

SUFFOLK COUNTY COMPREHENSIVE TRANSPORTATION PLAN SUMMARY

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RECOMMENDED IMPROVEMENTS

1978 - 1995

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INTRODUCTION

Goal

The goal of the Transportation Plan is to set forth recommendations aimed at remedying existing problems in the County's transportation system and to help insure that facilities are provided that will accommodate anticipated population growth and stimulate economic development, consistent with social, environmental and fiscal constraints.

Plan Background

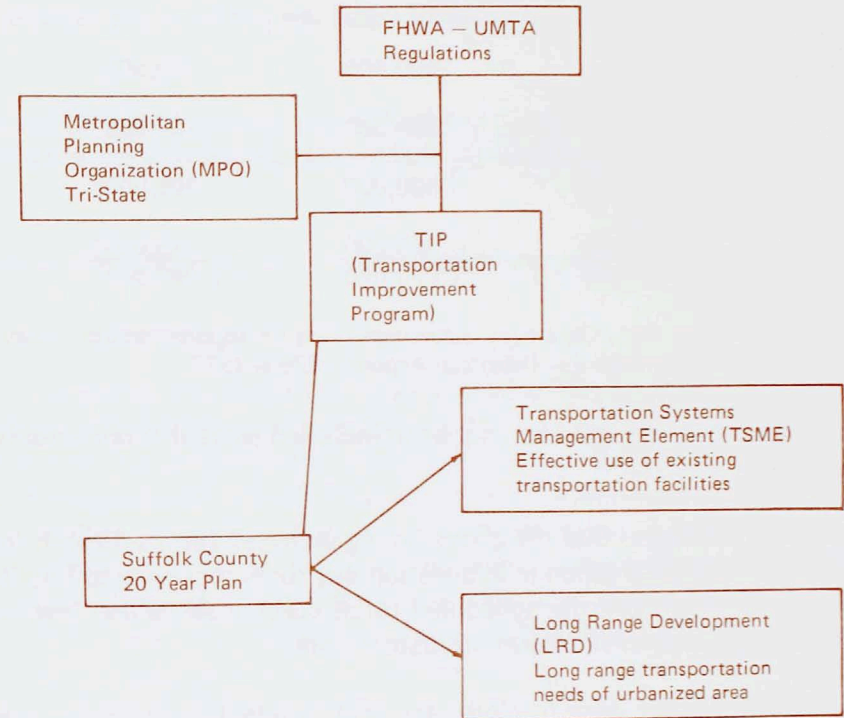
The plan is a result of a 3-year effort by the Department of Transportation and represents an update and modification of the Transportation Plan completed by the Bi-County Regional Planning Board in 1968. It reflects the influence of various factors such as the depressed economy and consequent decrease in population growth as well as an increased consciousness of limited energy resources and the growing concerns for the preservation of the environment. The new plan, like its predecessor, is for a twenty year period with a target date of 1995.

Work on the plan was begun in 1974 as a result of an agreement with the Tri-State Regional Planning Commission. The Federal regulations under which the plan was developed (Chart I) required that a plan consist of a transportation systems management element (TSME) and a long range element. The TSME is essentially the development of management strategies for obtaining more effective use of existing transportation facilities through generally low cost capital and/or operational improvements. Its key objective is the conservation of fiscal, energy and environmental resources. Examples of projects that would be in keeping with the concept of TSM include intersection improvements, signal upgrading, preferential treatment for transit and other high-occupancy vehicles, control and management of parking, etc.

The long range plan element provides for the long-range transportation needs and identifies new transportation policies and facilities or major changes in existing facilities.

The regulations further require the development of a transportation improvement program (TIP). This TIP is a staged multi-year program of transportation improvement projects which are consistent with the transportation plan.

CHART I
TRANSPORTATION PLANNING REGULATIONS

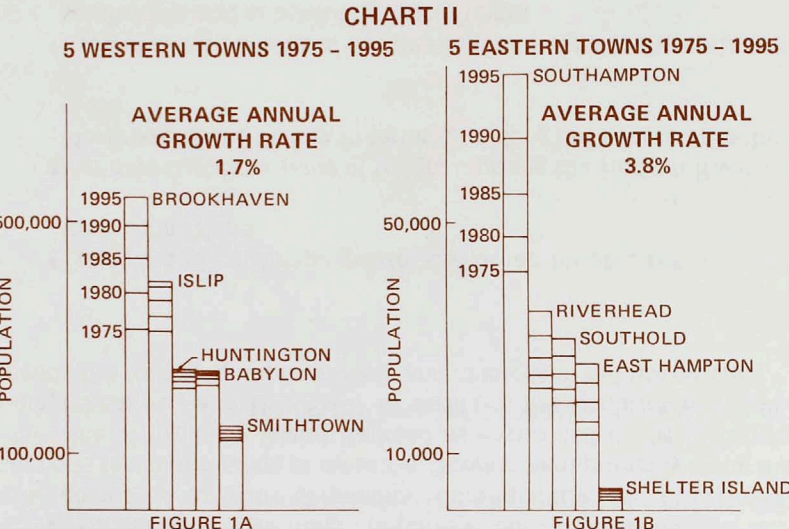


Future Development

Suffolk County will experience continued population growth through the end of the 20th century. The Long Island Regional Planning Board (LIRPB) estimates that by 1995, the population of Suffolk County will be 1,752,000, an increase of 36% from 1975. (See Chart II)

Numerically, the greatest increase in population will occur in Brookhaven town—from 317,000 persons in 1975 to 546,000 in 1995. The four western towns will experience lesser growth; but by 1995, it is expected that they, collectively, will have reached nearly 98% of their saturation population. In the five eastern towns the population is expected to increase by 73,700 persons, an increase of 77% over 1975 population.

By 1995, the size of the County work force will probably increase to 600,000 and private industry and government will provide employment opportunities for approximately 440,000 persons.



SUFFOLK COUNTY POPULATION GROWTH 1975 - 1995

The future land use plan, (Map I) which is a composite of town, village, and LIRPB plans, depicts residential development, with exceptions, as a continuation of the low densities which now exist. County-wide, Suffolk is expected to have a population density in 1995 of less than 2,000 persons per square mile compared to 1,400 per square mile in 1975.

Generally, the lands of the east end of Suffolk will remain in agricultural, recreational and very low (less than 2 dwelling units per acre) residential type uses. With the exception of beaches and parks, the major activities will be concentrated in the "downtown" communities.

In the western towns medium (3-7 dwelling units per acre) density residential development will predominate and industrial and commercial activity centers will be widely dispersed throughout. The central business districts (CBD's) of the older communities such as Babylon, Bay Shore, Patchogue, Huntington, Smithtown and Port Jefferson will continue as activity centers.

Trip Characteristics

The work trip constitutes approximately 20% of the total number of persons-trips on a typical weekday. It has a most significant impact on the transportation system because it occurs over a relatively short period of time in the morning and afternoon—the "rush hours".

An additional thirty percent of all daily trips are made for shopping or social/recreational purposes. Although these types of trips do not normally coincide with the peak hour period for work trips, they impose a heavy burden on much of the arterial street system during the day.

These three trip purpose categories constitute a major share of the daily trips and more than 90 percent of them are made by private automobile. The average number of persons per vehicle for these trip purposes is less than 1.5. In other words, every two automobiles are carrying about three people.

This predominance of the automobile is not likely to change significantly during the period encompassed by the plan. Automobile registrations, which exceeded 650,000 in 1975, are expected to increase to more than 950,000 by 1995.

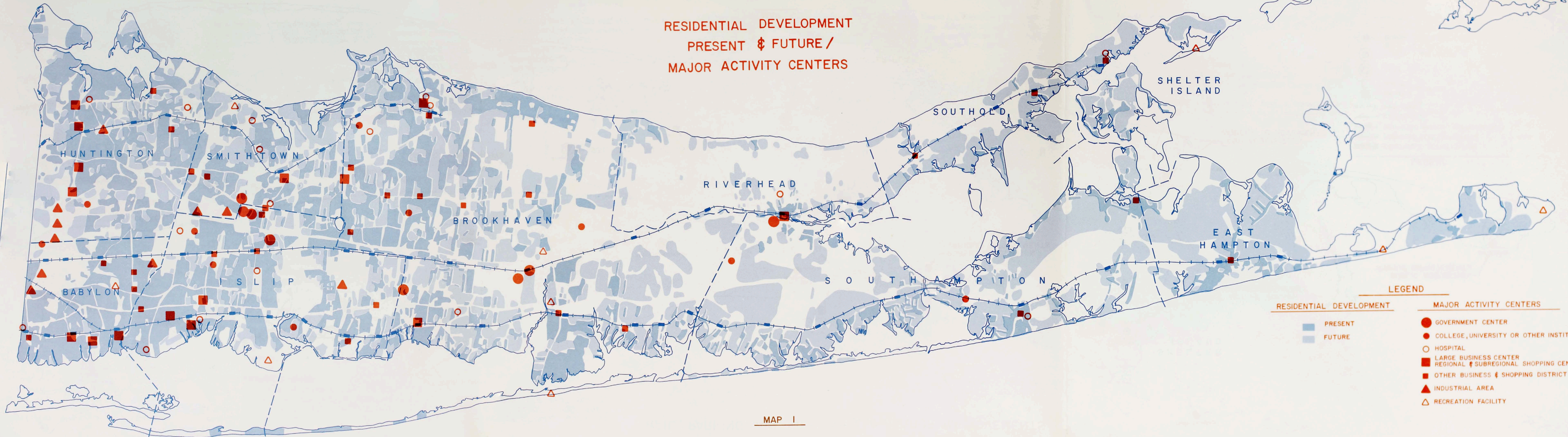
Two courses of action are evident from this analysis—encourage more group trip-making (i.e. car pools) and provide a viable public transit alternative. The Department's plan attempts to address these issues.

HIGHWAY TRANSPORTATION

The most significant element in the transportation system in Suffolk County is the highway network. Ninety percent (90%) of all trips and 65% of all freight movements take place on the road system.

Although population and vehicle registrations are expected to increase significantly by 1995, a program of limitless highway construction cannot be undertaken in order to meet the projected needs. Obviously there are economic, social, and ecological factors which enter into the consideration of just how much of the County's resources can be committed to the support of personal mobility.

**RESIDENTIAL DEVELOPMENT
 PRESENT & FUTURE /
 MAJOR ACTIVITY CENTERS**



Goals of the Highway Program

Improved service levels and system reliability, greater accommodation of pedestrian and bicycle activity within the traffic environment, and traffic safety improvements aimed at the reduction of traffic accidents are reasonably achievable goals.

Energy and Environmental Concerns

It is difficult to speculate about the net impact resulting from potential decreasing availability of fossil fuels, conservation programs, new energy sources and the development of more energy-efficient and less polluting automobiles. Nevertheless, during the coming 20 year period, changes will occur with regard to automobile travel. Although, as was mentioned, in Suffolk County the automobile will continue to be the dominant transportation mode.

A number of actions could serve to offset some increased auto use.

These include:

- Implementation of the Department's recommended improvements in bus and rail operations as described herein.
- Expansion of park and ride facilities along the major highway networks as well as an increase in the number of parking spaces at railroad stations.
- Location of future municipal and private office and industrial facilities only in those areas which have access by public transit as well as by automobile.

With respect to environmental concerns and the preservation of community values and continuity, it is desirable to minimize, to the extent possible, major new construction and/or reconstruction. Yet it must also be understood that there remain considerable areas within the County that are still relatively undeveloped, but which will undergo development within the planning period. Existing transportation facilities, including highways, will be inadequate to support the planned growth objectives in these areas and more extensive improvements will be required.

In terms of environmental assessments, it should be mentioned that the highway plan recommendations frequently suggest general solu-

tions to arterial problems. Thus a proposal to increase the capacity of a highway could result in widening its entire length, making intersectional improvements or combinations thereof. Each, of course, would have differing environmental consequences. Therefore, proper environmental assessments can be made only subsequent to the development of site-specific proposals.

In general, however, the recommendations of the Plan should be accomplished with a minimum of negative impact on the environment or community disruption through the diligent maintenance of existing facilities and relatively minor reconstruction where possible.

Attainment of the goal of improving mobility will contribute to the reduction of energy consumption and reduce costs of personal travel and goods movement.

Methodology

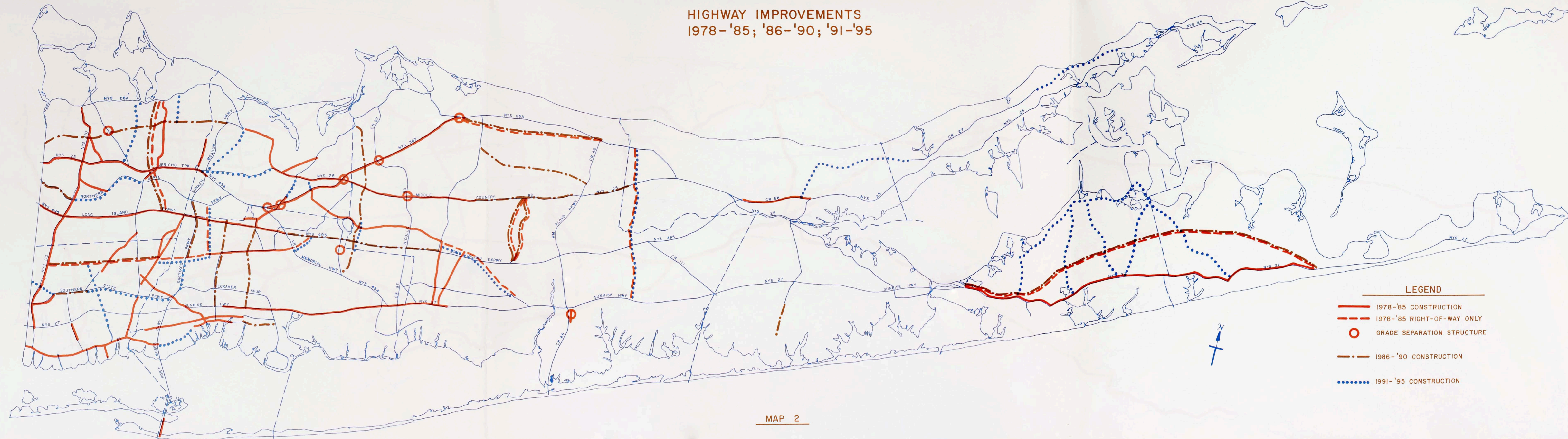
Future traffic volumes were determined by using an updated and modified version of the gravity model used for the 1968 Nassau-Suffolk Regional Planning Board's Transportation Plan. The gravity model (actually a series of models) constitute a set of mathematical procedures which simulate the main characteristics of the relationships between people and activities that generate trip movements. The projected 1995 traffic volumes on individual roads when compared with their existing maximum capacity (Level of Service E) indicated whether or not a deficiency would exist.

Map 2 depicts the recommended highway improvement plan for the periods 1978-85, 1986-90, 1991-95. Most of the projects designated for the 1978-85 Improvement Program are included in the Transportation Improvement Program (TIP). For the most part, the projects include State, County and major town road improvements. Relatively minor local streets are not shown. It is recognized that specific improvements and adjustments to local street networks may be necessary to accomplish the objectives of the specific local development plans. Since these local plans are considered within the overall County plan, there is an implied inclusion of such recommendations.

Major Highway Recommendations to 1985

The following projects which have been included within the 1978-85 time period are described in some detail, since they represent major components of the Highway Plan.

**HIGHWAY IMPROVEMENTS
1978-'85; '86-'90; '91-'95**



Central Long Island Corridor-Conklin Street Extension

It is recommended that a continuous arterial highway be constructed between N.Y.S. 110 and the L.I.E. approximately along the right-of-ways of Conklin St., Long Island Avenue, Pine Aire Dr., Suffolk Avenue and Old Nichols Road. A route survey would be necessary to determine the precise alignment so that railroad crossings would be minimized. The proposed road would serve Republic Airport, the N.Y.S. 110 Industrial corridor, as well as local residential and commercial needs. It is anticipated that the proposed road would divert a significant amount of local commercial and industrial traffic from the Long Island Expressway and thus relieve some congestion.

Central Long Island Corridor-Long Island Expressway

This facility currently experiences peak hour overloading as far east as Nicolls Road (CR 97). It is by far the most heavily utilized highway in Suffolk County and will continue to maintain this status during the entire planning period. Additional capacity is needed now, at least as far east of the Nassau/Suffolk line as N.Y.S. Route 111 in Hauppauge. This can be achieved by constructing additional lanes and/or connecting specific service road segments, where practicable.

Grade Crossing Eliminations

Projects are proposed for Park Avenue, William Floyd Parkway and Lakeland-Ocean Avenue. The train frequency together with the heavy volumes on these roads warrants the elimination of at-grade crossings in order to facilitate traffic movement.

N.Y. State Route 110

The Route 110 corridor has experienced tremendous commercial and industrial growth between N.Y.S. Route 25 and Southern State Parkway and this highway is currently unable to adequately accommodate the traffic volumes that are imposed upon it. As a minimum, two additional lanes (one in each direction) should be constructed. Since this corridor, in addition to serving local land development is also critical to the provision of adequate north-south linkage to the major highway network and the western Suffolk activity areas served by it, a reconstruction of Route 110 to limited access standards would be more desirable, if achievable.

New Highway

Consideration should be given to the improvement of New Highway

between Sunrise Highway and the Long Island Expressway to alleviate some of the deficiencies in the Route 110 corridor if significant capacity increases cannot be achieved on Route 110 itself.

Northport-Babylon Expressway

This expressway was originally proposed for construction in the 1960's and sections of the right-of-way were acquired. The project has stagnated and is not included in current relatively short-term N.Y. State Department of Transportation proposals. Nevertheless, in the absence of an adequate north-south facility to serve this corridor, substantial overloading of the local system is occurring. Public opposition to widening of these local roads and the anticipated increase in demand for traffic service through this corridor from the Long Island Expressway north to N.Y. State Route 25A, indicates a need to reactivate this project within the indicated limits. Plans for construction of the portion of the proposed Babylon-Northport Expressway south of the Long Island Expressway should be reevaluated.

N.Y. State Route 111

Veterans Memorial Highway between Northern State Parkway and N.Y. State Route 347 is severely overloaded during peak traffic periods. This section of highway consists of 6 lanes and further widening is not practical. Aside from some improvement in signalization little can be done to further accommodate existing demand.

The construction of the proposed Hauppauge Spur could serve to alleviate the traffic on Veterans Memorial Highway by providing an alternate route. However, continued development in the proposed construction area appears to obviate the completion of the Spur.

As an alternative, it is recommended that N.Y. State Route 111 be widened to four lanes from the Long Island Expressway northerly to Maple Avenue. This widening, coupled with the recommended improvement to N.Y. State Route 347, the construction of grade separations at Route 347 and Veterans Memorial Highway at Route 347 and N.Y. State 111 should serve to facilitate flow from the Long Island Expressway as an alternate to the Spur.

Northern Brookhaven Corridor-N.Y. State Route 25A

The Town of Brookhaven will experience the major portion of the

growth projected for Suffolk County by 1995. Some effects of this growth are already evident in the northerly part of the Town where traffic volumes far exceed the design capacity of N.Y. State Route 25A. The ability to expand the capacity of this route sufficiently to accommodate existing traffic and future volumes is highly questionable without incurring substantial damage to the existing abutting land uses which are served by it. It is recommended, therefore, that an east-west by-pass route be constructed between Nesconset Highway and William Floyd Parkway.

In addition, there will be a further need for an east-west highway facility, roughly mid-way between N.Y. State Route 25A and N.Y. State Route 25, to provide for local access and through movement in the four to four and one-half mile corridor included within the State routes. Proposed County Road 111 could serve this purpose. The recent donation of the RCA property in this area to New York State for conservation purposes requires a reevaluation of the future highway improvements previously recommended since a significant part of this property would have been used for residential purposes.

Smithtown Avenue

An improved Smithtown Avenue is required as part of the development of a transportation center at Ronkonkoma/Long Island MacArthur Airport. In particular, a new bridge is required where Smithtown Avenue crosses the L.I.R.R. tracks. The existing facility is structurally unsound, narrow and dangerous. Ultimately, all of Smithtown Avenue should be improved between the Expressway and Lakeland-Ocean Avenue.

Sunrise Highway—Bay Shore to Patchogue

Reconstruction to limited-access status is recommended.

Sunrise Highway—South Fork Extension

During the summer months, traffic volumes currently serving the South Fork substantially exceed the capacity of the two major east-west roads serving the area. By 1995, if the projected growth in population and land use development occurs, locally generated traffic on CR 39 and Montauk Highway will in itself be more than these roads can accommodate and the influx of summer residents and tourists will create an unmanageable situation. The possible development of alternative

transportation modes to accommodate this growth, i.e. rail and bus, in lieu of highway construction or reconstruction, and in the absence of a major change in public acceptance and use of mass transportation facilities, has been considered. While a local public transportation system, incorporating local feeder services, some fixed routes, and the Long Island Railroad is recommended for development in this Plan, it is unlikely that sufficient diversion of motor vehicle traffic will occur to obviate the need for increased capacity on the highway system.

The alternatives are therefore either to widen Montauk Highway sufficiently to accommodate growth or to develop a new facility to reduce the burden on the existing route.

It is the opinion of the Department that a widening of Montauk Highway would be extremely destructive to existing land uses and self-defeating. The more reasonable solution is the extension of Sunrise Highway from CR 39 to Amagansett as a parkway-type limited access facility to accommodate both automobile and truck traffic. The State should begin to acquire right of way for this purpose within the 1978-85 Capital Program period.

TOPICS Improvements

Initially, TOPICS type improvements on a large number of County and State roads will be undertaken during the 1978-85 period as part of the TSM element of the Plan. TOPICS is an acronym for Traffic Operations Program to Improve Capacity and Safety and usually consists of relative minor traffic engineering improvements such as traffic signal installation or modification, intersection approach widening, installation of turning lanes, etc. usually but not necessarily within existing right of way.

A major TOPICS improvement program is proposed for Pulaski Road during the 1978-1985 period. The Department estimates that these improvements could be expected to accommodate traffic demand for about 5 years. However, adequate east-west capacity is required through the northern corridor of the Town of Huntington due to the projected growth in traffic and the infeasibility of making substantial capacity improvements on N.Y. State Route 25A. Therefore, a widening of Pulaski Road to four lanes will be required in the 1986-90 period.

County Application of TSM Concept

A number of highway improvement projects that further the objective

of TSM have been included in the Transportation Improvement Program (TIP). Among these are restoration and preservation projects, TOPICS-type spot improvements at various locations, maintenance projects, traffic signal maintenance and repair programs, improvement of high accident locations, signing projects, the construction of commuter parking facilities at Long Island Railroad stations and park and ride projects along the Long Island Expressway. The continuation and expansion of projects such as these will be pursued in the coming years. In addition, the Department will study the feasibility of exclusive bus and carpool lanes on the Long Island Expressway and area wide car/van pooling programs.

Integrated Motorist Information System

A highly significant proposed program for facilitating the movement of traffic on the Long Island Expressway and Northern State Parkway has been developed for the New York State Department of Transportation entitled the Integrated Motorist Information System (IMIS). Utilizing sophisticated electronic equipment the system will endeavor to relieve traffic congestion on these facilities by providing information to motorists, metering and controlling traffic flow and diverting traffic to other facilities when predetermined levels of congestion are reached or exceeded. Funds for this project have also been included in the T.I.P.

BUS TRANSPORTATION

Introduction

Because of declining ridership and rising costs, the existing bus route system is, at best, a marginal operation in proportion to the population of Suffolk County. Nevertheless, improved bus operations coupled with more frequent rail service and supplemented by some form of flexible route feeder service, is essential if the County is to have an effective transportation system.

While the automobile will continue to be the primary transportation mode in the County for the foreseeable future, there is a significant segment of the population that is totally dependent upon public transportation. Thus, initial improvements to the transit system must be oriented toward accommodating the transit dependent citizens, which include the young, the handicapped or elderly, or those for whom an automobile is not economically feasible.

Transit Goals

Since local public transit is part of an integrated transportation system, the Department's transit plan reflects the following goals:

Short Range

- Stabilization of transit operations.
- Increase of public mobility by provision of accessible and usable transit service, particularly for the elderly, the handicapped, and other autoless individuals.

Long Range

- Creation of public transit as a viable alternative for some automobile trips.
- Encouragement of land use development which is served by and accessible to public transit.

The Department's analysis of transit operations indicates that the existing system is largely inaccessible to many of the transit dependent.

The projected 20 year population growth in Suffolk will further increase this need for public transit. This will be so in spite of the continuation of low residential population densities which act as a constraint on intensity of demand.

Future transit ridership will continue to be generated predominately by people lacking the availability of an automobile.

However, continually increasing costs of operating a private automobile, primarily for insurance and fuel, could potentially create a much larger transit dependent segment of the population.

Transit Potential

The majority of future local transit trips in Suffolk are expected to continue to be made for work and shopping purposes.

Further increases in public transit usage can be obtained by providing service to those activity centers which exhibit strong growth potential in the near future. Examples of these include the Route 110 corridor in Huntington and Babylon, SUNY at Stony Brook, industrial and

office development along the Veterans Memorial Highway corridor and the Long Island Railroad station at Ronkonkoma. Planned centers, such as at Manorville, also represent future possible destination for local transit trips.

System Development Alternatives

Several approaches to system development were evaluated for possible implementation. These include:

- a moderately expanded and modified version of the existing transit network
- an extensive fixed-route system
- the use of para-transit feeder services (dial-a-ride, subscription and alternating loop types of operations)
- combination thereof

System Selection

Because of the geographic extent of Suffolk, even a County-wide, highly-intensive fixed route operation would not be fully accessible to the majority of potential users. On the other hand, feeder services would limit mobility to relatively local areas. Hence, by combining fixed-route operations and feeder services thereto, accessibility would be greatly increased together with the ability to accommodate inter-community or long distance travel. Consequently, the Department recommends combining fixed-route with feeder service operation to maximize the potential benefits of both types.

Recommended Plan

It is recommended that the transit system development plan be implemented in two phases.

Phase I will provide needed service to a large number of transit dependent citizens at relatively low cost, and it can be implemented within a comparatively short period of time. Feeder services initiated under Phase I will provide additional passengers and revenues to the existing fixed route system, and together with proposed capital projects, will improve the economic vitality of these existing operations. It would include some expansion of fixed route services. These new fixed

routes will serve to close major gaps in the County's intercommunity line-haul bus operations. Only selected service improvements to existing routes are included in Phase I. Services proposed under this Phase would not, in general, increase service levels over those which currently exist. Map 3 depicts the improvements recommended for Phase I.

Further, Phase I will provide a basis upon which the improvements proposed in Phase II can be developed. The staging process will allow for monitoring the ability of the initial feeder and fixed-route extensions to increase transit use. Experience resulting from it will more clearly define the desirability and levels of support necessary for implementation of Phase II. The initial phase will permit adjustments in detailed planning, service development and evaluation to occur as operating experience is gained. For reasons previously described, the recommended improvements will require financial support.

The rate of Phase II implementation will depend to a great degree on the results of Phase I. The Phase II fixed-route network represents a minimal system required to facilitate general inter-community travel via public transit. (See Map 4)

The majority of the Phase II fixed routes are north-south and east-west oriented. They serve more than one major activity center and are aligned along major travel routes characterized by substantial commercial and/or residential development. Route termini and crossover points have been concentrated in various activity centers in order to provide multiple opportunities for passenger transfers.

A substantial portion of the existing system is incorporated within the Phase II network. Revisions to present routes are moderate so as not to disrupt established travel patterns. The overall delineation of the network, however, is intended to be both general and flexible to accommodate routing changes as plan implementation proceeds.

Phase I Goals

- new transit vehicles on fixed-routes for reliability, passenger comfort and system visibility
- vehicular accessibility for the transit dependent via regularly scheduled feeder services
- vehicular accessibility for the handicapped

Phase II Goals

- service frequencies of one hour or one-half hour depending upon the area served
- sixteen hour a day service on the majority of the system during weekdays if warranted by demand
- twelve hour a day service on Saturdays if warranted by demand
- nine hour a day service on Sundays if warranted by demand
- schedule coordination at transfer points utilizing timed-transfer scheduling to facilitate multiple transfer opportunities including coordination at rail stations
- uniform fare structure with passenger transfer provisions
- comprehensive marketing and information systems
- uniform color scheme and logo for vehicles and other system facilities

It is the Department's belief that the County should implement system operation by contract with private companies in order to facilitate start up time and constrain operating costs.

Conclusion

It is the belief of the Department that the preceding plan is responsive to the need for development of a systematic solution to the County's public transportation problems. While the primary thrust of the plan is to provide improved mobility to the transit dependent segment of the County's population, the plan, if adopted, will provide the basis for expanded service, as the need develops.

Phase I is estimated to require County funds of approximately \$900,000 after deducting fares and Federal and State operating funds. The full implementation of Phase II would require approximately \$4 million of County funds.

These estimated costs for the program are comparatively low when considering expenditures for this purpose in other areas of the region. There is no way that a public transportation system can be developed

without the financial support of government. The plan will provide a reasonable level of public transportation service to those who require it, while minimizing these costs.

RAIL TRANSPORTATION

Introduction

The Long Island Rail Road (LIRR), which is a subsidiary of the Metropolitan Transportation Authority (MTA), is one of the largest commuter railroads in the nation. The LIRR carries more than 200,000 passengers on an average weekday.

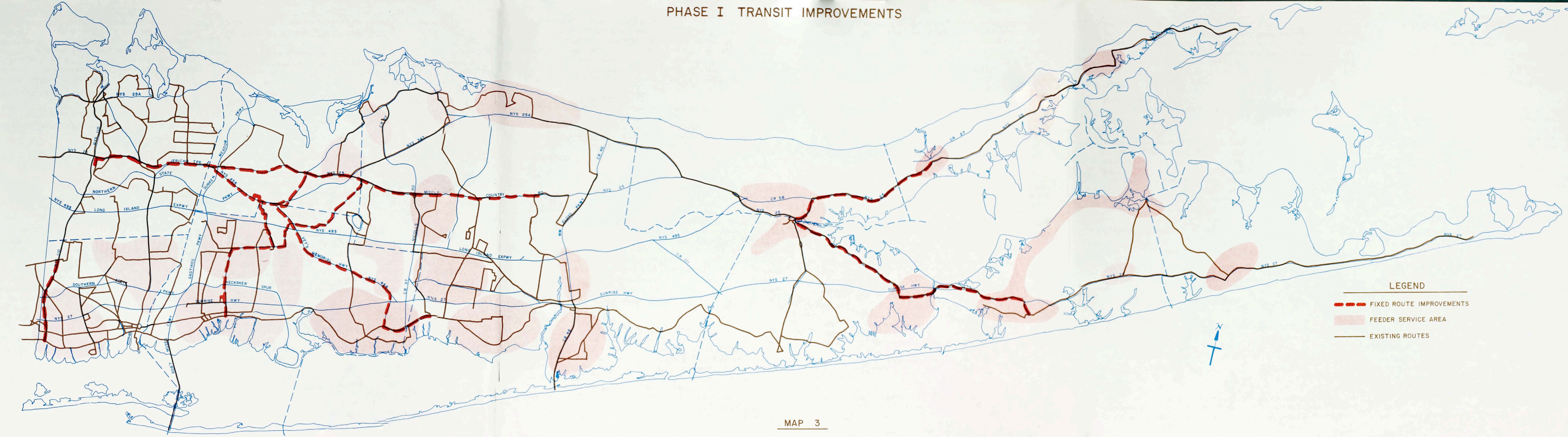
In addition to providing the only passenger rail service to Suffolk County, the LIRR also provides freight service to the County. During 1972, rail freight shipments to and from Suffolk accounted for 8% of the total freight movements in the County.

Passenger Operations

Although the primary function of the LIRR will remain as a passenger service to the New York City-oriented commuter, the role of the railroad for local trips should be expanded. To encourage more local use of the railroad however, will require both a change in the fare structure and an expansion of local service, the latter through the extension of electrification or more effective use of diesel runs. Initially, this might be done by further fare reductions for reverse commuters during peak periods and all users during off-peak periods. The reductions would have to be greater than the current 25% reductions in off-peak round trip fares coupled with a large promotional effort to encourage more use of the railroad for local (including bi-County) trips.

The Tri-State Regional Planning Commission forecasts that between 1975 and 1995 the number of Suffolk residents using rail for their journey to work will increase to nearly 40,000—which would be about 6-7% of the projected County work force in 1995. This represents the approximate percentage of the present County work force that are rail users. Thus, the forecasted increase in Suffolk rail commuters would keep pace with the projected growth in the County work force. The increase in rail users will likely occur primarily in Brookhaven Town where the population is expected to increase by 72% between 1975 and 1995.

PHASE I TRANSIT IMPROVEMENTS



MAP 3

Station Maintenance

There are 52 rail stations throughout Suffolk County. Since 1966 the County has been obligated for the operating and maintenance cost of these stations. Presently, these costs exceed \$2.5M annually. The Department recommends that the County evaluate the potential cost savings by County takeover of the station operation and maintenance functions. A change in the Public Authorities Law, which mandates these changes, would be required to effectuate a County takeover.

Freight Operations

Long Island Railroad freight operations represent a small but significant portion of the overall company operations. Despite a decline in rail freight operations in recent years, these operations should continue and should be expanded to benefit all of Long Island. On the basis of no increase in the per capita freight volumes, the anticipated 1995 Suffolk County population would generate approximately 11 million additional tons of freight annually compared to the present. If the current freight patterns were to remain, an estimated 800,000 trucks annually would be required to move this freight into and out of the County, adding further congestion to the highway network. In terms of energy consumption, rail freight requires about 75% less fuel per ton-mile compared to truck shipments. Consequently, the Department supports the continuance of industrial development primarily along the main line of the Long Island Railroad as envisioned in the bi-County Comprehensive Land Use Plan. In addition, the Department recommends the following improvements and changes in rail operations.

- Consider County takeover of station operation and maintenance function
- Assess the results of the MTA Management Study and New York City-Long Island Intermodal Freight Study as related to passenger and freight operations of Long Island Railroad

The Long Island Railroad system encompasses a large geographical area in Suffolk County. Its utilization outside of the peak commuter periods is minimal. Upgrading off-peak operations, combined with new and improved throughout the day bus transit services, could form the east-west and north-south matrix necessary for instituting public transportation in Suffolk. Economic, environmental and energy constraints will probably seriously limit large scale highway improvements including new highway locations in the near future. The potential may now exist to create a viable transit alternative for some auto users in Suffolk County.

AIR TRANSPORTATION

Introduction

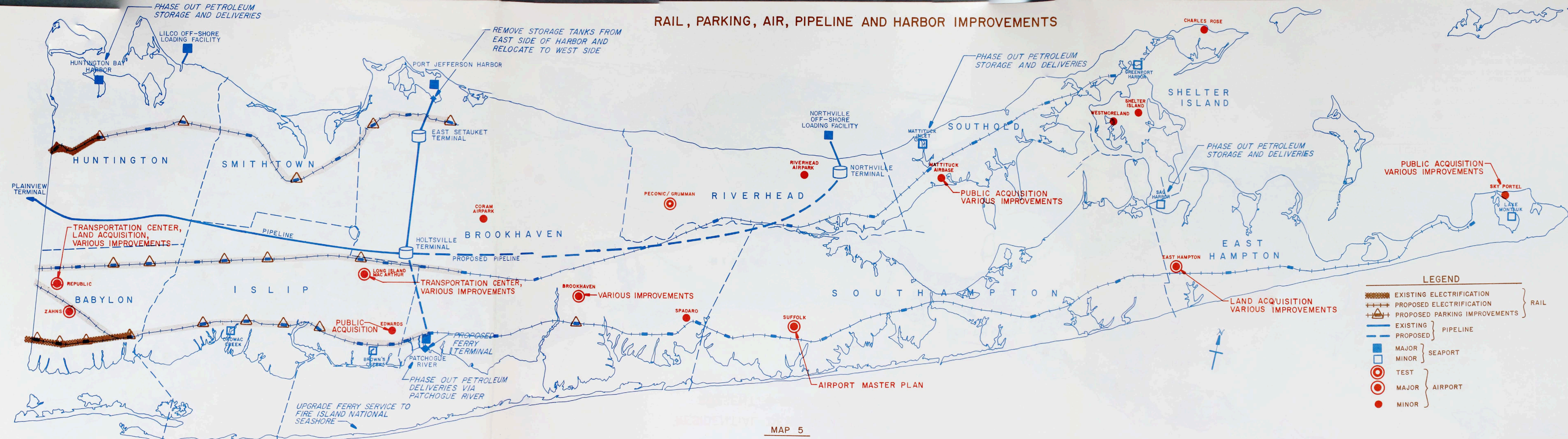
At the present time, all of the County's airports, with the exception of Long Island-MacArthur operate as general aviation (GA) facilities. As such, these facilities form a relatively small portion of an integrated transportation system for Suffolk County. If the regional forecast of a 77% increase in general aviation operations by 1987 is realized in Suffolk County, the current capacity of the major airport facilities will be substantially exceeded and the dependence upon private airports, which currently handle less than three percent of the annual movements taking place in Suffolk County, will be substantially increased.

Airport Capacity

Listed on the next page are the annual operations, practical annual capacities, and 1986 forecasted operations for the major airport facilities in Suffolk County.

- Promote and encourage greater use of rail for shipments to and from Long Island
- Evaluate cost-time value of freight crossing the Hudson River via Maybrook versus Selkirk in terms of making rail a more attractive mode
- Evaluate cost-benefits of terminating rail freight to the north and south forks and substituting truck freight
- Establish better coordination between the County, MTA, Long Island Railroad, Freight Users Association, and Commuter groups on proposed improvements to system.

RAIL, PARKING, AIR, PIPELINE AND HARBOR IMPROVEMENTS



MAP 5

Facility	1975 Annual Operations	Current Capacity	1986 Forecasted Operations
Republic	243,000	200,000	338,000
Zahns	240,000	180,000	645,000
Long Island- MacArthur	346,000	490,000	699,000
Brookhaven	153,000	180,000	167,000
Suffolk	116,000	300,000	205,000*
East Hampton	25,000	300,000	45,000*
Totals	1,092,000	1,650,000	2,099,000

*Not forecasted by FAA. Operations estimated based on regional growth. Source: F.A.A. Airport Master Records—Individual Airports 1976 & 1977.

The airport at Calverton has not been included since it is not a public use facility.

It should be noted that the above listing includes Zahn's Airport, the future availability of which is in question due to its proximity to Republic Airfield. It is currently scheduled to be purchased by the Town of Babylon and converted into an industrial park.

If Zahn's Airport were to close, the total available capacity at Suffolk's major airports would be for 1,470,000 operations. The proposed expansion of Republic's facilities would not make up for the loss of Zahn's.

A recent Tri-State study revealed that future passenger activities at the three major airports (Kennedy, La Guardia, and Newark) may be limited by decreasing access capacity rather than the potential capacity increases necessary at the airports themselves. This limitation could result in spillover to other airports such as Long Island-MacArthur.

Air Carrier Services

The only facility in Suffolk County providing air carrier service is Long Island-MacArthur Airport.

The total number of passengers enplaned and deplaned in 1975 was 187,180. This number is projected to increase to 490,000 by 1995.

While this represents a substantial increase in air carrier service at Long Island-MacArthur Airport, it is less than 10% of the Nassau/Suffolk generated domestic trips forecasted by the Tri-State Planning Commission for 1995. Most of the remaining trips would continue to be handled by the three Port Authority airports. The Tri-State study further projected that between 629,000 and 725,000 trips might be dispersed from the Port Authority airports to Islip, depending upon the implementation of various access improvement options.

Air Cargo

Only 10% of Suffolk's air freight is handled within the County. By far, the bulk of it is handled at Port Authority airports, particularly at Kennedy. The development of a proposed free trade zone at Long Island-MacArthur Airport could substantially increase the amount of cargo within Suffolk and change the current pattern of air freight movement into New York City.

Airport Planning

The 1972 National Airport System Plan included a number of recommended development items for the purpose of improving operations at the following Suffolk County airports:

Edwards, East Hampton, Republic, Fishers Island, MacArthur, Mattituck, Sky Portel and Brookhaven. These improvements include such items as land acquisition, runway improvements and approach aids.

The Tri-State Regional Planning Commission has developed a regional airport plan which will be available in the near future.

Airport master plans have also been developed for Republic Airport, East Hampton Airport, and Brookhaven Municipal Airport. In addition, an airport master plan is under development for Long Island-MacArthur Airport and Suffolk County Airport.

As envisioned in the earlier Bi-County Transportation Plan, Long Island-MacArthur Airport, together with Republic Airport were to become major transportation centers combining rail, bus, auto and air interchanges. The access limitations at the major airports mentioned above, with attendant potential increased activities in Suffolk should focus on the need to begin implementation of the transportation center proposals.

Summary and Conclusions

The existing major general aviation airport facilities in Suffolk County do not have sufficient capacity to meet projected growth over the next ten years. If future demands are to be met, substantial reliance will have to be placed upon the minor airport facilities which are currently in private ownership. To prevent the loss of these private facilities to other types of land use, public acquisition, as recommended in the National Airport System Plan, is the only way to assure their availability for the future. In addition, increased capacity at the existing major airport facilities in Suffolk County, as generally advocated in those airport master plans which have been completed, will be required.

WATERBORNE TRANSPORTATION

Freight

The seaports and waterways of Suffolk County provide a significant and not readily replaceable contribution to the County's transportation system. The principal commodities handled are petroleum, sand and gravel, crushed and broken stone, and fish and shellfish.

Petroleum products presently account for the greatest proportion of the commodities handled at the County's ports; however, according to one source, domestic oil production will be heavily constrained by 1985 and will decline rapidly thereafter. Other constraints on the consumption of petroleum products in the form of higher fuel prices, gasoline taxes, or rationing of fuel supplies could further serve to reduce the volume of this commodity moving through the County's ports and minimize or eliminate the need for expansion of port facilities to accommodate it.

To date, however, and in the absence of the above-noted constraints, the continued and expanding dependence upon those products which are particularly suitable to marine transportation has created the need for critical appraisal as to the County's ability and willingness to accommodate this growth. Further expansions must be considered in the light of environmental and/or land use objectives which may conflict with the need to meet the physical requirements of these industries.

As a practical matter, the expansion of seaport facilities within the County is hampered by the lack of available space, restrictive zoning, and public opposition which not only challenges the expansion of these industries, but their current existence within the harbor areas.

Yet this waterborne commerce is, and will remain, a significant element in the economy of Suffolk County. Aside from its contribution to employment and to the tax base, the movement of these commodities by water greatly reduces their transportation costs. In addition, if they were to be brought into the County by truck, they would add appreciably to the region's and to the County's highway traffic.

Coastal Zone Management Study

The Long Island Regional Planning Board has completed its Coastal Zone Management Study (CZM) which was undertaken for the purpose of identifying and protecting critical environmental areas along the shoreline. During the course of this study, efforts were made to coordinate the recommendations of the Transportation Plan in order to reflect the perceived direction and objectives of the CZM study.

General Recommendations

There are several broad recommendations which can be made and which would be at once responsive to transportation needs and environmental concerns. These include the movement of non-water dependent commercial activities away from the waterfront areas; the removal of sand and gravel and crushed stone operations from the shoreline; petroleum storage tanks relocated inland with pipeline connections to off-shore facilities, thus retrieving harbor areas for recreational use and enhancing their aesthetic and environmental quality; concentration of petroleum receipts at relatively few locations to reduce importation and handling costs, as well as to reduce the danger of spills resulting from the transfer of shipment from smaller to larger craft; distribution of petroleum products via pipeline to various points in the County in order to reduce transportation costs and to improve vehicular access to these areas for other purposes.

Specific Recommendations

The major terminals for petroleum imports are Port Jefferson Harbor, the offshore loading facility at Northville and the Long Island Lighting Company plant in Northport. Future petroleum imports should be concentrated at these locations.

Existing tanks on the east side of Port Jefferson Harbor should be removed and petroleum deliveries handled through one unloading facility, either located offshore or on the west side of the harbor. The petroleum products would then be pumped through the pipeline which now connects the tank farms in south Setauket, Holtsville, and Plainview and the proposed tank farm in Wyandanch.

The offshore loading facility in Northville should be connected by pipeline to the existing facility at Holtsville. Tank farms located along the pipeline would serve as distribution centers. This would permit the abandonment of most petroleum storage facilities in other seaport areas.

Petroleum storage facilities should be removed from Huntington, Cold Spring Harbor and Greenport Harbor and the harbor area converted to recreational use.

Similarly, the importation of petroleum products through the Patchogue River should be phased out and petroleum products pumped to the existing storage facilities at Patchogue through a pipeline connection to Holtsville. Alternatively, and perhaps preferably, the storage tanks could be relocated inland.

The importation and storage of petroleum products at Mattituck Inlet and Sag Harbor should also be phased out.

Oil terminal facilities at Greenport Harbor would be desirable for supplying the needs of the North Fork. However, the existing problems of traffic circulation within the village may hamper its use for this purpose.

Sand and gravel, and crushed and broken stone are essential to the construction industry. It does not necessarily follow, however, that storage of these products must be accommodated in the harbor areas. Inland storage is possible and should be considered.

A study by the U.S. Bureau of Mines estimated that by 1985 all production of sand and gravel would be for local consumption and that present reserves on Long Island would be exhausted by about 1987. This, if it occurs, would obviously result in a shift in traffic in this commodity from export to import. The demand for this product and crushed and broken stone, however, will continue to grow, and the

Bureau of Mines has estimated that, for the L.I. Sound Region, it will increase by about 70% over 1970. The quantities moving through Suffolk County ports, however, if they are imported solely for distribution within the County, could be expected to diminish sharply.

Ferry Service

In terms of passenger movement, waterborne transportation in Suffolk County encompasses three general categories; namely, access to the recreational facilities of Fire Island, year-round access to Shelter Island which has no land access routes; and finally interstate transportation between the north-shore of Suffolk County and Connecticut.

Fire Island

Proposals for limiting the intensity of development on Fire Island because of its environmental fragility will preclude the necessity for additional large scale ferry operations from the mainland. Hence, it would appear that adequate service will be available for the foreseeable future with some slight modifications to the current private operations.

Shelter Island

Within the planning time frame under consideration, the population of Shelter Island is projected to increase from 2,000 to 4,000 people. Again the nature of the area coupled with the forecasted population would not warrant the provision for access to the island via a bridge. Consequently, the present ferry service should be sufficient to accommodate the future growth anticipated.

Cross Sound Ferry Service

Two routes provide service between Suffolk and Connecticut. The one operating out of Port Jefferson Harbor operates seasonally for primarily recreational trips. The service from Orient Point is year-round. In terms of a viable year-round transportation link for relieving Suffolk County's "dead-end" status, it is questionable whether suitable large scale ferry operations can meet the need. Potential sites, identified by Tri-State in its recent report as suitable for large scale ferry service, were either too far removed from the population center (Orient) or would have severe land access problems (Port Jefferson). All year ferry service is also subjected to the vagaries of the weather which prevail on Long Island Sound. From a solely transportation view, it is doubtful that ferry

service could sustain a large demand for traffic between the two regions. In addition, there are strong economic factors that warrant consideration of the construction of a bridge.

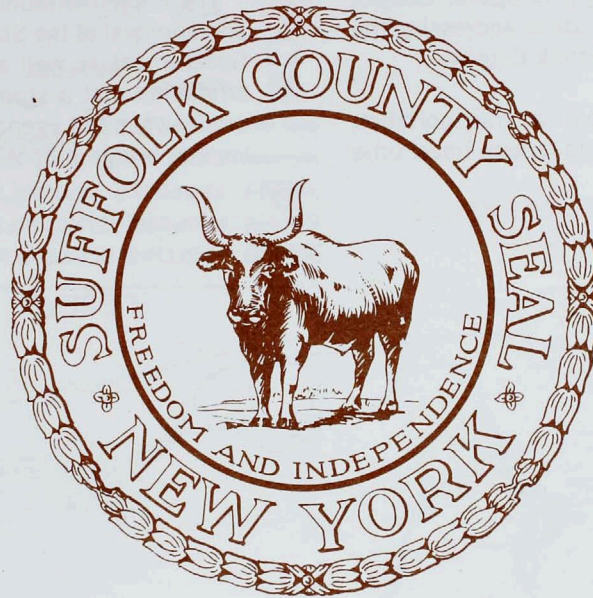
Long Island Sound Bridge

The long-discussed proposals for constructing a bridge or bridges across Long Island Sound are proper issues to include in addressing the overall transportation system requirements for Suffolk County.

A bridge from Suffolk to Connecticut, from a transportation standpoint, offers considerable advantages. It would reduce travel time

and costs for these inter-state trips, reduce congestion on existing arterial highways to the west, reduce the isolation of Suffolk County which may result from this congestion, and by ending the dead-end status of the County, possibly result in lower freight rates.

The implementation of such a project would require the cooperation and approval of the States of New York and Connecticut and the Federal Government as well as local officials. The Department therefore recommends that a study group should be established composed of the previously cited agencies to explore fully the issues surrounding these various bridge proposals.



SUFFOLK COUNTY

TRANSPORTATION
DEPARTMENT

