



# Access to Transportation on Long Island

White Paper

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## Section 1 Introduction

Suburban Long Island's transportation system is a vast amalgam of facilities, systems, and services which together provide for the mobility needs of over 3 million residents. The transportation system is called upon to provide mobility over a large spatial area of over 1,199 square miles featuring settlement patterns which range from moderate density suburban areas to lower density rural areas.

In light of this, the New York Metropolitan Transportation Council (NYMTC), on behalf of its member agencies on Long Island, undertook the development of a definition of "adequate access to transportation" for Long Island to guide public policy decisions, and the formulation of guidelines to inform policy makers as they make decisions about transportation improvements in the future. Based on extensive research and outreach efforts to representatives of stakeholder groups and the public (which are documented in separate technical and public involvement reports), this white paper summarizes key guidelines and suggests roles for public entities and partner organizations from other sectors in the provision of transportation services and facilities for those who live and work on Long Island.

Long Island residents need transportation options in order to go to work or school, shop and conduct personal business, access services, take advantage of recreational opportunities, and participate in other community activities. Today the automobile is the dominant mode of travel in suburban Long Island. Despite the fact that Nassau and Suffolk counties are served by an extensive network of roadways and fixed route rail and bus services, as well as demand response transportation services, some groups of Long Islanders experience limitations with regard to their mobility options. These individuals do not have access to a car, are unable to use the rail and bus systems (because of a disability, the lack of a means of traveling to a rail station or bus stop, income limitations, or the need to travel when fixed route services are not in operation), and have no demand responsive option available to them (such services are often limited to specific geographic areas, eligible riders, and/or eligible trip types).

In today's climate of constrained public resources and numerous competing demands for those resources, without successful coordination, it is unreasonable to expect that the entities that fund and provide transportation facilities and services in Nassau and Suffolk counties will be able to address all mobility needs completely. Not all geographic areas, individuals and trips can be served equally on the roadway network by traditional rail and bus services or by public demand response services. Moreover, other public sector agencies, for-profit and not-for-profit organizations, and individual travelers themselves also have roles to play in the provision and use of mobility options.

The paper begins with a brief description of current transportation facilities and services in Nassau and Suffolk counties, and a depiction of various mobility options. A definition of access to transportation is then presented. Guidelines for public policy makers that would support the maintenance or enhancement of access to transportation are also provided. Examples of possible strategies for improving mobility options for Long Island residents are presented in Appendix A.

## Section 2 Current Transportation Facilities and Services

The network of roads and railways on Long Island, and the bus, rail and demand response transportation/paratransit services that make use of those facilities, are summarized in this section.

### 2.1 Roadway and Rail Networks

The roadway network on Long Island consists of highways and streets in a number of functional categories: principal arterials, minor arterials, major and minor collectors, and local streets. Classifications and definitions vary between urban and rural areas, and, as in other areas that developed around cities following World War II, the roadways in portions of Nassau and Suffolk Counties do not form a completely connected network. In general, however, arterials serve interstate and/or intercounty trips and connect larger communities and activity centers; collectors serve shorter, intra-area trips and connect smaller communities with the arterial system; and local streets provide access to larger roads.

These highways and streets are owned and maintained by New York State Department of Transportation and other state agencies, Nassau County, Suffolk County, and cities, towns and villages.

Centerline highway miles on Long Island, by county and owner, are shown in Table 1.

**Table 1: Centerline Highway Mileage, 2004**

Roadway Owner	Nassau County	Suffolk County	Total
City, town or village	3,412	6,430	9,842
County	499	421	920
New York State DOT	218	506	724
Other state entity	11	104	115
<b>Total</b>	<b>4,140</b>	<b>7,461</b>	<b>11,601</b>

Source: 2004 Highway Mileage Report for New York State, obtained from New York State Department of Transportation website, August 2006.

Nearly 85% of the centerline miles of highway on Long Island are owned and maintained by cities, towns, or villages. Nassau and Suffolk Counties are responsible for about 8% of the centerline miles, while NYSDOT and other state agencies, authorities and commissions own and maintain about 7% of the highway centerline miles.

The MTA Long Island Rail Road Rail (LIRR) system includes over 700 miles of track between the East End of Long Island and Manhattan.

Efforts to maintain and improve these facilities (as well as bridges, bikeways, and pedestrian facilities) are planned in accordance with requirements established by the federal government.

Compliance with those requirements is necessary in order for the NYMTC region to receive Federal transportation funding.

Planning of projects to maintain, modernize, and expand transportation rights-of-way and services is carried out in urbanized areas by designated Metropolitan Planning Organizations (MPOs), which are regional councils. NYMTC is the designated MPO for the New York Metropolitan area. On Long Island, NYMTC's member agencies include Nassau and Suffolk counties, the Metropolitan Transportation Authority, and the New York State Department of Transportation. Each of these entities participates in the MPO planning process to secure Federal funding for transportation improvements. Additionally, these entities also maintain their own planning processes for the transportation facilities and services which fall directly under their jurisdictions.

MPOs are required to produce three planning products for their regions in order to maintain eligibility for Federal transportation funding:

- A long-range, multi-modal regional transportation plan, which spans a period of at least 20 years and is updated every three years
- A short-range Transportation Improvement Program (TIP), typically covering three to five years, which identifies and prioritizes projects that are necessary for implementation of the regional transportation plan
- An annual Unified Planning Work Program (UPWP) that includes planning projects that will be undertaken in the coming year

These products, which together comprise an on-going planning process, guide the development and implementation of transportation improvement projects on Long Island and throughout the rest of the NYMTC region. NYMTC's outreach to its member agencies, interested stakeholders, and members of the general public as these products are prepared ensures that the products reflect both regional and local needs and priorities.

## **2.2 Fixed Route Services**

A few of the main features of the primary bus and rail services in Nassau and Suffolk Counties – geographic coverage, days and hours of service, and service frequency – are described briefly below; other fixed route services that are available on Long Island are also identified. More detailed information about fixed route transit services can be found in Section 2.2 of the *Access to Transportation on Long Island Technical Report*.

### **2.2.1 Bus Service**

Four major public transportation providers offer fixed route bus service on Long Island: MTA Long Island Bus (MTA LI Bus), Suffolk County Transit (county owned, planned, and managed public bus services operated by private bus companies under contract to Suffolk County), Huntington Area Rapid Transit, and City of Long Beach Transit.

#### ***Nassau County Bus Service***

The major providers of bus service in Nassau County are MTA Long Island Bus and the City of Long Beach. Several bus routes originating in Nassau County travel into New York City (Queens) or western Suffolk County, providing service to key destinations and allowing for connections with trains, subways, and other bus services.

MTA LI Bus provides 24-hour service, although most routes that serve Nassau County do not operate 24 hours per day. Most of the county is served by bus routes that operate every day or on weekdays and Saturdays; MTA LI Bus also operates several routes on Sunday. In fact, one of the fastest-growing service segments is weekend travel. Service on all routes operating in Nassau County begins before 7:15 AM on weekdays. Apart from the N-6 Route, which operates 24 hours a day, weekday service on most routes ends at about 11:00 PM. On Saturdays, most routes begin about an hour later and end about an hour earlier than they do on weekdays. On Sundays, many routes start operating at about 8:00 AM and finish before 8:00 PM.

MTA LI Bus operates relatively frequent service. On weekdays, peak period service operates from every five minutes (on the N6 route) to every 60 minutes on some routes; most service runs approximately every 10 to 25 minutes. During the midday period, service on most routes operates approximately every 30 to 60 minutes, although several bus routes operate more frequently during the midday period, with as little as 10 minutes between trips. On Saturdays, service also operates approximately every 30 to 60 minutes, although a few bus routes operate more frequently. Finally, on Sundays service operates approximately every 60 minutes, with more frequent service on a few bus routes.

### ***Suffolk County Bus Service***

Bus service in Suffolk County is provided by Suffolk County Transit (SCT) and Huntington Area Rapid Transit (HART). Most of the county is served by bus routes that operate on weekdays and Saturdays; some bus routes in the Town of Huntington run only on weekdays. In general, service begins between 6:00 and 8:00 AM and ends by 8:00 PM. The frequency of service during morning peak hours varies quite a bit by route, ranging from 30 minutes to 90 minutes or more between trips. The frequency of service during evening peak hours also varies by route. West of the Town of Riverhead, service operates every 60-89 minutes. East of Riverhead, on the north and south forks, the frequency of service ranges from 30-44 minutes in some areas to more than 90 minutes in others. There is a good deal of variability in the frequency of service during midday hours as well. In the western section of the county to the Town of Brookhaven and on the North Fork, service operates every 60 to 89 minutes. On the South Fork, routes operate with frequencies of 90 minutes or more during the middle of the day on most routes; service on Route S-92 operates every 60 minutes during the midday (but ranges from 20 to 30 minute frequencies during peak hours).

### ***Bus Services Provided by Other Public, Private and Institutional Entities***

Additional bus services are currently offered by Stony Brook University, Adelphi University, Hofstra University, Dowling College, the Village of Patchogue, the City of Glen Cove, Greyhound, Shortline Coach USA, Adirondack Trailways, and the Hampton Jitney. Some of these services function as local shuttles and circulators within communities or on campuses, while others focus on service between Long Island communities and Manhattan or other destinations.

## **2.2.2 Rail Service**

The MTA Long Island Rail Road provides daily passenger rail service along east-west rights of way from Pennsylvania Station in New York City to the eastern-most portions of Suffolk County, ending in Montauk on the South Fork and in Greenport on the North Fork.

Service on the MTA Long Island Rail Road operates essentially 24 hours a day, seven days a week. Some branches of the LIRR operate very frequently (e.g., Babylon, Port Washington, Port Jefferson as far as Huntington, etc.); however, it should be noted that some branches are broken up into “zones” and not all stations are served by all trains, especially during the peak periods. Although this facilitates quick travel to and from Manhattan, it makes it more difficult to travel within Long Island on the LIRR. Where the LIRR is least frequent is on the East End of Suffolk County, on the North and South Forks. The North Fork - served by that portion of the Ronkonkoma Branch between Ronkonkoma and Greenport - sees very few trains each day. The South Fork, served by the Montauk Branch, sees a few more trains than the North Fork. It should be noted that the LIRR typically increases service to and from the South Fork during the summer months, especially on weekends, to serve the Hamptons beach communities.

### ***2.3 Demand Response Transportation Service***

A number of demand response transportation services are available to Long Island residents. These services are provided by public transportation agencies, human service agencies, non-profit organizations, and other private entities. Many of these services are targeted to a specific population, such as seniors and/or persons with disabilities. Some services are limited to a specific geographic area or a certain type of trip purpose, such as trips to medical appointments.

Over two dozen demand response transportation providers were identified during the Access to Transportation on Long Island study. The four fixed route bus operators each provide complementary paratransit services for individuals with disabilities within  $\frac{3}{4}$  mile on each side of their bus routes as required by the Americans with Disabilities Act (ADA); note that Able-Ride in Nassau County is not restricted to a corridor around LI Bus routes. This service is available to individuals who are unable to use accessible fixed route transportation because of a disability.<sup>1</sup> Rides are available during the same operating hours as the fixed route service, and services meet other criteria that ensure comparability with the fixed route services.

The majority of other demand response services are provided by town senior citizen divisions or departments of human services, and serve seniors and/or persons with disabilities. Eligibility is established by the service provider and often requires town residency or a minimum age. Rides from these providers are often limited to origins and destinations within the town's boundaries and

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<sup>1</sup> Section 223 of the ADA requires the provision of paratransit service:

(i) to any individual with a disability who is unable, as a result of a physical or mental impairment (including a vision impairment) and without the assistance of another individual (except an operator of a wheelchair lift or other boarding assistance device), to board, ride, or disembark from any vehicle on the system which is readily accessible to and usable by individuals with disabilities;

(ii) to any individual with a disability who needs the assistance of a wheelchair lift or other boarding assistance device (and is able with such assistance) to board, ride, and disembark from any vehicle which is readily accessible to and usable by individuals with disabilities if the individual wants to travel on a route on the system during the hours of operation of the system at a time (or within a reasonable period of such time) when such a vehicle is not being used to provide designated public transportation on the route; and

(iii) to any individual with a disability who has a specific impairment-related condition which prevents such individual from traveling to a boarding location or from a disembarking location on such system.



typically are available only on weekdays. Eligible trip purposes are also at the discretion of the provider, with many concentrating on medical, shopping or recreational trips.

Human service agencies and other non-profit organizations on Long Island also provide demand response service for clients. Agencies with transportation programs include state or county agencies and private non-profit organizations. Nassau and Suffolk County Departments of Social Services both offer transportation to Medicaid recipients. The rides are limited to medical appointments in or within a set distance of the county boundaries. The Nassau Department of Mental Health, Retardation, and Developmental Disabilities; Developmental Disabilities Institute; Family Service League; EOC; Community Housing Innovations; and UCP Suffolk, to name a few agencies, also provide rides to their clients. One volunteer organization provides veterans with non-emergency medical transportation within Suffolk County. A number of faith-based organizations (such as individual parish outreach programs and Dominican Sisters of Nassau County), medical facilities and organizations, and residential facilities also operate vehicles or administer volunteer driver programs to provide rides for certain types of individuals or trip purposes. FISH also administers a volunteer transportation program.

Demand response transportation services are also discussed in Section 2.2 of the *Access to Transportation on Long Island Technical Report*.

### **2.4 Demand Management Services**

Long Island residents have other transportation options beyond what public transportation providers are able to offer. Personal vehicles remain the primary means of transportation. Some vehicle owners may prefer not to drive daily and choose ridesharing options, such as the carpool and vanpool services facilitated by Long Island Transportation Management (LITM) and other organizations. Those who cannot drive for physical or economic reasons may rely on private taxi services or family and friends for rides. Others choose non-motorized modes, such as walking or bicycling. Still others may use school bus transportation for certain trips.

### **2.5 Summary**

On Long Island, transportation choices include the following:

- Commuter rail service
- Regional and local fixed route bus service
- ADA paratransit service provided by fixed route bus operators
- Demand response service provided by human service agencies and other non-profit organizations
- Ridesharing services
- Walking and bicycling
- Taxi services
- Single occupancy travel

Fixed route bus and rail services are available throughout Nassau and Suffolk Counties, although levels of service are higher in Nassau County and the western section of Suffolk County, where the

number and density of residents are greater than in other parts of Long Island. Fixed route services are supplemented by the demand response services provided by a large number of towns, human service agencies and non-profit organizations, but those services are often limited in terms of eligible riders or trip types, days and hours of operation, and/or geographic coverage.

## Section 3 Transportation Needs

The previous section summarized the extensive array of fixed route public transportation services and public and private demand response services that are available on Long Island. This section describes key demographic characteristics of Nassau and Suffolk Counties that indicate areas or populations with mobility needs, and identifies specific needs that the current service network is not able to address.

More detailed analysis of transportation needs in Nassau and Suffolk Counties is contained in the *Access to Transportation on Long Island Technical Report*.

### 3.1 Demographic Characteristics

Outside of major urban areas, the most likely users of public transportation services are individuals who are not able or choose not to travel by car – older adults, teenagers or college students, persons with disabilities, and individuals with low incomes or without access to a car. Population growth and density are also important factors in the success of public transportation service (factors such as the characteristics of available transit services also influence demand).

The size, location, and density of these population groups in Nassau and Suffolk Counties are described below, to identify areas where residents who are likely to be public transportation users are concentrated, as well as areas that have the density of either population and/or employment to support transit service.

#### 3.1.1 Population and Employment Density

Population density is a measure typically used as an indicator of the type and level of public transportation service that can most effectively serve a particular area. For example, at certain levels of density (of either population or employment), traditional transit service is feasible. In areas of lower density, more flexible transportation services – such as paratransit or demand response service, flex routes, feeder service, ridesharing, or subsidized taxi service – may be more appropriate and effective.

Densities of three or more households per acre or four or more jobs per acre (which correspond to 1,920 households per square mile and 2,560 jobs per square mile) are generally considered to be the minimum required to support fixed route bus service that operates at least hourly.<sup>2</sup> Fixed route bus service may be successful in areas of lower density, or provided in lower-density areas as a public policy choice. Furthermore, a certain level of density does not guarantee the suitability of fixed route bus service for an area – bus service may not be utilized in a high density, high income community, for example. Other factors (e.g., the presence of a significant traffic generator, social equity issues, etc.) may also influence whether fixed route transit service is provided in a particular area and at what level that service may be provided.

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<sup>2</sup> Kittelson & Associates, Inc., KFH Group, Inc.; Parsons Brinckerhoff Quade & Douglass, Inc.; Dr. Katherine Hunter-Zaworkski; *TRCP Report 100: Transit Capacity and Quality of Service Manual*, 2<sup>nd</sup> Edition; Transit Cooperative Research Program, 2003.

Moreover, this definition does not completely fit circumstances in suburban Long Island due to its unique characteristics: its large suburban population, range of settlement patterns, and the very fact that it is an *island* whose primary means of access and egress are geographically constrained. Long Island's unique aspects result in situations where relatively lower densities *do* support higher levels of transit service, and that must be considered when applying any generic rules of thumb.

However, keeping those important caveats in mind, it is instructive to consider the usual interplay between density and transit service.

Data from NYMTC's regional travel demand model was used to identify areas in Nassau and Suffolk Counties that exhibit these levels of population and/or employment density, which are usually associated with higher levels of transit services. These zones are shown in Figures 1 and 2. Note that the density information displayed in Map 2 is based on Transportation Analysis Zones, a unit of geography that corresponds approximately to census tracts. Census tracts are larger than census block groups, and some data is lost when larger geographic units are used for analysis. There are likely to be areas, particularly hamlet centers, that do not appear on Map 2, but do have the density that is typically considered to be supportive of fixed route bus service.

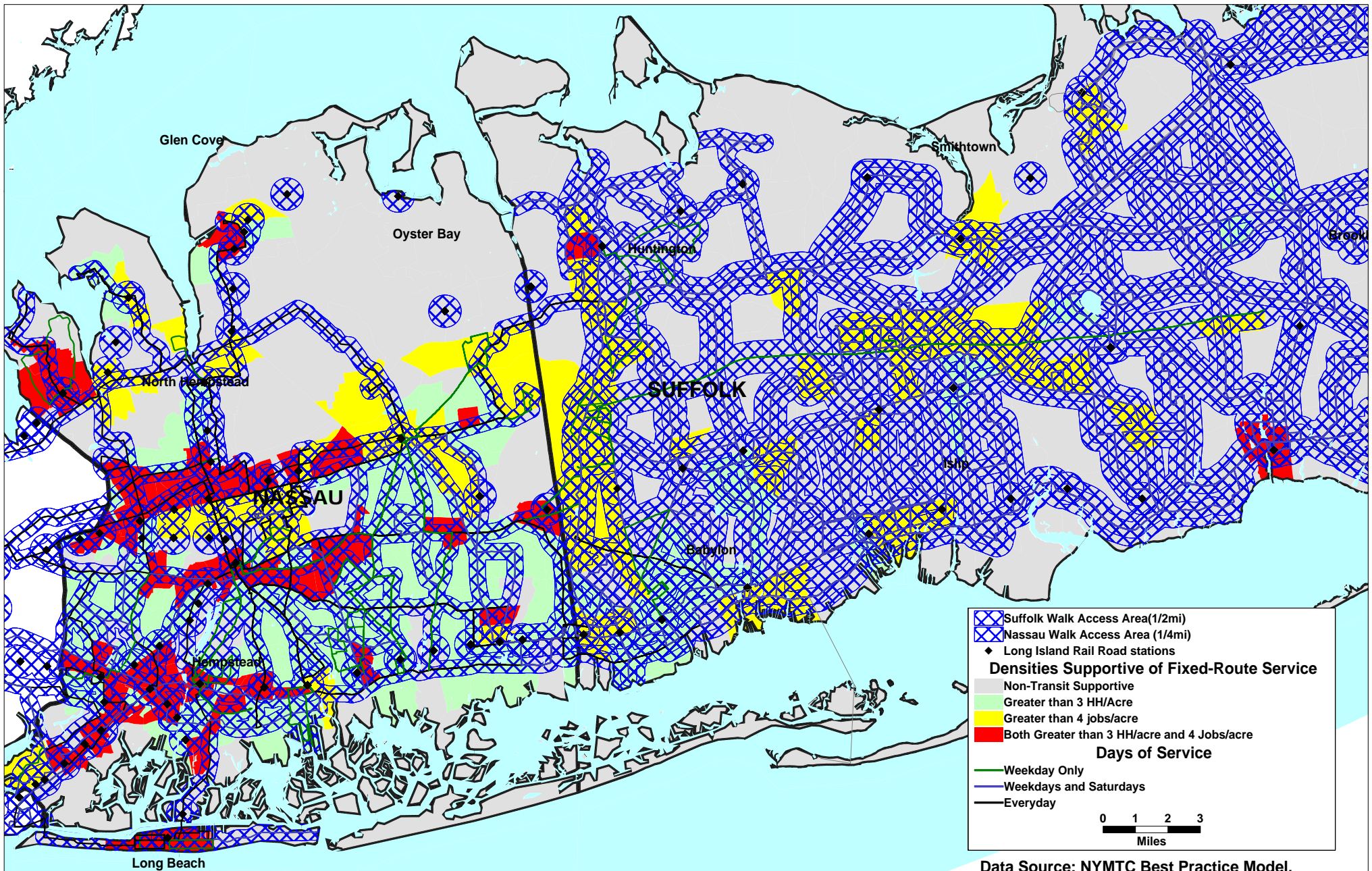
Also shown in Figures 1 and 2 are fixed bus routes and rail stations, and a buffer around each route and station that represents the distance that a public transportation user could reasonably be expected to walk to reach it. A "walk access area" buffer of  $\frac{1}{4}$  of a mile around bus routes is shown for Nassau County; a buffer of  $\frac{1}{2}$  of a mile around bus routes is shown for lower-density Suffolk County. Buffers of  $\frac{1}{2}$  of a mile around rail stations are shown for both counties.

In general, fixed route bus and rail service geographically covers most of the transit-supportive areas in both counties (as well as other areas where population and/or employment densities are lower). There are some areas in the Nassau County communities of Glen Cove, Hempstead, North Hempstead and Oyster Bay that show the minimum levels of density of either population or employment, but in which bus service is more than  $\frac{1}{4}$  of a mile away. A few areas in the Suffolk County communities of Huntington, Islip, and Smithtown that contain the minimum transit-supportive density (mostly of employment) are more than  $\frac{1}{2}$  of a mile from bus service.

When the general rules of thumb are applied, there are large areas in both counties that do not contain the minimum levels of density of population or employment that those rules indicate are supportive of fixed route bus service. These areas include parts of Glen Cove and North Hempstead and much of Oyster Bay in Nassau County. In Suffolk County, low-density areas include parts of Huntington and Smithtown, and large parts of Riverhead and the communities on the North and South Forks. However, the unique characteristics of suburban Long Island also have to be applied. For example, the Huntington Station on the MTA Long Island Rail Road, which offers a high level of service and is used by many Long Island residents who travel to jobs and other destinations in New York City, is one of the railroad's busiest stations, despite the surrounding densities.

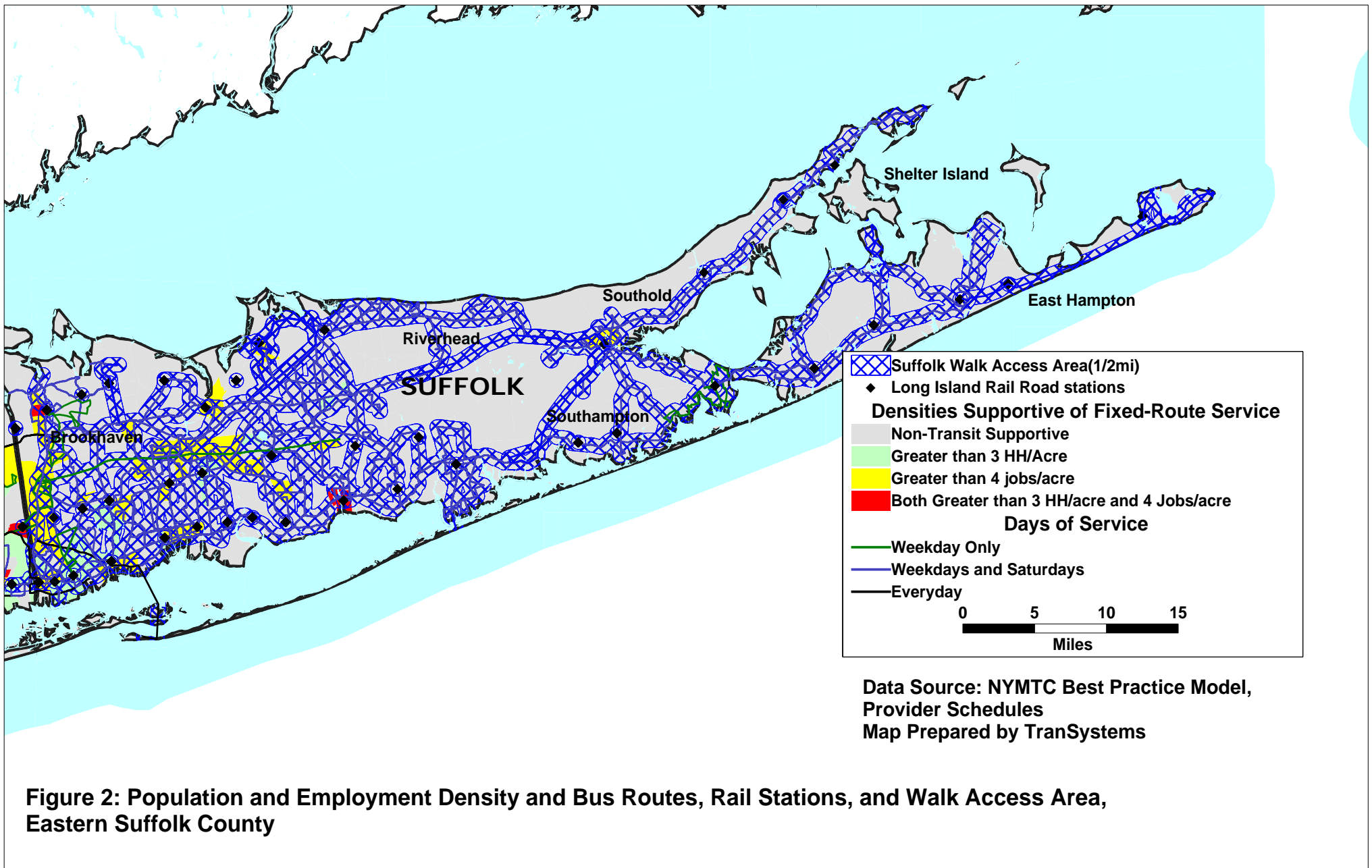
### 3.1.2 Target Markets

One of the objectives of the Access to Transportation on Long Island study was the identification of the mobility needs of individuals who have little or no access to private transportation due to age, disability, income, or other factors, and for whom traditional fixed route service would not be a feasible transportation option.



**Figure 1: Population and Employment Density and Bus Routes, Rail Stations, and Walk Access Area, Nassau and Western Suffolk County**

Data Source: NYMTC Best Practice Model, Provider Schedules  
 Map Prepared by TranSystems



**Figure 2: Population and Employment Density and Bus Routes, Rail Stations, and Walk Access Area, Eastern Suffolk County**

Key groups include:

- Seniors (age 65 and over)
- Persons with disabilities
- Students (ages 15-21)
- Low-income households (defined here as households with an annual income under \$25,000)<sup>3</sup>
- Households without access to an automobile

Members of minority groups are also of interest because of the mandates placed upon transportation providers by federal laws and regulations to ensure that services are provided to those groups (as well as to individuals with low incomes) without discrimination.

Analysis and mapping of data from the 2000 U.S. Census showed that the highest concentrations of these target markets, as measured by persons or households per square mile, are located in western and southern Nassau County, where population in general is concentrated. Lower concentrations of each group are found as far east as the middle of the Town of Brookhaven in Suffolk County. Beyond that point, target markets tend to be concentrated in small areas in the centers of North and South Fork towns.

In some of the lower density areas – in much of Suffolk County, for example – the percentage of individuals or households in these groups among the population of a census block group is high, even though their numbers may not be concentrated.

According to the 2000 U.S. Census, the Hispanic and Asian populations were the fastest growing minority groups on Long Island between 1990 and 2000. Hispanic residents as a percentage of the population is high in census block groups in the Town of Islip, parts of the Town of Hempstead and other communities. Block groups that contain a high percentage of Asian residents are located in North Hempstead and Brookhaven. Low-income households make up a large percentage of the households in block groups in many communities, but particularly in large block groups in Riverhead and Southampton.

### ***3.2 Target Market Needs***

Some of the travel needs of the target markets described above are being met by the fixed route and demand response services currently provided by transit operators and human service

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<sup>3</sup> \$25,000 was roughly 150% of the federal poverty guideline for a family of four 2000. This definition is generally in line with other income thresholds related to eligibility for transportation services in the Long Island area. The Job Access and Reverse Commute (JARC) plan that was prepared for the region in 2003 identified households with an annual income of \$20,000 or less (the federal JARC program sets eligibility for JARC transportation services at 150% of the federal poverty guidelines). The New York state Temporary Assistance for Needy Families (TANF) program, which is administered by the Nassau and Suffolk County Departments of Social Services, considers 200% of the poverty guidelines as the eligible level for receiving transportation services. The Environmental Justice assessment report that was prepared for NYMTC in 2005 defined low income as a median household income at or below the federal poverty guideline. It should be noted that higher levels of household income could reasonably be considered "low income" on Long Island given the high cost of living in Nassau and Suffolk Counties.

agencies on Long Island. However, members of those groups have mobility limitations that are not addressed by the existing transportation network.

Members of the target markets who would be able to use fixed route bus or rail service but live in areas in which fixed route service is not within walking distance have a need for a way to get to and from bus stops and rail stations. Communities in which there are concentrations of the target populations beyond  $\frac{1}{4}$  of a mile (in Nassau County) or  $\frac{1}{2}$  of a mile (in Suffolk County) of fixed route service include:

- North Hempstead
- Glen Cove
- Oyster Bay
- Huntington
- Brookhaven
- Riverhead
- Southold
- Southampton
- East Hampton

This need applies to all of the target market populations – older adults, persons with disabilities, members of low-income or auto-less households, and students.

Individuals in the target markets who need to travel outside of the hours during which fixed route service is in operation are in need of an alternative travel option for early morning, evening, and weekend hours. This need is particularly great for individuals who are employed, or would like to be employed, in service industry or retail jobs, or other jobs that require work during evening or weekend hours. Transportation services provided with funding from the Federal Transit Administration's Job Access and Reverse Commute (JARC) program are designed to fill employment transportation service gaps, but not all individuals with work transportation needs are eligible to use JARC services. College students, who often work in the evenings or on weekends, also need a way to get to early morning or evening classes.

Individuals who make reverse commutes by traveling eastbound to work, particularly in the East End of Suffolk County, have very limited public transportation options.

Individuals in the target market groups who are current or potential users of demand response services also have the need for transportation options during morning, evening, and weekend hours, particularly for access to medical facilities such as dialysis centers. Demand response service users also have a need for transportation between communities and for transportation that can be used for all of the types of trips that individuals need to make – medical, shopping and personal business, work, and social/recreational trips.

All of the target market groups require accurate, frequently updated information about the transportation services that are available and how to use them, as well as about where public information materials are available. Public information and marketing materials are needed in different formats, including those useful to persons with disabilities (such as large print, audiotope,



CD or electronic file, accessible website technology, telecommunications relay services) and in multiple languages. For individuals who do not have internet access or are not comfortable using computers, information that can be obtained by telephone (preferably with the option of speaking to a person rather than using an automated system) may be the most useful.

Affordable transportation is especially important to members of the target markets.

Finally, the target markets have transportation needs that are shared by all public transportation users: service that is frequent and reliable, with convenient connections between services, and safe and comfortable vehicles and facilities.

## Section 4 Access to Transportation on Long Island

This section presents a definition of “adequate access to transportation” for Long Island that is intended to serve as a guide for future decisions regarding transportation improvements in Nassau and Suffolk Counties.

People traveling in Nassau and Suffolk counties have various choices of transportation modes to meet their mobility needs. All of these modes rely on the system of transportation rights-of-way – highways, roadways, rail lines, bicycle paths and walkways – which is almost completely provided and maintained by the public sector. Access to these rights-of-way is determined by a variety of factors, including the locations of the travelers' trip origins and destinations as determined by patterns of residential and commercial development, the level of congestion in the rights-of-way that they may use, their ability – financially and physically – to use privately-owned vehicles or privately provided services, the availability of publicly-provided “mass transit” or paratransit services for their trips, and their overall awareness of all of the modal options available to them to make their desired trip.

Responsibility for providing adequate access to transportation in suburban Long Island falls to both individual travelers and to governments. Travelers will have choices for selecting residential and employment locations so that they can best make use of travel options to serve their mobility needs, and they do have a certain level of responsibility for making these choices efficiently. They also will have responsibility for selecting an efficient mode of transportation, either personal or public, to meet their travel needs. However, it needs to be underscored that the types of life choices suggested above do not always fall under the direct control of individual travelers, for economic reasons and for reasons of imperfect access to information. For example, limited choices in affordable or accessible housing may affect an individual's ability to live or work in an area that is served by public transportation.

The public sector is responsible for providing and maintaining transportation rights-of-way which can be used by everyone to travel in suburban Long Island. The local level of the public sector is also involved in regulating residential and commercial development (land use) relative to those rights-of-way. By making public policy choices, funding mass transit services, and responding to legislated mandates, the public sector also assumes some responsibility for transporting those travelers whose individual mobility is limited by economic or personal factors, or by conditions in the transportation rights-of-way. Much of this assumed responsibility is discretionary, but some is required by Federal, State or local laws. The cost of these services is an important consideration in defining this assumed responsibility, particularly with regard to discretionary services. Availability of public resources necessarily constrains the levels of service that may be provided. The challenge for the public sector will always involve providing the best balance of services within available resources. Meanwhile, the private sector provides travel services in a manner which will maximize profit. It also seeks to develop and redevelop land for profit.

The public sector can maintain or enhance adequate access to transportation by:

- Providing all mandated transportation services
- Maintaining, modernizing, and strategically expanding the transportation rights-of-way in response to adequate demand for those rights-of-way as determined by the operating policies of the agencies or the local governmental entities responsible for providing them

- Maintaining, modernizing, and maximizing the coordination of all discretionary transportation services it provides
- Strategically redeploying and/or expanding the discretionary services it provides in response to adequate demand for those services as determined by the operating policies of the agencies providing the services
- Regulating land uses in an efficient manner relative to the transportation rights-of-way and services
- Acting as an information clearinghouse and broker to optimize transportation and location options for travelers, developers and employers
- Coordinating services provided by different agencies and levels of government for different reasons
- Encouraging the efficient provision of private transportation services and programs

## Section 5 Guidelines for Policy Makers for Maintaining and Enhancing Access to Transportation

A number of actions that can maintain and/or enhance the public's access to transportation are within the purview of transportation providers and other public entities. Those actions are mentioned above in the definition of adequate access to transportation and include the following:

- Providing mandated transportation services
- Managing transportation rights-of-way and services
- Maintaining, modernizing, and strategically redeploying discretionary transportation services
- Regulating land uses in a manner that is compatible with the transportation rights-of-way and services
- Providing information to optimize transportation and location decisions for travelers, developers, and employers
- Planning and delivering transportation services in a coordinated manner, and enhancing those services via technology
- Encouraging the use of private resources to further expand access

Guidelines in each of these areas for public policy makers are presented below. Strategies for improving transportation access that fall under each of these categories are included in Appendix A. More detailed descriptions of the suggested strategies can be found in the *Access to Transportation on Long Island Technical Report*.

### 5.1 *Provide Mandated Transportation Services*

The first step in maintaining and enhancing access to transportation on Long Island is the provision of transportation services that are mandated by federal, state or local laws, and compliance with other related legal and regulatory obligations.

The federal Americans with Disabilities Act (ADA) prohibits discrimination on the basis of disability in a number of areas, including transportation. Under Title II of the ADA (which addresses accessibility in public services) and the regulations that implement its provisions, public operators of fixed route transportation services are required to make complementary paratransit service available for individuals who are unable to use fixed route services due to a disability.<sup>4</sup> Other ADA requirements for public transportation operators regarding the provision of service include using vehicles that meet ADA accessibility standards, ensuring that new or altered transportation facilities meet ADA accessibility standards, maintaining accessibility equipment in good working order, announcing fixed route stops, making information about services available to persons with disabilities in accessible formats, and training employees in the operation of equipment and the

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<sup>4</sup> ADA complementary paratransit service must be provided within  $\frac{3}{4}$  of a mile from fixed route transit and meet requirements for comparability to fixed route services in five other areas: days and hours of service, response time, trip purpose, fare, and capacity constraints.

provision of assistance to persons with disabilities. ADA requirements apply to public operators of transportation services whether or not they receive federal transportation funding.

The Access Board,<sup>5</sup> a federal agency focused on accessibility for persons with disabilities, developed and maintains the ADA Accessibility Guidelines (ADAAG) for vehicles, buildings and facilities. Regulations issued by the federal Department of Transportation (USDOT) implement the requirements placed by the ADA on public entities that provide transportation services. Those regulations incorporate the ADAAG standards. The Access Board also provides accessibility guidelines for the Architectural Barriers Act of 1968 (ABA), which requires that facilities being designed, built, changed, or leased using federal funding be accessible to persons with disabilities.

In addition to the ADA, the federal government has established several other requirements regarding discrimination that affect transportation services, including Title VI of the Civil Rights Act of 1964 and the 1994 Executive Order on Environmental Justice. Transportation providers must ensure that all persons, regardless of race, color, ethnicity, and abilities, have the opportunity to participate in and benefit from programs and activities that receive federal financial assistance. They must also make their services available in a manner that does not disparately impact minority or low-income populations.

Other levels of government in New York State and within the Long Island region have established goals and priorities regarding transportation services, but do not impose binding obligations on transportation providers or other public entities.

### **5.1.1 Guidelines for Policy Makers**

1. Comply with ADA requirements regarding:
  - ADA paratransit service for individuals with disabilities as a complement to fixed route service
  - Use of accessible vehicles
  - Accessibility standards for new or altered transportation facilities
  - Maintenance of accessibility equipment on transit vehicles
  - Announcement of fixed route stops
  - Provision of information about public transportation services to persons with disabilities in accessible formats
  - Training of public transportation employees in the operation of equipment and provision of assistance to persons with disabilities
2. Fulfill obligations for non-discrimination established by the USDOT regulations implementing Title VI of the Civil Rights Act of 1964 and the federal Executive Order on Environmental Justice.

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<sup>5</sup> The Access Board is the U.S. Architectural and Transportation Barriers Compliance Board.

## 5.2 *Manage the Transportation Rights-of-Way*

Transportation rights-of-way on Long Island include highways, roadways, bridges, rail lines, waterways, bicycle paths, and walkways, and the transportation services that make use of those facilities.

On Long Island, these rights-of-way include 700 track miles of commuter railway; 26,000 lane miles of roads, streets and highways, including 2,158 miles of roadway used by bus services; and 600 bridges.<sup>6</sup> According to NYMTC's 2005 – 2030 Regional Transportation Plan (RTP), the total cost of maintaining this transportation infrastructure in a state of good repair is estimated to be \$14.4 billion over the next 20 years. This figure includes \$2 billion for roadways, \$2.6 billion for bridges, and \$9.2 billion for transit infrastructure.

Public entities must meet federal obligations regarding transportation rights-of-way that are included in the ADA together with requirements for public transportation services and facilities. In June 2002, the Access Board developed a set of draft guidelines specifically dealing with public rights-of-way (ROW) to supplement ADAAG and ABA guidelines. While ADAAG and ABA guidelines cover facilities and public sidewalks, the draft ROW guidelines address other conditions exclusive to public rights of way, such as pedestrian access routes, curb ramps, warning surfaces, and pedestrian crossings. The draft guidelines are proposed to apply to construction of or alterations to a pedestrian route or facility as part of a public rights-of-way improvement project (no alterations to existing rights-of-way would be required under the guidelines).

A revised version of the draft rights-of-way guidelines, incorporating earlier public comments, was published by the Access Board in the *Federal Register* in November 2005 (Vol. 70, No. 225, November 23, 2005). At some point in the future, the Access Board will publish its final proposed guidelines and request public comment before issuing a final rule. When the Access Board issues its final ROW Accessibility Guidelines, USDOT will develop corresponding, updated regulations. Until that time, current regulations remain valid and enforceable.

At the regional level, NYMTC's RTP identifies a number of major long range "investment proposals" for Long Island (as well as other parts of the region) including improvements to state highways, county roads, intermodal freight facilities, passenger rail lines and facilities, and transit systems. Additional projects in Nassau and Suffolk Counties that will help to implement the RTP in the medium term are included and prioritized in the 2006-2010 Transportation Improvement Program (TIP) for the region. Projects listed in the RTP and the TIP include:

- Improvements to roads and intersections
- Traffic signal upgrades and enhancements
- Bridge maintenance
- Pedestrian facility improvements

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<sup>6</sup> Commuter track miles were obtained from the LIRR. Lane miles and roadway miles and number of bridges were obtained from NYMTC's 2005-2030 Regional Transportation Plan and data provided by NYMTC from its Best Practice Model.

- Installation or repair of bus shelters or benches
- Construction of transportation facilities such as terminals and parking lots
- Construction of facilities for waterborne passenger and freight services
- Rail station and track improvements
- Replacement of bus and paratransit vehicles and fleet expansions

These proposals will increase the efficiency and effectiveness with which the rights-of-way on Long Island accommodate the forecasted growth of population, employment and overall travel.

Transportation rights-of-way include not only infrastructure and facilities, but also the services that make use of them. Guidelines for policy makers regarding the provision of public transportation services are discussed separately in this paper.

### **5.2.1 Guidelines for Policy Makers**

1. Balance as best as possible the transportation options made available within the financial resources available for this purpose.
2. Meet current ADA accessibility requirements for public rights-of-way, as set forth in USDOT regulations. As requirements are updated, revise design and construction standards for rights-of-way accordingly.
3. Execute existing plans for keeping Long Island's transportation rights-of-way and transportation infrastructure (including transit vehicle fleets and facilities) in a state of good repair.
4. Manage demand and encourage better utilization of transportation rights-of-way and infrastructure to reduce the need for expanded rights-of-way.
5. When building or maintaining infrastructure such as roads and driveways, provide access for transit vehicles whenever possible.
6. Integrate the needs of non-motorized travelers (including cyclists, pedestrians, and persons with disabilities) in all planning, programming, project development, construction, maintenance, and operations activities.
7. Improve pedestrian and bicycle access to transportation facilities (including park and ride lots, transportation terminals, rail stations, and bus stops) and transit vehicles (trains, buses, and ferries). Promote and encourage the use of non-motorized transportation options for job access and other purposes in addition to recreational trips.

### **5.3 *Maintain, Modernize and Strategically Redeploy and/or Expand Discretionary Transportation Services***

Public sector transportation providers operate rail, bus and paratransit services as a matter of public policy to address the mobility needs of those traveling on Long Island. Balanced against those needs is the responsibility to ensure that public funds are used wisely, and the recognition that services may not be able to respond to all expressed or anticipated demand for those services. Individuals make many personal decisions regarding where they live and work and what services

they choose. Therefore, there should be a measure of personal responsibility accepted by individuals when defining public transportation needs.

Services operated by public transportation providers contribute to access to transportation on Long Island. Other public sector service providers, including human service and employment agencies and other agencies within county and local governments, also contribute to access.

Public providers of transportation services can best maintain or enhance access to transportation by operating services which meet adequate levels of demand and are achievable within available resources.

### 5.3.1 Guidelines for Policy Makers

1. Use regional and local forecasts of general population, population of transit-dependent groups, employment, travel, and patterns of development to develop estimates of demand for public transportation services. Update estimates periodically.
2. Using those demand estimates, strategically redeploy and/or expand discretionary transportation services in response to adequate demand for those services, within available resources and in accordance with the service guidelines of the operating agency.
3. Using the existing standards developed by the operating agencies, employ a framework for evaluating rail and bus service. Consider such service characteristics as geographic coverage, days/hours of operation, frequency, reliability, safety, affordability, vehicle passenger load, stop spacing and location, distribution of amenities, and distance to stops or stations. Use periodic review and evaluation of services against those standards to provide input into decisions about service modifications.
4. Use, and refine as appropriate, performance measures developed by the operating agencies to gauge the productivity, efficiency, and effectiveness of the services.
5. Increase awareness of existing public transportation services among users and potential users.
6. Encourage use of existing public transportation services.
7. Increase coordination among existing public transportation services where possible to maximize their effectiveness.

## 5.4 *Regulate Land Uses Relative to Transportation Rights-of-Way and Services*

As stated in NYMTC's Regional Transportation Plan, "the integration of land use and transportation planning is critical to the improvement of mobility and quality of life in the region..." (p 29). To take this notion one step further, the immense value of transportation cannot be fully realized when land use planning does not maximize that value.

Characteristics of development and of transportation rights-of-way and services both influence the efficiency of the transportation system on Long Island and the mobility it provides for people and goods. Development that is compact, concentrated around activity centers, pedestrian- and transit-friendly, and inclusive of mixed uses (including affordable and accessible housing) tends to be *sustainable* since it contributes to a more efficient and effective transportation system by making



alternatives to the single occupant vehicle feasible. This type of sustainable development, oriented to transit services, is an important component of effective transportation services on Long Island. Transportation rights-of-way improvements and services that facilitate transit and pedestrian access, include a variety of mode choices, and offer convenient travel options are also important. Transportation improvements can also encourage development in preferred locations.

Land use policies on Long Island are under the jurisdiction of local municipalities and are not controlled by county, state, or federal governments. However, transportation planning is often done at the state, regional or county, creating the potential for disjointed land use developments and transportation improvements.

Better integration of transportation improvements with local land use planning can be brought about in the following ways:

- Increasing awareness of the relationship between transportation and land use planning
- Focusing land use and transportation policies on local municipalities that are receptive to concentrating development relative to transportation rights-of-way and services
- Coordinating transportation and land use, including more advisory county participation in the land use decisions of local governmental entities
- Early coordination between municipal land use review functions and highway work permitting (ex.: driveways)

The public sector on Long Island is responsible for planning future land uses and future improvements to the transportation system. However, these responsibilities reside at different levels of the federal system. Local municipalities have primary responsibility for land use planning. Federal, State and county governments are primarily responsible for transportation planning. These divided responsibilities create a significant disconnect in what should be an integrated planning process.

However, the Federal, State, and county governments can and should promote partnership building with the local municipalities that control land use decisions on Long Island. The main goal of the partnership would be to increase awareness of the relationship between transportation and land use. Included in the partnership could be an educational program that demonstrates the impacts of land use decisions on the transportation system. Additionally, localities could be provided with the necessary data and technical assistance needed to enable them to plan land use in the context of its impacts on the transportation system. Specific techniques that can be employed to bring this about are discussed in more detail later in this document.

Public sector owners of land and facilities (such as transit stations or terminals) can also be encouraged to support land use decisions that are efficient from a transportation standpoint when they consider proposals for development of those properties.

### **5.4.1 Guidelines for Policy Makers**

1. Develop partnerships with federal, state, regional, and local organizations to promote improved coordination between land use and transportation planning processes. Use partnerships to compile and disseminate information about the inter-relationship of land use and transportation, encourage coordination and cooperation among entities responsible for transportation and land use planning, and provide technical assistance to local entities.

2. Support multi-use development patterns which will reduce the need for vehicular and transit trips.
3. Encourage local comprehensive land use planning processes to include a transportation component in order to create a mechanism for considering transportation's role in future community development. Provide data and/or technical assistance to communities to assist them in developing a transportation component for their plans.
4. Review current land use and zoning policies when developing regional and state transportation plans, identifying those that hinder development of an efficient transportation system. These policies could then be considered for revision during the next comprehensive land use planning process.
5. When reviewing local land use plans or proposed zoning changes, encourage consideration of adequate densities in more compact areas such as town or village centers, where it is appropriate to better support existing or planned transit services, which may then be realized with community concurrence. Also encourage changes to zoning in such areas, again with community concurrence, to focus development that will create a more supportive environment for transit, walking, and biking, while contributing to economic development.
6. Support or provide incentives for development in close proximity to activity centers as defined by current or planned transit services, economic development zones and/or developments focused on the provision of workforce housing. Financial and non-financial incentives can encourage a developer to build closer to town and village centers rather than in rural areas where taxes and land are cheaper. The incentives can be in the form of tax breaks or streamlined permitting processes for projects that have transit-supportive components.
7. Support or provide financial and non-financial incentives for development, particularly mixed use development, in close proximity to Long Island Rail Road (LIRR) stations as well as to activity centers.
8. Support mixed use development. Current zoning and building ordinances that prohibit mixed uses should be reviewed and adjusted accordingly in ways to encourage mixed use development, which is a cornerstone of pedestrian and transit-oriented development. Locating housing (including affordable and accessible choices) near retail facilities, other businesses, and transit facilities (such as LIRR stations) creates location efficiency and increases mobility choices beyond the automobile.
9. Encourage early involvement for public transit providers with local officials in planning for new developments. Encourage local land use planners to approach public agencies about needs for services and facilities earlier in the development process.
10. Foster ideas for a dedicated funding stream for public transit. Additionally, no mandate or resource should be suggested without a fiscal solution.
11. Develop a public awareness campaign that can be used to increase understanding of the benefits of public transportation service – such as reduced congestion, improved air quality, access to jobs, and contribution to economic development– among Long Island residents, local elected officials, employers, developers, and other parties.

12. Create pedestrian-oriented guidelines for new development. Establishing formal guidelines and a clearinghouse of information/knowledge on the implementation of land use strategies that support transit and non-motorized transportation would provide a valuable resource for localities that desire the changes but lack the expertise to implement them.
13. Support access guidelines for new developments that ensure accessibility of streets to transit vehicles. Current guidelines addressing access to certain new developments, such as retail centers and senior living centers, should be reviewed and revised to allow transit vehicle access.
14. Support local covenants requiring developers to finance transportation services for new development, where appropriate.
15. Establish a more extensive outreach program with local landowners regarding bus stops and shelters. Involve the landowners and other relevant stakeholders in focus groups addressing the issue.
16. Review parking supply ordinances in zoning codes to avoid over-building parking, which encourages auto dependency.

### ***5.5 Provide Information to Optimize Transportation and Location Decisions***

Educating individuals, developers, employers, and local elected officials about the transportation consequences of their location decisions will also encourage choices that result in better access to transportation for residents, employees, and customers. Information about available transportation services and the proximity of employers, schools, retail centers, medical facilities and other destinations would help individuals to factor transportation into their selection of residential and employment locations. Information that highlights the advantages of locating in certain areas – such as geographic and socio-economic data and information about available transportation services, access to transportation infrastructure, and opportunities for investing in transportation improvements – would assist employers and developers in evaluating alternative locations for businesses, residential developments, and other enterprises. However, it must be acknowledged that there are economic constraints that limit available choices of location and/or service, so that better education or information cannot by itself result in optimized decisions. Some examples of mobility needs that are defined by these constraints can be found in Section 3.2.

#### **5.5.1 Guidelines for Policy Makers**

1. Work with federal, state, regional and local partners to make land use, transportation and socio-economic data available to local officials, developers and employers, either in response to requests or in a more active manner – as part of the subdivision review process, for example.
2. Develop or support education and public information efforts to increase awareness among Long Island residents, local elected officials, and developers of the interaction between transportation and land use, and how their choices of residential and employment locations and travel mode can maximize their mobility.
3. Participate in efforts to make information about transportation services available to the public through tools such as Trips123 and the Travel Information Gateway (discussed in the Guidelines for Policy Makers presented in Section 5. 7).

### ***5.6 Increase Coordination Among Transportation Programs and Services***

A number of public and private organizations in Nassau and Suffolk Counties provide demand response transportation services for older adults, persons with disabilities, individuals with low incomes, and human service agency clients. As is often the case where multiple providers operate similar services for similar types of riders, services are fragmented, so that individuals may find it difficult to identify the services for which they may be eligible, and may not have access to transportation service for all the trips they need to make. There is also likely to be duplication in services and/or administrative functions among providers.

Planning, designing, funding, and delivering specialized transportation services in a coordinated manner can help to address such problems. Coordination efforts can involve any combination of the following types of organizations: public providers of fixed route transit and paratransit service, non-profit transportation providers, private transportation companies, public or non-profit human service agencies, community-or faith-based organizations, local or regional planning agencies, and state departments of transportation.

Together, organizations with an interest in human service transportation can undertake a variety of actions to improve coordination. At one end of the range of coordination activities are steps to improve communication and cooperation among interested parties while leaving separate transportation programs intact. At the other end of the range are actions that significantly change the way in which services are delivered, by consolidating transportation programs previously managed or administered by separate organizations.

Several significant actions in the past several years -- including Executive Order 13330 on Human Service Transportation Coordination, the United We Ride Initiative, and the reauthorization of the federal transportation programs in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) -- demonstrate the renewed emphasis on coordination of human service transportation at the federal level (for more information on these federal government actions, see Appendix A). These efforts promote, encourage, or require coordination of transportation services at state, regional and local levels.

#### **5.6.1 Guidelines for Policy Makers**

1. Use the new SAFETEA-LU coordinated public transit – human service transportation planning requirement as a way to identify partner organizations and coordination strategies for Long Island.
2. Encourage extensive participation in United We Ride/SAFETEA-LU planning sessions that are held in Nassau and Suffolk Counties. Government agencies, non-profit organizations, and public and private transportation providers all have a stake in the new coordinated public transit – human service transportation planning process required by SAFETEA-LU and improved coordination among transportation programs.
3. Commit to follow through on initial coordination planning efforts by dedicating staff time and other resources to participation in ongoing coordination activities. Time and effort often need to be devoted to developing trust among partner agencies, conducting adequate planning to identify the most suitable coordination strategies, and establishing necessary support and

resources. Benefits may not appear in the short term, but such efforts will pay off in terms of future growth and stability for the effort.

4. Through education and technical assistance, encourage municipalities to consider consolidating local demand response services into larger, sub-regional programs as coordination planning progresses. As shorter term alternatives, encourage the adoption of more uniform eligibility requirements and service policies (such as service hours, advance notice requirements, and fares) and provision of assistance to customers to make transfers between services.

### ***5.7 Enhance Transportation Services and Information through Technology***

Intelligent Transportation Systems (ITS) components and other technology systems can contribute to more efficient and cost-effective operations and improved traveler information. Enhancing service delivery and increasing the availability and/or accuracy of information about service options will encourage travelers to make better use of existing transportation services. These benefits of ITS technology are recognized in NYMTC's 2005 – 2030 RTP, which includes the continued use of the most current technology in developing, operating, and maintaining the transportation system as one of its regional goals.

Examples of technology systems that could improve access on Long Island include:

- Scheduling and dispatching software for demand response and paratransit systems
- Mobile Data Terminals (MDTs) or Mobile Data Computers (MDCs) for the electronic submission of data between demand response/paratransit vehicles and control centers
- Interactive Voice Response (IVR) and Interactive Web Response (IWR) systems for placing demand response trip requests
- Automatic Vehicle Location (AVL) systems for fixed route or demand response/paratransit operations
- Real Time/Next Bus information
- Smart cards and other electronic fare media
- Way finding
- Centralized transportation information

More information about these ITS strategies can be found in Appendix A.

#### **5.7.1 Guidelines for Policy Makers**

1. Continue to pursue development and adoption of transportation technology systems as appropriate. Implementation of some of these systems is currently being planned on the regional and provider levels, as is reflected in NYMTC's current RTP and TIP documents.
2. Work with NYSDOT and the Trips123 partnership to add information about more transit and demand response services on Long Island (including services provided by private operators) to the New York State Transportation Federation's Travel Information Gateway and Trips123. Monitor information to ensure that it is up to date. As information becomes more comprehensive, publicize the availability of those online information sources.

3. Enlist the assistance of Transportation Demand Management (TDM) service providers, such as Long Island Transportation Management (LITM), with county or local efforts to publicize or market fixed route and demand response services. LITM and other TDM service providers currently make transportation information available to employers and employees as they work to encourage the use of alternatives to the single-occupant automobile for work trips, and could contribute to expanded public transportation service marketing efforts.
4. Establish or designate an entity to serve as a local clearinghouse for transportation information. Provide current information about municipal demand response services and human service transportation programs as well as fixed route services to the clearinghouse. Promote the services and resources of the clearinghouse to human service agencies and advocacy organizations whose staff members advise individuals about transportation options that may be open to them.
5. Provide transportation information in a variety of formats. Public information and marketing materials should be available in different formats, including those useful to persons with disabilities (such as large print, audiotape, CD or electronic file, accessible website technology, telecommunications relay services) and in multiple languages. Consider the needs of Long Island residents who do not have internet access or are not comfortable using computers; information that can be obtained by telephone (preferably with the option of speaking to a person rather than using an automated system) may be the most useful.
6. Ensure that transportation information that is provided to the public is accurate and up to date. Let potential users know where and how to obtain information about transportation services.
7. Assess way finding needs to facilitate the use of transit services and facilities. When implementing way finding signage, consider and address the needs of individuals who are unable to detect visual cues.

### ***5.8 Encourage the Use of Private Resources to Further Expand Access to Transportation***

Different types of private sector entities have an interest in Long Island's transportation rights-of-way and services. For-profit and non-profit transportation providers offer transportation services that augment those provided by public agencies. Human service and advocacy organizations may be charged with assisting individuals with access to services or programs, which involves providing or subsidizing transportation services or programs, or supplying information about options. Some employers and developers may be required to address transportation issues so that they may obtain necessary permits and approvals, or to meet federal or state regulatory requirements. (The other private sector role that relates to transportation is the development of land, which is addressed in Section 5.4.)

Building upon efforts to increase the awareness of private sector entities of the link between transportation and land use, those entities should be encouraged to play a role in providing adequate access to transportation, either individually or through public-private partnerships that add value to private investments.

There are several potential solutions for increasing the amount of transportation available in general beyond what public transportation providers are able to offer. These include:

- Coordinating private (profit and non-profit) transportation services with those offered by public providers (as discussed in Section 5.6)
- Partnering with non-profit human service agencies and advocacy groups to distribute information about transportation options
- Encouraging the participation of private sector entities through financial considerations, such as tax abatements or other incentives
- Continued promotion of ridesharing and other TDM measures and encouraging the participation of employers
- Expanding the promotion of ridesharing and TDM measures to other potential users besides those who commute to work
- Facilitating the development of transportation programs such as subsidized taxi services and volunteer driver networks by private sector organizations (or municipalities)

### **5.8.1 Guidelines for Policy Makers**

1. Engender a supportive environment for employer-based programs, including:
  - Continue to provide funding and other support for TDM programs
  - Establish a clear understanding of the expected outcome from employer-based commuter programs by open communication with area employers
  - Consider financial incentives for employer participation in TDM measures and other programs, such as tax credits
  - Other policies that would support TDM activities, as learned through dialogue with Metro Mobility Network
2. Use policy tools to create an environment more conducive to transportation using public transportation, ridesharing, etc. This can be accomplished by:
  - Considering the inclusion of students and participants in human services programs in the markets to which ridesharing and other TDM measures are promoted (this would require the identification of a funding source other than the Congestion Mitigation and Air Quality program, which currently funds TDM programs and requires the focus on reducing peak-hour vehicle trips)
  - Supporting local zoning requirements that encourage employers to provide less free parking
  - Using county reviews of requests by developers or employers for additional parking as an opportunity to secure access to facilities for transit providers, or other mitigation measures
  - Providing TDM services and infrastructure, such as HOV lanes, park-and-ride lots, and transit improvements
  - Considering market-based alternatives to change behavior, such as toll roads and congestion charging

3. Research possible restrictions imposed by current taxi regulations that could impede the development of taxi programs subsidized by municipalities or human service agencies (such as the need to be registered in and pay registration fees to each community to be served). Consider revising any such restrictive regulations to facilitate subsidized taxi service as an alternative to public fixed route or demand response services.



## Appendix A

### Strategies for Maintaining or Enhancing Access to Transportation

## *Rights-of-Way*

### **Suggested Strategies for Enhancing Access through Non-Motorized Options**

Implement projects identified in the Long Island Non-Motorized Transportation Study (LINMTS). The LINMTS, conducted for NYMTC and NYSDOT, identified a number of bicycle network improvements in Nassau and Suffolk Counties and prioritized potential improvements based on measures of population density, connections to major destinations, safety, and connections to the current bicycle network. The targeted improvement areas include the following:

- Hempstead Harbor Park to Hempstead Lake Park
- Eisenhower Park to Jones Beach
- Eisenhower Park to Baldwin
- Bethpage State Park to Oak Brush Plains State Preserve
- Sunrise Trail in the Village of Freeport
- Route 110 from Huntington to Farmingdale
- Southern Island Bikeway from Amityville to Great River
- Deer Park LIRR Station to Hecksher State Park
- Route 25A from Stony Brook to Port Jefferson Station

Several pilot projects were also identified in the LINMTS. Transit-related projects include:

- Bike-on-Bus project on Long Island Bus Route N-19, to include installation of bike racks and educational/promotional activities
- Bike on Bus report
- Transit Access Program
- Development of recommendations for bicycle and pedestrian access to Bethpage Station from Stewart Avenue, based on an audit of walk-ability and bike-ability in the area near the station.

Other programmatic projects included a model Walking to School program, a Driver Education/Share the Road program to provide information for drivers on sharing the road with non-motorized modes, and a Safety program.

Provide guidance for communities to help them assess local walkways and bikeways and identify areas needing improvement. A number of checklists have been developed to assist parents, schools, and community organizations with the identification of infrastructure and safety barriers to walking and biking. Several are provided as part of the *Access to Transportation on Long Island Technical Report*. Information about how to make improvements or request assistance would also be useful.

## *Regulating Land Use*

### **Suggested Strategies for Encouraging Better Land Use Decisions**

- Develop toolkits or guidebooks to help local communities incorporate transportation planning into their comprehensive planning processes and attain consistency with regional and state plans. Conduct training sessions or hold conferences to increase awareness of transportation/land use issues. Disseminate information through newsletters, a website, and/or printed materials.

### **Suggested Strategies for Improving Transit Support through Land Use**

- Focus development in town and village centers where density is already higher; the development should include both jobs and housing.
- Encourage development around LIRR stations.
- Address transportation issues and needs in land use plans. This practice will reinforce the connection between transportation and land use and increase dialogue between agencies that may not coordinate efforts, such as local departments of transportation, housing and economic development.
- Involve public transit providers as stakeholders early in the process of planning and designing new developments to ensure that issues such as the feasibility of transit service, access requirements for transit vehicles, and the nature of any mitigation measures are discussed before design decisions are made and construction begins.
- Use financial incentives to encourage transit supportive development or investments, or penalties to discourage development that continues to neglect transit options.
- Provide guidelines and support for local municipalities on how to use zoning ordinances and land use regulations to encourage transit investment and use.
- Where transit service is achievable, encourage adequate access for transit vehicles in new commercial developments so that transit service will be available and convenient upon completion.
- Encourage developers to finance transportation services to new locations or facilities they build that are outside of current transit provider service areas. Funds could also be required if the new facility will over-extend the current system. These requirements may be in the form of a covenant with the developer or some other arrangement offered by local government officials. Such requirements should help developers carefully consider the traffic and transportation impacts of planned projects.
- Work with state and local landowners regarding bus stop placement and shelters. State and local landowners and municipalities largely control where bus stops are located and whether a sign and/or bus shelter may be installed at a stop. It is important to establish a constructive dialogue on where the stops, signs and shelters should be located so that all parties (transit providers, landowners, and riders) are satisfied.

Several of these strategies are based on examples of approaches that have been used in other parts of the country. More information about land use policies and strategies in other areas can be found in the *Access to Transportation on Long Island Technical Report*.

## ***Coordination Among Transportation Programs and Services***

### **United We Ride**

In late 2003, the federal Departments of Transportation, Health and Human Services, Education, and Labor introduced a new human service transportation coordination initiative entitled *United We Ride*.

United We Ride includes five components designed to make coordination of human service transportation easier and more rewarding for states and local communities to pursue. Among them are a coordination planning tool for states and communities (the Framework for Action), coordination grants for states, and a variety of technical assistance activities and resources.

### **Executive Order on Human Service Transportation Coordination**

In February 2004, President Bush issued Executive Order 13330 on Human Service Transportation Coordination, reasserting the federal government's commitment to improved mobility for transportation disadvantaged citizens and more efficient use of transportation resources. The Executive Order establishes a new Interagency Transportation Coordinating Council on Access and Mobility, composed of representatives of 11 federal departments.

The Council's goals include eliminating duplication and overlap among federal transportation programs and services, facilitating use of the most cost-effective services available within existing resources, and developing policies and procedures to enhance transportation services.

### **Reauthorization of Federal Transportation Programs**

In August 2005, authorization for the federal transportation programs was renewed in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). Among the many changes to federal programs included in SAFETEA-LU is the requirement for a "locally developed, coordinated public transit-human services transportation plan". Beginning in federal FY07, projects supported by funds from the Elderly Individuals and Individuals with Disabilities program (Section 5310), Job Access and Reverse Commute program (Section 5316) or New Freedom (Section 5317) program will be required to be included in such a plan.

In March 2005, FTA issued draft guidance regarding the implementation (in FY07) of these three programs and development of the local coordinated plans. The draft guidance was published in the *Federal Register* for public review and comment.

In the draft guidance for FY07, FTA proposes that the coordinated plan contain information about the following:

- The transportation needs of the target populations (older adults, individuals with disabilities, and individuals with limited incomes)
- Existing transportation services, overlapping services, and service gaps
- Strategies for filling in service gaps

- Coordination strategies designed to reduce or eliminate duplication and make better use of transportation resources
- Prioritized steps for implementing the recommended strategies

Approaches to coordinating the planning and delivery of demand response and human service transportation services are outlined below.

### **Suggested Strategies for Improving Coordination Among Transportation Services**

Conduct an inclusive planning process in response to the federal United We Ride initiative and the requirements for coordinated public transit - human service transportation planning contained in SAFETEA-LU. Hold one or more planning sessions in Nassau and Suffolk Counties to work through the Framework for Action for Communities and begin to develop the local coordinated human service transportation plan. Include a broad range of agencies and individuals with a stake in demand response and human service transportation such as:

- Nassau and Suffolk County Departments of Social Services
- Nassau and Suffolk County Planning Departments
- NYMTC
- Long Island Regional Planning Board
- Nassau County Office for the Physically Challenged
- Nassau County Office of Senior Citizen Affairs
- Suffolk County Office of Handicapped Services
- Suffolk County Office for the Aging
- Long Island Center for Independent Living
- Suffolk Independent Living Organization
- MTA Family (MTA Headquarters, LIRR, LI Bus)
- Suffolk County Transit
- Long Beach Transit
- Huntington Area Regional Transit
- Cities, towns and villages that provide transportation services: Babylon, Brookhaven, East Hampton, Glen Cove, Hempstead, Huntington, North Hempstead, Oyster Bay, Riverhead, Shelter Island, Smithtown, Southampton, and Southold
- Other demand response providers
- Private and public school transportation providers
- NYMTC's Job Access and Reverse Commute staff person
- Members of the JARC Work Group
- NYSDOT

- 
- Recipients of Section 5310 vehicles from NYS Department of Transportation
  - Riders
  - Local elected officials

Other organizations that could be considered for involvement in the planning process include businesses, faith-based organizations, and educational institutions.

The first goal of the planning sessions should be to use the Framework for Action to assess the current level of coordination among transportation services on Long Island and identify steps to increase coordination in areas where improvement is needed. The outcome of the Framework for Action sessions should then form the foundation for the local coordinated public transit-human services transportation plan.

Use information collected as part of the Access to Transportation on Long Island project in the local coordination plan required by SAFETEA-LU. Elements that are required as part of the plan and that will be addressed in the *Access to Transportation Technical Report* include the following:

- Existing fixed route and demand response services
- Location and size of potential target markets
- Fixed route and demand response service gaps and needs
- Strategies to address service gaps

While the coordination strategies that are best suited to Nassau and Suffolk Counties should be identified by the participants in the coordinated public transit-human service transportation planning process, options include the following:

- Reciprocal customer information and referral
- Use or subsidy of public transportation services by human service agencies for client travel
- Purchase of service by human service agencies from transportation providers for clients
- Cooperative grant applications, staff and driver training, maintenance and vehicle storage among transportation providers
- Coordinated procurement of items such as vehicles, insurance, maintenance, fuel, training, or hardware/software among transportation providers
- Vehicle sharing
- Coordinated procurement of contract transportation service providers
- Consolidation of programs, including the establishment of a paratransit brokerage or Mobility Manager<sup>7</sup>

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<sup>7</sup> Mobility management encompasses a range of activities, all of which help to improve coordination among providers of public transportation and other transportation services. Mobility management activities are eligible uses of federal funding from the FTA's Section 5310 (Elderly Individuals and Individuals with Disabilities) Section 5311 (Nonurbanized Area Formula Program), Section 5316 (Job Access and Reverse Commute) Section 5317 (New Freedom) programs.

Two strategies that appear to have the potential to reduce duplication of services and/or expand mobility options are described below.

Develop or encourage sub-regional demand response transportation programs. The review of existing demand response services on Long Island resulted in several findings that indicate the potential for increased service efficiencies and improved mobility through integration of existing local demand response services into larger, sub-regional operations that would cover more than one community. For example, multiple service providers – public bodies and human service agencies – currently transport similar rider groups in most communities. Similarly, fixed route bus operators provide paratransit service to ADA-eligible individuals in the same communities in which municipal demand response programs serve seniors and persons with disabilities. Some municipal and human service agency services are likely have unused capacity during at least some part of the day. In addition, one of the service gaps reported by users and stakeholders is travel between communities. Most municipal demand response programs operate within the boundaries of a single community. Transfers between services, if possible, are usually up to the customer to arrange and are time-consuming.

Integration of the local demand response operations in Nassau and Suffolk Counties into larger sub-regional systems would increase the effectiveness of demand response service by combining vehicle fleets and centralizing scheduling, and also address the need for inter-community travel. A sub-regional demand response service could also be used to provide local collector and distributor services to deliver riders to and from fixed route bus stops and rail stations, thereby encouraging greater use of those systems.

Implementation of sub-regional demand response systems, and the inclusion of some or all ADA trips, is likely to be challenging. Creation of sub-regional systems could be a long-term goal. In the more immediate future, a phased approach may be more appropriate.

Alternative actions would provide many of the advantages of sub-regional integration, as well as the opportunity for providers to develop cooperative relationships, without the need for structural changes. These strategies are: 1) the adoption of uniform, or more consistent, operating and service policies among demand response providers and 2) the provision of local trips for ADA-eligible customers by municipal demand response providers as contractors to the fixed route bus operators.

Look for feasible opportunities to increase schedule coordination among providers. Although they are often difficult to achieve, schedule connections to facilitate transfers between bus and rail services and between feeder services and bus/rail stops and stations would enhance the convenience of the transportation system.

### *Use of Technology*

#### **Scheduling and Dispatching Software**

Operators of demand response or flexible service may benefit from automated or computer-assisted reservations/scheduling/dispatching systems that can streamline the trip reservations process, improve the efficiency of vehicle schedules, enhance the capability of dispatchers, and upgrade the tracking and reporting of customer and trip data. Automated or computer-assisted reservations and scheduling systems are also useful tools for coordinated transportation services. These systems can make the job of scheduling trips among various providers easier and more

efficient, and can streamline the data collection and billing processes. This can make tracking trips and costs by client or funding source much easier, thus increasing the feasibility of coordinating transportation services.

### **Mobile Data Terminals (MDTs) or Mobile Data Computers (MDCs)**

For larger demand response transportation systems, MDTs or MDCs provide a means for dispatchers and drivers to exchange information about schedules, trips, passengers, or vehicles electronically, which can improve the accuracy of the information as well as reduce the need for voice communications. The use of MDTs or MDCs also enhances data collection and reporting for coordinated services by increasing the accuracy of trip, vehicle, and passenger data that is recorded at the time of each trip, and the ease with which information can be compiled and analyzed.

### **Automatic Vehicle Location (AVL)**

Automatic Vehicle Location (AVL) technology, which uses Global Positioning System (GPS) capabilities to identify the location of fixed route or demand response vehicles in real time, contributes to improved dispatching, and eliminates the need for voice communications between dispatchers and drivers to determine vehicle location. AVL can make it easier for dispatchers of demand response or coordinated services to assign trips to the most appropriate vehicle in real time, which is especially important in operations serving large geographic areas. Better use of resources can lead to improvements in efficiency and cost-effectiveness. The same benefits of AVL also apply to fixed route operations.

### **Real Time/Next Bus Information**

AVL technology is also used to provide real-time transit information to individuals who are planning or contemplating a transit trip. The AVL system provides real-time location data, which is used by a real-time traveler information system to estimate the arrival time or amount of time until the next arrival of a transit vehicle. Travelers may access the real-time arrival information through one of a variety of means, including websites, electronic signs at stops or stations, interactive kiosks, wireless personal communications devices, and landline or mobile phones. The provision of real-time transit service status information to customers has been shown to improve customer satisfaction and contribute to increased ridership.

### **Smart Cards and Other Electronic Fare Media**

Several different types of electronic fare media are in use in transit and paratransit operations today. Smart cards are plastic cards that contain an embedded computer chip. Contact smart cards must be inserted into a card reader for information to be read from or written to the chip. Contactless smart cards need only be in the vicinity of a card reader; contact with the reader is made by means of an antenna that is also embedded in the card. Smart cards can support multiple operator applications. Contactless cards make fare payment a very quick process, and are very easy for the rider to use.

Magnetic stripe cards or tickets (such as the New York City region's MetroCard) are also used as fare media and passenger identification in transit operations. While magnetic stripe cards have a much lower unit cost than smart cards, card readers may be more expensive than contactless card readers and require frequent maintenance.



### **Way finding**

Way finding refers to the provision of signage and other cues to guide drivers, pedestrians, and bicyclists to destinations. Way finding programs have been implemented on highways and other roads, in downtowns, business and educational campuses, and facilities such as airports and transportation terminals.

Way finding alternatives for individuals with visual impairments include audible signals, infrared "talking sign" transmitters, detectable warning surfaces, and intersection design techniques that provide directional cues.

### **Interactive Voice Response (IVR) and Interactive Web Response (IWR) Systems**

Automated IVR and IWR systems allow demand response customers to place their own trip reservations over the phone or the Internet. IVR and IWR systems can also be used to perform tasks such as calling customers to confirm trip times or deliver information about the estimated time of arrival of their rides. Use of such systems can make the process of reserving a trip more convenient for some customers and reduce the number of phone calls that must be handled by reservations staff.

### **Transportation Information Clearinghouse**

Information about service options in convenient, accessible formats for current and potential transportation users, transportation providers, and human service agency staff members will facilitate maximum use of existing services. Two on-line clearinghouses capture much information about transit services on Long Island.

**Trips 123** is an online travel information and trip planning service administered by the Trips 123 Public/ Private Sector Partnership made up of TRANSCOM, Inc., the Northeast Consultants (TransCore and Parsons Brinkerhoff), NavTech, and the New York State Department of Transportation. The service covers trips within the states of Connecticut, New York, and New Jersey and is made up of five primary service components:

- Real time traffic conditions
- Real time transit conditions
- Planned construction activities and special events
- Related transit and transportation websites
- Online transit trip planning tool (Transit Advisor) that provides step-by-step instructions on how to get from one point to another

Access to Trips123 information by telephone is a planned enhancement to the system.

At present, the services provided by MTA Long Island Rail Road, MTA Long Island Bus, and Suffolk County Transit are included in Transit Advisor. Itineraries involving the services of other fixed route transit providers on Long Island cannot be constructed, although links to their websites are provided. Information about demand response services is not available through Trips 123, although information about the ADA paratransit services operated by MTA Long Island Bus and Suffolk County Transit may be obtained through the links to their websites. No information about municipal or private demand response services is currently available.

The **Travel Information Gateway** (TIG) is an online transportation service managed by NYSDOT on behalf of the New York State Transportation Federation, which also includes the NYS Thruway Authority and the NYS Bridge Authority. The TIG provides real-time status information about a number of travel modes, including transit and paratransit, as well as more general transit and paratransit information. For information about services in Nassau and Suffolk Counties and the rest of the downstate region, the TIG provides a link to Trips123.

## *Private Resources*

### **Employer Services**

Employment centers generate a great deal of peak hour traffic, especially in areas not well served by public transportation. In addition, employers can play a key role in the reduction of auto travel to meet federal air quality requirements. Long Island is considered a major non-attainment area under the Clean Air Act, which has prompted the NYS Department of Transportation to promote TDM measures, including commute to work programs that aim to reduce vehicle miles traveled (VMT). Additionally, NYMTC is required to demonstrate compliance with the NYS Implementation Plan for Air Quality, which includes activities on Long Island. Increased awareness of these requirements and air quality issues by the business community has also helped bolster TDM commuter activities as a way to reduce VMT and hence emissions.

There are several types of programs employers can use to assist their employees in getting to work without a car when public transportation is limited or unavailable. The programs reduce congestion, save employees money on gas, and reduce the amount of parking an employer needs to provide.

Long Island Transportation Management (LITM) is a regional organization that already exists to assist employers in developing commuter programs for their employees and inform the employers of the benefits of participation, such as improved employee productivity. LITM promotes employer-based transportation services for employees. These include ridesharing, transit passes, guaranteed ride home programs, etc. through sharing of information and establishing an environment supportive of these alternatives to single occupancy vehicle commuters. LITM also administers the Long Island Region Improving Commuting (LIRIC) grant program, which provides financial assistance to employers wishing to implement commuter alternative programs aimed at reducing traffic congestion. Projects eligible for the grants include carpool incentive programs, vanpools, guaranteed ride programs, parking management, employer-provided transit fare subsidy programs, telecommute programs, bike to work programs, and programs that bridge gaps in existing transit services between worksites and park-and-ride lots

### *Suggested Employer Service Strategies*

Consider using LITM as one potential candidate organization to be a clearinghouse/brokerage to better disseminate information about transportation options to Long Island residents. LITM already has a great deal of information regarding public transit and other transportation services on Long Island, making it a possible candidate for a clearinghouse of information to the public.

Institute a pooled vehicle program. In this type of program, a vehicle is leased to one or several employers in an area and kept at a transit center. Employees from the company ride public transportation to the center and ride together in the pooled car. The car may have a driver that makes multiple shuttle-like trips, or reside during at the office building until the end of the day.

Make participation in TDM measures and other programs as simple for employers to implement as possible. Explore opportunities for streamlining administrative processes associated with employer options (such as taking advantage of federal tax incentives for the provision of transit passes) to increase their involvement.

Encourage employers to survey and gather commuting information from their employees, especially regarding public transportation. The more data NYMTC and the public transportation providers have regarding journey-to-work data, the more able they are to respond to the greatest needs and improve service for commuters. Employers have wider, easier and cheaper access to their employees for surveys than the public transportation providers, who primarily only have contact with current riders.

Replicate previous successful efforts to operate workplace shuttles and divide costs between the transit provider and the employer. Highlight the benefits of successful shuttles for other employers located in areas that could be served effectively with transit service.

### **Transportation Demand Management (TDM) Measures**

TDM measures aim to control demand for travel by individual vehicles and reduce congestion. These measures work in combination with a system of transportation service to provide people with travel options. There are various TDM organizations, including LITM, that coordinate with transportation providers and agencies to implement programs that apply TDM measures, such as transit, vanpools and telecommuting.

#### ***Suggested TDM Strategies***

Support and market LITM, the NuRide ridematching service, and travel information and trip planning programs such as Trips123 and NYSDOT's Travel Information Gateway to encourage residents to find alternatives to single occupancy vehicle driving.

Introduce car sharing to Long Island. Car sharing enables residents to use personal cars by the hour for a small annual fee and payment by the hour. The program would work best in higher density areas that have public transportation access. Currently, Zipcar is a company that operates a car sharing network in the New York City area with cars as far east as Flushing, New York. Zipcars are normally placed in higher density areas near public transportation. The cars are picked up from a parking space leased by Zipcar and returned to the same spot once the trip is complete. The hourly fee charged to use a Zipcar includes fuel and insurance costs, making it a cost effective way to use a personal vehicle for errands.

### **Inclusion of Taxi Services in the Transportation Network**

Taxi companies usually have a relatively large fleet and can be a great supplement to demand response service offered by public transportation providers and non-profit organizations. They are able to offer door-to-door service to individuals who are unable to use fixed route public transportation in a way that is more flexible than typical demand response service. These trips may be for shopping, medical appointments or social activities for seniors, persons with disabilities, low-income individuals and the general public.

### *Suggested Strategies for Involving Taxi Operators*

Develop subsidized taxi services. A user-side subsidy taxi program can offer a flexible, cost-effective means of meeting a variety of trip needs, particularly in areas without the density to support fixed route service and where the provision of demand response service is prohibitively expensive. Factors that can reduce the cost-effectiveness of demand response service include times or areas with low levels of demand or numbers of trips that are long and not easily grouped with other trips.

Through a subsidized taxi program, sponsor agencies (or municipalities) distribute or sell tickets, coupons, vouchers, or some form of electronic fare medium to eligible riders, at a discount. Riders use the tickets or vouchers to purchase trips from participating taxi operators in accordance with the limits established for use of the tickets/vouchers (perhaps adding a cash payment to the value of the tickets/vouchers, depending on program regulations). Taxi operators are then reimbursed for the full cost of each trip.

Sponsor agencies, either individually or collectively, establish eligibility and service policies and the amount and level of service to be provided. Some agencies may choose to supplement existing transportation services that are provided to clients with subsidized taxi service. Others may use the taxi program as a replacement for transportation service they are currently providing in some other way.

Contract with taxi companies for provision of specific services, such as senior shopping trips or medical appointments. Assist taxi operators with the acquisition of accessible vehicles (i.e., lift-equipped minivans). Public transportation providers in other areas have used federal and state grant funds to purchase accessible vehicles for use by taxi operators, with the operators supplying the required local matching funds.

Contract with taxi companies to serve as guaranteed rides home as a complement to employer-based and TDM programs.

### **Volunteer Driver Networks**

Relying upon volunteers to assist with the delivery of service can help to stretch transportation resources and offset the typically high cost of serving areas where population densities are low and travel distances are long. Advantages of volunteer driver programs or use of volunteer staff in a transportation program include the following:

- Operating costs can be kept low when volunteers are used as drivers, call-takers, schedulers, and/or dispatchers by a transportation provider.
- Programs that reimburse family members and friends for providing rides take advantage of existing, low-cost transportation resources.
- Volunteers can provide a flexible source of transportation that can be called upon as needed for long-distance, out-of-area trips.

The use of volunteers in a transportation program can help to keep costs low and the level of service flexible, and typically results in benefits for the volunteers as well as the riders and the service provider. However, volunteer programs are not without cost, and may present challenges to the administering organization. Factors to be considered include:

- The time and effort needed to recruit, screen, train, and reward volunteers

- Insurance and risk management issues
- Acceptance of volunteer drivers by riders

### *Suggested Volunteer Driver Network Strategies*

Establish a demonstration volunteer network similar to Maine's Independent Transportation Network (ITN). ITN was first established in Portland, Maine about ten years ago as a means of providing seniors with rides in exchange for trading in the cars they rarely or never use. The value of the donated car is credited to the senior's debit account, which is drawn on each time a ride is requested (averaging \$8 per ride). The account can be contributed to by family member or friends through cash donations, volunteering their time or donating their own cars. Seniors who are still able to drive may volunteer and receive credit for future rides when they are no longer able to drive themselves, a sort of "transportation social security." The rides may be used for medical appointments, shopping trips and social visits or events. Maine has enacted legislation that enables ITN to sell its surplus vehicles and reinforces an earlier law prohibiting insurance companies from raising premiums for volunteer drivers.

ITN has been very successful in the Portland area, currently serving about 1,000 customers and providing about 15,000 trips per year, and is spreading to other parts of the country. In 2005, a nationwide organization, ITNAmerica, was created to replicate the program in other areas, and efforts are underway to establish programs in South Carolina, New Jersey, Florida, and California. Legislation in Connecticut makes seed money available for a program similar to ITN. At the national level, Maine Senator Susan Collins has introduced legislation that would establish a substantial grant program to match local funds for the expansion of the program and to provide tax incentives for seniors who participate.

Consider the "Community Inclusion Driver" approach for rural areas. ITN is an effective volunteer driver program model for urban or suburban areas. The Community Inclusion Driver (CID) strategy was developed for Easter Seals Project ACTION as a way to make use of volunteer drivers in a rural setting. While the CID strategy focuses on increasing mobility for persons with disabilities in rural areas, the approach could also be used for seniors and members of the general public.

The CID strategy involves a partnership between a transportation provider, a customer, and individuals who are willing to act as volunteer drivers for the customer. The transportation provider supplies minimal administrative resources and transportation expertise, the customer participates in planning his/her own transportation, and volunteer drivers contribute their time in exchange for limited reimbursement of expenses. The outcome of the partnership is improved mobility for the customer that is more feasible and costs less than service that the transportation provider could operate itself.

The transportation provider is responsible for establishing program and eligibility guidelines, developing informational materials and promoting the program, screening drivers and vehicles, training customers and drivers, program recordkeeping, and payment of mileage reimbursement to volunteers. The customer is responsible for identifying suitable volunteer drivers (although the transportation provider may provide assistance, or recruit drivers itself). The volunteer driver is responsible for providing proof of a valid license and a properly registered and insured vehicle, meeting any other requirements established by the transportation provider, and completing forms to document basic information and the trips that are provided.

A CID handbook published by Project ACTION provides more detail about how the strategy can be implemented and contains sample agreements and forms and marketing materials that can be used by organizations interested in developing a CID program.

Use a volunteer transportation planning process, such as the Turnkey Kit from the Beverly Foundation, to design a volunteer program unique to Long Island. The kit offers technical assistance on how to launch a volunteer driver program, including planning, implementation and evaluation materials. It also includes a model pilot program geared toward providing volunteer rides for seniors. (<http://www.beverlyfoundation.org/turnkeykit/index.html>)