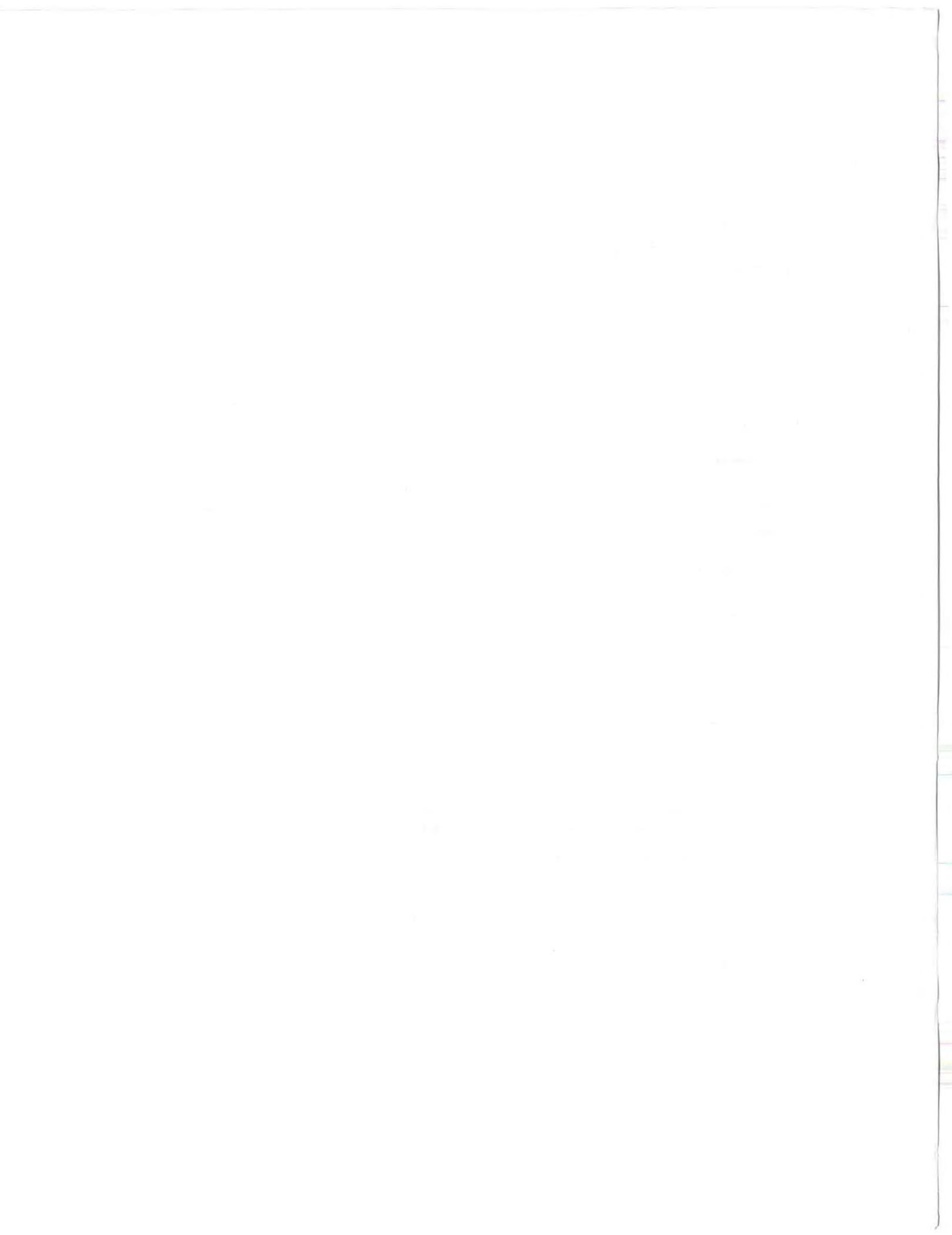


MIDDLESEX COUNTY BICYCLE PEDESTRIAN PLAN



Middlesex County Planning Department
Transportation Division
Dated: March, 2002





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I. INTRODUCTION

Middlesex County, having recognized bicycling and walking as viable transportation options, developed the 1995 Middlesex County Bicycle-Pedestrian Plan. That Plan:

- Encouraged bicycle use and walking for health, recreation and as transportation options
- Recommended bicycle and pedestrian friendly environments
- Recommended creation of County-wide bikeway networks

Since 1995, much has happened at government and grassroots levels to encourage bicycling and walking as alternatives to the automobile as well as for recreation and health, including:

- A growing federal emphasis to bicycle and pedestrian projects
- Creation of the Office of Bicycle and Pedestrian Programs in the State Department of Transportation
- Development of the Statewide Bicycle and Pedestrian Master Plan.
- The State declaration to construct 2,000 miles of bicycle routes and paths.
- The Route 1 – Collaborative Case Study in 1997 recommending system-wide improvements in the Middlesex County Route 1 Corridor

Increased public interest in transportation alternatives led to the appointment of the Bicycle and Pedestrian Task Force of the Middlesex County Transportation Coordinating Committee in February 1998. The Task Force encouraged implementation of the 1995 Plan and provided key input to the 2001 update.

The 2001 Bicycle and Pedestrian Plan

- Expands upon the 1995 Plan
- Incorporates new recommendations by the Task Force
- Encompasses projects proposed in the bicycle and pedestrian elements of municipal circulation plans
- Includes County greenways suitable for bicycle and pedestrian use proposed in the County Open Space and Recreation Plan
- Provides for bicycle and pedestrian related projects proposed in municipal enhancement applications
- Includes bicycle and pedestrian compatible roadway improvements proposed in the County's Transportation Improvement Program
- Provides bicycle and pedestrian design guidelines for County road improvement projects

II. MIDDLESEX COUNTY BICYCLE-PEDESTRIAN PLAN **EXECUTIVE SUMMARY**

Middlesex County, strategically located at the crossroads of the State, has a transportation network that provides excellent access to regional housing, employment, recreation and commercial sites. People and businesses are attracted to the County because of the central location, transportation network, variety of housing choices, and the many cultural, educational and shopping facilities.

For these reasons, and a booming economy, the County has experienced significant growth and development. This increase in population and employment has resulted in mounting automobile traffic congestion and air pollution and has created a need to reexamine alternate modes of transportation such as bicycling and walking.

The number of residents walking and riding bicycles for health and recreation has increased dramatically since publication of the Middlesex County Bicycle-Pedestrian Plan in 1995. The potential for bicycling and walking as alternatives to single occupant automobile trips can be realized by providing safe and secure facilities throughout the County.

The four major goals of the Middlesex County 2001 Bicycle-Pedestrian Plan are:

- Establish a countywide bicycle and pedestrian network
- Develop policies, practices and procedures that promote and generate actions that enhance bicycling and walking accommodation.
- Facilitate the implementation of bicycle and pedestrian improvements
- Promote public awareness and acceptance of bicycling and walking.

The Plan identifies major utilitarian and recreational generators of bicycle and pedestrian traffic in Middlesex County, such as employment centers, train and bus stations, schools, colleges and universities such as Rutgers, parks and shopping centers.

Existing bicycle and pedestrian facilities throughout the County are identified by municipality and classified by type.

Bicycle and pedestrian needs and problem areas are discussed in detail. These include:

- The negative perception of cycling and walking as viable means of transportation
- Roadway hazards, physical barriers and poor maintenance of bicycle and pedestrian facilities
- Isolation of residential and commercial developments
- Lack of continuity for bicycle and pedestrian facilities
- Lack of safe, secure and continuous bicycle and pedestrian facilities
- Lax enforcement of laws protecting cyclists and pedestrians.

Proposed bicycle and pedestrian projects throughout the County are presented in detail by study area and municipality. The five study areas and component municipalities are:

Northwest	Dunellen, Middlesex, Piscataway and South Plainfield
County Seat	Highland Park, Milltown, New Brunswick and North Brunswick
Northeast	Carteret, Edison, Metuchen, Perth Amboy and Woodbridge
Central	East Brunswick, Old Bridge, Sayreville, South River and Spotswood
South County	Cranbury, Helmetta, Jamesburg, Monroe, Plainsboro and South Brunswick

Maps of the County and individual study areas are included in the Plan. The proposed bicycle and pedestrian projects are identified by numeric code on the maps and discussed in detail in the text.

The municipal proposals include:

- Greenways, bicycle and pedestrian trails along utility rights of way and waterfront bikeway and walkway systems
- New bicycle routes, paths and trails; improvements to existing bicycle facilities
- Shared road bike routes and other roadway improvements to accommodate bicycles
- New sidewalks and improvements to existing sidewalk facilities, pedestrian bridges and tunnels
- Striping, signage and graphics for bicycle routes and pedestrian facilities
- Bicycle storage facilities at train stations and park and ride lots

The Plan establishes a bicycle route network throughout the County. The proposed network is an interconnected and continuous system of roads that provide bicycling access to activity centers and generators in various parts of the County. The proposed network ties in, wherever possible, to routes in adjoining municipalities. The network includes a portion of the High Point to Cape May bicycle route, which traverses the southern portion of Middlesex County.

The Plan proposes comprehensive strategies and policy recommendations to provide safe and secure bicycle and pedestrian accommodations throughout the County. Some of the recommendations are:

- Encouraging people to cycle or walk to nearby employment centers, shopping areas and public transit points
- Educating motorists, cyclists and pedestrians to share the road and obey the rules of the road
- Encouraging employers, schools, community officials and police to promote bicycling and walking and to provide safety information for cyclists and pedestrians
- Installing secure bicycle storage facilities at employment centers, shopping centers and downtown areas
- Installing adequate lighting along bike paths, in downtown areas, at shopping centers, at public transportation facilities and employment centers
- Providing marked crosswalks, signage and barrier free curbs
- Enforcing laws protecting cyclists and pedestrians
- Eliminating roadway hazards such as unsafe sewer grates
- Encouraging cooperation between neighboring municipalities regarding new development
- Acquiring railroad rights of way, utility easements and land along stream corridors for bikeways and hiking trails
- Amending land use regulations to address the needs of bicyclists and pedestrians

The Plan can be implemented through use of a variety of federal, state, county, local and private sector funds.

There is significant support at all levels of government for creating new bicycle and pedestrian facilities, as well as public and quasi-public entities

The Plan should be taken into consideration by government agencies seeking to improve roadways to address bicycle and pedestrian needs.

The Plan is a useful tool that provides the County with the means to achieve safe and efficient bicycle and pedestrian circulation and enhance the quality of life for County residents by reducing automobile traffic and air pollution and promoting physical fitness.

III. GOALS & OBJECTIVES

Four major goals of the 2001 Bicycle and Pedestrian Plan are:

- Goal 1 Establish a countywide bicycle and pedestrian network**

- Goal 2 Develop policies, practices and procedures that promote and generate actions that enhance bicycling and walking accommodations**

- Goal 3 Facilitate the implementation of bicycle and pedestrian improvements**

- Goal 4 Promote public awareness and acceptance of bicycling and walking**

GOALS AND OBJECTIVES IMPLEMENTATION STRATEGIES

GOAL 1

Establish a countywide bicycle and pedestrian network

Objectives

- Complete gaps in the existing sidewalk network with priority for connections to major trip attractions such as Rail and Bus stations, Rutgers, Schools, Parks, downtowns, and other shopping/service amenities.
- Design highway facilities that are bicycle/pedestrian compatible.
- Design bicycle/pedestrian facilities to the AASHTO Standards, the Manual of Uniform Traffic Control Devices (Section Nine guidelines), and NJDOT *Bicycle and Pedestrian Facilities Planning and Design Guidelines*.
- Provide where possible bicycle and/or multi-use paths with features that are safe and secure.
- Identify the bicycle/pedestrian network with signs.
- Establish a maintenance program for Bicycle/Pedestrian facilities.
- Provide bicycle storage facilities; bicycle racks and lockers at major trip destinations.

Implementation Strategies

- Undertake “rails to trails” projects converting abandoned rail rights-of-way to public paths.
- Examine utility rights-of-way for possible Bicycle Pedestrian facilities.
- Include bicycle and pedestrian facilities in the design of road and bridge construction and re-construction projects.
- Construct sidewalks within a 1-mile radius of railroad stations and park and ride lots.
- Improve bicycle and pedestrian facilities in areas surrounding railroad stations and park and ride lots.
- Investigate feasibility of “Princeton Yellow Bike” program application for Rutgers, Middlesex County College and “bike on board” and “rack and roll” in Middlesex County.

GOAL 2

Develop policies, practices and procedures that promote and generate actions to enhance bicycling and walking accommodations.

Objectives

- Encourage municipalities to examine land use practices and to provide opportunities for bicycle and pedestrian travel.
- Encourage municipalities to develop a bicycle/pedestrian Master Plan element.
- Encourage municipalities to develop municipal ordinances that specify requirements for bicycle and pedestrian facilities.
- Design facilities that comply with ADA American with Disabilities Act requirements.
- Coordinate the design and construction of bicycle and pedestrian routes and facilities between municipal and County jurisdictions to ensure regional continuity.
- Promote and design safety for bicycle and pedestrian facilities.

GOAL 3

Facilitate the implementation of bicycle and pedestrian improvements

Objectives

- Request State, County, and Municipal Governments to program improvements for bicycle and pedestrian facilities.
- Assist local actions to obtain bicycle and pedestrian funding.

Implementation Strategies

- Develop inter-local cost sharing agreements for multi-jurisdictional projects (i.e. design, construction, maintenance).
- Educate, property owners and property managers of Utility Companies, Schools, Libraries, Commercial areas, Downtown areas, Rail and bus Stations, Recreation areas, Scenic, Historic and Cultural sites, Employment Centers, residential areas about actions to provide bicycle and pedestrian facilities.
- Expand “bike on board” program with NJTRANSIT.
- Update and maintain a reference file of bicycle pedestrian information.

GOAL 4

Promote public awareness and acceptance of bicycling and walking.

Objectives

- Encourage bicycling and walking as alternatives to single occupancy auto trips.
- Promote public education programs for bicycle and pedestrian rules and safety.

Implementation Strategies

- Expand the Middlesex County Bicycle/Pedestrian Task Force to include school districts, Middlesex County Superintendent of Schools.
- Install signs that inform walkers/bikers and drivers about bike/pedestrian concerns on the road.
- Provide greater emphasis within the NJ Division of Motor Vehicle Driver's Manual on the rights of bicyclists and pedestrians and the motorist's responsibility to share the road.

IV. GENERATORS OF BICYCLING & PEDESTRIAN ACTIVITIES IN MIDDLESEX COUNTY

The following land use categories are major trip generators that could be considered likely places to produce bicycle and pedestrian trips:

- **Downtowns**
- **Train Stations**
- **Bus Terminals**
- **Educational Institutions & Facilities**
 - **Rutgers University & Middlesex County College**
 - **High Schools & Technical Schools**
 - **Libraries**
- **Recreational Facilities**
 - **Parks**
 - **Movie Theaters**
 - **Shopping Centers/Malls**
- **Other**

The following is an inventory of the potential Middlesex county bicycle and pedestrian trip generators cited above.

Downtowns and Train Stations

Middlesex County has many older downtowns that grew up around the development of railroads. Today many are busy commuter stops.

New Jersey Transit Commuter Rail Ridership Counts

<u>RAIL</u> <u>LINE</u>	<u>STATION</u>	<u>1995</u>	<u>2001</u>
North Jersey Coast Line	Avenel	66	133
	Woodbridge	1,021	1,482
	Perth Amboy	596	842
	South Amboy	994	1,132
	Total		2,677
North East Corridor	Metropark	4,714	5,832
	Metuchen	2,919	3,237
	Edison	2,009	2,327
	New Brunswick	2,395	4,420
	Jersey Avenue	1,161	1,201
Total		13,198	17,017
Raritan Valley Line	Dunellen	881	
	Total		881

Source: New Jersey Transit

These train stations accommodate bicycles and have bike lockers and bike racks for the convenience of riders, as shown on pages 8a, 8b and 8c.

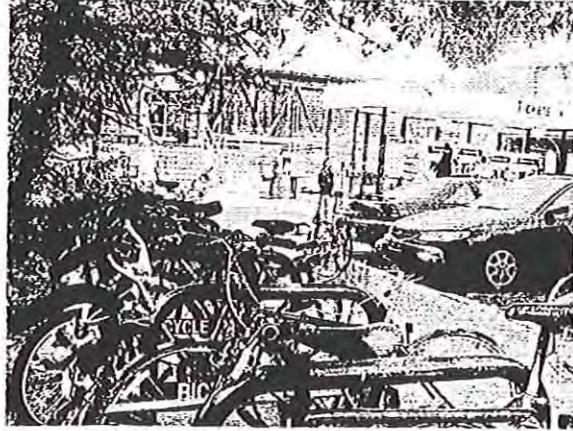
Some downtowns, which do not have rail service, have maintained the traditional village development patterns. Examples of this are Milltown, South River, South Plainfield, Spotswood, Carteret, Middlesex, Cranbury, Jamesburg and Highland Park.

Downtowns such as those in New Brunswick and Highland Park are significant generators of bicycle and pedestrian traffic, as shown on pages 8d, 8e and 8f.

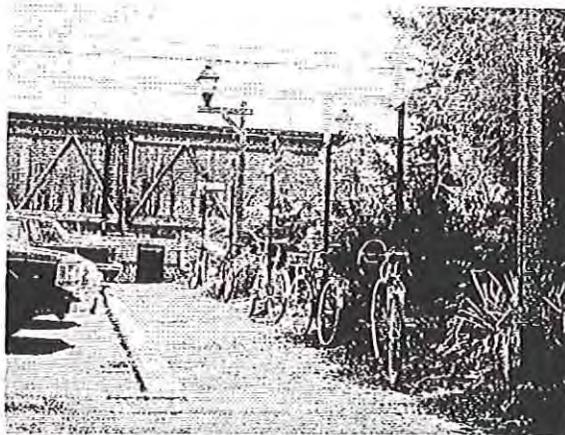
Bus Park and Ride Stops

Bus Park and Ride stops are located in the NJ-9, NJ-18, NJ-27 Commuter Corridors. The Old Bridge park and ride has bicycle racks and lockers. The Transportation Center and Neilson Park Plaza park and ride facilities in East Brunswick have bicycle racks.

Bicycles are stored in several locations at the downtown Metuchen Train Station located on Main Street, a heavily traveled County road.

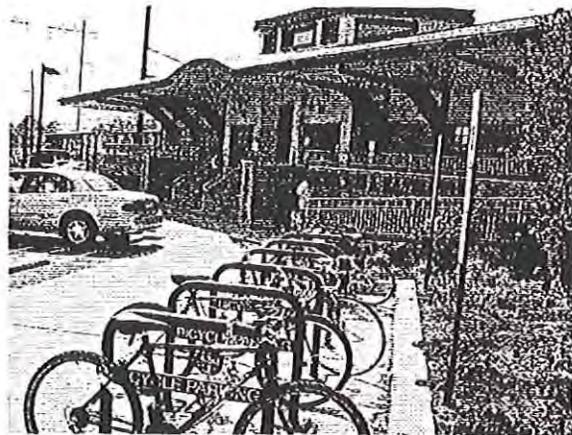


Metuchen Train Station



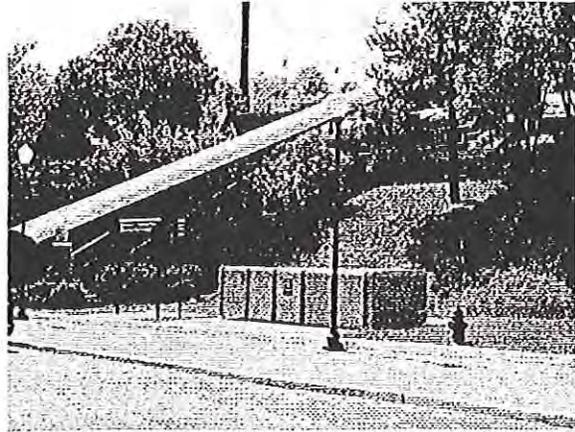
Metuchen Train Station

Bicycle storage racks at the Edison Train Station located on Plainfield Avenue, a heavily traveled County road, and Central Avenue, a municipal road.

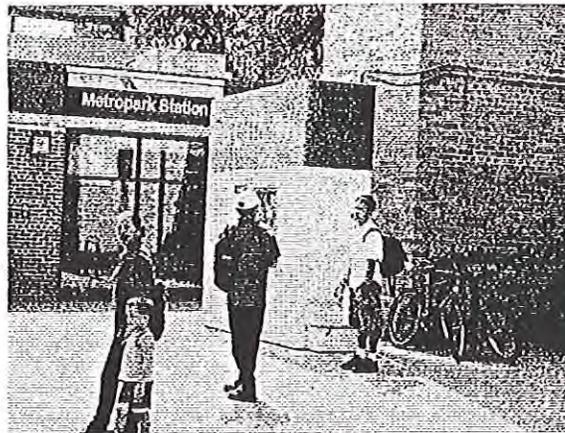


Edison Train Station

Bicycle storage lockers are provided at the Metropark Train Station in Woodbridge Township.



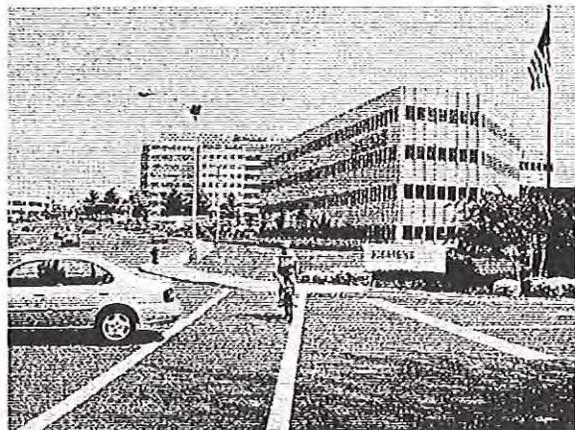
Metropark Train Station, Woodbridge



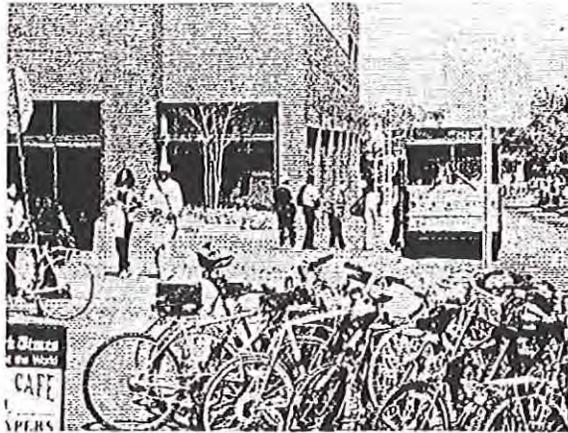
Metropark Train Station, Woodbridge

The Metropark Train Station on Middlesex Essex Turnpike, a County road, is heavily utilized by commuters and by interstate travelers served by AMTRACK.

South Wood Ave., a County road between Rt. 27 and Garden State Parkway, has significant pedestrian traffic due to its proximity to Metropark.



South Wood Avenue, Woodbridge



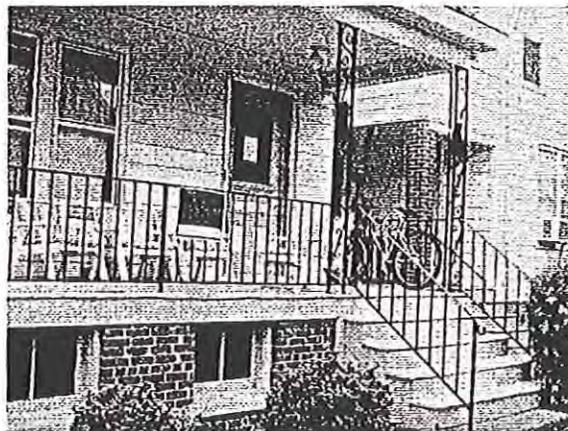
The New Brunswick Train Station provides bicycle storage for commuters

New Brunswick Train Station

Rutgers University students on all campuses are a major bicycle user group

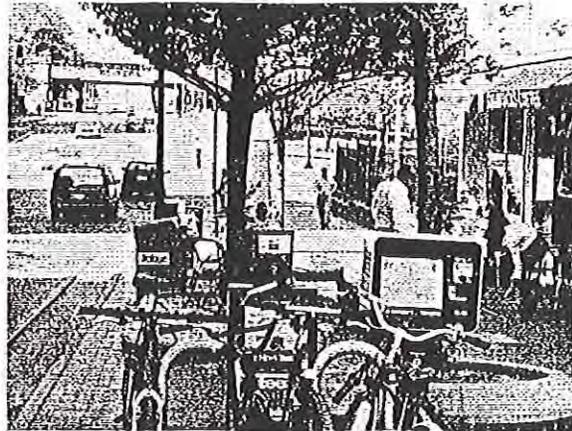


New Brunswick

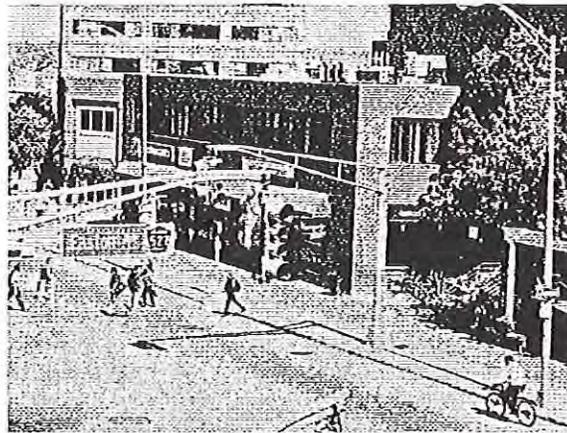


New Brunswick

George Street in downtown New Brunswick has high traffic volumes at all times of day.



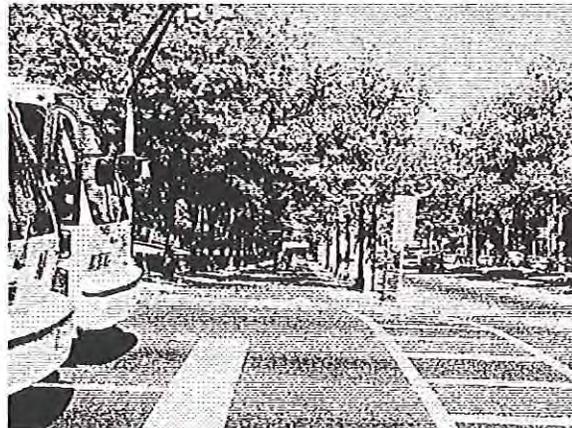
Downtown New Brunswick



Easton Avenue in New Brunswick has significant pedestrian and bicycle traffic.

Easton Avenue, New Brunswick

Striped pedestrian crosswalk on Albany Street, a heavily travelled County road in New Brunswick.



Albany Street, New Brunswick



Route 27, Highland Park

Highland Park is a typical pedestrian friendly community, with continuous sidewalks, marked crosswalks, depressed curb for the handicapped, and street furniture such as benches.

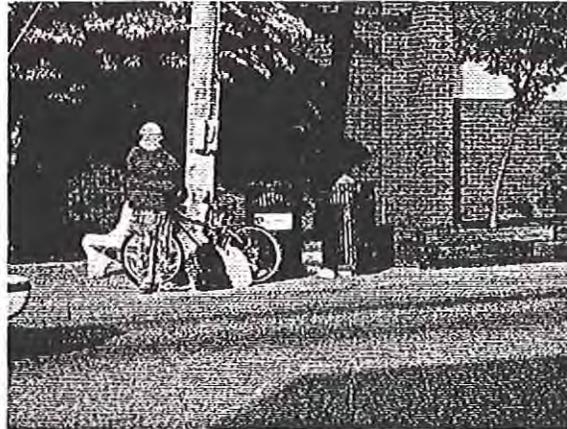


Route 27, Highland Park



Route 27, Highland Park

Bicyclists are common in the downtown area of Highland Park. Bicycle racks are provided on Route 27.



Fourth Avenue, Highland Park

Educational Institutions and Facilities

- **Rutgers University**

Rutgers generates large numbers of bicycle riders and walkers. The Rutgers Campus Bus generated 6,413,988 trips in 1999. The 35,000 students and 15,000 faculty and staff made those trips. The campuses are spread out on both sides of the Raritan River in New Brunswick and Piscataway. These include: Cook, Douglas, Downtown, College Avenue, Busch, and Livingston Campuses. Campus buses have bicycle racks on their front for rack and roll service. The University bicycle plan shows existing and planned bikeways.

- **Middlesex County College**

Middlesex County College is located in Edison on CR-514 and Mill Road. There are 10,000 students enrolled there. Middlesex County College also has branch campuses in New Brunswick and Perth Amboy.

It is a commuter college and has potential to generate bicycle trips. Most students and faculty commute by car and some by bus on the M14 and M13 lines, which serve the Edison campus.

Students and faculty at the New Brunswick and Perth Amboy branches commute by car or bus. Some walk or use bicycles.

- **Technical Schools**

Middlesex County has 5 Technical High Schools located in:

- East Brunswick
- New Brunswick
- Perth Amboy
- Piscataway
- Woodbridge

Riding bicycles to school is an opportunity for many students.

- **High Schools**

There are 24 high schools in Middlesex County.

Edison High School has constructed a 4-foot bicycle facility on the shoulders of Boulevard of the Eagles from Old Post Rd. to Winthrop Rd. at the High School. For example, high schools such as those in East Brunswick, Sayreville and Old Bridge have extended sidewalks to collector roads and North Brunswick High School is proposing a path to a Rt. 1 crossing at North Oaks Blvd.

- **Middle Schools**

There are 32 Middle Schools in Middlesex County. Bicycles are accommodated at each.

- **Libraries**

Libraries exist in all municipalities with accommodations for bicycles.

- **Recreation Facilities**

Most municipalities have public and quasi-public recreation centers. Some are designated for senior citizens and/or youths. Others are used by all residents.

Table 1 shows the name, location (municipality) and total acreage of Middlesex County parks. Also shown in Table 1 are State parks and the location of each. Table 2 shows the name and location of municipal parks in Middlesex County.

Parks generate significant bicycle and pedestrian traffic, primarily for recreation purposes. Many provide jogging and fitness trails, bicycle and/or pedestrian paths. Generally, roads within County parks and large municipal parks do not have significant automobile traffic, speed limits are low, and shoulders are adequate for cyclists and pedestrians. Some parks provide racks for bicycle storage.

- **Shopping Centers and Movie Theaters**

Table 3 shows the name and location (municipality) of shopping centers and movie theaters in the County. Shopping centers are potential generators of bicycle and pedestrian traffic, depending upon the location. A few shopping centers have racks for bicycle storage. Forrestal Village in Plainsboro is a unique example of an outdoor, pedestrian oriented shopping center, as shown on page 13e.

Movie theaters are also potential generators of bicycle and pedestrian traffic, again, depending upon their location.

**TABLE 1
COUNTY AND STATE PARKS**

MIDDLESEX COUNTY PARKS

PARK	LOCATION
Donaldson Park	Highland Park
Thomas A. Edison Park	Edison
Johnson Park	Highland Park & Piscataway
Joseph Medwick Park	Carteret
Merrill Park	Woodbridge
Roosevelt Park	Edison
Spring Lake Park	South Plainfield
Tamarack Golf Course	East Brunswick
Thompson Park	Jamesburg & Monroe
William Warren Park	Woodbridge
Ambrose Doty's Brook Park	Piscataway
Davidson's Mill Pond Park	South Brunswick
Ireland Brook Park	East Brunswick & South Brunswick
Jamesburg Conservation Area	East Brunswick & Helmetta
Raritan Bay Park	Sayreville & South Amboy
John A. Phillips Open Space	Old Bridge

STATE PARKS

Cheesequake State Park	Old Bridge
Delaware & Raritan Canal State Park	Plainsboro
Edison State Park	Edison
Pigeon Swamp State Park	South Brunswick

**TABLE 2
MUNICIPAL PARKS**

PARK	LOCATION
Avenel Park	Woodbridge
Albert Avenue Park	Milltown
Babbage Park	North Brunswick
Bicentennial Park	East Brunswick
Bissetts Recreation Center	South River
Borough Park	Milltown
Boyd Park	New Brunswick
Boynton Park	Woodbridge
Brunswick Acres Park	South Brunswick
Buccleuch Park	New Brunswick
Carteret Park	Carteret
Central Avenue Park	Edison
Charles Day Park	Piscataway
Cliffwood Beach Park	Old Bridge
Columbia Park	Dunellen
Columbus Park	Piscataway
Community Park	Plainsboro
Cooper Avenue Playground	Woodbridge
Country Lake Park	East Brunswick
Dales Pond Recreation Area	South River
Dalton Park	Perth Amboy
East Brunswick Park	East Brunswick
East New Road Park	South Brunswick
Feaster Park	New Brunswick
Geick Park	Old Bridge
Groveland Park	Edison
Haines Avenue Park	South Plainfield
Harvey Park	New Brunswick
Heathcote Park	South Brunswick
Hidden Lake Park	North Brunswick
Higgins Road Soccer Fields	Old Bridge
James Monroe Park	Monroe
Keystone Park	Old Bridge
Lakeridge Recreation Area	Old Bridge
Lenape Trail	Plainsboro
Louis Park	Carteret
Luke Park	North Brunswick
Memorial Park	Metuchen
Michelin Field	Milltown
Mill Pond Park	Plainsboro
Monroe Township Recreation Area	Monroe
Morris Davison Park	Plainsboro
Mountain View Park	Middlesex
North Brunswick Township Park	North Brunswick
Old Bridge Veterans Park	Old Bridge

TABLE 2 (Continued)
MUNICIPAL PARKS

PARK	LOCATION
Pacers Field	South River
Pension Road Park	Old Bridge
Pine Ridge Park	East Brunswick
Plainsboro Park	Plainsboro
Plainsboro Preserve	Plainsboro
Putnam Park	South Plainfield
Raceway Park	Old Bridge
Rahway Park	Woodbridge
Reichler Park	South Brunswick
Rudyk Park	South River
Sabella Park	North Brunswick
Sadowsky Park	Perth Amboy
Sayreville Kennedy Park	Sayreville
Schalks Meadow Park	Plainsboro
Shadyside Park	South Plainfield
Ticetown Road Park	Old Bridge
Two Acres Park	Edison
Unami Woods Park	Cranbury
Veterans Memorial Youth League Complex	Perth Amboy
Victor Crowell Park	Middlesex
Village Park	Cranbury
Walnut Park	Piscataway
Washington Park	Perth Amboy
Waters Edge Park	Plainsboro
Welsh Park	East Brunswick
West New Road Park	South Brunswick
Wolverine Park	Monroe
Woodbridge Park	Woodbridge
Woodhaven	Old Bridge

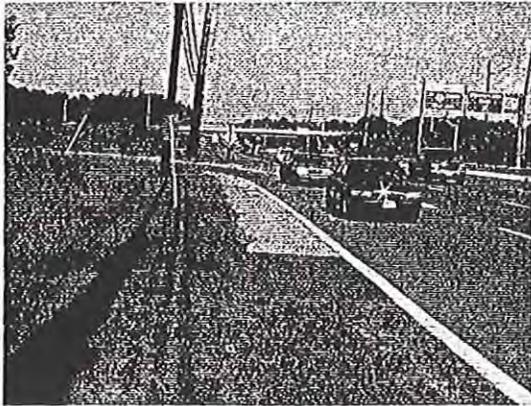
**TABLE 3
SHOPPING CENTERS AND
MOVIE THEATERS**

SHOPPING CENTERS

NAME	LOCATION
Applegarth Plaza	Monroe
Browntown Shopping Center	Old Bridge
Brunswick Shopping Center	North Brunswick
Brunswick Square Shopping Center	East Brunswick
Carteret Shopping Center	Carteret
Cheesequake Commons	Old Bridge
Concordia Shopping Center	Monroe
Dayton Plaza	South Brunswick
Deep Run	Old Bridge
Hadley Shopping Center	South Plainfield
Johnson Plaza	New Brunswick
Kmart/Pathmark Shopping Center	Old Bridge
Kendall Park Shopping Center	South Brunswick
Menlo Park Shopping Center	Edison
Mid-State Mall	East Brunswick
Mini-Mall Shopping Center	Old Bridge
Monroe Plaza	Monroe
Park Plaza	Monroe
Plainsboro Plaza	Plainsboro
Post Plaza	Edison
Princeton Forrestal Village	Plainsboro
Princeton Meadows	Plainsboro
Route 9 Plaza	Old Bridge
Shops at Commerce Place	North Brunswick
South Brunswick Square Center	South Brunswick
Town Square	Old Bridge
Toubin Plaza	Old Bridge
Wick Plaza	Edison
Woodbridge Center	Woodbridge

MOVIE THEATERS

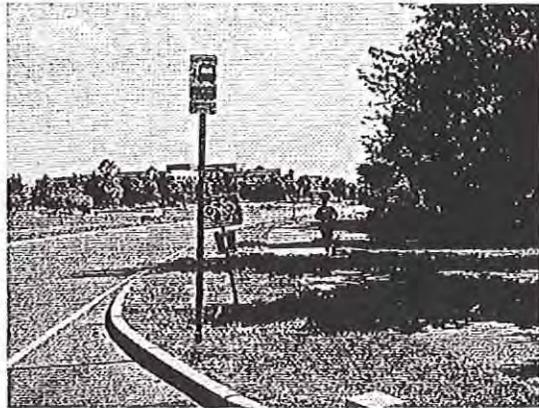
Brunswick Square Cinemas	East Brunswick
Clearview Cinema	Edison
Kendall Park Cinemas	South Brunswick
Loews Cinemas	New Brunswick
RKO Cineplex Odeon	Edison
Regal Cinemas	North Brunswick
Regal Cinemas	South Brunswick



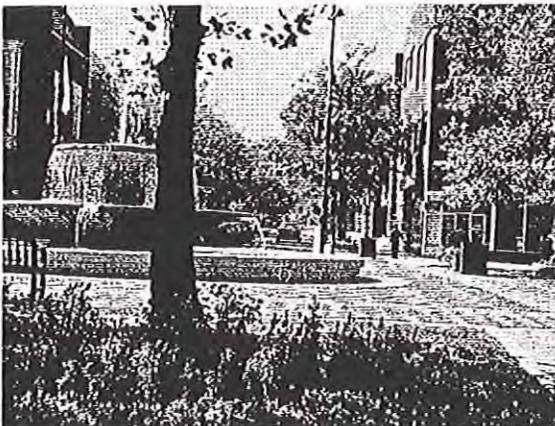
Plainsboro Township

Route 1 sidewalk over Scudders Mill Road bridge in Plainsboro, Intersecting with the bike path To the Delaware and Raritan Canal towpath.

Bicycle route on College Road, Plainsboro



Plainsboro Township



Plainsboro Township

Forrestal Village, an Outdoor pedestrian shopping Center in Plainsboro

- **Scenic and Historic Sites**

Cranbury Village
Perth Amboy Marina
Rural areas such as Southern Middlesex County

Scenic areas such as villages, marinas, waterfront attractions, and rural areas generate significant bicycle and pedestrian traffic. Bicycle and pedestrian access to the Delaware and Raritan State Park is provided in locations such as Plainsboro Township, as shown on page 13e.

- **Employment Centers**

College Road in Plainsboro
Offices along the Route 1 corridor
The area around Exit 8A of the New Jersey Turnpike
Centennial Avenue in Piscataway
The area around the Metro Park train station
Raritan Center

Employment centers currently generate some bicycle and pedestrian trips, depending upon location. There is potential for even greater bicycle and pedestrian traffic.

- **Other**

Residential subdivisions
Townhouse and condominium developments
Apartment complexes

Residential developments generate the greatest number of bicycle and pedestrian trips. Most are recreational in nature and of short duration.

V. LOCAL NEEDS AND PROBLEM AREAS

The bicycle and pedestrian needs of each Middlesex County municipality are unique, based on variables such as location, physical characteristics, population and types of potential bicycle and pedestrian traffic generators. However, all share certain common needs.

A. Bicycling Accommodations

Roadway Design and Maintenance. Existing State, County and municipal roadways need to be improved to eliminate hazards and impediments and incorporate design features that will provide safe and continuous access for cyclists.

Existing routes with substandard design standards cannot safely accommodate bicycle traffic. This discourages cyclists from using these routes. There are no shoulders, or inadequate shoulder widths, lack of signage and striping for bicyclists on many existing State, County and municipal roads. There are many driveways and curb cuts along these routes that pose hazards to cyclists.

Many existing roadways are poorly maintained. Debris, overgrown vegetation, potholes and ruts are hazardous to cyclists. Physical barriers such as curving routes and unsafe drainage grates are a danger to bicyclists. Middlesex County has begun to address these problems by installing bicycle compatible drainage grates.

Access and Circulation. Isolation of residential and commercial developments remains a problem, particularly in exurban and rural areas. This has resulted in over dependence on the automobile. Related to the isolation that has resulted from the current pattern of residential and commercial development throughout the County is the lack of adequate and continuous bicycle routes.

There are few safe or adequate routes linking these residential subdivisions, townhouse and apartment complexes, employment centers, transportation centers and commercial developments, municipal government and recreation facilities, schools and libraries, except in bicycle and pedestrian friendly down town municipalities such as Metuchen. It is difficult, in many cases impossible for a person to forgo use of the automobile and use his or her bicycle to go to work, reach train or bus stations, go to school, go shopping or to reach recreation facilities such as parks and playgrounds.

Dependence on the automobile as the primary means of transportation, as well as the widespread use of fuel-inefficient vans and sport utility vehicles, increases gasoline consumption at a time when this country needs to be less dependent on foreign sources of energy.

Automobile oriented patterns of development have a negative impact on health. Air pollution resulting from the increasing number of automobile trips is a major cause of respiratory diseases, particularly among children and the elderly.

Dependence upon the automobile affects our quality of life in other ways. Long commutes, consumption of fast foods instead of healthy meals, lack of time for exercise, use of the car for simple errands, and driving children to school because it is unsafe for them to walk are just a few of the negative impacts resulting from automobile oriented patterns of development.

The lack of physical activity has been linked to many health problems such as heart disease, diabetes and osteoporosis. There appears to be a direct link between suburban sprawl and obesity, according to the Center for Disease Control. Medical research indicates that approximately one out of every four Americans is obese and 60 percent are overweight.

Education. Motorists and cyclists need to respect each other. Motorists often consider cyclists a nuisance and do not perceive the bicycle as a vehicle. Motorists will, for example, yield the right-of-way to another driver, but not to a cyclist. This mindset endangers cyclists because motorists are generally not aware of their presence. More emphasis needs to be placed in educating drivers to respect the rights of bicyclists and pedestrians through such means as NJDMV Drivers Manual when people get their driver's license and through periodic Driver Improvement courses.

Many cyclists endanger themselves, motorists and pedestrians by not obeying the rules of the road, running red lights and stop signs, entering one way streets, riding against rather than with traffic, and riding along the sidewalk in areas of high pedestrian traffic.

Enforcement. Enforcement of laws that protect pedestrians and cyclists is often lax, especially at crosswalks, where motorists do not yield the right-of-way to pedestrians. Also, motorists use County and municipal parks as short cuts to avoid traffic, particularly during the evening peak. They far exceed the low speed limits and endanger cyclists and pedestrians, particularly young children.

Security. Lack of secure storage facilities discourages the cyclist from using his or her bicycle to reach destinations such as places of employment, train or bus stations, park and ride facilities and shopping centers.

Other security issues are inadequate lighting and physical barriers at public and commercial facilities, along roadways and on secluded bike paths or trails.

B. Pedestrian Accommodations

All trips involve walking, regardless of their primary transportation mode. People walk to work, to train stations and bus stops, to shopping facilities. Walking for exercise and recreation has become enormously popular.

Children walk to school, particularly in cities such as Perth Amboy and New Brunswick, and in small "walking communities" such as Highland Park, Metuchen, South River and Cranbury.

There is great potential for pedestrian trips to the workplace, transportation facilities and shopping areas, to schools, parks and recreation facilities throughout the County. However, this potential can be realized only if certain pedestrian needs are addressed.

Safety is a major pedestrian issue in urban, suburban and rural areas in Middlesex County.

Parents will drive children to school and recreation facilities because walking is hazardous. This is an issue in communities such as South River, where most children live within 1.9 miles of their school and are ineligible for busing.

Pedestrian problems include:

- Unmarked or poorly marked crosswalks at intersections; lack of mid-block crossings, particularly in school zones
- Lack of police or crossing guards at busy intersections in school zones
- Visual obstructions near street crossings
- Lack of sidewalks along residential streets, no sidewalks or sidewalks on only one side of subdivision streets, lack of sidewalks at commercial developments along major roadways.
- Isolation of residential and commercial developments, particularly in suburban and rural areas in the South of Middlesex County.
- No sidewalk networks; a lack of continuous sidewalk between residential developments
- Lack of continuous sidewalk along major roadways connecting residential areas to schools, recreation areas and shopping centers

- Poor condition of existing sidewalks
- Lack of facilities, such as curb cuts for the handicapped
- Poor lighting along roadways, in downtown and suburban shopping areas and other places utilized by pedestrians
- Lack of pedestrian attractions/amenities such as landscaping and street furniture
- Laws protecting pedestrians are not evenly enforced, particularly at crosswalks where pedestrians have the right of way. Motorists ignore this because they know this is not considered a high priority enforcement issue.

VI. EXISTING FACILITIES

Existing Bicycle Facilities

Definitions

The United States Department of Transportation defines a bikeway as any road, street, path, or way that in some manner is specifically designed for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

A shared use path is a bikeway that is physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent alignment. Shared use paths may also be used by pedestrians, wheelchair users, joggers and other non-motorized users.

A bicycle lane is a portion of a roadway that has been designated by signs and pavement markings for preferential or exclusive use by bicyclists.

Following is a list of existing bicycle facilities in Middlesex County.

Class I Bikeways (Off-Road Bike Paths)

1. **South Plainfield**- path around Spring Lake
2. **Edison**- path around and through Roosevelt Park
3. **Edison** – path around Lake Pappiani
4. **Piscataway**- short trail off Blackford Street
5. **iscataway**- Kermit Conackamak Path through School Property to Witherspoon Street-Custer Street
6. **Piscataway**- Johnson Park bikeway
7. **Perth Amboy**- Victory Bridge to Grant Street – River View Road Bicycle Path
8. **Perth Amboy**- Harborwalk from Wilentz School to Smith Street Ferry Terminal
9. **Woodbridge**- Walkway along Woodbridge Creek
10. **Woodbridge**- Walkway from Ferry Street along Smith Creek aside of Cliff Road to Woodbridge Street (Port Reading)
11. **Highland Park**- River Road from NJ 27 along Johnson Park
12. **Highland Park**- from Donaldson Street to Valentine Street
13. **Highland Park**- Donaldson Park Bicycle/Pedestrian path
14. **New Brunswick**- Boyd Park from behind Police property to Rutgers Boathouse
15. **New Brunswick**- Buccleuch Park from College Avenue (Lafayette Pl) to Park Lane
16. **New Brunswick**- Rutgers bikeway (Trench) from George Street to NJ 27
17. **New Brunswick**- Cook-Douglas Bikeway
18. **North Brunswick**- along Cozzens Lane from Spring Street to Sabella Park
19. **North Brunswick**- North Brunswick Twp. Park along Lawrence Brook utility corridor
20. **South Amboy**- Raritan River Waterfront County Park
21. **South Brunswick**- West New Road Park
22. **South Brunswick**- MC 522 from NJ 27 to Princeton Gate/Princeton Walk
23. **South Brunswick**- MC 522 from Kingston Lane to NJ 130

24. **Plainsboro**- Along Cranbury Brook and Plainsboro Pond (Lenape Trail) from Waters Edge Park east to George Davison Road; Along Grovers Mill Road from Upper Elementary School east and south to Derry Meeting Drive; along Plainsboro Road from Wyndhurst Drive east to Morris-Davison Park and from Plainsboro Community Gardens west to Firmenich Incorporated; along College Road West from Route One west and south to the end of College Road West (along Princeton Forrestal Village); and along Scudders Mill Road from Route One east to Bristol Myers Squibb Company.
25. **Cranbury**- from MC 539 to Station Road
26. **Plainsboro/South Brunswick**- D&R Canal/East Coast Greenway

Class II & III (Pavement Markings and/or Signs)

1. **Piscataway** – West 5th from Washington Road to Rock Avenue
2. **Piscataway** – Ethel Road West from Stelton Road to Suttons Lane
3. **Edison**- Boulevard of the Eagles from Old Post Road to NJ 27 (shoulders painted 4' wide Bike Lane on Boulevard of Eagles signs on Colton Road and Winthrop Road)

The *Middlesex County Bicycling Guide* in the inside back cover shows the location of existing bicycle facilities throughout the County. The *Guide* also shows the bicycle suitability of major roadways in the County.

Existing Pedestrian Facilities

The Middlesex County Pedestrian and Bikeway Facilities Inventory on County Roads, including Sidewalk Study for 500 and 600 Numbered County Routes published in January, 2000, shows existing sidewalks on one or both sides of some County roads, primarily in the northern, highly developed portion of the County. Fewer sidewalks exist on County roads in the south. The following map, entitled *Middlesex County Sidewalk Study for 500 and 600 Numbered County Routes*, illustrates the location of sidewalks on County roads.

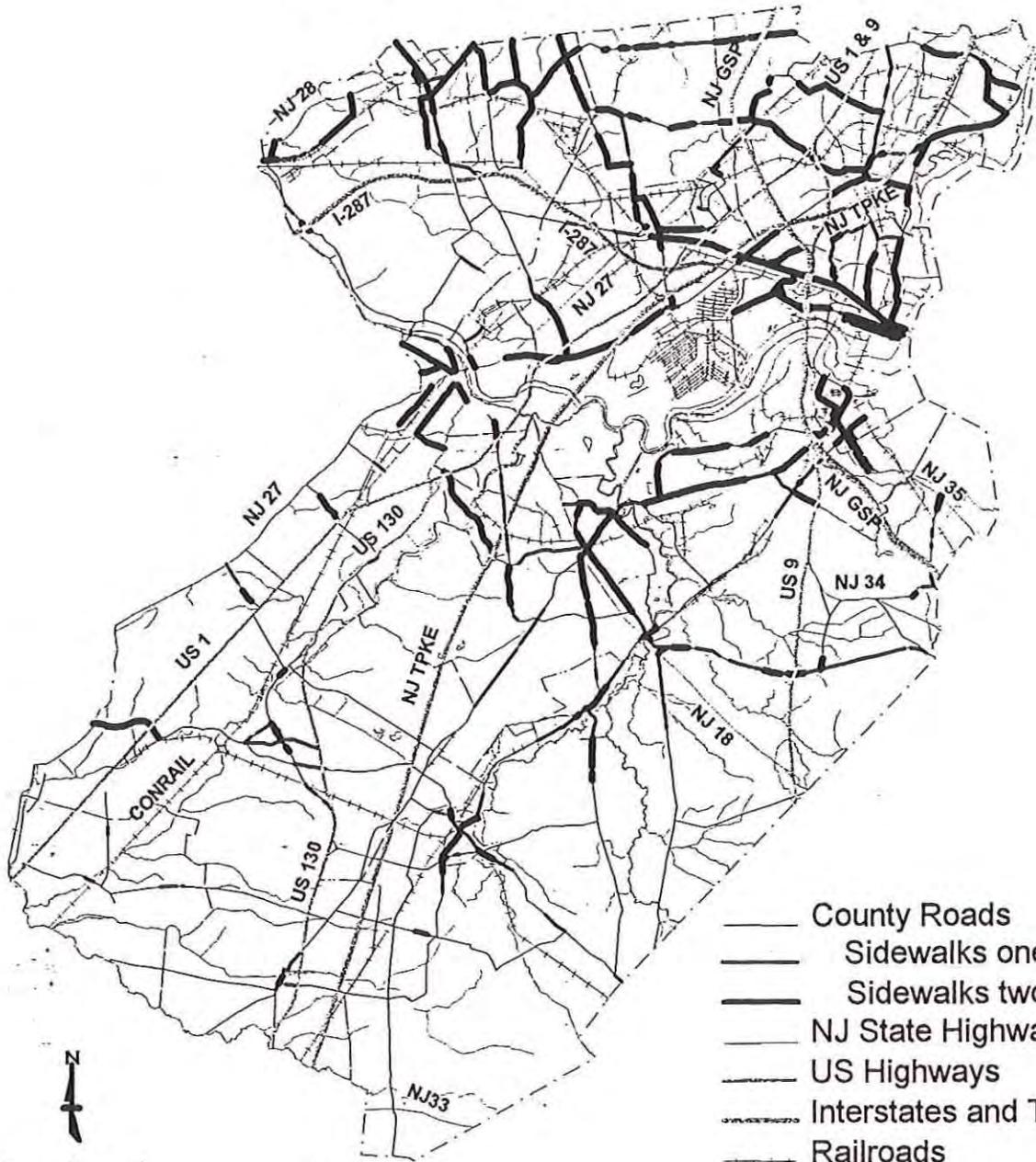
While some sidewalks exist on state highways, such as Route 27 and on interstates, such as Route 1, there is no continuity because the sidewalks are intermittent. Few, if any, are tied into existing sidewalks on County or municipal roads. Also, sidewalks along state and interstate highways are often poorly maintained.

Pedestrian crossings where they exist along most state and county roadways are generally designated by striping and signage. There are some pedestrian overpasses on state highways, such as Route 18, within the County.

Sidewalks exist on municipal streets in cities, towns and older suburbs, primarily in the northern part of the county. The sidewalk patterns in many of these areas are contiguous and form networks, although there are gaps. These sidewalks could be used as alternate routes for pedestrians to safely walk, for example, to nearby shopping areas and to public transport points they would normally access by car.

The Americans With Disabilities Act (ADA) includes design standards to facilitate access for the disabled in public and private places. These standards include curb cuts to accommodate wheelchairs. Streets and sidewalks in new developments conform to ADA requirements, as do recent state, county and municipal road improvement projects. However, there are many areas where curb cuts to accommodate wheelchairs do not exist.

MIDDLESEX COUNTY SIDEWALK STUDY FOR 500 AND 600 NUMBERED COUNTY ROUTES



- County Roads
- Sidewalks one side
- Sidewalks two sides
- NJ State Highways
- US Highways
- Interstates and Toll Roads
- Railroads
- Municipal / County Boundary
- Streams



MIDDLESEX COUNTY PLANNING DEPARTMENT
 TRANSPORTATION DIVISION
 40 Livingston Ave
 New Brunswick
 New Jersey 08901

January 2000

VII. PROPOSED BICYCLE-PEDESTRIAN IMPROVEMENTS

The Middlesex County Bicycle-Pedestrian Plan sets forth the following recommendations for Bicycle-Pedestrian improvements projects, separated out by study area.

For reference's sake, each study area's component municipalities are:

- **Northwest** Dunellen, Middlesex, Piscataway, and South Plainfield
- **County Seat** Highland Park, Milltown, New Brunswick, and North Brunswick
- **Northeast** Carteret, Edison, Metuchen Perth Amboy, and Woodbridge
- **Central** East Brunswick, Old Bridge, Sayreville, South Amboy, South River, and Spotswood
- **South County** Cranbury, Helmetta, Jamesburg, Monroe, Plainsboro, and South Brunswick

PROPOSED BICYCLE-PEDESTRIAN PROJECTS

The proposed Bicycle-Pedestrian Projects, which follow, exist in different stages in the process that groups and organizations have moved toward fulfillment. Most are formulate and have started as an articulated intention. Some are funded and are being designed. Others are stalled. Still others are under construction or have been built and need maintenance.

The regions and municipalities are briefly described below. Following each municipal profile is a description of bicycle-pedestrian projects and their location on the regional maps.

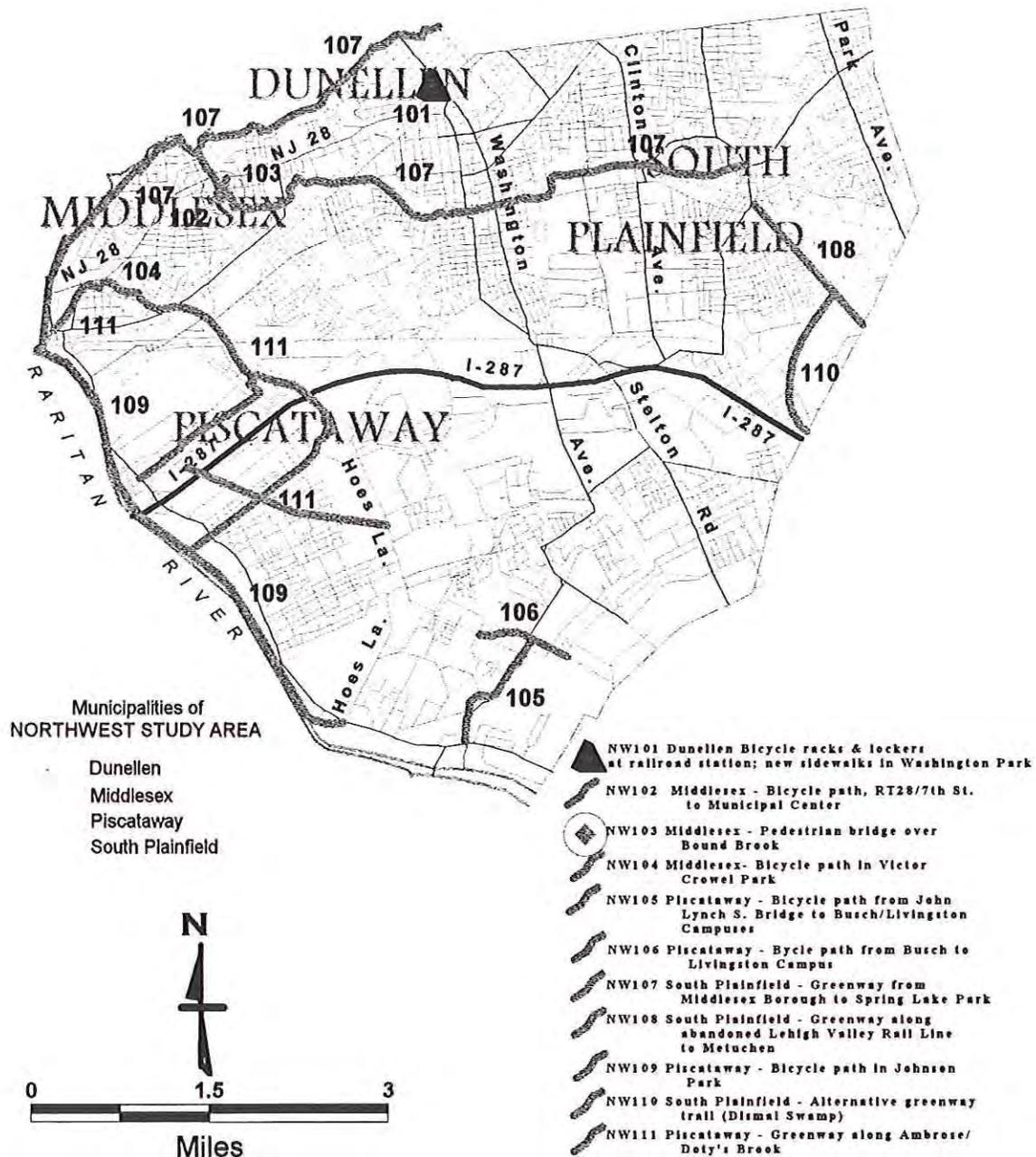
NORTHWEST REGION MUNICIPALITIES

- *Dunellen*
- *Middlesex*
- *Piscataway*
- *South Plainfield*

Description

The northwest study area contains four municipalities that are extensively developed. Employment centers along I-287 are accessed along the two service roads, Centennial Avenue and Hadley Road East-West from River Road in Piscataway all the way to Durham Avenue in South Plainfield, including the Middlesex Mall vicinity. Bike/Pedestrian facilities are proposed for Rutgers Busch/Livingston campuses as well as greenway trails along Ambrose Doty's Brook and Green Brook.

Middlesex County Northwest Study Area PROPOSED BICYCLE - PEDESTRIAN PROJECTS



Source: Middlesex County Planning Board, Transportation Department

MAR 2001 TJP

Dunellen

- **Municipal Summary**

Dunellen has developed with a network of sidewalks that service the downtown and residential areas. NJ 28, which runs through town, was reconstructed in 1997 and carries average daily traffic volumes of 20,200 vehicles.

- **Land Area**

1.0 square miles

- **Population**

6,823 2000 Census

- **Population- Ages 5-14**

692 1990 Census

- **Intermodal Locations**

Dunellen station park and ride
1995 - 881 commuters 220 spaces

NW 101 Dunellen station – 3 bike racks – add 1 bike locker
New sidewalks in Washington Memorial Park

Middlesex Borough

- **Municipal Summary**

Middlesex Borough is located in the northwest corner of the County. NJ 28 runs east/west through the middle of the town. The Raritan Valley Railroad tracks run through as well with commuter stops in adjacent towns of Dunellen and Bound Brook. The NJ 22 transportation corridor provides an east-west travel orientation to the North along the Watchung mountain range.

- **Land Area**

4 square miles

- **Population**

13,717 2000 Census

- **Population – Ages 5-14**

1,561 1990 Census

-
- NW 102** Middlesex Bikeways from NJ 28 and 7th St. at Mountain View Park to Municipal Center
 - NW 103** Pedestrian Bridge over the Bound Brook
 - NW 104** Bicycle path in Victor Crowell Park

Piscataway

- **Municipal Summary**

Piscataway Township is home to the Busch and Livingston Campuses of Rutgers University, and major employment centers. Much of the growth in the township has occurred along Interstate 287, which serves as a major transportation corridor for the region. Major bicycle and pedestrian projects in the township focus on the completion of the NJ 18 extension bikeway and the Rutgers Busch/Livingston Intercampus bikeway. A proposed extension of the Johnson Park bikeway along the Raritan River to I-287 is considered to be an important Greenway recreation facility and a future recreational amenity. Critical improvements are needed at various locations, where narrow roadways that cross over small streams (i.e., Ambrose Doty's Brook) need to be widened in order to allow passage for bicyclists and pedestrians. Of note is that the proposed East Coast Greenway is to pass through sections of Piscataway, principally along Ethel Road, through the Rutgers – Livingston Campus, and Johnson Park and the Landing Lane Bridge.

- **Land Area**

20 square miles

- **Population**

50,482 2000 Census

- **Population- Ages 5-14**

4,812 1990 Census

NW 105	NJ 18 extension bikeway from John Lynch Sr. Bridge, to Busch/Livingston Campuses
NW 106	Busch/Livingston bicycle path from Busch to Livingston Campus
NW 109	Bicycle path extension in Johnson Park
NW 111	Greenway along Ambrose/Doty's Brook

South Plainfield

- **Municipal Summary**

Development came to South Plainfield in the railroad era. Railroads are active today. With two exits on I-287 South Plainfield is very much an employment magnate with good regional access. Bicycle/ Pedestrian projects include Greenway trails from the Borough of Middlesex to Spring Lake Park, South Plainfield along the Bound Brook.

- **Land Area**

8.2 square miles

- **Population**

21,810 2000 Census

- **Population – Ages 5-14**

2,536 1990 Census

-
- NW 107** Greenway from Middlesex Borough to Spring Lake Park
- NW 108** Greenway along abandoned Lehigh Valley Rail line to Metuchen
- NW 110** Alternative Greenway Trail (Dismal Swamp)

COUNTY SEAT MUNICIPALITIES

- *Highland Park*
- *Milltown*
- *New Brunswick*
- *North Brunswick*

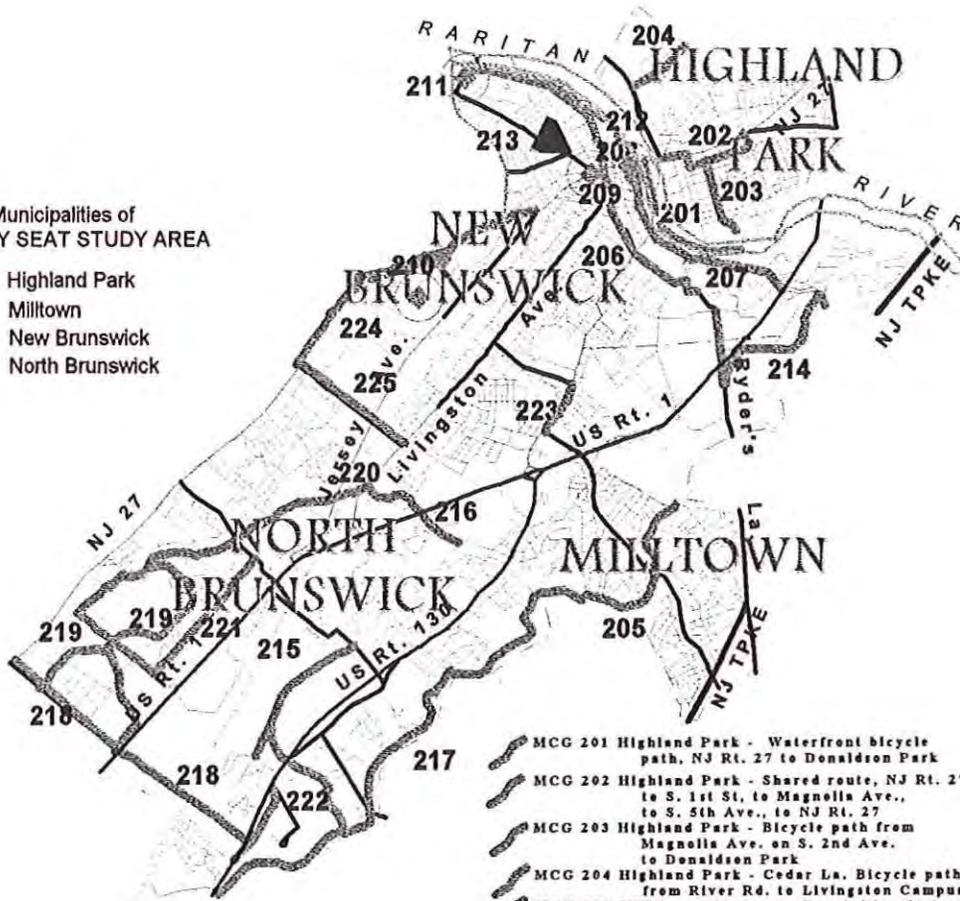
Description

The County Seat study area is centered around New Brunswick, the County Seat. The New Jersey Turnpike Exit 9, US 1, Rtes. NJ 130, 18 and 27 come into or through the area. Bicycle/Pedestrian activity is highest in New Brunswick where 131 people commuted to work by bicycle at the time of the 1990 Census. Many in the Rutgers community ride bikes, and over 6 million Campus trips are made annually on the Campus buses. Most trips are pedestrian trips from Bus to class.

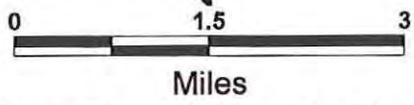
Middlesex County County Seat Study Area PROPOSED BICYCLE - PEDESTRIAN PROJECTS

Municipalities of
COUNTY SEAT STUDY AREA

Highland Park
Milltown
New Brunswick
North Brunswick



- MCG 201 Highland Park - Waterfront bicycle path, NJ Rt. 27 to Donaldson Park
- MCG 202 Highland Park - Shared route, NJ Rt. 27 to S. 1st St., to Magnolia Ave., to S. 5th Ave., to NJ Rt. 27
- MCG 203 Highland Park - Bicycle path from Magnolia Ave. on S. 2nd Ave. to Donaldson Park
- MCG 204 Highland Park - Cedar La. Bicycle path - from River Rd. to Livingston Campus
- MCG 205 Milltown - Lawrence Brook Bicycle / Pedestrian Trail
- MCG 206 New Brunswick - Bicycle route on George St. from NJ Rt. 27 to US Rt. 1
- MCG 207 New Brunswick - Bicycle route on NJ Rt. 18 from NJ Rt. 27 to US Rt. 1
- MCG 208 New Brunswick - Bicycle route on NJ Rt. 18 from John Lynch Sr. Bridge to NJ Rt. 27
- MCG 209 New Brunswick - Timed light displays at NJ Rt. 27 & George St.; and NJ Rt. 27 & Easton Ave.
- MCG 210 New Brunswick - Sidewalks on Van Dyke Ave. from NJ Rt. 27 to Jersey Ave. rail station
- MCG 211 New Brunswick - Sidewalks on Landing La. from bridge to Franklin Blvd.
- MCG 212 New Brunswick - Pedestrian ramp to Boyd Park at NJ Rt. 27
- MCG 213 New Brunswick - Rutgers Campus bicycle racks, Phase II
- MCG 214 North Brunswick - Cook-Douglass Campus bicycle path extension to Tower Center, East Brunswick
- MCG 215 North Brunswick - Bicycle / pedestrian path from Renaissance Blvd. to Adams La.
- MCG 216 North Brunswick - Bicycle / pedestrian path from North Brunswick H.S. to US Rt. 1 at North Oaks Blvd.
- MCG 217 North Brunswick - Greenway along Oakkeys Brook, Farrington Lake to Milltown



Source: Middlesex County Planning Board, Transportation Department
MAR 2001

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Middlesex County County Seat Study Area PROPOSED BICYCLE - PEDESTRIAN PROJECTS

LEGEND Cont'd

-  MCG 218 North Brunswick - Finnegans Lane Bikeway
-  MCG 219 North Brunswick - Bike/Ped Path Utility Right-of-Way
-  MCG 220 North Brunswick - Bike/Ped Path Six Mile Run
-  MCG 221 North Brunswick - Bikeway in Society Hill
-  MCG 222 North Brunswick - Bike/Ped Path
in Stream Corridor Easement
-  MCG 223 North Brunswick - Bikeway Along
Existing Residential Streets
-  MCG 224 New Brunswick - Sidewalks and
Bikeway Renaissance 2000 NJ Route 27
-  MCG 225 New Brunswick - Bicycle Route on
How Lane

Highland Park

- **Municipal Summary**

Highland Park is an established residential community with a central business district concentrated along the NJ 27 corridor. With a land area of less than 2 square miles, all facilities are within easy walking or bicycling distance. Significant volumes of bike/ped traffic converge on the Albany Street Bridge, which leads to destinations in New Brunswick. The Johnson Park bikeway already provides a linkage to this vital Raritan River crossing, but other linkages to the bridge need to be developed or improved. These include improvements along the NJ 27 corridor from the center of Highland Park, as well as a new waterfront bikeway along the Raritan River from Donaldson Park. Other proposed improvements in the Borough include a bike path along Cedar Lane to link the Rutgers Livingston Campus to Johnson Park, and the creation of the shared road bike route along Magnolia Avenue.

- **Land Area**

1.8 square miles

- **Population**

13,999 2000 Census

- **Population- Ages 5-14**

1,400 1990 Census

-
- CS 201** Waterfront bicycle path from NJ 27 to Donaldson Park to Johnson Park through the Highland Park Environmental Education Center on River Road.
- CS 202** Shared road bike route NJ 27 to South First Avenue to Magnolia Street to South Fifth Avenue to NJ 27 and CR514; South Fifth Avenue from Raritan Avenue to the Valentine Street bike path; Valentine Street from South Second to South Fifth connecting to South Seventh via the Southside bike path, to Donaldson Street and Crowells Road to Woodbridge Avenue. North Fifth Avenue from Raritan Avenue to the paved bike path connecting to Harrison Avenue; Harrison Avenue from the Edison border to River Road.
- CS 203** Shared road bike route from Magnolia Street to Donaldson Park; South Second Avenue from Raritan Avenue to Magnolia Street; North Second Avenue from Raritan to Harrison Avenue
- CS 204** Cedar Lane Bicycle Path from River Road to Livingston Campus

Milltown

- **Municipal Summary**

Milltown is very nearly developed. There were no bicycle commuters to work in the 1990 Census. Ryders Lane has been proposed by the County to be bicycle compatible. Milltown has applied for an Enhancement project for a Bicycle-Pedestrian path along Lawrence Brook. The borough currently plans to construct major recreational improvements along the Mill Pond which includes a bicycle/pedestrian path. This project is known as Mill Pond Park.

- **Land Area**

1.6 square miles

- **Population**

7,000 2000 Census

- **Population – Ages 5-14**

830 1990 Census

CS 205 Lawrence Brook Bike/Pedestrian Trail 0.8 miles from Albert Avenue Park to South Main St., US Post Office to Borough Park and Senior Center (Parkview School).

New Brunswick

- **Municipal Summary**

Bicycling activity within and coming into New Brunswick is high. The 1990 Census showed 131 people commuting to work by bicycle, the highest in the County. Significant numbers of bicyclists travel between the two Rutgers University Campuses (College Avenue Campus and Cook/Douglass Campus) along routes that pass through or near the downtown. The central business district along the George Street Corridor features dozens of major destinations and trip generators, including retail shops, restaurants, banks, government and corporate offices, and entertainment venues. The New Brunswick Train Station is a major destination, which is apparent from the large number of bicycles stored in its bike racks. New facilities are needed to enhance access to the critical Raritan River crossings at the Albany Street Bridge (NJ 27), John Lynch Bridge (NJ 18), and Landing Lane Bridge in order to establish a countywide bicycle and pedestrian network. The proposed widening of NJ 18 (between US 1 and RT 27) will include extensive bike/ped facilities, particularly in Boyd Park, but maintenance and upgrade of the existing section of NJ 18 bikeway, referred to as "The Trench", is critically needed. Thoroughfares in the city that should be reviewed for bicycle compatibility include NJ 27, College Avenue, George Street, Neilson Street, Easton Avenue, Suydam Street, Louis Street, Courtland Street, Livingston Avenue, Ryders Lane and Commercial Avenue.

- **Land Area**

5.5 square miles

- **Population**

48,573 2000 Census

- **Population – Ages 5-14**

3,609 1990 Census

- **Intermodal locations**

Bus – Ferren Mall 1250 spaces

Rail Station – 4,420 Riders

Jersey Avenue 1,201 rail riders 856 spaces

CS 206 George Street bike route from Landing Lane to Ryders Lane. A Class 3 bike route with share the road type Signage could be accommodated in this area, however, due To heavy traffic, George Street should be circumvented. **CS 208** would be the preferred route.

CS 207 NJ 18 from NJ 27 to US 1 bicycle compatible way

- CS 208** NJ 18 Bikeway (The Trench) from John Lynch Sr. Bridge to NJ 27/Albany Street Bridge, including a connection between the Route 27 southbound walkway to the Trench
- CS 209** Pedestrian timed light displays at various locations George Street and NJ 27; Easton Avenue and NJ 27
- CS 210** Sidewalks on Van Dyke from NJ 27 to Jersey Avenue Station
- CS 211** Sidewalks on Landing Lane from Landing Lane Bridge to Franklin Blvd (Bike Plan- Franklin Twp.)
- CS 212** The City has defunded the Boyd Park/Albany Street. pedestrian ramp in favor of a pedestrian bridge or ramp that would access Boyd Park from Richmond Street.
- CS 213** Rutgers Campus Bike Racks II
- CS 224** Sidewalks and bicycle routes in the Renaissance 2000 area on Route 27 from French Street to How Lane are proposed to be upgraded.
- CS 225** A potential bicycle route on How Lane between Route 27 And Livingston Avenue in North Brunswick that tie into a route on Veronica Lane in Somerset could be feasible.

North Brunswick

- **Municipal Summary**

US 1 and NJ 130 are dominant transportation corridors through North Brunswick. Bicyclists and pedestrians are constrained by 4-6 lanes of high-speed traffic and a lack of facilities for bicycles and pedestrians. North Brunswick proposes bikeway routes linking sections of the Township across US 1 at North Oaks Blvd. The US 1/NJ 130 Interchange will accommodate bicycles and pedestrians. The Milltown Road/US 1 overpass accommodates bike/pedestrian travel and is a proposed Route. The County Greenway along Oakley's Brook, Farrington Lake is proposed to run into Milltown. There is a bikeway along Cozzens Lane starting near US 1 to Sabella Park. In 1990, 32 people bicycled to work and 394 walked.

- **Land Area**

12.1 square miles

- **Population**

36,287 2000 Census

- **Population - Ages 5-14**

3,257 1990 Census

-
- CS 214** Cook/Douglas Campus Bikeway extension 1.25 miles to Tower Center East Brunswick
 - CS 215** Renaissance Bike/Pedestrian Route to Adams Lane
 - CS 216** North Brunswick High School to North Oaks Blvd/US 1 Enhancement application
 - CS 217** Proposed bikeway pedestrian route, greenway along Oakley's Brook, Farrington Lake, to Milltown. (possible) use of utility right-of-way
 - CS 218** Widening of Finnegans Lane (CR 682), to include Class I or II bikeway.
 - CS 219** Proposed bicycle/pedestrian path along the utility right-of-way, tie into Class I and II bikeways along existing residential streets

- CS 220** Bicycle/pedestrian path within proposed easement along the Six Mile Run.
- CS 221** Bikeway within the Society Hill development
- CS 222** Bicycle/pedestrian path along proposed stream corridor easement, tie into Greenway along Oakley's Brook.
- CS 223** Bikeway along existing residential streets

See Appendix L for a detailed list of all proposed bicycle and pedestrian facilities in North Brunswick, including existing and proposed bikeways along municipal streets.

NORTHEAST STUDY AREA MUNICIPALITIES

- ***Carteret***
- ***Edison***
- ***Metuchen***
- ***Perth Amboy***
- ***Woodbridge***

Description

The great “mixing bowl” for regional traffic, the Northeast study area is loaded with major roads, rails, and bridges. It is the crossroads, the nexus point, for North/South, East/West traffic. Here, the following major routes merge, converge, and interchange. **Garden State Parkway** north of its Raritan River Crossings at the Driscoll Bridge. I-95/New Jersey Turnpike’s northern leg with a key interchange at the Garden State Parkway (Interchange 11). I-287/NJ-440 in combination, forming the eastern stretch of beltway through the County, and feeding into the Outerbridge Crossing **US-1**’s northern leg, tying into US-9. **US-9**’s northern leg, tying into US-1 north of its Raritan River crossing at the Edison Bridge. **NJ-27**’s northern leg through Edison, Downtown Metuchen, and Woodbridge. **NJ-35**’s northern leg through Woodbridge and Perth Amboy. **Northeast Corridor Line**, with stations at Metropark, Metuchen, and Edison. **North Jersey Coast Line**, with stations at Avenel, Woodbridge, and Perth Amboy. The Northeast study area contains the Metropark Strategic Planning Area and the northernmost portion of the coast-hugging Arthur Kill-Raritan Bay Estuary Strategic Planning Area. It is also home to a Designated Town Center at Metuchen. Bicycle/pedestrian travel is challenged by the US 1 Corridor case study implementation.

Middlesex County Northeast Study Area PROPOSED BICYCLE - PEDESTRIAN PROJECTS

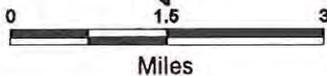
Municipalities in
NORTHEAST STUDY AREA

- Carteret
- Edison
- Metuchen
- Perth Amboy
- Woodbridge



- NE301 Edison - US Rt. 1 Intersection improvements (See text)
- NE302 Edison - Bicycle / Pedestrian along utility corridor
- NE303 Edison - Menlo Park access ramp
- NE304 Edison - Middlesex Greenway from Metuchen to Crows Mill F
- NE305 Edison - Overpass at Wood Ave & NJ Rt.27
- NE306 Edison - Wood Avenue reconstruction, Oak Tree Rd. to Sheraton Hotel (Metro-Park)
- NE307 Edison - Sidewalks along Plainfield Avenue, Edison Station to Kilmer Road
- NE308 Edison - Bicycle racks & lockers at Edison Station

LEGEND CONTINUES ON NEXT PAGE



Source: Middlesex County Planning Board, Transportation Department

MAR 2001

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Middlesex County Northeast Study Area PROPOSED BICYCLE - PEDESTRIAN PROJECTS

LEGEND (Con't)

-  NE309 Edison - Sidewalks along both sides of NJ Rt. 27 at Metro Park
-  NE310 Metuchen - Landscaping, sidewalks and misc. structures
-  NE311 Metuchen - Middlesex Greenway along Abandoned Lehigh Valley RR R.O.W.
-  NE312 Metuchen - Signage and graphics for bicycle route
-  NE313 Perth Amboy - Victory Bridge replacement
-  NE314 Perth Amboy - Link pedestrian / bicycle trail to Harbor Walk under ConRail bridge
-  NE315 Perth Amboy - Harbor Walk, Smith St. to Harbortown
-  NE316 Perth Amboy - Rail station improvements
-  NE317 Perth Amboy - Brick Pavers on Smith Street Sidewalks
-  NE318 Perth Amboy - Bicycle / pedestrian trail along RR R.O.W
-  NE319 Perth Amboy - Middlesex Greenway extension, NJ Rt. 440 to Harbortown
-  NE320 Woodbridge - Bicycle racks & lockers at Rail Station
-  NE321 Woodbridge - Middlesex Greenway, King Georges Post Rd. to Crows Mill Rd.
-  NE322 Woodbridge - New rail station at Metro Park
-  NE305 Woodbridge - NJ Rt. 27 / Wood Ave. overpass
-  NE306 Woodbridge - Wood Avenue reconstruction
-  NE323 Woodbridge - Merrill Park Bikeway
-  NE324 Woodbridge - Bicycle / pedestrian trail along US Rt. 1 utility corridor
-  NE325 Woodbridge -Sidewalks along Woodbridge Center Drive
-  NE 328 Edison Six Mile Open Space & Marine Along Raritan River
-  NE 329 Edison Improvements With Sidewalks Amboy Avenue
-  NE 330 Woodbridge William Warren Park Bikeway Connections
-  NE 331 Woodbridge Cliff Road to County Park In Sewaren
-  NE 332 Woodbridge Blair Road to Omar Avenue to Rahway Avenue
-  NE 333 Woodbridge Train Station Along Rail Line to Avenel Street

Carteret

- **Municipal Summary**

Carteret has developed with a network of sidewalks on the residential streets and along county roads. The Carteret Industrial road from the Turnpike entrance to industrial sites was constructed in the 1980's in response to outraged residents. The road removed truck traffic, which conflicted with pedestrians from residential neighborhoods living along Roosevelt Avenue. In 2000 Carteret built a Town Center between the new library and Borough Hall. It is a gathering place with park benches, picnic tables, flagpoles, sidewalk and landscaping. Carteret has no bicycle/pedestrian plan. The 1990 census showed 15 residents rode a bicycle to work and 404 walked.

- **Land Area**

4.4 square miles

- **Population**

20,709 2000 Census

- **Population - Ages 5-14**

2,394 1990 Census

There are no bicycle/pedestrian projects proposed for Carteret.

Edison

- **Municipal Summary**

Edison has the largest commuting population in Middlesex County (48,010). There are 11,396 rail commuters who use Edison, Metuchen, and Metropark Stations on the Northeast Corridor line. The major highways, which run through it, include I-2897, the NJ Turnpike and US 1. Edison has a bicycle plan with at least 87 miles of proposed bicycle lanes. The 1990 Census reported 63 commuters rode bicycles to work. More than 3,000 rail commuters drive 1 to 3 miles to station parking. Bicycles and shuttle bus alternatives represent possible futures for Edison. Edison had 11 intersections identified for study in the 1997 US 1 Corridor Bicycle and Pedestrian Case Study. Edison designed and implemented a bike route to Edison High School on Boulevard of the Eagles. Edison will conduct a township-wide survey to determine the need for reconstruction or new sidewalk and curbing and have the improvements installed based on the results of the survey.

- **Land Area**

32 square miles

- **Population**

97,687 2000 Census

- **Population – Ages 5-14**

10,159 1990 Census

- **Intermodal Locations**

Edison Station

2001 2,327 rail riders

Metropark

2001 5,832 rail riders 3,500 spaces

NE 301 Route 1 Case Study and Route 1 section 7L project. Intersections typical.

1. Parsonage Road
2. Grand View Avenue
3. Amboy Avenue
4. Main Street –NJ 531
5. Prince Street
6. Forest Haven Blvd.
7. Old Post Road
8. Old Post Road South
9. Wooding Avenue
10. Plainfield Avenue
11. Woodbridge Avenue

- NE 302** Utility Corridor from the Greenway to Woodbridge
- NE 303** Menlo Park access ramp-linking the Power Trail to Roosevelt Park. Extend Roosevelt Park bike path along Oakwood Avenue in front of new County nursing home.
- NE 304** Middlesex Greenway from Metuchen to Woodbridge
- NE 305** Overpass at NJ 27 and Wood Avenue
- NE 306** Wood Avenue reconstruction
- NE 307** Sidewalks along Plainfield Avenue from Edison Station to Kilmer Road and Kilmer Road to US Post Office
- NE 308** Edison Station bicycle lockers/racks
- NE 309** Metropark public sidewalks on both sides of all streets within walking distance to the train station
- Metropark network of clearly marked bicycle routes serving locations within a 5-mile radius of Metropark Station, curb cuts and bike lockers
 - Metropark (Transportation District)
 - Improve aesthetics to area around Metropark train station, one that is inviting to pedestrians. Presently, Metropark's general environment sends pedestrians the message that they are a nuisance and unwanted.
 - Construction of a pedestrian tunnel allowing pedestrians to cross NJ-27 at Magnolia Road and installation of sidewalks along both sides of NJ-27 to Oak Tree Road.
 - Pedestrian/bikeway tunnels should be well lighted with camera surveillance for added security.
 - Traffic calming and improved signalization at all intersections within walking distance to Metropark Station.
 - Develop a system of bike routes serving all popular destinations (malls, restaurants, Metropark station) and employment centers throughout the Metropark Strategic Planning Area.

- Develop a system of continuous sidewalks serving all popular destinations (malls, restaurants, Metropark station) and employment centers throughout the Metropark Strategic Planning Area.
- Bicycle/Pedestrian Tunnels and sidewalks on Evergreen Avenue connecting to Roosevelt Park Bikeway and north to Edison State Park. Extend the trail along Evergreen into the Margate development and the Menlo Park Terrace neighborhood.
- Bicycle/Pedestrian Tunnels under Amtrak and Conrail along Parsonage Road in Edison connecting to Roosevelt Park bikeway.
- Bike lockers at the Edison Train Station.

NE 328 Six mile bicycle and pedestrian accessible open space, recreation area and marina along the Raritan River.

NE 329 Revitalize Amboy Avenue between the New Jersey Turnpike and Route 1 into a pedestrian friendly downtown by installing brick pavers, planters, decorative lighting, benches and other street furniture.

See Appendix R for the Edison Greenways Group recommended bicycle-pedestrian route extensions.

Metuchen

- **Municipal Summary**

The Borough has long had a rail commuter orientation. 10.9 percent of its 6,801 commuters ride to work by train in the 1990 Census. Metuchen is fully developed with sides around its rail station and is now redeveloping its rail station area. Metuchen has designated a bicycle route recommended by its Environmental Commission in 1976, which runs from neighborhoods around town and leads to the train station. In 1990, 16 residents used a bicycle to commute to work while 252 walked. I-287 offers good access to Metuchen along its southern border at NJ 27 and US 1 access is provided via Amboy Avenue. The Middlesex Greenway has been proposed to run for 3.5 miles from Middlesex Avenue to the Raritan Center area along the right-of-way of the abandoned Lehigh Valley Railroad. The Greenway will connect with the proposed Power Trail after crossing under US 1 in Edison. The Middlesex Greenway Coalition has also proposed the extension of Greenway to South Plainfield. Metuchen proposes a comprehensive pedestrian and bicycle plan to promote the public health benefits of exercising in an active community environment.

- **Land Area**

2.9 square miles

- **Population**

12,840 2000 Census

- **Population – Ages 5-14**

1,368 1990 Census

- **Intermodal Locations**

Metuchen Station

2001 - 3,237 rail riders

NE 310 Metuchen station area- landscaping, sidewalks, pavement, underpass walkway, structures.

Downtown- traffic calming, pedestrian safety improvements.

South Main Street and Central Avenue corridors- traffic calming, pedestrian safety and bicycle lane improvements linking downtown to Middlesex Greenway and utility corridor power trail and Raritan Center.

Lake Avenue corridor- traffic calming, pedestrian safety, bicycle lane improvements linking schools, municipal pool, houses of worship and YMCA

- NE 311** Middlesex Greenway along abandoned Lehigh Valley railroad right-of-way
- NE 312** Bicycle lane improvements, signage and graphics for bicycle routes.

Perth Amboy

- **Municipal Summary**

This City's economy has been shifting from heavy manufacturing to commercial industrial. The Outerbridge Crossing to Staten Island (NJ 440) which extends to meet I-287 at the NJ Turnpike and the Raritan River Crossings, NJ 35, NJ 9, and the Garden State Parkway combine to give Perth Amboy excellent regional access. The Jersey Coastline also gives rail commuters access to New York, Newark and the Jersey Shore. In 1990, 4,107, over 20% of the 18,814 commuters in Perth Amboy carpooled while only 32 commuters rode a bicycle and 1,592 walked to work. The proposed Victory Bridge replacement will have a 6-foot pedestrian sidewalk on the West Side (southbound) and 10-foot shoulders in each direction to accommodate bicycles. The Harbor Walk/Bicycle path, which is proposed to run several miles along the waterfront, is partially complete on Sadowski Parkway to Smith Street (old Ferry slip). The most recent segment from Second Street to Smith Street (Victory Bridge) to Grant Street aside the new Industrial Road is also complete. Train station historic restoration and site improvements are nearing completion. Downtown Smith Street pavers sidewalks are scheduled. A rail to trail project from Hall Avenue to Pulaski Avenue is waiting for funding.

- **Land Area**

4.7 square miles

- **Population**

47,303 2000 Census

- **Population - Ages 5-14**

5,874 1990 Census

- **Intermodal Location**

2001 842 rail riders 241 spaces

NE 313 Victory Bridge replacement

NE 314 Link Pedestrian/Bicycle trail to Harbor Walk under Conrail Bridge

NE 315 Harbor Walk Smith Street to Harbor Town

NE 316 Rail Station improvements

- NE 317** Brick pavers Smith Street sidewalks. Sidewalk improvements along State Street from Smith Street to Pearl Place and along Amboy Avenue from New Brunswick Avenue to Route 440.
- NE 318** Bicycle/Pedestrian trail – Hall Avenue to Pulaski Avenue along abandoned RR Row
- NE 319** Middlesex Greenway extension Lehigh Valley right-of-way NJ 440 to Harbor Town

Woodbridge Township

- **Municipality Summary**

The Parkway and Turnpike cross each other there. The Parkway Headquarters is located there. US 1 and NJ 9 converge at Woodbridge Center Mall to make Woodbridge a major Regional Retail Magnet. Metropark Station is the Suburban AMTRAK stop for New Jersey on, the Northeast Corridor line and is the #1 NJTransit Commuter Park & Ride Station. 47,933 commuters resided in Woodbridge at the time of the 1990 Census. 73 bicycles to work. Three bicycle pedestrian projects lead the thinking for Woodbridge bike/pedestrian actions. These are Metropark, the Middlesex Greenway, and the US 1 power line trail.

- **Land Area**

26 square miles

- **Population**

97,203 2000 Census

- **Population- Ages 5-14**

9,626 1990 Census

- **Intermodal**

2001-	1,482 rail riders -Woodbridge Station	456 spaces
2001-	5,832 rail riders – Metropark Station	3,500 spaces

-
- NE 320** Woodbridge Station – bike racks, lockers
 - NE 321** Middlesex Greenway from King Georges Post Road to Crows Mill Road
 - NE 322** Metropark New Rail Station
 - NE 323** NJ 27/Wood Avenue Overpass
 - NE 324** Wood Avenue Reconstruction and Bikeway
 - NE 325** Merrill Park Bikeway
 - NE 326** US 1 Power Line Trail from Amboy Avenue Edison to Woodbridge Center
 - NE 327** Sidewalks along Woodbridge Center Drive from US 1 to proposed Family Recreation Center and MC 514 proposed overpass

- NE 330** William Warren Park Bikeway Connections
- NE 331** Improvements With Sidewalks On Amboy Avenue
- NE 332** Bikeway along Blair Road to Omar Avenue and along Omar Avenue to Rahway Avenue
- NE 333** Woodbridge Train Station along the Rail Line to Avenel Street

CENTRAL REGION MUNICIPALITIES

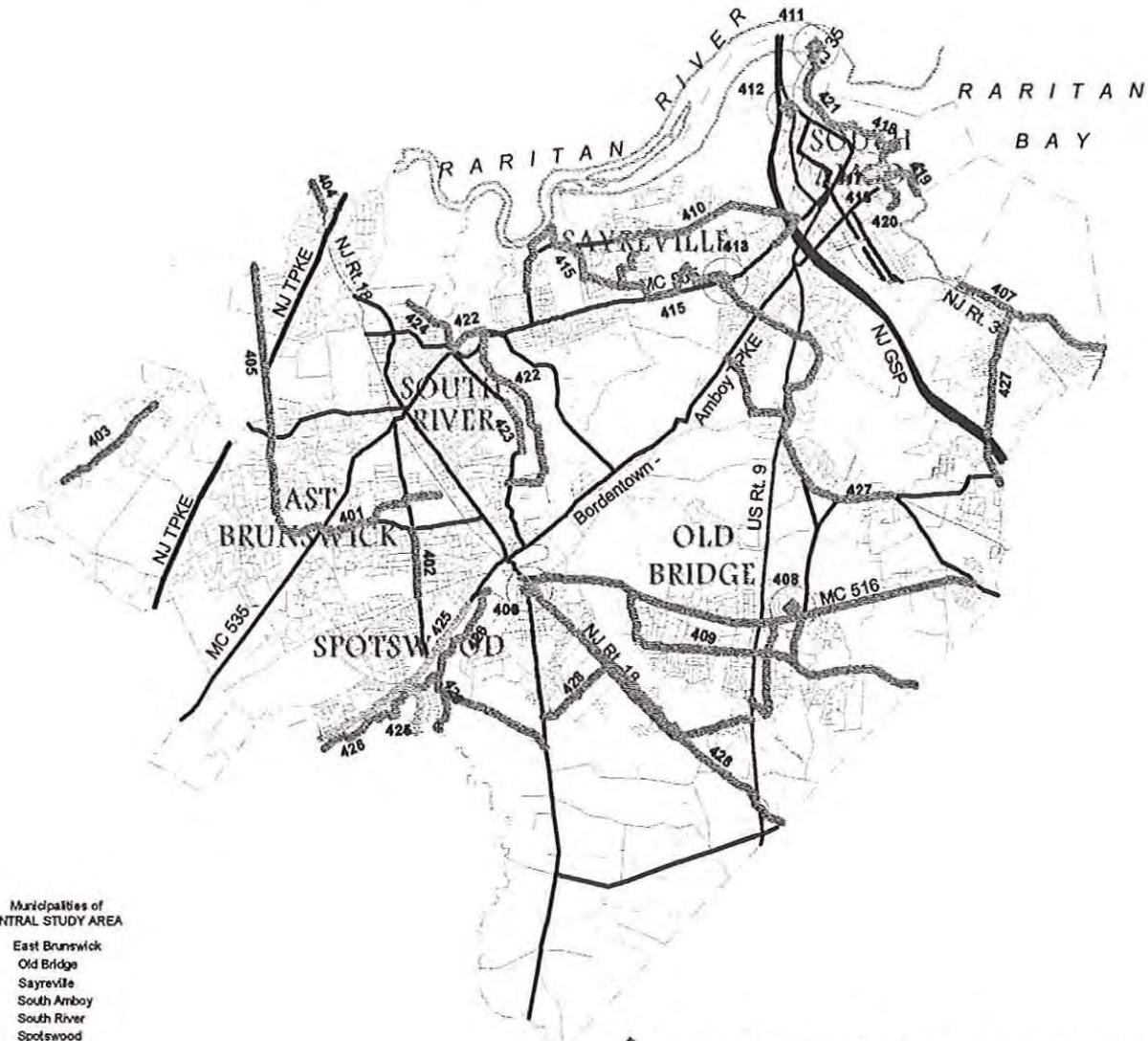
- *East Brunswick*
- *Old Bridge*
- *Sayreville*
- *South Amboy*
- *South River*
- *Spotswood*

Description

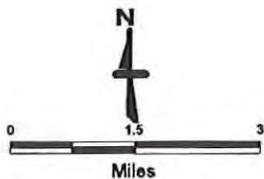
The Central study area is a gateway – it is the key portal for trips en route to and from the Jersey Shore counties of Monmouth, Ocean, Atlantic, and Cape May relative to points northeast and northwest. It includes East Brunswick, Old Bridge, Sayreville, South Amboy, South River, and Spotswood. Given its role as a gateway, the major travel corridors in this area face two major constraining factors (i.e., “choke points” or “bottlenecks”): the Raritan River crossings in the vicinity of the Amboys (the Driscoll, Edison, and Victory Bridges), and the traffic-choked stretch of NJ-18 in the East Brunswick vicinity. The following routes provide key passageways for traffic into and through the Central study area:

Garden State Parkway south of the Driscoll Bridge **I-95/New Jersey Turnpike** on its central leg, with Interchange 9 in East Brunswick feeding into NJ-18 **US-9** south of the Edison Bridge **NJ-18’s** southern leg through East Brunswick and Old Bridge **NJ-34** stemming from US-9 in Old Bridge **NJ-35** on it’s southern stretch, following the Raritan coastline **North Jersey Coast Line**, with a station in South Amboy The Central study area is home to the NJ 18 Corridor Strategic Planning Area from East Brunswick through Old Bridge, as well as the southernmost portion of the Arthur Kill-Raritan Bay Estuary along the waterfronts of the Laurence Harbor section of Old Bridge, the Morgan section of Sayreville, and the borough of South Amboy (thereby feeding into the Raritan River Crossings)

Middlesex County Central Study Area PROPOSED BICYCLE - PEDESTRIAN PROJECTS



Municipalities of
CENTRAL STUDY AREA
East Brunswick
Old Bridge
Sayreville
South Amboy
South River
Spotswood



Source: Middlesex County Planning Board, Transportation Department
MAR 2001 T.P.

-  CSA 401 East Brunswick - Bicycle / Pedestrian Trail from Municipal Complex to Brunswick Square Mall
-  CSA 402 East Brunswick - Bicycle / Pedestrian Trail along Summerhill Road
-  CSA 403 East Brunswick - Bicycle / Pedestrian Trail along Riva Avenue
-  CSA 404 East Brunswick - Bicycle / Pedestrian Trail from Tower Center to Rutgers Cook / Douglass Campus (See County Seat Study Area Map)
-  CSA 405 East Brunswick - Bicycle Route along Ryders Lane, Municipal Complex to Rutgers / Douglass Campus
-  CSA 406 Old Bridge - Interchange construction, NJ Rt. 18 / M 516 / MC 527
-  CSA 407 Old Bridge - Waterfront Walkway
-  CSA 408 Old Bridge - Town Center
-  CSA 409 Old Bridge - Bicycle Route along County Route 516
-  CSA 410 Sayreville - Sidewalks on Main St. & Washington Road.

LEGEND CONTINUES ON NEXT PAGE

Middlesex County Central Study Area PROPOSED BICYCLE - PEDESTRIAN PROJECTS

LEGEND (Con't)

-  CSA 411 Sayreville - Victory Bridge replacement. Pedestrian / bicycle connection to Heritage Trail
-  CSA 412 Sayreville - Victory Circle
-  CSA 413 Sayreville - Pedestrian Bridge linking Kennedy Park with Ernston Rd.
-  CSA 415 Sayreville - Proposed bicycle trail linking Municipal Parks
-  CSA 416 South Amboy - Intermodal Accessway
-  CSA 417 South Amboy - Pedestrian Overpass
-  CSA 418 South Amboy - Promenade along ferry bulkhead & waterfront
-  CSA 419 South Amboy - Bicycle / pedestrian path along shore
-  CSA 420 South Amboy - Sidewalks & Bikepath along John T. O'leary Blvd.
-  CSA 421 South Amboy - Raritan River / Raritan Bay Greenway South
-  CSA 422 South River - Riverfront walk along 535 (causeway)
-  CSA 423 South River - Sidewalk along Whitehead Avenue
-  CSA 424 South River - Greenway from Brick Plant Road to Sayreville / South River Bridge
-  CSA 425 Spotswood - Sidewalk improvements along MC 615 & MC 613
-  CSA 426 Spotswood - South River Greenway along Manalapan & Matchaponix Brooks
-  CSA 427 Old Bridge Bicycle Route - Cliffwod Rd. to Bordentown Tpke.
-  CSA 428 NJ Route 18 Bicycle Route

East Brunswick

- **Municipal Summary**

Bicycle and pedestrian movements are constrained in the congested NJ 18 corridor of East Brunswick, which has been designed for land service auto access without bicycle compatibility. The East Brunswick bikeway/Pedway Plan focuses on creating routes concentrated near the Township Center. First priority routes funded by NJ DOT under the Transportation Enhancement Program will run from the Municipal Complex along Ryders Lane to Great Oak Park to Rues Lane to Summerhill Road. The second segment will be a bikeway/pedway along Summerhill Road from Ryders Lane/Rues Lane to Frost Avenue to Old Stage Road. A Riva Avenue bikeway has been delineated and funding applied for and as yet not funded. The County Route crossing US 1 is Ryders Lane, which has been recommended to be made bicycle compatible.

- **Land Area**

23.5 square miles

- **Population**

46,756 2000 Census

- **Population – Ages 5-14**

5,764 1990 Census

- C 401** Bikeway/Pedway from Municipal Complex via Ryders Lane to Great Oak Park to Rues Lane to Summerhill Road opposite the entrance to Brunswick Square Mall.
- C 402** Bikeway/Pedway Summerhill Road starting at Rues Lane to Frost Avenue to Old Stage Road.
- C 403** Bikeway/Pedway Riva Avenue from Lakeview Avenue to Bicentennial Park
- C 404** Bikeway/Pedway from East Brunswick Transportation Center (Tower Center) to Rutgers Cook/Douglas via Horticultural Gardens across Ryders Lane through the Farm under US1 at College Farm Road to the Cook/Douglas bikeway extension.
- C 405** Ryders Lane – Middlesex County from Rutgers/Douglas to Municipal Complex East Brunswick designation of shoulder as bicycle route.

Old Bridge

- **Municipal Summary**

The Old Bridge Master Plan, Traffic and Circulation element adopted in 2000 calls for including bicycle and/or pedestrian ways in planning transportation facilities. It also adopts the "BIKEWAYS" plan for guidance in constructing future bikeways. MC 527 was reconstructed in 1999 with improved pedestrian crossings and sidewalks along Old Bridge Englishtown Road. The reconstruction of the NJ 18/527/516 Interchange calls for a bicycle/pedestrian compatible facility and is scheduled for design in 2002. Middlesex County is constructing a 1.3-mile walking path in Laurence Harbor along the Old Bridge Waterfront overlooking Raritan Bay with plans to extend the walkway into the Cliffwood Beach section of the Township. Another vision for the Old Bridge Future is the proposed Town Center Development which calls for 15-foot sidewalks and bicycle/pedestrian access. MC 516 is designated to be bicycle compatible from NJ 18 to Morganville Road.

- **Land Area**

42 square miles

- **Population**

60,456 2000 Census

- **Population - Ages 5-14**

7,054 1990 Census

-
- C 406** NJ 18/527/516 Interchange reconstruction
 - C 407** Old Bridge Waterfront Walkway
 - C 408** Old Bridge Town Center
 - C 409** MC 516 bikeway from NJ 18 to Morganville Road.
 - C 427** Bicycle Route Cliffwood Rd. to Bordentown Amboy Turnpike.
 - C 428** NJ 18 Bicycle Route

Sayreville

- **Municipal Summary**

Bordered by the South River, Raritan River, Raritan Bay and Cheesequake Creek, Sayreville has endorsed the County's proposed greenway along its waterfront. The newly developed Raritan Bay Park has been hailed as a wonderful achievement and with the new River Crossings, Sayreville is becoming one of the most scenic spots in New Jersey known for massive structures bridging North and South Jersey. Sayreville has received a transportation enhancement grant for sidewalks along Main Street and Washington Road. Bicycle/pedestrians will cross the Raritan River on the Victory Bridge replacement, NJ 35 which is an important Sayreville bike/pedestrian project. The Victory Circle redesign and bike/pedestrian access through this area is a major challenge for the highway design team.

- **Land Area**

16.5 square miles

- **Population**

40,377 2000 Census

- **Population – Ages 5-14**

3,919 1990 Census

-
- C 410** Sayreville sidewalks on Main Street and Washington Road
 - C 411** Victory Bridge replacement – pedestrian sidewalk and bikeway on 10 foot shoulder connection to Heritage Trail
 - C 412** Victory Circle redesign and reconstruction bicycle/pedestrian compatible – connection to Heritage Trail.
 - C 413** Pedestrian Bridge linking Kennedy Park with Ernston Road
 - C 415** Proposed bikeway/walkway system linking Municipal Parks (Kennedy, Burke's, Deerfield Road, Fielek, Senior Citizens Center, River Road Park, Winding River waterfront area, and War Memorial Park)

South Amboy

- **Municipal Summary**

Redevelopment plans for South Amboy are moving ahead on the Regional Intermodal Transportation Center project which will create a transit village within walking distance of the train station, ferry service to Manhattan, and extends the County's greenway/walkway along the waterfront.

- **Land Area**

1.4 square miles

- **Population**

7,913 2000 Census

- **Population – Ages 5-14**

964 1990 Census

- **Intermodal Location**

2001 Rail Station 1,132 Rail riders 450 spaces

- C 416** Intermodal Access way – from Rail Station
- C 417** Pedestrian Overpass
- C 418** Ferry Bulkhead Walkway
- C 419** Waterfront Promenade
- C 420** Bike path/sidewalks along John T. O'Leary Boulevard from Raritan Bay Waterfront Park to Rosewell Street
- C 421** Raritan River/Raritan Bay Greenway South

South River

- **Municipal Summary**

Bicycle and pedestrian ways have been proposed to run along the Borough's waterfront. Applications have been made to fund a Riverfront Walk from Reid Street along the Sayreville/South River Bridge NJ 535 and a sidewalk along Whitehead Avenue from Kamm Avenue to the East Brunswick line. The abandoned rail spur along the South River discussed as a potential trail has been dropped from consideration for funding. Greenways are proposed for lands fronting the river.

- **Land Area**

1.9 square miles

- **Population**

15,322 2000 Census

- **Population- Ages 5-14**

1,535 1990 Census

-
- C 422** Riverfront Bicycle/Pedestrian Walkway from Reid Street to the River along MC 535 Sayreville/South River Bridge; Ivan Way north to Whitehead Avenue, south from the boat club along the South River to the bike/ped path near Public Works building.
 - C 423** Sidewalk along Whitehead Avenue from Kamm Avenue to the East Brunswick line
 - C 424** Greenway from Brick Plant Road to Placers field and Varga Park to Sayreville South River Bridge

Spotswood

- **Municipal Summary**

Main Street has sidewalks on MC 615, as does MC 613 Summerhill Road. Manalapan Road MC 615 leading to Helmetta also has sidewalks. The County's South River Greenway Trail extends to Spotswood to the confluence of the Manalapan Brook and the Matchaponix Brook.

- **Land Area**

3 square miles

- **Population**

7,880 2000 Census

- **Population – Ages 5-14**

995 1990 Census

C 425 Spotswood end to end sidewalk improvements along County
MC 615 and MC 613

C 426 Spotswood - South River Greenway along Manalapan Brook and
Matchaponix Brook

SOUTH COUNTY REGION MUNICIPALITIES

- ***Cranbury***
- ***Helmetta***
- ***Jamesburg***
- ***Monroe***
- ***Plainsboro***
- ***South Brunswick***

Description

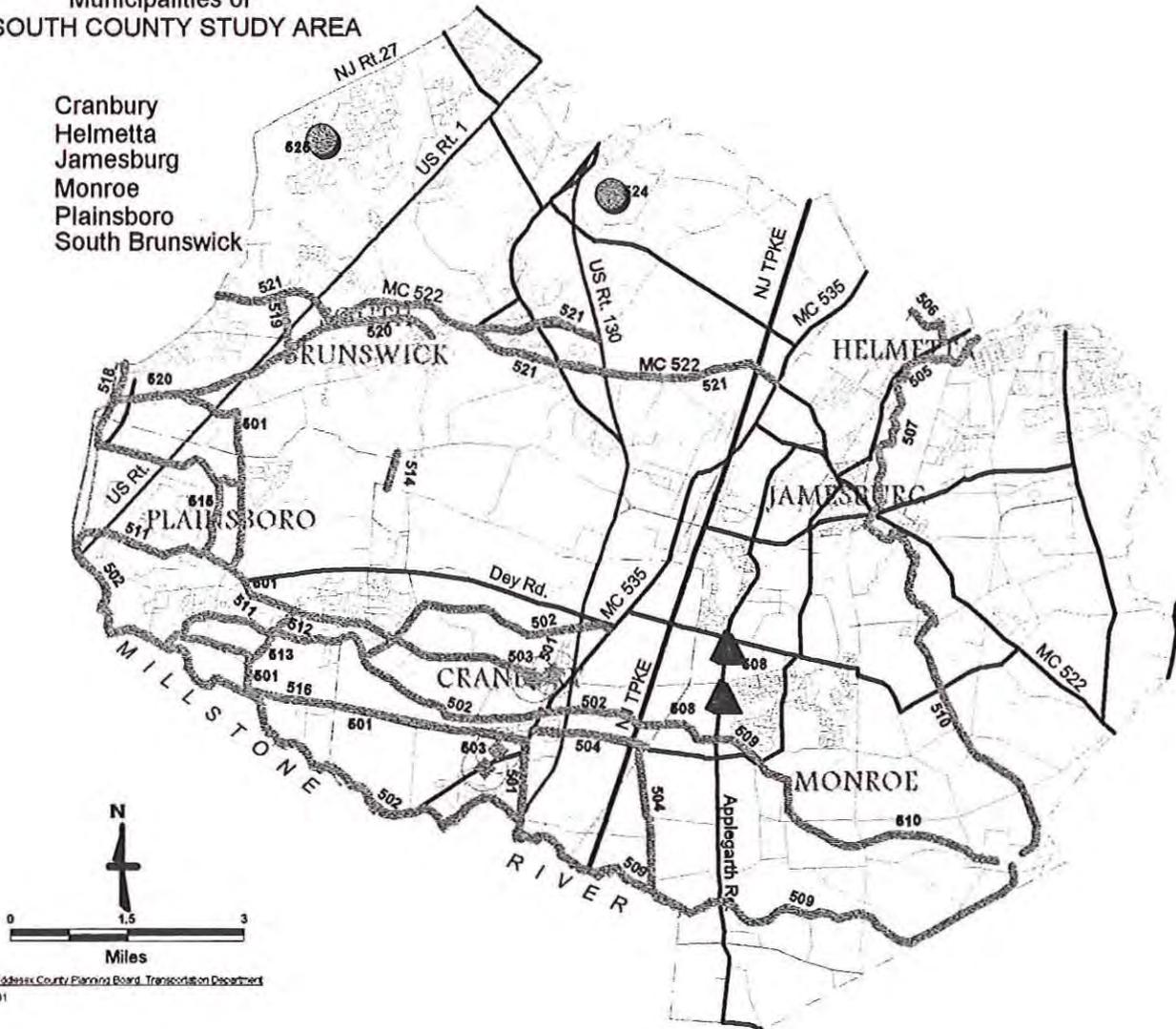
The southernmost stretch of land in the County, this area contains the bulk of Middlesex County land that can still be classified as “rural in character (relative to the 1990 Urban Area Boundary). It includes Cranbury, Helmetta, Jamesburg, Monroe, Plainsboro, and South Brunswick. Because of Middlesex County’s strategic location along the Northeast Corridor and at the heart of the state, the South County study area faces increasing development challenges that have arisen relative to the area’s plentiful land and its access to important regional highway corridors. This development interest is epitomized by the location of its two main Strategic Planning Areas. The westernmost swath of South County is home to commercial and corporate park development in the Plainsboro-Forrestal-South Brunswick Strategic Planning Area --the so-called “Princeton Zip Strip”. The central corridor of South County, adjacent to the New Jersey Turnpike alignment, is home to industrial and warehousing operations in the vicinity of Interchange 8A, and residential complexes (in particular, senior citizen communities) in the area of Monroe south of Jamesburg. This comprises the New Jersey Turnpike – Interchange 8A Strategic Planning Area. The highways serving each of these areas are enumerated below:

I-95 New Jersey Turnpike on its southern leg through the center of South County, with a key interchange at 8A in South Brunswick. **US-1**’s southern leg along the “Princeton Zip Strip” **US-NJ 130**’s southern leg through South Brunswick and Cranbury. **US-27**’s southern leg along the westernmost rim of the County. **NJ-32/NJ-92** accessing the Interchange 8A industrial operations and providing future east/west access across the southern swath of the County. South County also houses a *State Plan*-designated Village Center at Cranbury, as well as the southernmost portion of the NJ130 Corridor Strategic Planning Area in South Brunswick, which feeds into the Interchange 8A vicinity.

Middlesex County South County Study Area PROPOSED BICYCLE - PEDESTRIAN PROJECTS

Municipalities of
SOUTH COUNTY STUDY AREA

Cranbury
Helmetta
Jamesburg
Monroe
Plainsboro
South Brunswick



Source: Middlesex County Planning Board, Transportation Department
August 2001

-  SCSA 501 Cranbury - Plainsboro - High Point to Cape May Bicycle Route
-  SCSA 502 Cranbury -Plainsboro - Middlesex County Greenway, Cedar Brook Trail
-  SCSA 503 Cranbury - Sidewalks on Main Street, Plainsboro Road, Cranbury Neck Road & Old Trenton Road
-  SCSA 504 Cranbury - Bicycle route along Station Road & Hightstown - Cranbury Station Road
-  SCSA 505 Helmetta - Greenway Trail along Manalapan Brook & County Route 615 Corridor
-  SCSA 506 Helmetta - Greenway Trail along Helmetta Blvd.
-  SCSA 507 Jamesburg - Middlesex County Greenway Trail along Manalapan Brook
-  SCSA 508 Monroe - Bicycle Racks at Park & Ride lots on Applegarth Road
-  SCSA 509 Monroe - Middlesex County Greenway Trail along Millstone River / Millstone Brook & along Cranbury Brook

LEGEND CONTINUES ON NEXT PAGE

**Middlesex County
South County Study Area
PROPOSED BICYCLE - PEDESTRIAN PROJECTS**

LEGEND (Con't)

-  SCSA 510 Monroe - Greenway from Cranbury Village to Monroe Park; and from Thompson Park to Monmouth County
-  SCSA 511 Plainsboro - Bicycle Path along Scudders Mill Road
-  SCSA 512 Plainsboro - Bicycle path along Plainsboro Road
-  SCSA 513 Plainsboro - Bicycle path along PSE&G Right-of-Way
-  SCSA 514 Plainsboro - Bicycle path along Scotts Corner Road & along Research Way
-  SCSA 515 Plainsboro - Bicycle path along Schalks Crossing Road
-  SCSA 516 Plainsboro - Bicycle path along Cranbury Neck Road
-  SCSA 518 South Brunswick - Plainsboro - Bicycle path along D&R Canal Trail
-  SCSA 519 South Brunswick - Heathcote Brook Greenway
-  SCSA 520 South Brunswick - Kigston Branch Rail Trail, Kingston to Monmouth Junction
-  SCSA 521 South Brunswick - Bicycle path along County Route 522
-  SCSA 522 South Brunswick - Davidson's Mill County Park
-  SCSA 523 South Brunswick - Bicycle paths along local streets and New Road Park in Kendall Park

Cranbury

- **Municipal Summary**

This Village Center is not only designated on the State Development and Redevelopment Plan but also designated as a stop on the High Point to Cape May bicycle route, which will be officially adopted in 2001. The Village Center has a historic district and has been judged an ideal place for touring cyclists. The Cranbury Township Master Plan proposed bikeways or trails that run along Cedar Brook, the Millstone River, and Cranbury Brook. Five sections (A-E) of sidewalk are proposed in the Village as well as leading to the Village.

- **Land Area**

13 square miles

- **Population**

3,227 2000 Census

- **Population- Ages 5-14**

368 1990 Census

-
- SCSA 501** High Point to Cape May bicycle route on MC 614 and MC 539 with an alternate Princeton link on CR 615.
- SCSA 502** Middlesex County Greenway Cedar Brook and Millstone River Cranbury Master Plan Cedar Brook Greenway Bikeway Trail
- SCSA 503** The Master Plan identifies five sections of the Township (A-E) for sidewalk improvements: Main Street (Sections A & B), Plainsboro Road (Section C), Cranbury Neck Road (Section D) and Old Trenton Road (Section E). Sidewalks have been installed in Section B along Main Street since adoption of the Master Plan.
- SCSA 504** Bike route Cranbury Station Road, Hightstown – Cranbury Station Rd.

Helmetta

- **Municipal Summary**

Main Street runs through Helmetta and is the MC 615 which cyclists ride through town. The possible connection of the Manalapan Brook Greenway linking down to Thompson Park is shown in the County's Open Space Plan as well as a link to Jamesburg County Park along Helmetta Blvd. to the North.

- **Land Area**

1.1 square miles

- **Population**

1,825 2000 Census

- **Population – Ages 5-14**

174 1990 Census

SCSA 505 Greenway Trail along Manalapan Brook. MC 615
Corridor proposed for designation as a Bicycle
Friendly route

SCSA 506 Greenway Trail along Helmetta Blvd. from Main St. to
Jamesburg County Park

Jamesburg

- **Municipal Summary**

This classic rural railroad borough has many County roads converging there. (MC 522, 615, 612, 625). Bicycle and Pedestrian issues are focused on the width of shoulders along County roads. There are sidewalks along residential streets in the downtown areas. There were no bicycles or walkers commuting at the time of the 1990 Census. Passenger rail restoration has been proposed for Jamesburg, which would make a stop accessible by walking and bicycling.

- **Land Area**

.9 square miles

- **Population**

6,025 2000 Census

- **Population – Ages 5-14**

626 1990 Census

SCSA 507 Middlesex County Greenway Trail is proposed to run from Thompson Park along Manalapan Brook to Helmetta

Monroe

- **Municipal Summary**

Adult communities make up large residential developments within the Township. There are internal roads, golf paths, and walkways within Rossmoor, Clearbrook, Whittingham, Concordia, and Forsgate. County greenways are proposed along the Millstone River/Millstone Brook from NJ 130 in Cranbury to Monroe Park Middlesex Downs area in Monroe Township and from Cranbury Village Park to Monroe Park and South from Thompson Park extension to Monmouth County. Another trail along the Matchaponix with a loop into Old Bridge County Park linking to Thompson Park via Jamesburg State Home area and a leg along and into the Monmouth County line in the Spotswood-Englishtown Road area. Bicycle racks at the Monroe Bus Park and Rides may be warranted for patrons living in the adult communities along Applegarth Road.

- **Land Area**

43.8 square miles

- **Population**

27,999 2000 Census

- **Population- Ages 5-14**

2,045 1990 Census

SCSA 505 Greenway trail along Manalapan Brook.

SCSA 506 Greenway trail to Jamesburg County Park

SCSA 507 Greenway trail along Manalapan Brook to Thompson Park from Helmetta to Monroe.

SCSA 508 Bike racks at park and ride lots on Applegarth Rd.

SCSA 509 County Greenway along Millstone River/Millstone Brook from NJ 130 Cranbury line to Monroe Park (Middlesex Downs area in Monroe Township).

SCSA 510 County Greenway from Cranbury Village Park to Monroe Park and South from Thompson Park extension to Monmouth County.

Plainsboro

- **Municipal Summary**

The adopted Bicycle and Pedestrian Circulation Plan divides the Township into three areas: 1) west of the Amtrak main line, 2) East of the Amtrak main line (south of Plainsboro/Scudders Mill Roads), and 3) east of the Amtrak main line (north of Plainsboro/Scudders Mill Roads). Bicycle paths, bicycle routes, sidewalks and nature trails are described or proposed in the Plan. A large bicycling and jogging population now exists and the Township requires new residential development to provide internal bicycle/pedestrian circulation, with linkages to the planned township-wide bike/pedestrian system.

- **Land Area**

12 square miles

- **Population**

20,215 2000 Census

- **Population- Ages 5-14**

1,494 1990 Census

High Priority Bikeways*

SCSA 501 High Point to Cape May Bicycle Route

- This is the alternative or preferred route recommended by Plainsboro to the State. See Appendix P for a detailed description of this route.

SCSA 511 Scudders Mill Road (off-road bike path)

- From BMS west to existing pathway near US 1 overpass
- From Schalks Crossing Rd. east to P-Loop

SCSA 512 Plainsboro Road (off-road bike path)

- From P-Loop/Enterprise Drive east to Cranbury border particularly Wyndhurst/Center Drive to Cranbury border
- From Schalks Crossing Rd. west to Connector Road ending at Scudders Mill Rd.

* Recommended at meeting of grass root/community consensus groups on September 22, 1998.

- SCSA 513** PSE&G Right-of-Way (bike path)
- From Grovers Mill Rd. northeast to Woodland Drive*
(*mid-block crossing at Dey Rd. problematic – staff recommends end path at Plainsboro Rd.)
- SCSA 514** Scotts Corner Road (shared roadway bike route)
- From Plainsboro Rd. north to Park Drive
- SCSA 515** Schalks Crossing Road (off-road bike path)
- From Plainsboro Rd. north to Scudders Mill Rd.
- SCSA 516** Cranbury Neck Road (dedicated bike lanes bike route)
- From Grovers Mill Rd. east to Cranbury border
- SCSA 517** Research Way (off-road bike path)
- From College Road east to Schalks Crossing Road.

See Appendix P for detailed information on proposed bicycle and pedestrian facilities Plainsboro.

South Brunswick

- **Municipal Summary**

Located in the path of development astride the US 1 Corridor and managing the growth of a rapidly growing warehouse and distribution zone around Exit 8A of the NJ Turnpike, South Brunswick is designing a future which weaves bicycle and pedestrian facilities into a rapidly changing landscape. The 1991 bikeways plan, an element of the South Brunswick Park and Recreation Master Plan identifies

1) off road, 2) on shoulder 3) shared lane bicycle routes. The 2000 Master Plan Re-examination report focuses on the Village of Kingston designation with its D & R Canal trail, Heathcote Brook Greenway and proposed bike path over the abandoned Kingston Branch rail line linking to the Village of Monmouth Junction. The entire length of MC 522 has an off road bike path proposed, as does Davidson's Mill Pond County Park. The Kendall Park section has a bike route on local streets and through the park off New Rd. The Ireland Brook Park extension proposed a greenway near the East Brunswick border.

- **Land Area**

41 square miles

- **Population**

37,734 2000 Census

- **Population- Ages 5-14**

3,457 1990 Census

SCSA 518 Kingston D&R Canal Trail

SCSA 519 Heathcote Brook Greenway Kingston from Kingston branch RR to MC 522 across Raymond Rd.

SCSA 520 Kingston Branch Rail Trail from Heathcote Park to Reicher Park D&R Canal to Village of Monmouth Junction.

SCSA 521 MC 522 from NJ 27 to MC 535

SCSA 522 Davidson's Mill Pond County Park

SCSA 523 Kendall Park local streets and New Road Park

VIII. STRATEGIES AND POLICY RECOMMENDATIONS

Providing safe and secure bicycle and pedestrian accommodations can be accomplished through continuous coordination and cooperation at all levels of government. Bicycle and pedestrian needs should be addressed in all federal, state, county and municipal roadway projects.

Not only must safe and secure bicycle and pedestrian accommodations be provided, they should also be designed to tie into existing networks or connect with proposed new projects. Continuity is essential. Bicycle and pedestrian networks connecting residential, employment, commercial, municipal government and recreation facilities, schools, libraries and public transit trip generators would make cycling and walking more attractive to a greater number of people. See the Draft County Wide Bicycle Network map on page 59b.

Cooperation

Cooperation is essential, particularly between neighboring municipalities. Bicycle and pedestrian needs should be addressed for all new residential and commercial development, regardless of location. The impact of major developments on adjacent municipalities should be considered. The bicycle and pedestrian needs in neighboring communities should be considered when developing circulation systems for new projects.

Alternate Routes

Municipalities should encourage cyclists and pedestrians to utilize alternate secondary routes wherever possible to access facilities such as shopping centers and office complexes situated on busy county, state or interstate roadways. Alternate routes are generally municipal streets with lower volumes of traffic and lower speed limits. These routes should be made even more attractive to cyclists and pedestrians by providing adequate space, striping and signage, sidewalks, adequate lighting and continuous maintenance.

Greenways & Regional Bike Routes

Greater emphasis should be given to the acquisition of abandoned railroad rights of way, utility easements and land along stream corridors for use such as bikeways and hiking trails. The *1995 Middlesex County Open Space and Recreation Plan* recommends that the County develop such a greenway network. These trails could ultimately be connected into a county and state wide series of bicycle and pedestrian networks similar to the High Point to Cape May Bicycle Route, part of which traverses the southern portion of Middlesex County. Maps showing the entire High Point to Cape May Bicycle Route and the portion that is situated in Middlesex County are found at Appendix G.

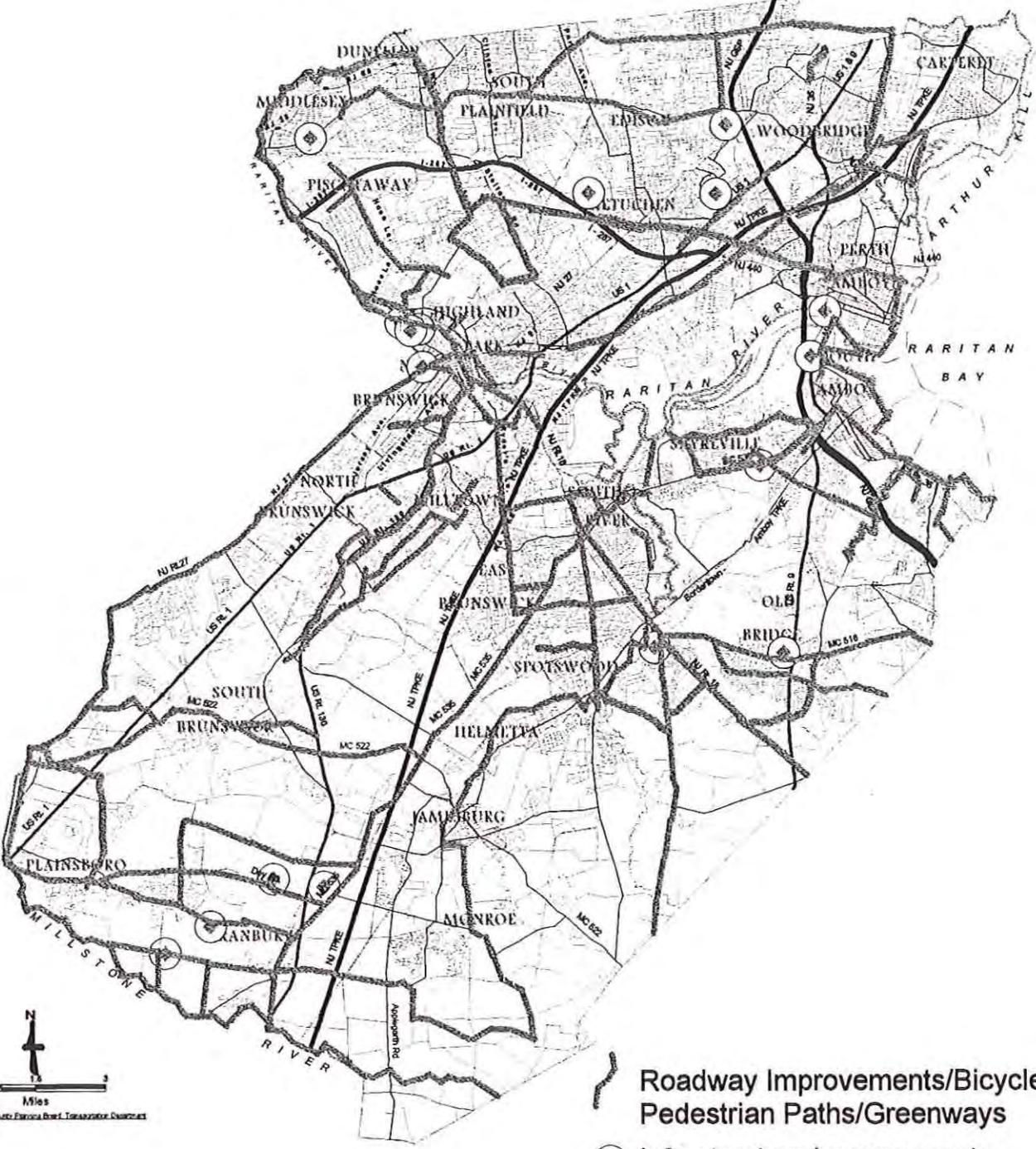
Middlesex County
Bike Route Network 2010

The proposed County Bike Network (See the Figure on Page 56a) is intended as a plan of an interconnected and continuous system of roads that provide bicycling access to activity centers and generators in various parts of the County. Safe accommodations for bicyclists on suitable public roadways will make bicycling a more attractive alternative mode of transportation as well as recreation. Many of the roadways identified in this plan contain specific projects that have been identified in various state, county and municipal capital improvement initiatives. Other roadways designated as part of the countywide network are intended to provide necessary linkages to different parts of the county.

Where possible, roadways within this network have been identified based on their connectivity between activity centers and other trip generators, and based on their potential for providing a reasonable level of bicycle compatibility through future improvements. Some of these routes may currently provide some level of accommodation for bicyclists in terms of their operating traffic characteristics affecting speed limits, roadway widths, condition of roadway surface and availability of shoulders. Other roadways may require certain improvements – some of which may already be identified through specific projects that are already in some level of activity within the project development process.

The roadway suitability map entitled *The Middlesex County Bicycling Guide* (see inside back cover) which is included in the Plan provides user information on the condition of present roadways in the County for bicycling compatibility in terms of speed conditions, shoulder availability, and existence of bike paths separate from roadways.

Middlesex County County-Wide Bike Route Network 2010



Source: Middlesex County Planning Board, Transportation Department
August 2011

Education

Change generally does not happen quickly. It occurs slowly and incrementally. For example, public attitudes toward cigarette smoking, drinking and driving, use of seat belts, conservation, and recycling have changed over time. The changes were a direct result of public and private education programs.

A multilevel, long term public education campaign should be undertaken to foster greater use of alternate means of transportation such as cycling and walking, and to address the safety and security needs of cyclists and pedestrians. Such a program would:

Educate motorists to respect cyclists by accepting the bicycle as a legitimate vehicle and mode of transportation, share the road with cyclists, yield the right-of-way to cyclists and pedestrians as well as other motorists, be constantly aware of cyclists and pedestrians, not just other motor vehicles, particularly at crosswalks and intersections.

Educate cyclists and pedestrians to share the road and to obey the rules of the road.

Encourage people to cycle or walk to nearby destinations whenever possible.

Such an education campaign could be conducted through a variety of means and media, including:

- Driver education programs in the schools, targeting sixteen to eighteen year olds
- Speakers, film or video presentations at school assembly programs
- Literature distribution in schools, libraries and other public places
- Information dissemination at community events such as fairs and symposiums
- Good will advertising campaigns in local newspapers and cable television stations
- Educational and incentive programs at places of employment
- Programs by local police departments, such as bicycle rallies and free helmet distribution for youngsters

Appendix H, New Jersey Department of Transportation Pedestrian Safety Guidelines, contains information that can be used in school or employer based pedestrian education programs.

Advocacy

Cycling or walking to employment centers, shopping areas and public transit points such as train stations and bus stops could be increased through implementation of simple, relatively low cost yet innovative means such as:

- Installing bicycle racks on buses. Some buses such as those serving the Rutgers University community currently have this equipment. More widespread use of bus racks are anticipated to encourage the use of bicycles for part of the trip to work. NJ Transit and private bus companies throughout the County could provide this equipment.
- Installing secure bicycle storage facilities at employment centers such as office complexes; provision of bicycle racks at shopping centers and in downtown areas. (See Appendix J for information on obtaining bicycle storage facilities).
- Public and private employers should foster cycling or walking to work by instituting incentive programs such as giving or loaning bicycles to employees, a program utilized by the City of Boulder, Colorado; providing lockers and facilities to wash up and change clothes; conducting bicycle workshops; distributing information on various bicycle routes through media such as newsletters and bulletin boards and provide bicycle storage facilities.
- Implementing bicycle loan programs such as the Yellow Bike system in downtown areas. Also, hotels or bed and breakfast facilities in or near downtown areas could provide loaner bicycles for recreation or for short-term trips. Such programs are used extensively in Europe and in some resort areas in New Jersey and Pennsylvania.

Safety and Security

Safety and security for bicyclists and pedestrians could be enhanced by measures such as:

- Installing adequate lighting along bike paths, in downtown areas and shopping centers, at public transportation facilities, at employment centers and underpasses.
- Enforcing laws such as the requirement to yield the right-of-way to pedestrians, particularly at intersections and crosswalks. Law protecting cyclists should also be enforced.
- Encouraging greater use of community policing programs, some of which provide bicycle mounted police and police on "the beat".

- Strict enforcement of speed limits in state, county and municipal parks and elimination, wherever possible, of through traffic in the parks, particularly after school and during the evening peak travel period.
- Lower speed limits in areas of high bicycle and pedestrian traffic.
- Traffic calming, long used in Europe to reduce the speed of motor vehicles, should be considered, where viable. Traffic calming devices are most appropriate in areas of high pedestrian activity. Types of traffic calming devices can be found in Appendix M.
- Eliminating roadway hazards such as unsafe storm sewer grates, potholes, barriers and debris.
- Providing marked crosswalks and signage at pedestrian crossings, particularly along high traffic roadways and highway ramps.
- Installing barrier free curbs, in accordance with the Americans With Disabilities Act to provide wheelchair access.
- Providing bus pull off areas at bus stop locations to protect passengers.
- Amending the New Jersey Mandatory Bicycle Helmet Law to require use of helmets by cyclists of all ages. The current law, found on Appendix C, mandates use of helmets by children under 14.

Land Use Regulations

County and municipal land use and design regulations need to be changed to better address the needs of bicyclists and pedestrians.

The *Middlesex County Subdivision Review and Site Plan Resolutions* should be amended to require, wherever feasible, bicycle and pedestrian facilities along County roads. The amendments should also include design standards set forth in the *New Jersey Department of Transportation Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines*, and in the *United States Department of Transportation Federal Highway Administration Traffic Controls for Bicycle Facilities*, which are utilized by the Office of the County Engineer. These design standards are found in Appendix A and Appendix B.

Bicycle facilities should be required for all new uncontrolled access State and County roads and County road improvement projects. Pedestrian and bicycle facilities should be included on new bridges and replacement bridges on State and County roads. Descriptions of existing County roads are found in the *Middlesex County Bikeway Plan Road Inventory* on Appendix D.

Municipal master plans and/or master plan updates should include provisions for bicycle and pedestrian facilities and networks.

The Residential Site Improvement Standards (New Jersey Administrative Code Title 8 Chapter 21) includes guidelines and design standards for bicycle and pedestrian facilities within residential developments. These standards are to be used by municipalities.

Municipal land use and design regulations should be amended, in accordance with municipal master plans, to:

- Require bicycle and pedestrian facilities wherever feasible for new residential developments and nonresidential projects
- Include design standards for bicycle and pedestrian facilities in accordance with the Federal, State and County guidelines and standards in Appendices A and B.
- Assure that bicycle and pedestrian facilities tie into an existing network of routes within and outside the municipality.
- Municipalities should also require bicycle and pedestrian facilities for all new municipal roads and roadway improvement projects.
- Consideration should be given to landscaping where bicycle and pedestrian paths abut or traverse open space areas such as the Rutgers Ecological Preserve and the East Coast Greenway. Installation of low maintenance native plantings would increase the beauty of the open space and enhance the natural experience for cyclists and pedestrians.

IX. COORDINATION WITH REGIONAL, STATE AND LOCAL BICYCLING AND PEDESTRIAN PLANS, PROGRAMS AND INITIATIVES

There is significant support for creating new bikeways and improving bicycle and pedestrian facilities at all levels of government, as well as public and quasi-public entities. This is evident in the 2001 Middlesex County Bicycle and Pedestrian Plan Update.

Federal Initiatives

The Transportation Efficiency Act for the 21st Century (TEA 21) emphasize the use of alternate modes of transportation such as bicycling and walking.

The United States Department of Transportation, recognizing the need for alternatives to the automobile, published *The National Bicycling and Walking Study in 1994*. This study proposed to double bicycling and walking trips and reduce bicycle and pedestrian accidents.

State Initiatives

Former Governor Christie Whitman made a commitment to build 2,000 miles of new bikeway facilities over a 10-year period. The State has proposed the *High Point to Cape May Bicycle Route*, a portion of which traverses Middlesex County.

State support for bicycle and pedestrian facilities is also evident in:

- *The New Jersey Department of Transportation Statewide Bicycle Master Plan (1995)*
- Expansion of the NJDOT Office of the Bicycle & Pedestrian Advocate
- Publications such as the *NJDOT New Jersey Bicycling Information (2000)*.
- NJDOT local Bicycle-Pedestrian Planning Assistance Program which has provided funding to local Bicycle Facilities Planning initiatives such as the New Brunswick Bikeway Study and the Kingston Area Bikeway Study.
- *NJDOT Route One Bicycle and Pedestrian Corridor Study* (See Appendix K).
- Formation of the Bicycle Advisory Committee by NJDOT.

Regional Initiatives

- The North Jersey Transportation Planning Authority (NJTPA) Regional Transportation Plan Mobility for the 21st Century supports bicycle and pedestrian facilities as alternative to the motor vehicle.
- The New Jersey Coastal Heritage Trail (NJCHT), portions of which traverse Perth Amboy, South Amboy, Old Bridge and Sayreville in Middlesex County. The NJCHT is a regional project, being developed cooperatively by the National Park Service, the State of New Jersey and other organizations. (See Appendix N).
- The East Coast Greenway, a trail connecting cities along the East Coast, from Calais, Maine to Key West, Florida. The Greenway in Middlesex County goes from Perth Amboy to Kingston. (See Appendix O).

Middlesex County

Middlesex County's commitment to bicycle and pedestrian facilities is evident in the:

- Support of municipal bicycle and pedestrian plans
- Coordination and cooperation with governmental and non-governmental organizations at state and regional levels
- Coordination and cooperation with public and quasi-public organizations within the County, such as Keep Middlesex Moving
- Support of the activities of the Middlesex County Bicycle-Pedestrian Task Force initiated and organized by Freeholder Camille Fernicola
- Coordination with statewide bicycle advocacy organizations. A directory of these organizations is found at Appendix F.
- Coordination with Rutgers, the State University, including funding and planning assistance for bicycle and pedestrian programs developed by Rutgers.
- Participation in the NJ Bicycle Advisory Council.

Public Participation

There was significant public participation at all levels of government in the preparation and approval of the Plan. Planning Board staff reached out to stakeholders, including all Middlesex County municipalities, adjacent Counties, the Transportation Coordinating Committee and, especially, the Bicycle/Pedestrian Task Force, in the preparation of the Plan.

Staff mailed copies of the draft Plan to the planners in all 25 Middlesex County municipalities on May 15, 2001, for their review and comment. Copies were also sent to New Jersey Department of Transportation, New Jersey Transit, Keep Middlesex Moving, the Middlesex County Engineer and all County Planning Department division heads for review and comment.

Staff followed up with a second mailing on August 1, 2001 and telephone calls in September, 2001 to assure 100 percent participation by all municipal stakeholders in the planning process.

In addition, staff presented the draft Plan to the Transportation Coordinating Committee and the Bicycle/Pedestrian Task Force, including Rutgers University, the Central Jersey Bike Club and the Coalition for a Bike Friendly New Brunswick. Copies of the draft Plan were distributed at the meetings, and mailed to members who did not attend.

Comments from each municipality, the TCC, Task Force, County Engineer, New Jersey Transit, KMM and New Jersey Department of Transportation were incorporated into the final draft of the Plan.

X. IMPLEMENTATION AND FUNDING PROGRAMS

Programs to improve existing bicycle and pedestrian facilities, add new bikeways and construct new pedestrian facilities can be implemented through use of a variety of federal, state, county, local and private sector funding sources.

Every category of available federal transportation funding can be used for bicycle and pedestrian project, particularly those under the aegis of the 1998 Transportation Efficiency Act for the 21st Century (TEA 21), and the Transportation Improvement Program (TIP). A list of significant federal funding sources is found at Appendix E.

State Sources include the New Jersey Department of Transportation Aid to Counties and Municipalities, the NJDOT Annual Local Bikeway and Local Pedestrian School Safety Programs, and the Transportation Trust Fund County Transportation State Aid Program. Contacts for these funding sources are found at Appendix E.

County sources are derived from the County Improvement Program (CIP), which include provisions for bicycle and pedestrian facilities.

Private sector funding is available through developer contributions and other means. Sources can be found in grants publications and on the Internet, where many sources have web pages.

XI. CONCLUSIONS

The increase in popularity of walking and bicycling for physical fitness, recreation, and commuting has necessitated a re-examination and update of the *1995 Middlesex County Bicycle and Pedestrian Plan*. The demand for new and improved facilities far outweighs the supply.

Middlesex County has a diverse transit system that provides citizens with a variety of choices, however, there needs to be greater emphasis on bicycling and walking and viable alternatives to the automobile.

The 2001 Middlesex County Bicycle and Pedestrian Plan is a useful guide that offers practical and achievable solutions needed to make walking and bicycling safe, convenient and attractive transportation choices.

The Plan identifies problems with existing facilities and recommends solutions, including physical improvements to existing bicycle and pedestrian facilities to provide a safer biking and walking environment in Middlesex County.

The Plan proposes new on- and off-road facilities that provide pedestrians and cyclists with interconnected routes from residential areas to schools, parks, playgrounds, employment centers, train stations and bus routes.

The Plan proposes improvements to the Countywide bicycle network that will further enhance the use of bicycles for recreation, physical fitness, as a transportation alternative to the automobile for certain trips, and as a linkage to existing bus and rail facilities.

The needs of pedestrians are often overlooked in the planning and design of alternatives to motor vehicles. This Plan examines those needs and provides recommendations that will provide pedestrian safe, smooth and direct routes.

The Plan proposes simple and "do-able" methods such as education and incentive programs, and enforcement of laws to protect bicyclists and pedestrians. Such programs would serve to create awareness and increase the use of bicycle and pedestrian facilities.

The Plan is consistent with the statewide goal to provide 2000 miles of bicycle trails by 2010, with State and Regional Plans, and with the federal mandates of TEA 21.

The Plan reflects the County's commitment to the unique bicycle and pedestrian needs of each municipality.

