized to six lanes. Portions of this section of road have already been constructed to six divided lanes and the estimated cost to complete the dualization is $7,600,000.

ROUTE 36

Route 36 serves as a circumferential arterial of the Garden State Parkway with connections in Eatontown and Keyport. Between Victor Avenue in West Long Branch and the Shrewsbury River Bridge in Sea Bright this 8.1 mile section of highway consists mostly of two lanes. To properly serve the traffic destined to Sandy Hook State Park, the Monmouth Park Race Track and the numerous towns, shopping centers and resort areas between these limits, it should be dualized to four lanes along its entire length with possible realignments in some areas. The estimated cost of this improvement is $21,200,000.

DUALIZATION

ROUTE 37

Route 37 has recently been dualized from the Mathis Bridge to the Garden State Parkway and this proposal will extend the dualization west to Route 70. The completion of this project, when combined with the dualization of Route 70, will provide the additional capacity needed in the corridor connecting the Philadelphia-Camden area with Island Beach State Park and the shore communities surrounding Seaside Heights. The cost of this 6.0 mile improvement is estimated at $7,200,000.

ROUTE 38

This project, extending from the intersection of Route I-195 and Route 34 east to Route 35, is in its final planning stages and will be constructed in anticipation of the completion of Route I-195. The proposal is to dualize this two-lane unidivided section of highway to four-lanes to accommodate the anticipated traffic utilizing Route I-195 in the Trenton-to-shore corridor. This project will have a length of 3.3 miles and an estimated cost of $7,100,000.

ROUTE 38

This section of highway which begins in Mount Laurel Township and ends at County Route 530 in Mount Holly Township, Burlington County, is presently a two-lane facility. To relieve the over capacity conditions caused by growth of the Mount Holly areas, it is proposed that this 6.4 mile section of highway be dualized to a four-lane facility costing an estimated $6,600,000.

ROUTE 40

Route 40 was recently dualized from Jonathan Thoroughfare to West End Avenue in Atlantic City. In order to provide a continuous divided facility east of Route 322 the 1.1 mile section of highway from South Main Street to Brenta Avenue in Egg Harbor Township will be dualized. Although this section presently consists of four lanes, the absence of a center barrier and shoulders require its upgrading to a divided facility. The estimated cost of this improvement is $1,700,000.

ROUTE 45

Route 45 serves as one of the main arterials for the southwest section of the State as it extends from Salem City to Woodbury. To satisfy the capacity and safety requirements of this route and to encourage the future development of the area through which it passes, the 25.4 mile section, from Salem City to the existing four-lane section at County Road 551 in the City of Woodbury, will be dualized to four lanes at an estimated cost of $25,900,000.

DUALIZATION

ROUTE 46

Improvements to Route 46 from Route 31 Freeway near Buttzville to Columbia are necessary for two reasons. First, this route will continue to serve as the principle land service road providing access to the developing communities along the eastern bank of the Delaware River. Second, it will provide an alternate scenic route for traffic destined from Route 31 to Route I-80. Engineering analysis indicates that this 8.6 mile section of highway should be dualized to four lanes at an estimated cost of $13,600,000.

ROUTE 46

Route 46 from Route 10 in Ledgewood to Route I-80 in Denville presently fluctuates between a two and four lane undivided facility. Even with the construction of Route I-80, this route serves as an important land service road in this area. To provide additional capacity and the added safety features inherent with divided highways this 8.9 mile section of road will be dualized to a continuous four-lanes. It is recognized that there are certain areas in Dover and Kenvil where the desirability for unrestrained access to abutting development might better be served by an undivided facility. The cost of this improvement is estimated to be $25,700,000.

ROUTE 49

Route 49 consists of two-lanes for its 37.8 mile length from the New Jersey Turnpike to Route 55 Freeway. To properly serve the anticipated growth of population and land development along its length it should be dualized to four lanes. The estimated cost of this improvement is $41,200,000.

ROUTE 51

Route 51, also known as the Camden Industrial Highway, will be located along the Camden waterfront and is vital to the economic well-being of the industrial development in this area. Located on new alignment this route will extend from Route I-76 in the vicinity of Morgan Boulevard to the Benjamin Franklin Bridge approaches. This route will not be built to freeway standards but instead will function as a land service highway. The estimated cost of this new 2.9 mile facility is $18,000,000.

DUALIZATION

ROUTE 54

The construction of Route 54 Freeway south of Buena will add a significant amount of traffic to existing Route 54 between Buena and the Atlantic City Expressway. In keeping with the Department's efforts to provide a continuous interconnected trunk highway system and to accommodate the anticipated increase in traffic utilizing this facility, this existing two-lane section of highway will be dualized to four lanes. The estimated cost of this 6.8 mile project is $7,300,000.

ROUTE 57

Route 57 from Phillipsburg to Hackettstown provides for only one lane of traffic in each direction. Despite this lane retriction, it serves as the main arterial for traffic destined from the Phillipsburg-Easton area to the resort areas of Warren, Sussex and Morris Counties as well as to points east via Routes 46 and I-80. While some measure of relief can be expected upon completion of Routes I-78 and I-287, this 21.9 mile section of highway should be dualized to four-lanes. Incorporated in this project will be a southeasterly bypass of Hackettstown on new alignment that will connect Route 57 with Route 46 at the base of the Drakestown Mountain. This will allow the through traffic, containing a high percentage of trucks, to bypass the town of Hackettstown. The cost of this improvement is estimated to be $41,700,000.

ROUTE 66

Route 66 is presently dualized from Asbury Avenue in Neptune Township to Route 35. This project will continue the dualization west to Route 33, a distance of 2.5 miles. Right-of-way has been purchased in anticipation of this improvement which is necessary for improved access to Asbury Park and the surrounding shore communities. The estimated cost to complete this project is $8,800,000.

ROUTE 68

To improve service on Route 68, which serves as the major access to the Fort Dix-McGuire Military Complex, the Department proposes to dualize the existing two-lane section of highway between Laurel Avenue in Wrightstown and Assiscunk Creek in Mansfield Township. The completion of this improvement would provide this route with a continuous divided four-lanes between Route 206 and Wrightstown. The cost of this 3.2 mile dualization project is estimated at $2,800,000.

DUALIZATION

ROUTE 70

Route 70 is a major cross-state highway carrying traffic from the Philadelphia-Camden area to the Central Jersey shore areas. From Route 38 to Route 73 this highway is divided and has sufficient capacity to serve both existing and anticipated future traffic. From Route 73 east to Route 35 the cross section reduces to two lanes causing considerable congestion during the summer months. To improve traffic flow and safety the entire two-lane section will be dualized to a continuous four-lanes at an estimated cost of $56,500,000. The length of the project is 51.2 miles.

ROUTE 72

Route 72 now serves as the main artery carrying traffic from the metropolitan areas of Philadelphia-Camden and Trenton to the shore resort areas of Long Beach Island. Like Route 70, this route experiences considerable congestion during the summer months due to its restrictive two-lane capacity between Four-Mile Circle at Route 70 and the Garden State Parkway. Adding to the congestion will be the construction of Route 72 Freeway which will provide the Bucks County, Pennsylvania area direct access to the Jersey shore. This 21.2 mile section of highway will be dualized to four-lanes at an estimated cost of $18,400,000.

ROUTE 77

Route 77 serves as the main arterial between Philadelphia-Camden and Bridgeton. As part of the state's effort to provide the travelling motorist with a continuous and integrated trunk highway system this substandard two-lane facility will be dualized to four-lanes. The project will extend for 19.9 miles between Bridgeton and Route 45 and will cost an estimated $21,500,000.

ROUTE 129

This project will be tied in with the completion of Route 29 Freeway in Trenton. Although it will be constructed on new alignment, this proposed route will not be built to freeway standards but instead will serve as an important land service road between Lalor Street and the Trenton Freeway. This will provide a connector for traffic destined from south of Trenton to center city or to Route 31 and points north. The section of this route from Route 29 Freeway to Lalor Street has been funded in the Department's 1971 Construction Program and it is estimated that an additional $12,300,000 will be needed to fund the remaining 1.2 miles to the Trenton Freeway.

DUALIZATION

ROUTE 147

The addition of County Road 585, from Route 9 to New Jersey Avenue in North Wildwood, to the State Highway system was effected in 1971 when it was designated as Route 147. To properly serve its role as an integrated part of the state highway network this route will be reconstructed to modern standards. While the reconstruction will involve some measure of realignment and new structures, the analysis has not progressed to the point of determining the number of lanes. For purposes of this plan the cost estimate was based on dualizing the highway to four lanes. Revisions to the plan will be instituted when design plans are finalized. The estimated cost of this 3.3 mile project is $9,600,000.

ROUTE 206

The 26.1 mile section of Route 206 from the Hammonton Bypass to the existing four-lane section at Chambers Corner in Burlington County will be dualized to four lanes. Route 206 is the major artery for travel flowing between Trenton and the Atlantic City area and the magnitude of this travel has increased to such an extent as to render the existing two lanes deficient in both capacity and safety. The estimated cost of this project is $27,300,000.

ROUTE 206

Route 206 in Somerset County will serve as a natural funnel for traffic utilizing Route I-95 in Mercer County and Route 92 Freeway destined to the Somerville area. This section of two-lane highway is already experiencing considerable traffic congestion and when consideration is given to the anticipated future use of this facility the need is recognized for improvements. The 13.2 mile section of highway from Route 92 Freeway in Montgomery Township to Somerset Street in Somerville will be dualized to four lanes at an estimated cost of $22,200,000.

ROUTE 206

As Route 206 extends north of Route I-78 and proceeds through Morris and Sussex Counties it will become an important artery serving the Delaware Water Gap National Recreation Area and other up-state traffic generators. To accommodate the anticipated traffic utilizing this facility the 16.5 mile section of predominantly two-lane highway between Route 202 in Bedminster and Route I-80 will be dualized to four lanes. The estimated cost of this improvement is $27,000,000.

DUALIZATION

ROUTE 322

The construction of Route 322 Freeway from Route I-295 to the east was discussed in a previous description. To provide for the free flow of traffic from the Bridgeport-Chester Bridge to this freeway will require the dualization of existing Route 322 from the bridge approaches at Route 130 to Route I-295. This improvement is presently under design and whereas it will be a high type facility, it will not provide complete control of access. The estimated cost of this 1.1 mile improvement is $3,900,000.

ROUTE 322

The desirability of a rural integrated trunk highway system necessitates the dualization of a 1.3 mile section of Route 322 from Route 50 Freeway east to where the divided section of this highway begins at Route 50 in Hamilton Township, Atlantic County. This section of highway already consists of four lanes and no additional lanes are anticipated. The cost of this improvement is estimated to be $1,900,000.

BURLINGTON-CAMDEN EXPRESSWAY

This project provides for construction of a new land service road between Admiral Wilson Boulevard in Camden and Route 130 in Pennsauken. This route will not only serve as the impetus to industrial and commercial development along the Delaware River in this area but will also provide some measure of relief to the Airport traffic circle. The exorbitant cost of constructing a freeway facility through this area with the necessary collector-distributor roads for access to abutting development suggests the construction of a land service road. The estimated cost of this 4.9 mile facility is $20,000,000.

POCAHONTAS PARKWAY

The Pocahontas Parkway will be a divided land service road on new alignment and will serve to relieve traffic congestion at the Morristown Square and on Speedwell Avenue. This route will be constructed as part of a joint effort with Morristown's Speedwell Urban Renewal Project. It will extend between Morris Street and Speedwell Avenue and will generally be adjacent to the D.L. & W.R.R. The estimated cost to construct this 1.3 mile facility is $5,000,000.

WIDENING

ROUTE 1

A large section of Route 1 between Route 18 and the Woodbridge Avenue overpass in Edison Township is presently four lanes. This section also includes a four lane bridge over the Raritan River. In order to provide continuity with the six lane roadways on either side, it is proposed that this section of highway be widened to a continuous six lanes and a parallel structure be built over the river. Length of the project is 1.3 miles and the cost is estimated at $14,500,000.

ROUTE 1

Beginning at Route I-95 in Edison, this project will continue northward along Route 1 to its junction with Route I-278. It is expected that the completion of Route I-95 will create a significant increase in traffic volumes on Route 1 with much of this traffic destined for Route I-278 and the Verrazano-Narrows Bridge Crossing.

Widening of this 10.4 mile section of roadway to ten lanes will cost approximately $87,400,000.

ROUTE 3

Route 3 serves as one of the major arteries carrying traffic to New York City via the Lincoln Tunnel and as such experiences tremendous traffic volumes during peak hour periods. To provide the necessary capacity and safety the 5.7 mile section of highway from Route 46 to Orient Way in Rutherford Borough will be widened. This improvement will see the addition of frontage roads from Route 46 to Route 21 and the temporary repaving of shoulders to provide six through lanes from Park Avenue to Orient Way. Also included in this project will be a revision to the Route 3 and Route 46 intersection. Total cost of this project is estimated to be $27,200,000.

ROUTE 4

Route 4 is one of the major arteries feeding traffic into New York City via the George Washington Bridge. Consequently, severe congestion occurs at peak hour periods. It is expected that the widening of Route 17 between Route 4 and Interstate Route 80 will relieve some of this congestion by diverting traffic to Route I-80. However, traffic volumes indicate that Route 4 will still require widening to 6 lanes from the existing six lane section at Sussex Avenue in Teaneck Township to Interstate Route 95. The estimated cost for improvements to this 4.0 mile section of roadway is $16,500,000.

WIDENING

ROUTE 9 (G.S.P.)

A joint effort is presently underway by the New Jersey Turnpike Authority and the New Jersey Highway Authority to construct a new toll facility from Toms River to the New Jersey Turnpike. When complete, it is expected that this facility will cause the capacity to be exceeded on a section of U.S. 9 from Route 37 to Route 166. At present this section of roadway is a four-lane, divided highway. It is anticipated that an additional lane in each direction will be needed for this 2.3 mile section of Route 9 costing an estimated $2,700,000.

ROUTE 10

The entire length of Route 10 is experiencing significant increases in traffic volumes as a result of the expanding urbanization occurring in this corridor. This 23.5 mile section of highway, from the Ledgewood Circle to Livingston, will experience a general-upgrading of roadway characteristics as well as intersection improvements at the major crossroads so that improved traffic flow can be accommodated. The estimated cost of this improvement, $57,000,000, also includes a revision to the Ledgewood Circle.

ROUTE 15

Route 15 between Route 46 in Dover and Route I-80 in Wharton is a two-lane facility which is presently operating at near capacity. With improvements made on Route 15 north of Route I-80 complete, the anticipated increase in traffic volumes indicate that this 2.1 mile section of highway should be widened to four lanes. The estimated cost of construction is $3,900,000.

ROUTE 17

A combination of projects both under construction and proposed will culminate in Route 17 becoming a divided six-lane highway between Route 3 and Route I-287. This proposal will widen that 2.2 mile section of highway from Essex Street in Maywood Borough to Route 4 at an estimated cost of $5,200,000.

ROUTE 17

This is another in a series of improvements to Route 17. The widening to six lanes from Route 4 to Linwood Avenue in Paramus Borough is presently under construction. This proposal will continue that widening to Franklin Turnpike in Ramsey Borough. Beyond Franklin Turnpike to Route 202 the existing grass median will be replaced with a barrier curb to provide wider inside shoulders. The estimated cost of this 9.5 mile project is $20,000,000.

WIDENING

ROUTE 18

With Route 18 Freeway either under construction or committed in Monmouth County, and either committed or proposed in Middlesex County to Route I-287, an interregional corridor will be formed between the Monmouth County shore areas and north central New Jersey. The anticipated traffic generated in this corridor will necessitate the widening of Route 18 from Route 9 to Route 1. This 9.0 mile section of roadway is primarily a divided four-lane facility and should be widened to six continuous lanes at an estimated cost of $16,300,000.

ROUTE 20

Route 20, in Rutherford Borough, is an extremely important link between Paterson Plank Road and Route 3, especially in light of the proposed Meadowlands development. This project, coupled with the proposed dualization of Paterson Plank Road, will be required to provide adequate access to the recreational and industrial facilities planned for this area. The estimated cost of this 0.8 mile project is $5,500,000.

ROUTE 22

The increase in development adjacent to Route 22 between Somerville and the Garden State Parkway will insure the continuation of high volumes of traffic on this section of highway, even with the completion of Route I-78. To provide the necessary capacity on this portion of Route 22, the 16.2 mile section of highway between County Road 527 in Boundbrook and the Garden State Parkway will be widened to a continuous six-lanes. The project will also include the grade separation of a number of troublesome intersections that exist between these limits. The estimated cost of this improvement is $48,500,000.

ROUTE 23

This project will continue the improvement of Route 23 north from Route 202 to Maple Lake Road in Butler Borough. At present, this section of highway consists of four lanes divided by a variable grass median. The project will include a widening to six lanes, erection of a concrete center barrier, grade separated interchanges, island closing and a major revision to the Riverdale traffic circle. The estimated cost of this 9.6 mile project is $39,000,000.

ROUTE 27

The relocation of Route 27 from Route I-95 to Central Avenue in Metuchen is listed as a spot improvement. Beyond Central Avenue to Route 35 this route consists of essentially two through lanes with substandard shoulders. As part of the Department's continuing effort to bring one of New Jersey's oldest highways up to modern standards and alleviate congested and hazardous driving conditions, this 5.5 mile section of road will be widened to four lanes at an estimated cost of $11,700,000.

WIDENING

ROUTE 27

This project is another in the continuing effort to upgrade Route 27 to modern standards. From Route 92 Freeway to How Lane in New Brunswick, this route presently consists of two substandard lanes and will be unable to adequately accommodate the anticipated increase in traffic volumes. The widening of this 10.4 mile section of roadway to four lanes will cost an estimated $19,600,000.

ROUTE 30

Route 30 experiences a significant increase in traffic east of Delilah Road in Absecon. This is caused by the large number of trips occurring between Pleasantville and Atlantic City. From the Inland Waterway eastward, Route 30 is a six-lane divided highway. This proect will continue the six lanes westward to Delilah Road. The estimated cost of this 2.7 mile project is $5,100,000.

ROUTE 33

Route 33, between Mercerville and Robbinsville, is one of the few sections of three-lane highways remaining in the state. This type of facility has proven to be inadequate for a route that carries all three major types of traffic; namely commercial, commuter and recreational. While some measure of relief can be expected upon completion of Route I-195, the need is still recognized for two-lanes in each direct on this very important arterial. The demand for unrestricted access to adjacent strip commercial development as well as the considerable cost of purchasing right of way in this area for the necessary interchanges makes it unfeasible to incorporate a center barrier in this improvement. Therefore, the project will account for the widening of this 4.1 mile section of highway to four-lanes at an estimated cost of $6,600,000.

ROUTE 33

The section of Route 33 between Route 35 and Route 71 is presently a 3-lane undivided roadway. Plans are now under way to widen this 0.6-mile section to four lanes at an estimated cost of $1,500,000.

ROUTE 35

Route 35 serves as the principal access to the shore areas between Seaside Heights and Point Pleasant. The section of this highway between Mantoloking and Point Pleasant experiences considerable congestion during the summer months because of its restrictive two lanes. To improve traffic flow the 3.9 mile section of highway between these limits will be widened at an estimated cost of $6,200,000.

WIDENING

ROUTE 40

Route 40 presently serves as the only direct cross state highway from the Delaware Memorial Bridge to the Atlantic City area. Even with the construction of Route 60 Freeway, this two lane highway will remain the major land service road in this corridor. To adequately serve its role in the highway network the 46.0 mile section from Route 48 to Route 322 will be widened to four lanes at an estimated cost of $36,900,000.

ROUTE 41

Route 41 in Cherry Hill Township is a two lane facility which serves as one of the main arterial highways for the extensive development which has grown in this area. To provide the necessary additional capacity on this facility the 2.3 mile section of highway between Route 70 and Route 38 will be widened to four lanes at an estimated cost of $1,700,000.

ROUTE 46

The section of Route 46, between the Ledgewood exit of Route I-80 and the Ledgewood traffic circle, serves as a principal link between I-80 and Routes 46 and 10. As traffic volumes increase on Routes 46 and 10 east of the circle this 1.6 mile link will require additional lanes to accommodate the traffic demands that will be placed upon it. The estimated cost of this widening project is $2,500,000.

ROUTE 46

Even with the completion of Route I-80, future traffic estimates indicate that Route 46 will need an additional lane in each direction between Denville and the Garden State Parkway. While no additional lanes will be necessary east of the Parkway, safety considerations necessitate the addition of shoulders between the Parkway and Randolph Avenue in Clifton. The total cost of this 21.3 mile widening project is estimated at $52,400,000.

ROUTE 46

Improvements to Route 46 between Route 17 and the New Jersey Turnpike are presently under study. This section of roadway, as it exists, alternates between a four-lane, undivided highway and a six-lane divided highway. Indications are that the roadway will be widened to a continuous six-lane divided facility, major intersections will be grade separated and a new structure will be built over the Hackensack River. Cost for this 2.9 mile widening is estimated to be $29,000,000.

WIDENING

ROUTE 73

The widening of Route 73 from Route 38 to the New Jersey Turnpike is presently under design. While the bulk of the widening will occur between Route I-295 and the Turnpike, by repaving the shoulders to add a lane in each direction, island closings and jughandles will be incorporated throughout the entire 1.5 mile length of this project. The total cost is estimated at $500,000.

ROUTE 88

Route 88, from Route U.S. 9 to Point Pleasant, presently consists of a two-lane highway having sub-standard geometrics. This presents very hazardous conditions, especially during the summer months. Because of extensive roadside development along this route it is not feasible to construct a dualized type improvement. Consequently, the 8.5 mile section from Central Railroad of New Jersey to the Manasquan Canal in Point Pleasant will be widened to four lanes. The estimated cost of this improvement is $14,900,000.

ROUTE 130

Route 130 functions as one of the most heavily travelled arterial routes in South Jersey. To provide this facility with six continuous lanes between Camden and the Trenton area the 9.1 mile section between Assiscunk Creek in Burlington City and its intersection with Route 206 in Bordentown will be widened. This project will also include the elimination of center island openings by constructing a concrete barrier as well as the construction of jughandles at appropriate locations. The cost of this project is estimated at $18,400,000.

ROUTE 152

Route 152 serves as the only direct connection between Somers Point and Atlantic City. There is a series of very old structures along its length that, for reasons of age and inadequate lateral clearance, must be either reconstructed or replaced. Since capacity restriction is not one of the problems associated with this route, it will remain a two lane facility. The cost of this 3.2 mile project, from Bay Avenue in Somers Point to Risley Channel in Egg Harbor Township, is estimated at $14,300,000.

ROUTE 444 (DUPLICATE G.S.P.)

The portion of the Garden State Parkway between Route 1 and Route 22, which is toll-free and under State jurisdiction, is used by many commuters traveling into the metropolitan Newark business centers. With the high traffic volumes presently existing, safer and more efficient use of this route would be provided by widening the road to eight lanes. Length of the project is 10.7 miles and will cost an estimated $23,000,000.

SPOT IMPROVEMENT

ROUTE 1

The junction of Route 1 and Route 130 presently utilizes a traffic circle which like so many others throughout the state served the purpose in their day but have since become outmoded due to the tremendously increased traffic volumes. A grade separated interchange will be required at this location at an estimated cost of $8,500,000.

ROUTE 4

The existing interchange at Route 4 and Route 17 is experiencing considerable congestion caused by not only through traffic, but also the excessive number of U-turns occurring at this location. These U-turns are caused in part by the construction of major shopping centers in almost every quadrant of the interchange. This major revision to the interchange will include a reconstruction of the existing cloverleaf which will almost exclusively accommodate the U-turn movements and the construction of overhead ramps to provide direct connections for all left-turn movements. The cost of reconstruction is estimated at $25,000,000.

ROUTE 4

Traffic on Route 208 has increased to the point where its interchange with Route 4 can no longer function efficiently. To improve the capacity and safety aspects of this interchange will require a major revision that will cost an estimated $8,000,000.

ROUTE 9

Route 9 serves as the major access, south of the Garden State Parkway, to Cape May City and the southern tip of the State. Future traffic volume estimates indicate that it will be necessary to widen the two-lane section of this route between Cape Island Creek and the Cape May Canal to four lanes. The estimated cost of this 0.4 mile widening project is $700,000.

ROUTE 10

The intersection of Cooper and Miller Roads with Route 10 in Denville Township has been the scene of several serious accidents. The increasing traffic on these two local roads warrants the construction of a safer intersection than the one which presently exists. A signalized intersection with jughandles will be constructed at this location and will cost approximately $400,000.

SPOT IMPROVEMENT

ROUTE 15

A small section of Route 15, between Longwood Road and Edson Road in Jefferson Township, has both a steep vertical grade and a severe horizontal curve. This situation has caused a number of very serious accidents. In order to remedy this condition, the southbound portion of Route 15 will be realigned to eliminate this hazard. Cost of the project is estimated to be $600,000.

ROUTE 17

The revision to the intersection of Route 17 and Route 46 is another in the series of improvements, both under construction and proposed, to this important route. This interchange experiences considerable congestion because of its substandard design and the estimated cost to alleviate this situation is $10,000,000.

ROUTE 17

The intersection of Route 17 with Essex Street in Maywood Borough will be done in conjunction with the widening of Route 17 from Essex Street to Route 4. This intersection is presently grade separated but traffic conditions make the $5,000,000 revision to the ramp configurations a necessity.

ROUTE 20

In connection with the planned improvements to Paterson Plank Road and Route 20 in Rutherford it will be necessary to reconstruct the intersection of these two routes. The existing at-grade intersection will be rebuilt to a grade separated interchange at an estimated cost of $5,600,000.

ROUTE 22

The heavy volumes of traffic on Route 22 crossing the Waverly Railroad Yards in Newark necessitate the building of a parallel structure alongside the existing viaduct. The limits of this improvement are from Weequahic Lake to Route 1 and will cost an estimated $14,000,000.

ROUTE 24 FREEWAY

The revision at Triboro-Brooklake Road in Madison Borough will be done in conjunction with Morris County. The county is proposing to build Triboro Road-Eisenhower Boulevard to its connection with Brooklake Road in Madison Borough. This item covers the cost of constructing a full cloverleaf at the intersection of this proposed road with Route 24 Freeway and will cost an estimated $500,000.

SPOT IMPROVEMENT

ROUTE 27

This project will eliminate a very serious "dogleg" in Route 27 where it crosses the mainline tracks of the Penn-Central Railroad in Metuchen. The elimination of this problem area will require the building of a new structure across the tracks and general roadway improvements to Route 27 between Route I-95 and Central Avenue. The estimated cost of this project is $7,100,000.

ROUTE 29

The present location of Route 29 in Frenchtown forces travellers destined north along the Delaware River or east on Route 12 to pass through town utilizing local streets. This situation causes considerable congestion in town especially since much of the through traffic consists of trucks. To provide a continuous interconnected State highway system in this area and to remove through traffic from the local streets, an easterly bypass of the city will be constructed at an estimated cost of $7,500,000.

ROUTE 29

Completion of a recent inventory of bridges on the State Highway System found that several bridges were in need of repair. One of the more seriously deficient bridges is on Route 29 just north of Lambertville. This particular bridge crosses the Alexauken Creek and should be replaced. Cost for the project is estimated to be $900,000.

ROUTE 30

The junction of this route with Route 130 occurs at the Collingswood Circle. Since its construction prior to the World War II years, traffic has increased to a point where the traffic circle cannot provide acceptable levels of service to the many commuters using it. Reconstruction of this traffic circle will cost an estimated $7,500,000.

ROUTE 33

The traffic circle at the intersection of Routes 33 and 34 breaks down into an inefficient and hazardous facility when operating under heavy traffic loads during peak hours. To correct this situation the intersection will be reconstructed to a grade separation at an estimated cost of $2,500,000.

SPOT IMPROVEMENT

ROUTE 35

The intersection of Route 35 and Route 66 utilizes the traffic circle concept. As part of a continuing porgram to replace these inadequate traffic control devices, as they become deficient, this intersection will be grade separated. It is possible that some measure of relief may be experienced upon completion of Route 18 Freeway and Route 35 Freeway through this area but pending further study this item will be included at an estimated cost of $3,500,000.

ROUTE 35

As with the previous improvement the intersection of Route 35 and Route 36 utilizes a traffic circle which experiences difficulty in efficiently handling the flow of traffic it must accommodate. Likewise, this location may experience some temporary relief upon completion of Route 18 Freeway and Route 35 Freeway. However, subsequent to the initial relief, the growth of traffic through this location will require reconstruction of the traffic circle to a grade separated interchange. The estimated cost of this improvement is $3,500,000.

ROUTE 37

The dualization of Routes 37 and 70 have been identified in other descriptions. To insure the free flow of traffic on these two routes it will be necessary to reconstruct the existing traffic circle at their juncture. The estimated cost of this improvement is $3,500,000.

ROUTE 40-322

Route 40-322 and County Road 563 serve as major access roads to and from Atlantic City. Consequently, the section of highway where these two routes run duplicate experiences heavy volumes of traffic. To eliminate the traffic congestion occurring on this 0.7 mile section of highway, it will be widened to six lanes. The cost of this project will be an estimated $1,000,000.

ROUTE 41

The existing traffic circle at the intersection of Routes 41 and 70 has developed into an inefficient traffic control device because of its inability to accommodate the volumes of traffic it experiences. Plans are now under development to improve service at this location by introducing controlled signalization on the routes leading to the circle. The estimated cost of this improvement is $500,000.

SPOT IMPROVEMENT

N.J. 41

With the increased traffic using Route 41 and Route 42 in Gloucester County a major revision to their intersection in Deptford Township is now under design. The problems at this intersection will be magnified upon completion of a new Sears Shopping Center in close proximity to the interchange. Plans call for improvements to the intersection of Route 41 and Route 42 and also modifications to the three-legged intersection at Clements Bridge Road, Evesham Road and Station Avenue. The estimated cost of improvements is $8,000,000.

ROUTE 46

The existing configuration at the intersection of Route 46 and Randolph Avenue in Clifton allows for some conflicting at-grade turning movements. This intersection will be redesigned to grade separate all traffic movements between Route 46, Randolph Avenue and Lexington Avenue. The estimated cost of this reconstruction is $7,100,000.

ROUTE 46

The intersection of Route 46, Crooks Avenue and McClean Boulevard in Clifton, experiences considerable traffic congestion during the peak hour periods. To improve the flow of traffic and to alleviate the congestion and traffic hazards occurring at this location it will be necessary to undertake an extensive reconstruction of the intersection. The cost of this improvement with its new ramps and structures is estimated to be $5,900,000.

ROUTE 46

There is presently no direct access from Midland Avenue to Route 46 in Garfield Borough. Traffic patterns indicate the need to rectify this situation by constructing a partial cloverleaf at this location. The cost of constructing this interchange is estimated at $400,000.

ROUTE 46

The completion of this project will improve traffic flow on Route 46 where it intersects with Westminster Avenue in Lodi. This improvement will consist of cutting through the existing traffic circle to allow freedom of movement on Route 46. All left turns, and through traffic on Westminster Avenue will be accommodated at other locations. The estimated cost of this improvement is $400,000.

SPOT IMPROVEMENT

ROUTE 46

The intersection of Route 46 and River Road in East Paterson cannot accommodate all desired movements with its present configuration. To rectify this situation, the intersection will be reconstructed to a full cloverleaf. The estimated cost of this improvement is $200,000.

ROUTE 47

To relieve the congestion occurring at the intersection of Woodbury Road and Route 47 in Woodbury, a jughandle and improved signalization will be provided at this location. In conjunction with this intersection improvement, a short section of roadway, beginning at Woodbury Avenue and ending in the vicinity of Normal Boulevard, will be resurfaced. Improved drainage facilities will also be provided. The total estimated cost for this project is $1,400,000.

ROUTE 70

In connection with the proposed dualization of Route 70 east of Marlton it will be necessary to reconstruct the existing traffic circle at its intersection with Route 73. The heavy volumes of traffic occurring in the Route 70 corridor have caused this intersection to become overloaded an excessive number of times during the year. Construction of the Delair Bridge and Route 90 Freeway can only reinforce the need to reconstruct this intersection to a grade separated interchange. The estimated cost of this improvement is $3,500,000.

ROUTE 70

The traffic circle at Haddonfield Avenue in Cherry Hill Township is another of the traffic circles along Route 70 that has become deficient because of the development and consequent increased traffic occurring in the Route 70 corridor. The estimated cost to grade separate this intersection is $3,500,000.

ROUTE 70

The construction of Route 72 Freeway and the dualization of both Routes 70 and 72 will cause a considerable amount of traffic to pass through the existing traffic circle at their juncture. As with so many other locations throughout the state this outmoded traffic channelization device will be unable to meet the demands placed upon it. To reconstruct this intersection to a grade separated interchange will cost an estimated $2,500,000.

SPOT IMPROVEMENT

ROUTE 70

At the junction of Routes 70 and 206 at Red Lion the existing traffic circle functions poorly under the heavy traffic it experiences to and from the Jersey shore areas. To coincide with other improvements to Routes 70 and 206 leading to their intersection the circle will be reconstructed to a grade separation at an estimated cost of $2,500,000.

ROUTE 79

This project will eliminate a curve on Route 79 where it crosses Deep Run Creek in Marlton Township. The existing stream culvert and roadway approaches will be realigned at an estimated cost of $300,000.

ROUTE 87

The construction of a new high level bridge on Route 87 from Atlantic City to Brigantine is now under way. To improve the access to the bridge on the Atlantic City side the intersection of Route 87, Huron Avenue and Maryland Avenue will be reconstructed. This project will continue the dualization of Route 87 south from the touch down point of the bridge through a new grade separated interchange at the above intersection and terminate in the vicinity of North Carolina Avenue. The estimated cost of this improvement is $600,000.

ROUTE 130

Vehicles travelling east on Route 33 destined to Route 130 and points north must make an at-grade crossing of the southbound lane of Route 130. Because of the many trucks travelling on Route 130 this movement has proven to be extremely hazardous. To remedy this situation the existing intersection will be reconstructed to a grade separated interchange at an estimated cost of $2,000,000.

ROUTE 130

Route 130 through Delran Township, Burlington County is presently a six lane divided facility with the exception of the bridge over the Rancocas Creek which carries only four lanes. The very nature of this reduction in lanes not only creates a "bottleneck" in the free flow of traffic but also creates a very serious traffic hazard. This project will widen the bridge to six lanes at an estimated cost of $7,200,000.

SPOT IMPROVEMENT

U.S. 130

Routes U.S. 130, New Jersey 47 and County Road 551 all converge at two adjacent traffic circles in Brooklawn. As with other traffic circles throughout the state this type of traffic control device can no longer satisfy the demands of capacity and safety placed upon them. The first of these circles to be constructed to a grade separated interchange is located at the intersection of Route 47 and Route 130. The estimated cost of this reconstruction is $4,100,000.

U.S. 130

This is the second of the two traffic circles to be reconstructed in Brooklawn. The estimated cost of this improvement at Routes 130 and County Road 551 is $4,000,000.

ROUTE 166

This project is located in Toms River, Dover Township, and extends from Toms River to Water Street. While it is basically an intersection improvement at Water Street it will also include the resurfacing of the remaining portion of this highway to Toms River. The estimated cost of this project is $300,000.

ROUTE 202

The Somerville traffic circle serves as the intersection of two very important State highways; Route 202 and Route 206. A total of sixteen lanes of traffic entering this intersection makes it physically impossible for the traffic circle to accommodate the volumes of traffic it is exposed to. With the anticipated impact of the Delaware Water Gap National Recreation Area on Route 206 the problem can only be magnified. While numerous alternative solutions have been proposed to resolve this problem area, no one plan has yet reached final acceptance. This Master Plan will recognize the need for some type of modification to the existing traffic circle by including a $7,500,000 cost estimate to grade separate the interchange.

ROUTE 206

Route 206 has extremely poor alignment as it crosses the Reading Railroad tracks in Belle Mead. This section of highway incorporates a series of sharp turns that have led to numerous accidents in the past. The elimination of this hazard will require a new structure and a realignment of the highway which will cost an estimated $7,800,000.

STUDY

This category includes projects listed in the highway portion of the Master Plan that will require further study before a specific type of improvement can be recommended.

ROUTE 22 — I-78 CONNECTOR

The need is recognized for a highway connector between Route 22 and Route I-78 that will improve traffic circulation in the Somerset-Union County areas. Although not specifically located, it is shown in the vicinity of Diamond Hill Road in Berkeley Heights and Park Avenue — Bonnie Burn Road in Scotch Plains.

ROUTE 85

The need has long been recognized for a new facility in the corridor along the Hudson County waterfront from the Holland Tunnel to the Lincoln Tunnel. Although originally visualized as a freeway, the exorbitant cost associated with building such a facility has made its construction somewhat doubtful. Pending further investigation this route will be identified in the Master Plan as a Study line.

MASTER PLAN SUMMARY
(HIGHWAYS)

ATLANTIC COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
9	14.2	$34,700,000	
50	19.8	33,240,000	
54	3.2	6,400,000	
60	19.5	41,090,000	
206	7.0	17,100,000	
			$132,530,000
Dualizations			
9	3.8	$ 5,100,000	
30	20.1	23,200,000	
40	1.1	1,700,000	
54	6.8	7,300,000	
206	5.6	5,860,000	
322	1.3	1,900,000	
			$ 45,060,000
Widenings			
30	2.7	$ 5,100,000	
40	19.2	15,400,000	
152	3.2	14,300,000	
			$ 34,800,000
Improvements			
40 & 322	—	$ 1,000,000	
87	—	600,000	
			$ 1,600,000
		Grand Total	**$213,990,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

BERGEN COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
1 & 9	1.0	$11,640,000	
17	3.1	31,000,000	
21	1.3	9,200,000	
208	1.5	4,880,000	
			$ 56,720,000
Dualizations			
9W	11.1	$20,700,000	
20	1.5	3,100,000	
			$ 23,800,000
Widenings			
3	0.8	$ 1,000,000	
4	4.0	16,500,000	
17	11.7	25,200,000	
20	0.8	5,500,000	
46	2.9	29,000,000	
			$ 77,200,000
Improvements			
4 — Intersection at Rt. 17	—	$25,000,000	
4 — Intersection at Rt. 208	—	8,000,000	
17 — Intersection at Rt. 46	—	10,000,000	
17 — Intersection at Essex St.	—	5,000,000	
20 — Intersection at Paterson Plank Rd.	—	5,600,000	
46 & Midland Ave. Interchange	—	400,000	
46 — Intersection at Westminster Ave Lodi-Circle Revision	—	400,000	
46 & River Road Interchange	—	200,000	
208 — Interchange at McBride Ave.	—	1,200,000	
208 — Interchange at Fairlawn Ave.	—	1,000,000	
			$ 56,800,000
		Grand Total	**$214,520,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

BURLINGTON COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
38	23.4	$54,100,000	
72	16.6	38,600,000	
90	5.4	44,700,000	
			$137,400,000
Dualizations			
9	4.8	$ 5,300,000	
38	6.4	6,600,000	
68	3.2	2,800,000	
70	25.0	30,900,000	
72	11.5	9,980,000	
206	20.5	21,440,000	
			$ 77,020,000
Widenings			
73	1.5	$ 500,000	
130	9.1	18,400,000	
			$ 18,900,000
Improvements			
70 — Intersection at Rt. 72	—	$ 2,500,000	
70 — Intersection at Rt. 73	—	3,500,000	
70 — Intersection at Rt. 206	—	2,500,000	
130 — Bridge over Rancocas Creek	—	7,200,000	
			$ 15,700,000
		Grand Total	**$249,020,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

CAMDEN COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
30	0.5	$ 5,500,000	
90	1.6	10,500,000	
322	0.8	1,200,000	
			$ 17,200,000
Dualizations			
Burlington-Camden Expressway			
	4.9	$20,000,000	
30	9.7	11,200,000	
51	2.9	18,000,000	
			$ 49,200,000
Widenings			
41	2.3	$ 1,700,000	
			$ 1,700,000
Improvements			
30 — Intersection at Rt. 130	—	$ 7,500,000	
41 — Intersection at Rt. 70	—	500,000	
70 — Intersection at Haddonfield Rd.	—	3,500,000	
130 — Intersection at Rt. 47	—	4,100,000	
130 — Intersection at Rt. 551	—	4,000,000	
			$ 19,600,000
		Grand Total	**$ 87,700,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

CAPE MAY COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
50	9.2	$ 15,460,000	
55	10.4	17,320,000	
60	2.3	4,850,000	
			$ 37,630,000
Dualizations			
147	3.3	$ 9,600,000	
			$ 9,600,000
Widenings			
0	0	0	0
Improvements			
9—Cape Island Creek to Cape May Canal	—	$ 700,000	
			$ 700,000
		Grand Total	**$ 47,930,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

CUMBERLAND COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
54	6.0	$ 12,000,000	
55	9.6	15,980,000	
60	20.9	40,640,000	
			$ 68,620,000
Dualizations			
49	19.0	$ 20,710,000	
77	7.3	7,890,000	
			$ 28,600,000
Widenings			
0	0	0	0
Improvements			
0	0	0	0
		Grand Total	**$ 97,220,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

ESSEX COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
21	3.8	$129,200,000	
			$129,200,000
Dualizations			
0	0	0	0
Widenings			
10	5.8	$ 14,070,000	
46	3.6	8,460,000	
			$ 22,530,000
Improvements			
22 — Waverly Yards Bridge	—	$ 14,000,000	
			$ 14,000,000
		Grand Total	**$165,730,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

GLOUCESTER COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
55	19.3	$ 40,300,000	
322	26.4	39,700,000	
			$ 80,000,000
Dualizations			
45	13.0	$ 13,260,000	
77	5.0	5,400,000	
322	1.1	3,900,000	
			$ 22,560,000
Widenings			
40	8.0	$ 6,420,000	
			$ 6,420,000
Improvements			
41 — Intersection at Rt. 42	—	$ 8,000,000	
47	—	1,400,000	
			$ 9,400,000
		Grand Total	**$118,380,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

HUDSON COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
1 & 9	6.6	$ 87,160,000	
17	1.9	19,000,000	
440	3.7	22,300,000	
			$128,460,000
Dualizations			
0	0	0	0
Widenings			
0	0	0	0
Improvements			
0	0	0	0
		Grand Total	**$128,460,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

HUNTERDON COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
29	1.2	$ 3,000,000	
			$ 3,000,000
Dualizations			
29	1.1	$ 2,060,000	
31	27.1	42,360,000	
			$44,420,000
Widenings			
0	0	0	0
Improvements			
29 — Bridge over Alexauken Creek	—	$ 900,000	
29 — Connector at Rt. 12	—	7,500,000	
			$ 8,400,000
		Grand Total	**$55,820,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

MERCER COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
29	1.0	$ 13,500,000	
31	10.6	75,000,000	
92	3.6	10,760,000	
			$ 99,260,000
Dualizations			
29	7.4	$ 13,840,000	
31	0.8	1,240,000	
129	1.2	12,300,000	$ 27,380,000
Widenings			
33	4.1	$ 6,600,000	
			$ 6,600,000
Improvements			
130 — Intersection at Rt. 33	—	$ 2,000,000	
			$ 2,000,000
		Grand Total	**$135,240,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

MIDDLESEX COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
9	3.7	$ 16,900,000	
18	6.9	34,000,000	
74	10.4	63,480,000	
92	6.8	15,490,000	
			$129,870,000
Dualizations			
34	3.5	$ 6,360,000	
			$ 6,360,000
Widenings			
1	7.7	$ 68,500,000	
18	9.0	16,300,000	
27	15.9	31,300,000	
Garden State Parkway	4.0	8,600,000	
			$124,700,000
Improvements			
1 & 130 Circle Revision	—	$ 8,500,000	
27	—	7,100,000	
444	—	1,000,000	
			$ 16,600,000
		Grand Total	**$277,530,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

MONMOUTH COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
18	8.7	$ 27,100,000	
33	6.6	20,800,000	
35	14.9	53,100,000	
38	8.1	18,340,000	
74	0.2	1,220,000	
			$120,560,000
Dualizations			
9	8.1	$ 18,320,000	
33	4.0	5,400,000	
34	14.4	22,840,000	
35	9.5	25,200,000	
36	8.1	21,200,000	
38	3.3	7,100,000	
66	2.5	8,800,000	
70	1.2	1,180,000	
			$110,040,000
Widenings			
33	0.6	$ 1,500,000	
			$ 1,500,000
Improvements			
33 — Intersection at Rt. 34	—	$ 2,500,000	
35 — Intersection at Rt. 36	—	3,500,000	
35 — Intersection at Rt. 66	—	3,500,000	
79	—	300,000	
			$ 9,800,000
		Grand Total	**$241,900,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

MORRIS COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
24	18.4	74,300,000	
178	3.9	16,000,000	
			$ 90,300,000
Dualizations			
46	8.9	$ 25,700,000	
57	0.8	6,620,000	
206	12.0	19,630,000	
Pocahontas Parkway	1.3	5,000,000	
			$ 56,950,000
Widenings			
10	17.7	$ 42,930,000	
15	2.1	3,900,000	
23	7.0	28,440,000	
46	11.6	26,000,000	
			$101,270,000
Improvements			
10	—	$ 400,000	
15	—	600,000	
24	—	500,000	
			$ 1,500,000
		Grand Total	**$250,020,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

OCEAN COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
38	12.2	$ 28,160,000	
			$ 28,160,000
Dualizations			
9	38.8	$ 53,980,000	
37	6.0	7,200,000	
70	25.0	24,420,000	
72	9.7	8,420,000	
			$ 94,020,000
Widenings			
9	2.3	$ 2,700,000	
35	3.9	6,200,000	
88	8.5	14,900,000	
			$ 23,800,000
Improvements			
37 — Intersection at Rt. 70	—	$ 3,500,000	
166	—	300,000	
			$ 3,800,000
		Grand Total	**$149,780,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

PASSAIC COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
20	4.2	$ 46,000,000	
21	2.4	17,000,000	
208	16.0	52,000,000	
			$115,000,000
Dualizations			
23	1.2	$ 9,200,000	
			$ 9,200,000
Widenings			
3	4.9	$ 26,200,000	
23	2.6	10,560,000	
46	7.7	20,440,000	
			$ 57,200,000
Improvements			
46 — Randolph Ave. to Garden State Parkway & Rt. 46	—	$ 7,100,000	
46 — Garden State Parkway to I-80	—	5,900,000	
			$ 13,000,000
		Grand Total	**$194,400,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

SALEM COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
60	15.7	$ 28,920,000	
			$ 28,920,000
Dualizations			
45	12.4	$ 12,640,000	
49	18.8	20,490,000	
77	7.6	8,210,000	
			$ 41,340,000
Widenings			
40	18.8	$ 15,080,000	
			$ 15,080,000
Improvements			
0	0	0	0
		Grand Total	**$ 85,340,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

SOMERSET COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
92	6.8	$ 26,850,000	
			$ 26,850,000
Dualizations			
206	17.7	$ 29,570,000	
			$ 29,570,000
Widenings			
22	7.9	$ 23,650,000	
			$ 23,650,000
Improvements			
202 — Intersection at Rt. 206	—	$ 7,500,000	
206 — Relocation at Belle Mead	—	7,800,000	
			$ 15,300,000
		Grand Total	**$ 95,370,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

SUSSEX COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
15	6.6	$ 30,000,000	
23	24.6	61,500,000	
23 Alternate	6.2	12,700,000	
94	31.2	71,460,000	
94A	3.4	7,000,000	
206	30.5	104,400,000	
208	2.5	8,120,000	
Foothills	25.2	55,920,000	
			$351,100,000
Dualizations			
0	0	0	0
Widenings			
0	0	0	0
Improvements			
0	0	0	0
		Grand Total	**$351,100,000**

MASTER PLAN SUMMARY
(HIGHWAYS)

UNION COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
81	1.5	$ 11,200,000	$ 11,200,000
Dualizations			
0	0	0	0
Widenings			
1	4.0	$ 33,400,000	
22	8.3	24,850,000	
Garden State Parkway	6.7	14,400,000	$ 72,650,000
Improvements			
0	0	0	0

Grand Total $ 83,850,000

MASTER PLAN SUMMARY
(HIGHWAYS)

WARREN COUNTY

ROUTE	MILEAGE	COST	TOTAL COST
Freeways			
31	13.5	$ 25,000,000	
94	10.8	24,740,000	
Foothills	10.9	24,180,000	
			$ 73,920,000
Dualizations			
31	6.4	10,000,000	
46	8.6	13,600,000	
57	21.1	35,080,000	
			$ 58,680,000
Widenings			
0	0	0	0
Improvements			
0	0	0	0
		Grand Total	**$132,600,000**

CAPITAL IMPROVEMENT PROGRAM
COMMUTER RAILROADS

(1) ERIE LACKAWANNA PASCACK VALLEY	
Rolling Stock	$ 46.8
Station Improvements	32.5
Lineside Improvements	33.2
	$112.5
(2) ERIE LACKAWANNA BERGEN COUNTY LINE	
Rolling Stock	$ 20.1
Station Improvements	17.6
Lineside Improvements	30.8
	$ 68.5
(3) ERIE LACKAWANNA BOONTON LINE	
Rolling Stock	$ 13.2
Station Improvements	7.7
Lineside Improvements	30.6
	$ 51.5
(4) MONTCLAIR CONNECTION	
Station Improvements	$ 1.0
Lineside Improvements	5.4
	$ 6.4
(5) ERIE LACKAWANNA MORRIS AND ESSEX LINES INCLUDING THE GLADSTONE BRANCH	
Rolling Stock	$ 54.8
Station Improvements	40.9
Lineside Improvements	68.3
	$164.0
(6) PENN CENTRAL MAIN LINE	
Rolling Stock	$ 43.5
Station Improvements	28.6
Lineside Improvements	32.8
	$104.9
(7) NEW YORK AND LONG BRANCH	
Rolling Stock	$ 39.7
Station Improvements	6.1
Lineside Improvements	77.4
	$123.2
(8) CENTRAL RAILROAD COMPANY OF NEW JERSEY SOUTHERN DIVISION	
Station Improvements	$ 4.0
Lineside Improvements	21.0
	$ 25.0

(9) **CENTRAL RAILROAD COMPANY OF NEW JERSEY FREEHOLD BRANCH**		
Rolling Stock		$ 3.0
Station Improvements		2.5
Lineside Improvements		4.5
		$ 10.0
(10) **CENTRAL RAILROAD COMPANY OF NEW JERSEY CENTRAL DIVISION** — Newark to Raritan via Newark Airport		$ 47.0†
	SUBTOTAL	$713.0
RAPID TRANSIT		
(11) **PEOPLE MOVER** — To Serve Newark CBD and Penn Central and Erie Lackawanna Passenger Stations		$ 15.0‡
(12) **NEWARK CITY SUBWAY EXTENSION** — Penn Station to Irvington Center		$ 70.0‡
(13) **NEWARK CITY SUBWAY EXTENSION** — Penn Station to Ironbound District		$ 50.0‡
(14) **RIDGEWOOD TO NEWARK VIA PATERSON AND ERIE LACKAWANNA NEWARK BRANCH**		$120.0‡
(15) **EMERSON TO MANHATTAN VIA WEST SHORE R.O.W. AND NEW HUDSON RIVER TUNNEL**		
Rolling Stock		$ 46.8
Station Improvements		31.0
Lineside Improvements		32.2
		$110.0
(16) **HACKENSACK TO WEST SHORE LINE**		$ 20.0‡
(17) **HUDSON COUNTY SUBWAY** — Bayonne to Fairview Along Spine of Palisades		$450.0‡
(18) **GREAT NOTCH TO NEW HUDSON RIVER TUNNEL**		$110.0‡
(19) **NEWARK TO PROPOSED MEADOWLANDS CBD**		$133.0‡
(20) **NEW YORK AND LONG BRANCH** — Bay Head to Red Bank		
Rolling Stock		$ 11.2
Station Improvements		4.0
Lineside Improvements		15.8
		$ 31.0
SUBTOTAL		$1109.0

PRESERVATION OF EXISTING RIGHTS OF WAY AND FACILITIES 75.0

Includes but not limited to:
CNJ Mainline —
Plainfield to Raritan and Hampton
High Bridge Branch
Freehold Branch
Seashore Branch
PRSL — Various Lines in South Jersey

TOTAL $1897.0

PROJECTS TO BE MOVED FORWARD BY OTHERS

(21) NEW HUDSON RIVER TUNNEL AND RELATED FACILITIES

(22) KEARNY CONNECTION

(23) SECAUCUS CONNECTION

CENTRAL RAILROAD COMPANY OF NEW JERSEY CENTRAL DIVISION — Newark to Raritan via Newark Airport (Partial by State and Partial by Others).

(24) PATCO Extension — Lindenwold to Atlantic City

(25) PATCO Extension — Camden to Glassboro

(26) PATCO Extension — Camden to Burlington

(27) PATCO Extension — Mount Laurel to Mount Holly

(28) PATCO — Residual Improvements to Lindenwold Line and Construction of Woodcrest Station

(All Amounts in Millions)
† State Share Only
‡ Order of Magnitude Estimate

LEGEND

- UNDER CONSTRUCTION OR COMMITTED
- COMPLETION OF INTERSTATE SYSTEM
- FREEWAYS
- DUALIZATIONS
- WIDENINGS
- SPOT IMPROVEMENTS
- BY OTHERS
- STUDY
- RAIL IMPROVEMENTS

STATE AIRPORT SYSTEM

EXISTING		NEW
■	BASIC TRANSPORT	□
▲	GENERAL UTILITY	△
▼	BASIC UTILITY	▽
	STOL SITE AREA	+

NOTE: GENERAL AVIATION AIRPORTS THAT ARE NOT IN THE STATE AIRPORT SYSTEM BUT INCLUDED ONLY FOR IDENTIFICATION ARE MARKED WITH AN X

○ DENOTES PUBLICLY OWNED AIRPORTS. NEWARK AIRPORT, A PUBLICLY OWNED AIR CARRIER FACILITY, IS NOT SHOWN ON THIS MAP.

SUSSEX
WARREN
MORRIS
PASSAIC
BERGEN
HUNTERDON
SOMERSET
MERCER
MIDDLESEX
UNION
ESSEX
HUDSON
MONMOUTH
OCEAN
BURLINGTON
CAMDEN
GLOUCESTER
SALEM
ATLANTIC
CUMBERLAND
CAPE MAY

NEW YORK
NEW JERSEY
DELAWARE RIVER
DELAWARE BAY
UPPER NEW YORK BAY
RARITAN BAY
STATEN ISLAND
BROOKLYN
MANHATTAN
ATLANTIC OCEAN

TRANSPORTATION CENTER

1972 TRANSPORTATION MASTER PLAN

STATE OF NEW JERSEY

PREPARED BY
NEW JERSEY DEPARTMENT OF TRANSPORTATION
IN COOPERATION WITH
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MAP SCALE: 0 4 8 12 16 APPROX. MILES