

# **DRAFT**

## **UNION COUNTY MASTER TRANSPORTATION PLAN**

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**JULY 2002**

“The preparation of this report has been financed in part through the funds from the U.S. Department of Transportation, Federal Highway Administration under the Federal Highway Act of 1956, as amended, and the Urban Mass Transportation Act of 1964, as amended. This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The contents of this report reflect the views of the author who is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect of official views or policies of the Urban Mass Transportation Administration, the Federal Highway Administration or the State of New Jersey. This report does not constitute a standard, specification, or regulation.”

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## **MISSION STATEMENT**

The primary goal of Union County's Transportation and Infrastructure Plan is to move an excellent, but aging system designed to position Union County as a gateway to the emerging global economy.

This effort will capitalize on two major pieces of federal legislation which now drive the planning and economic development efforts in Northeastern New Jersey: the Clean Air Act Amendment (CAAA) adopted in 1990 and the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and its successor, the Transportation Efficiency Act for the 21<sup>st</sup> Century (TEA-21).

Both of these legislative acts are the centerpiece for the reinvestment in the nation's infrastructure in order to insure the economic competitiveness of the United States in the twenty-first century. Likewise, these policies will be the basis directing reinvestment in the county's infrastructure in order to meet this competitive challenge.

Union County's transportation plan focuses on the construction of necessary links to create an intermodal transportation network for both goods movement and mobility.

The transportation plan is a critical element in the development of the county's strategic economic redevelopment plan.

This plan requires coordination among several agencies inclusive of county government, NJDOT, NJ Transit, Port Authority of New York and New Jersey, and the federal Department of Transportation.

To this end, this revised master plan has been segmented to the Congestion Management Strategy under development by the North Jersey Transportation Planning Authority.

The Bureau of Transportation Planning has developed this document as part of its Planning Work Program funded by the North Jersey Transportation Planning Authority. Staff will continue to coordinate planning and funding of the projects described herein as a member of this regional planning agency.

# GOALS AND OBJECTIVES

## GOALS AND OBJECTIVES

GOAL: To improve and rebuild a sound transportation infrastructure designed to revitalize Union County.

OBJECTIVE:

- To retain our existing corporate base and at the same time attract new business into the county.
- To promote international trade within the private sector and maximize the NAFTA and GATT Trade Agreements.
- To attract new emerging industries to Union County.
- To attract regional business and tourism to Union County.

GOAL: To ensure that adequate public transportation is available in Union County.

OBJECTIVE:

- To support and encourage efficient, reliable, safe and convenient, passenger rail service.
- To ensure efficient, reliable, safe and convenient bus service.
- To ensure that paratransit service meets the needs of senior and disabled residents.
- To develop adequate park and ride facilities.

GOAL: To maintain an efficient and safe roadway system.

OBJECTIVE:

- To develop alternatives to capacity expansion.
- To improve safety.
- To improve operating efficiency.
- To complete missing links.

GOAL: To maintain the efficient movement of goods.

OBJECTIVE:

- To promote safe and efficient truck travel.
- To promote safe and efficient transport of freight by rail.
- To ensure adequate depth at port facilities to accommodate current and future vessels.

GOAL: To support aviation services in Union County.

OBJECTIVE:

- To continue the use of Linden Airport as a general aviation facility, as appropriate.
- To mitigate the adverse impacts of air travel on county residents.

GOAL: To create, encourage and coordinate innovative traffic mitigation strategies and programs.

OBJECTIVE:

- To ensure safe and convenient bicycle and pedestrian facilities, promote flexible working hours and other transportation demand management strategies.
- To encourage transportation system management solutions on roadways.
- To plan and implement the appropriate transportation control measures of the Clean Air Act Amendments of 1990.
- To efficiently utilize capacity.

GOAL: To promote a coordinated, comprehensive and cooperative transportation planning process.

OBJECTIVE:

- To continue the Subregional Transportation Planning Program.
- To continue to acquire special transportation planning funds available through the state or federal government.
- To integrate land use and transportation planning.

# TRANSPORTATION NETWORK

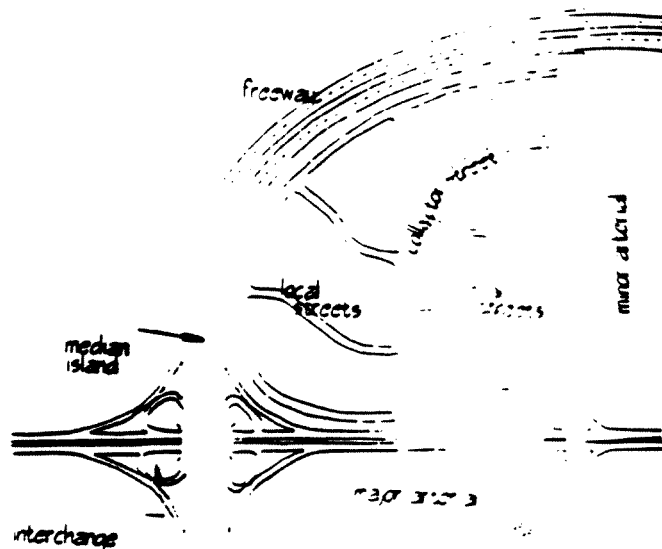
## CIRCULATION/TRANSPORTATION PLAN

Union County is at the hub of the air, road, and rail transportation network serving the northeast corridor between Washington, D.C. and Boston. The transportation network has greatly influenced the development of the County and improvements to the network will aid future growth. The transportation network in the County includes all modes of transportation including highway, bus, rail, air and water, and it is through this infrastructure network that goods and people are brought into and out of the County and moved through the County.

### Roadway System

The roadway system is the most important intra-County component of the Union County transportation infrastructure. The road system is comprised of Interstate, freeway and expressway, principal arterial, minor arterial, collector and local roadways. Each type of roadway performs a distinctly different function according to its capacity, design and relationship to the overall circulation network. Figure 4-1 shows a generalized roadway system map.

FIGURE 4-1  
ROADWAY SYSTEM MAP



All roadways within Union County have been classified by the New Jersey Department of Transportation according to the Functional Classification of Highways developed by the Federal Highway Administration (last revised in 1990). The Federal Highway Administration functional classification system includes standards for rural and urban areas. Union County is entirely within an "Urban Area" that encompasses all of northeastern New Jersey and the New York Metropolitan Area. There are four functional highway categories for "Urban Areas": interstates, freeways and expressways; principal arterials; minor arterials; and collectors. All other streets and roads are broadly classified as "local roadways". The standards for the Federal roadway functional designations are based upon the character of services they are intended to provide. These are described below in Table 4-1. Figure 4-2 delineates the Functional Classification Circulation Plan for Union County.

**TABLE 4-1  
ROADWAY SYSTEM CLASSIFICATION**

Interstate/Freeway	A limited access highway with no grade crossings
Principal Arterials	A street with access control, channelized intersections, restricted parking, and that collects and distributes traffic to and from minor arterials
Minor Arterials	A street with signals at important intersections and stop signals on the side streets and that collects and distributes traffic to and from collector streets.
Collectors	A street which has the function of both mobility and access.
Local Roads	A street designed to provide vehicular access to abutting property and to discourage through traffic.

**Interstates/Freeways**

The highest functional classification of roadway is interstates/freeways which are roadways with fully controlled access. Fully controlled access mean that authority to control access is exercised to give preference to through traffic by providing access connections with selected public roads only and by prohibiting crossings at grade and direct private driveway connections. Essential interstate/freeway elements include medians, grade separations at cross street, ramp connections for entrance to and exit from the through roads, and (in some cases) frontage roads. Interstates/freeways are intended to provide high levels of safety and efficiency in the movement of high volumes of traffic at high speeds.

Two Interstates, I-78 and I-95 (New Jersey Turnpike), cross through Union County. Interstate 78 extends 10.40 miles through the northern portion of the County including Hillside, Union and Springfield Townships and along the Watchung Reservation through Mountainside, New Providence and Berkeley Heights.

Interstate 95 (New Jersey Turnpike) extends 6.25 miles in a north/south direction through Linden and Elizabeth. Interstate 95 extends through New Jersey from the George Washington Bridge in northern New Jersey to the Delaware Memorial Bridge in southern New Jersey. Recent improvements to the New Jersey Turnpike included the widening of the roadway between Interchange 11 in Woodbridge and Interchange 14 in Newark that includes the section of the Turnpike extending through Union County. This 13-mile section is the most heavily traveled section of the Turnpike. The widening was completed in 1996 and resulted in the addition of new fourth lanes to the northbound and southbound outer roadways. These lanes were designated as High Occupancy Vehicle (HOV) lanes on December 4, 1996. During the weekday periods of 6:00 to 9:00 a.m. in the northbound lane and 4:00 to 7:00 p.m. in the southbound lane the HOV lanes are reserved for cars and vans carrying three or more people, buses and motorcycles. At all other times the lanes are open to all passenger vehicles.

The Turnpike proposes to expand the existing toll plaza at Interchange 13A from 15 lanes to 21

lanes. In addition, the plaza canopy and tunnel will be extended, and utilities, ramp pavement, curbs, drainage facilities and roadway lighting will be upgraded. The plaza is being expanded in order to accommodate increased traffic which will be generated by the proposed Jersey Gardens Mall and the proposed expansion to Newark International Airport. There are no additional improvements planned within Union County by the New Jersey Turnpike.

One "freeway", the Garden State Parkway, traverses 6.9 miles of Union County. The Parkway extends through the central portion of Union County in a north/south direction and includes nine access points: Interchange 135 in Clark; Interchanges 136 and 137 in Cranford; Interchange 138 in Kenilworth; Interchanges 139, 140, and 141 in Union; and Interchanges 142/142A in Hillside.

### **Principal Arterials**

The principal arterial system connects major urbanized centers, serves the high traffic volume corridors and carries a high proportion of the total urban area travel on a minimum of mileage. The principal arterial system carries most of the trips entering and leaving urban areas as well as most of the through movements by-passing urban centers and the cities. Because of the nature of the travel served by the principal arterial system, almost all fully and partially controlled access facilities are usually part of this functional class. Principal arterial roadways include the following in Union County: U. S Route 1/9 (6.25 miles), U.S. Route 22 (9.6 miles), State Route 27 (5.6 miles), State Route 28 (12.3 miles), State Route 82 (4.6 miles), and State Route 124 (2.9 miles).

### **Minor Arterials**

The minor arterial system interconnects with the principal arterial system. It accommodates trips of moderate length at a somewhat lower level of travel mobility than principal arterials. This system distributes travel to geographic areas smaller than those identified with the higher system. The minor arterial system places more emphasis on land access and offers lower traffic mobility. Examples of minor arterials in Union County include Elizabeth Avenue in Elizabeth, Springfield Avenue in Berkeley Heights and New Providence and Vauxhall Road in Union Township.

## **Collector**

The collector system provides both land access service and traffic circulation within residential neighborhoods and commercial and industrial areas. It differs from the arterial system in that facilities on the collector system may penetrate residential neighborhoods, distributing trips from the arterials through the area to their ultimate destinations. The collector street also collects traffic from local streets in residential neighborhoods and channels it into the arterial system. In central business districts, and in other areas of similar development and traffic density, the collector system may include the entire street grid.

Examples of collectors include Linden Avenue in Linden, Rahway Avenue in Westfield and Lincoln Avenue in Cranford.

## **Local Roads**

Local roads including residential streets serve primarily as access to the adjacent property and uses. On these roads the through traffic is local in nature and extent rather than regional, interstate or intrastate. While local roadways constitute a high proportion of the roadway mileage in the system, the traffic volumes generated by the abutting land uses are largely short trips or a relatively small part of longer trips where the local road connects with major streets or highways of higher classifications. Due to the relatively low traffic volumes and the extensive mileage, design standards for local roads and streets are of a comparatively low order as a matter of practicality. However, to provide for traffic mobility and safety and essential economies in construction, maintenance, and operation, local roads must be planned, located, and designed to be suitable for predictable traffic operations and must be consistent with the development abutting the right-of-way. (Due to mapping constraints not all of the local roadway system within the County is shown in Figure 4-1).

## **New Jersey Highway Access Management Code**

In 1989, the New Jersey Municipal Land Use Law was amended by the State Highway Access

**Management Act.** The act authorizes the NJDOT, county and municipalities to adopt access management codes. Where such codes have been adopted, no permits for construction of a building or structure can be issued unless the proposed access conforms to the adopted codes of the entity with jurisdiction over the road. The NJDOT prepared a Statewide Access Management Code in April 1992 and updated in 1994 which sets standards for highway access and desired roadway design based on roadway segments. The code provides standards for highway access for:

- **Minimum spacing of driveways**
- **Minimum corner clearance**
- **Regulation of the number of driveways per property frontage**
- **Consolidation of access for adjoining properties**
- **Consolidation of access for parcels assembled for one purpose, plan, entity, or usage.**
- **Designation of the number of driveways permitted to each existing property and denial of additional driveways regardless of future subdivision.**
- **Minimum sight distance**
- **Encouraging connections between adjacent property**
- **Adequate internal design and circulation**

The New Jersey Highway Access Management Code roadway segments are shown in Table 4-2.

TABLE 4-2  
NEW JERSEY HIGHWAY ACCESS MANAGEMENT CODE  
UNION COUNTY

1	2	3	4	5	6	7
N.J. State Route	Mile Post Number	Description	Posted Speed Limit	Cell Number	Access Level Number	Desired Typical Section Number
1/9	38.34-40.45	From-Middlesex County Line To-Linden Airport	45	1	3	6A
1/9	40.45-41.80	From-Linden Airport To-Mt. Calvary Cem.	35 & 40	4	3	6A
1/9	41.80-43.20	From-Mt. Calvary Cem. To-Gibbons Ct.	45	1	3	6A
1/9	43.20-45.45	From-Gibbons Ct. To-North Ave.	40	4	3	6A
1/9	45.45-46.20	From-North Ave. To-County border	50	0	1	8C
22	47.02-58.39	From-Somerset Co. border To-Essex Co. border	45 & 50	1	3	6A
24	7.37-10.59	From-River Rd. To-Rt. 78	55	0	1	6A
27	27.18-35.79	From-Middlesex Co. border To-Essex Co. border	30 & 35	2	4	4E
28	17.50-23.00	From-5th St. To-Elizabeth Ave	25 & 35	6	5	1A
28	23.00-26.63	From-Elizabeth Ave To-Cherry St. (End)	30 & 35	4	4	4A
81	0.51-1.18	From-after toll booth To-I & 9 intersection	50	1	3	5A
82	0.00-2.65	From-Springfield Ave. To-Garden State Parkway	30 & 35	5	4	4E
82	2.65-3.35	From-Garden State Parkway To-Suburban Rd	45	2	4	4E
82	3.35-4.25	From-Suburban Rd To-R. R. line	40	5	4	4E
82	4.25-4.93	From-R. R. line To-North Ave	45	2	4	4E
124	10.03-11.70	From-Essex Co. border To-Victory Rd	30 & 35	5	4	4E
124	11.70-12.58	From-Victory Rd To-Valley St	40	4	3	4A
124	12.58-13.38	From-Valley St To-Essex Co. border	35 & 40	5	4	4E
439	0.00-3.39	From-Rt. 278 To-Rt. 27	25 to 35	5	4	4E
1-78	42.74-48.54	From-Somerset County border To-Quarry Rd	55	0	1	6A
1-78	48.54-54.32	From-Quarry Rd To-Essex County border	55	0	1	1A
1-278	0.00-0.90	From-Rt. 1 & 9 To-Brunswick Ave	50	0	1	6A

**TABLE 4-2 (continued)  
NEW JERSEY HIGHWAY ACCESS MANAGEMENT CODE  
UNION COUNTY**

**Access Level**

- 1 Fully Controlled Access
- 2 Access along Street or Interchange only
- 3 Right-turn access with provision for left-turn access via jughandle
- 4 Driveway with provision for left-turn access via left-turn lane
- 5 Driveway with provision for left-turn access (limited by spacing requirements and safety considerations)
- 6 Driveway access limited by edge clearance and safety considerations

**Desired Typical Section**

DTS	R.O.W.	Description
1A	Existing	Same lane, shoulder, and parking conditions as exist.
4A	114'	4 lanes, divided, with shoulders
4E	102'	4 lanes, undivided, with shoulders, parking (urban situation)
5A	131'	5 lanes (2 lanes, 1 direction + 3 lanes, opposite direction), divided, with shoulders
6A	148'	6 lanes, divided, with shoulders
8C	234'	8 lanes, divided, with CD Roads

\* Not Applicable to single family lots.

Sources:

Column 1,2,3,4 - N.J State Highway Straight Line Diagrams. 1987

Column 6,7 - State Highway Access Management Code. N.J.A.C. 16:47. Effective September 21, 1992.

Prepared By: T&M Associates November 2, 1997

## PASSENGER RAIL SERVICE

Passenger rail service is provided by New Jersey Transit along three main rail lines and two minor branch lines in Union County. The main rail lines are the Raritan Valley, the Amtrak Northeast Corridor Line and the Conrail North Jersey Coast Line. The Raritan Valley Line runs between High Bridge in Hunterdon County and Penn Station in Newark. It extends through the central portion of Union County through Plainfield, Fanwood, Scotch Plains, Westfield, Garwood, Cranford, Union and Hillside. The North Jersey Coast Line runs between Bay Head and Rahway. The North Jersey Coast Line merges with the Northeast Corridor Line which extends through New Jersey between Trenton and New York City and connecting Boston and Washington. In Union County, the North

Jersey Coast and Northeast Corridor Lines extend from south of Rahway and continue north through Linden and Elizabeth.

Two other New Jersey Transit rail branches are located in the northwest portion of Union County and including a portion of the Gladstone Branch running through Berkeley Heights, New Providence and Summit; and the Morristown Line which extends through Summit connecting Essex and Morris Counties and provides direct service to Midtown. The Gladstone line provides service to Newark and Hoboken with connecting service to New York City. The passenger rail lines and their respective passenger stations located in Union County are shown in Table 4-3.

**TABLE 4-3  
PASSENGER RAIL SERVICE  
UNION COUNTY**

<b>STATION</b>	<b>MUNICIPALITY</b>	<b>LOCATION</b>
<b>GLADSTONE BRANCH</b>		
Berkeley Heights Station	Berkeley Heights	Sherman & Plainfield Ave.
Murray Hill Station	New Providence	Foley Place near South St.
New Providence Station	New Providence	Springfield & Division Ave.
Summit Station	Summit	Union Pl. & Summit Ave.
<b>MORRISTOWN LINE</b>		
Summit Station	Summit	Union Pl. & Summit Ave.
<b>RARITAN VALLEY LINE</b>		
Plainfield Station	Plainfield	Cleveland Ave. & North Ave.
Netherwood Station	Plainfield	Between North & South Ave.
Fanwood Station	Fanwood	South & Martine Ave.
Westfield Station	Westfield	South & Central Ave.
Garwood Station	Garwood	Center St. & North Ave.
Cranford Station	Cranford	High St. & North Ave.
Roselle Park Station	Roselle Park	Lincoln Ave. & Chestnut St.
<b>NORTHEAST CORRIDOR LINE &amp; NORTH JERSEY COAST LINE</b>		
Rahway Station	Rahway	W. Milton & Lewis St.
Linden Station	Linden	Wood Ave. & Elizabeth Ave.
Elizabeth Station	Elizabeth	W. Grand & Broad St.
North Elizabeth Station	Elizabeth	North & Pennsylvania Ave.

## FREIGHT RAIL SERVICE

Freight rail service is provided within Union County on some of the same rail lines as passenger service as well as separate freight lines. The largest of the freight rail line companies serving Union County is Conrail. Freight rail service is provided in Union County to support many important businesses and industries. Freight is frequently shipped in and through Union County by "intermodal" trains that are specialized trains carrying truck trailers or shipping containers "piggyback" style to key terminals within the region. These containers are transferred on and off the railcars for local pickup and delivery by trucks provided by nearly 200 truck companies in the area. The intermodal shipping containers can also be transported by ocean-going vessels located at the Port Newark/Elizabeth Marine Terminal.

General freight rail lines provide bulk shipment needs of many different types of business and industries for such types of products as lumber, steel, frozen and canned foods, newspaper and printed products, and recycled materials.

Freight lines are important in Union County for the vehicle assembly plant in Linden, the Newark/Elizabeth Port, and the chemical industry including refineries along the Arthur Kill. Spur rail lines located in Linden carry parts to the automobile assembly plant and carry chemicals and refined petrochemical products. In Elizabeth the rail lines primarily serve the Port Terminal.

There are two intermodal facilities within Elizabeth: the Conrail "Portside Terminal" located on Corbin Street in the Seaport area and the Conrail "E-Line Terminal" located adjacent to the former Elizabethport Shops on Third Street. Both terminals serve as transfer points for shipping containers between trains, trucks and ships. Freight rail lines are shown on Figure 4-3.

In August, 1998, it is anticipated that the CSX Corporation and Norfolk Southern Corporation will divide Conrail and merge its respective assets into their systems. This merger will restructured the rail system along the East Coast and New Jersey. It will restore balanced rail competition to New

Jersey for the first time in 20 years. The merger will allow Norfolk Southern to retail Conrail's trackage rights over Amtrack's New Jersey Service and over other passenger rail lines including New Jersey Transit. This will provide major service improvements and access to rail lines within Union County including: improved service between the Midwestern auto markets and the General Motors plant in Linden; new freight service between New Jersey and Buffalo, Detroit, Chicago, St. Louis and Kansas City; a \$25 million investment to expand and improve intermodal facilities; and new RoadRailer services to markets in the South and Midwest.

## **BUS SERVICE**

New Jersey Transit is the primary bus service provider in Union County. The bus routes and the municipalities they serve are listed in Table 4-4 and shown on Figure 4-3, Transportation Plan. A total of 16 bus lines service Union County providing intra-county service and regional service to Newark and New York. The WHEELS bus line is provided by the Suburban Transportation bus line operating in association with New Jersey Transit. WHEELS is a mini-bus line servicing Summit, New Providence and Plainfield.

**TABLE 4-4  
NEW JERSEY TRANSIT BUS SERVICE  
UNION COUNTY**

<b>LINE</b>	<b>SERVING</b>
18 & 22 Plainfield/North Plainfield	Green Brook, North Plainfield, US 22 K-Mart, Plainfield Rail Station, Muhlenberg Regional Medical Center, Plainfield, Netherwood Rail Station, Fanwood, Union County Vo-Tech and Scotch Plains
M19	Piscataway, Plainfield, Plainfield Rail Station, Muhlenberg Regional Medical Center, South Plainfield, Middlesex Mall, Edison, Meruchen, Metuchen Rail Station
25 Springfield Avenue	Maplewood, Irvington, Newark
52 Morris Avenue	Springfield, Union, Elizabeth
26 Irvington/Elizabeth	Elizabeth, Union, Hillside, Irvington
56 Elizabeth-Winfield 57 Tremley	Elizabeth, Linden, Roselle, Cranford, Winfield
58 Elizabeth/Kenilworth	Cranford, Kenilworth, Roselle Park, Elizabeth
59 Plainfield/Newark	Dunellen, Plainfield, Scotch Plains, Westfield, Garwood, Cranford, Union County College, Roselle, Elizabeth, Hillside, Newark
62 Newark/Woodbridge/ Perth Amboy	Perth Amboy, Edison, Woodbridge, Carteret, Woodbridge Center Mall, Iselin, Rahway, Roselle, Linden, Elizabeth, Newark Airport
70 Newark/Livingston Mall	Florham Park, Livingston, Summit, Springfield, Millburn, Maplewood, Irvington, Newark
94 Stuyvesant/Crosstown	Bloomfield, East Orange, Newark, Irvington, Union, Roselle Park, Roselle, Linden
112 Clark/New York	Scotch Plains, Clark, Linden, Roselle, Elizabeth, New York
113 Dunellen/New York	Dunellen, Plainfield, Scotch Plains, Fanwood, Westfield, Garwood, Cranford, Roselle Park, Hillside, Elizabeth, New York
114 Bridgewater/New York 117 Somerville/New York	Bridgewater, Somerville, Bound Brook, Dunellen, Plainfield, Scotch Plains, Mountainside, Springfield, Union, Hillside, New York
115 Rahway/New York	Avenel, Rahway, Roselle, Linden, Elizabeth, New York
986 Summit/Murray Hill/Plainfield WHEELS Suburban Transportation Service	Summit, New Providence, Murray Hill, Berkeley Heights, Watchung, North Plainfield, Plainfield

Source: New Jersey Transit, 1997

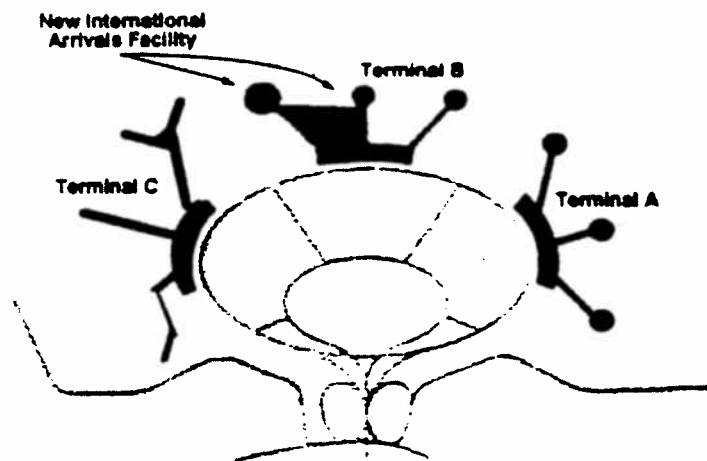
**AIRPORT SERVICE**

Union County is served by three major regional airports located for interstate and international travel. They include Newark International Airport, LaGuardia Airport and John F. Kennedy Airport all of which are operated by the Port Authority of New York/New Jersey. A fourth, but smaller, airport, Linden Airport, is located on Route 1&9 in the City of Linden 3 miles south of the Newark Airport.

Newark International Airport is located in the City of Newark (Essex County) and in the City of Elizabeth in Union County. The Union County portion of the airport is situated in the northeast portion of the County and northern portion of Elizabeth west of the New Jersey Turnpike. Newark Airport opened on October 1, 1928 and set the standard for modern airport design. When the airport terminal facility was dedicated by Amelia Earhart in 1934 it was the largest airport in the world and was used primarily for airmail. After the airline industry was deregulated in the late 1970's Newark Airport experienced rapid growth in passenger travel. In 1996 Newark Airport had a total of 29,107,459 passengers. This included 24,519,700 passengers traveling domestically and 4,587,759 passengers traveling internationally. In comparison, John F. Kennedy Airport had 31,155,411 passengers and LaGuardia had 20,699,136 passengers in 1996. All three airports showed increases in passenger travel between 1995 and 1996, with the largest being at Newark Airport, 9.3 percent.

Recent improvements to Newark Airport include the International Terminal and new monorail facilities which connect the various terminal facilities and major parking lots. The Newark International Terminal opened on January 24, 1996 in Terminal B. The 1.9-mile monorail connects Newark Airport's three passenger terminals with long-term parking lots and rental car facilities. It was opened on May 31, 1996. The monorail, which carries more than 20,000 passengers a day, will be extended to a new rail station to be constructed in Elizabeth along the Northeast Corridor/North Jersey Coast line to link with Amtrak and NJ Transit trains.

**NEWARK INTERNATIONAL AIRPORT**



Pending improvements to the Newark Airport include the extension of Runway 4L-22R 1,800 feet to the southwest (within Union County) and 1,000 feet to the northeast (in Essex County). This improvement is subject to federal approval of an environmental assessment. The \$93 million project was approved on February 6, 1997 by the Port Authority of New York and New Jersey. The expansion will improve airport operations and flexibility.

A light rail transit system known as the "Newark Elizabeth Rail Link" connecting the Airport with the downtown areas of Newark and Elizabeth, providing 12 stops along its route is currently being

studied. Possible extensions to Plainfield, Summit, Elizabeth and the Jersey Gardens Mall are also being considered.

Nearby Linden Airport encompasses approximately 188 acres, has two runways and is home to 128 aircraft which includes 116 single engine planes, 9 multi-engine planes and 3 helicopters. The airport offers fuel, maintenance, aircraft storage, charter service and flight instruction. It hosts the helicopter fleet for the President of the United States when he visits the New York/New Jersey area. Linden Airport is in the process of closing one of its two runways (Runway 14/32). The north side of the field is planned to be developed for a new hotel and conference center containing restaurants, movie theaters, and retail stores. The south side of the field will accommodate tenants, 80 T-hangars, six conventional hangars, and an aircraft tie-down area.

## **WATERWAYS**

The Arthur Kill is a narrow waterway lying between eastern Union County and New York's Borough of Staten Island. It is one of the busiest waterways in the world. It serves as a channel into Upper New York Harbor and Raritan Bay and is the gateway to and from the Atlantic Ocean for the Port Newark/Elizabeth Marine Terminal.

The Port Newark/Elizabeth Marine Terminal handles more than two-thirds of all the cargo in the New York/New Jersey area and more intermodal containers than any other port in the nation. The complex contains approximately 2,230 acres, has 3 miles of ship berths and 3.5 million square feet of warehouse space. The Port Newark/Elizabeth Marine Terminal includes Port Newark located in Newark (Essex County) north of the Elizabeth Channel and including the Newark Channel. The Elizabeth Port Authority Marine Terminal is located in Elizabeth south of the Elizabeth Channel. Elizabeth is known as "America's Containership Capital." The Port Elizabeth Marine Terminal includes 23 container cranes serving three fully equipped containership terminals, 16 freight distribution buildings with more than 2 million square feet of space, and numerous other buildings. Sea-Land operates a terminal with 7 cranes on 232 acres, including 4,519 feet of wharf.

Maher Terminal Inc., the largest container terminal operator, operates two terminals with a total of 7,350 feet of berthing space, approximately 453 acres of upland area, miscellaneous buildings and 14 container cranes. The Port Authority has recently constructed three multi-level buildings, each 44,000 sq. ft. in size with eight 5,500 sq. ft. units known as Expressport Plaza. Figure 4-3. Transportation Plan shows passenger and freight rail service, railroad passenger stations, bus service lines, terminals, airports and the Seaport.

The Howland Hook container terminal opened in the fall of 1996 after renovations. Howland Hook is a 187 acre marine terminal located in Staten Island, New York near the Goethals Bridge. The Goethals connects Staten Island with Elizabeth, spanning the Arthur Kill. The terminal consists of 2,500 linear feet of berth, capable of handling 3 vessels simultaneously and has the capacity to handle 425,000 containers annually.

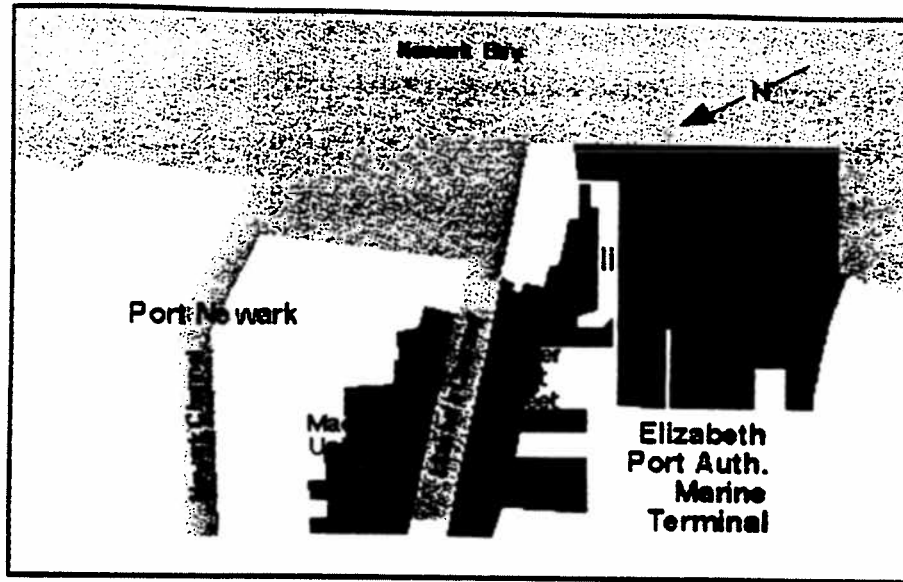
The Port Authority proposes to construct a new bridge near the existing Goethals Bridge to improve traffic capacity of Route 278 (Staten Island Expressway) across the Arthur Kill. Once completed, the current two-way traffic on the Goethals Bridge would be split into one-way traffic on the two bridges; the existing Goethals Bridge would carry westbound traffic and the new bridge would carry eastbound traffic.

### **Port Dredging**

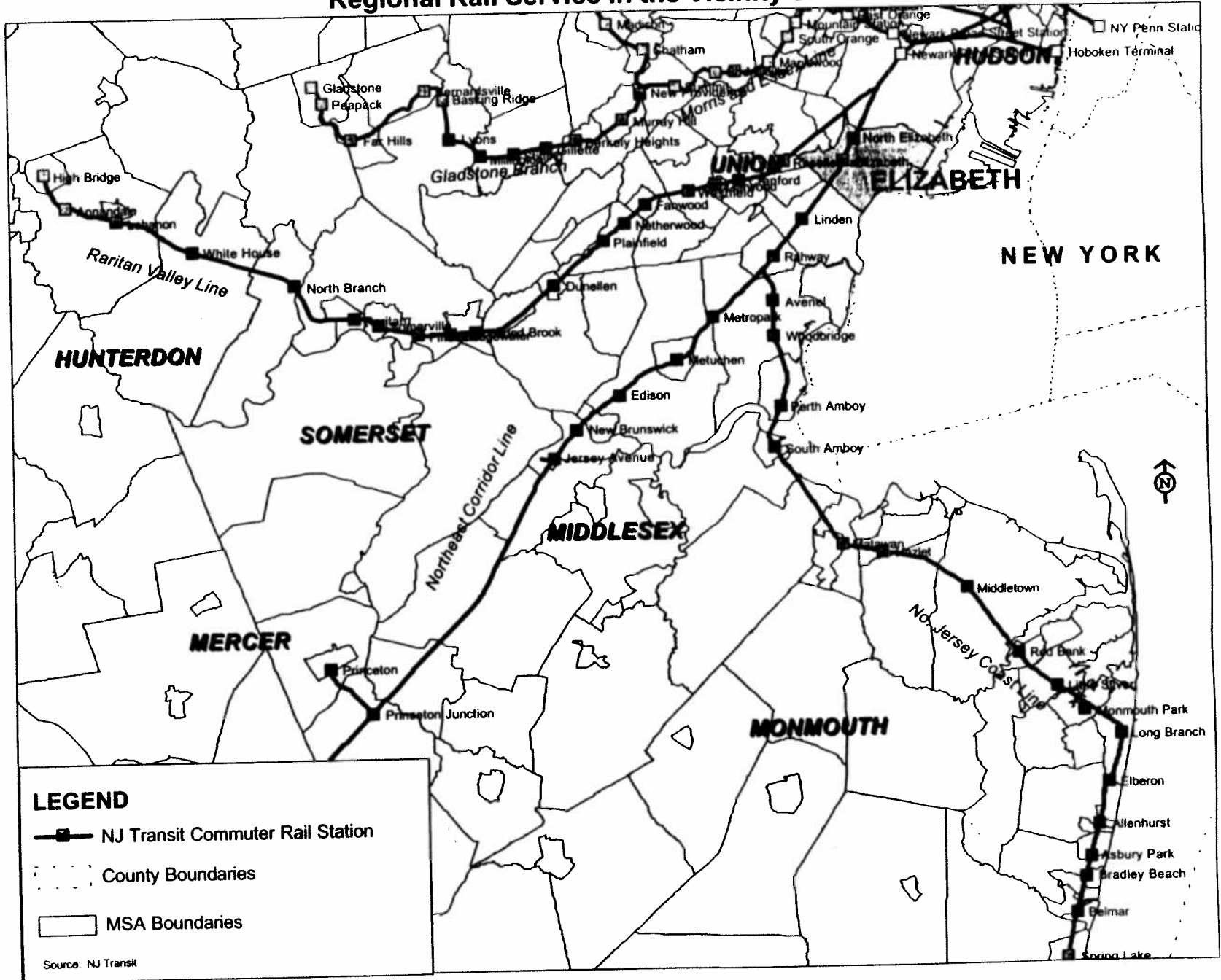
Dredging began in July 1997 on key channels and berths in Port Newark and Elizabeth and in the Port Jersey channel on the Bayonne peninsula. A new underwater containment area is being created in Newark Bay to handle approximately 1.5 million cubic yards of the material. The State is reviewing eight options for the short-term disposal of dredged materials in the containment area through the year 2002. A review of long term disposal solutions that are economically feasible are still being reviewed. Long term solutions will be crucial for the port if it to become the hub port of the North Atlantic coast. It is estimated by the Port Authority the container traffic could grow

to four million units by the year 2010.

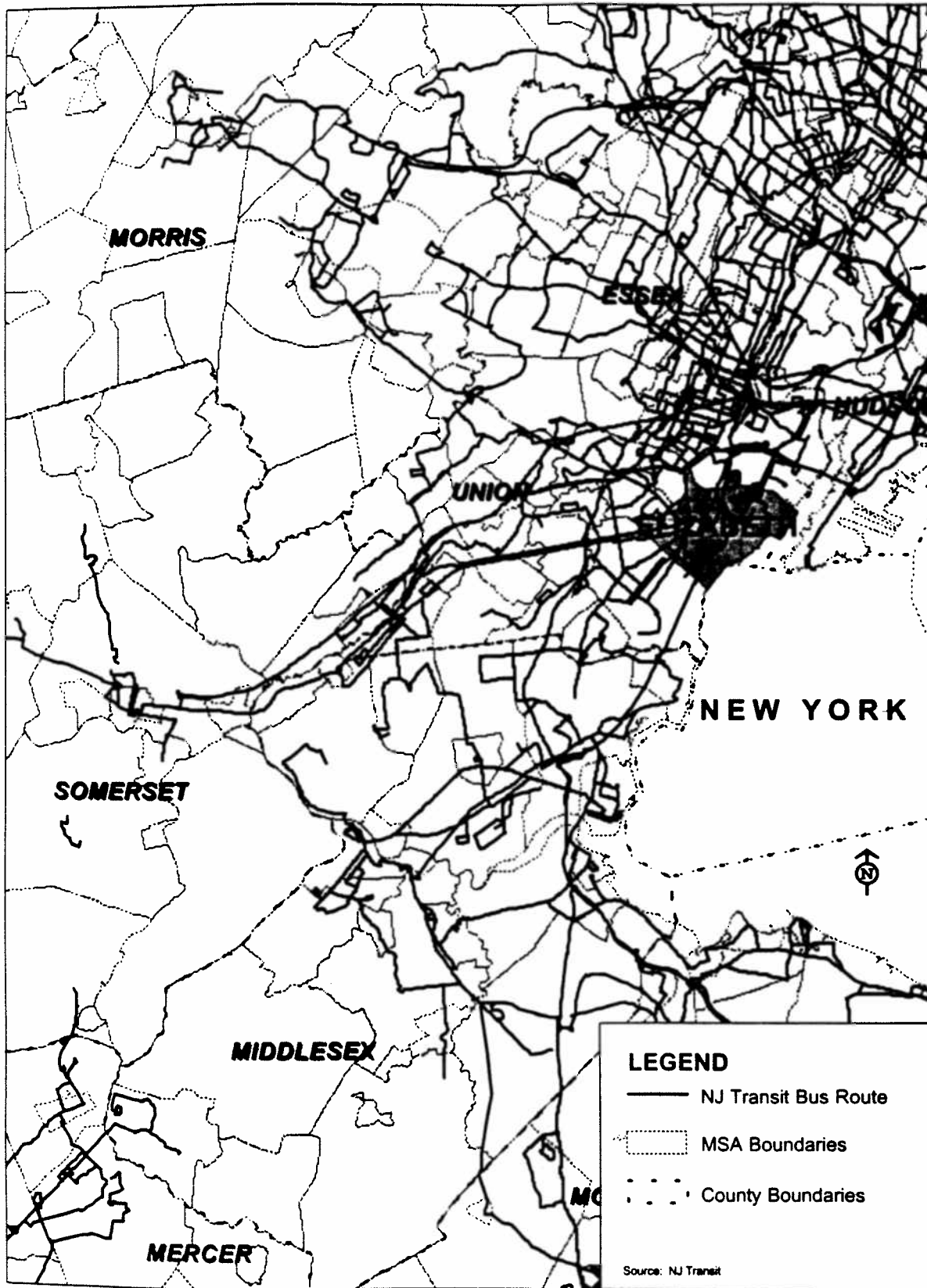
**PORT ELIZABETH/NEWARK**



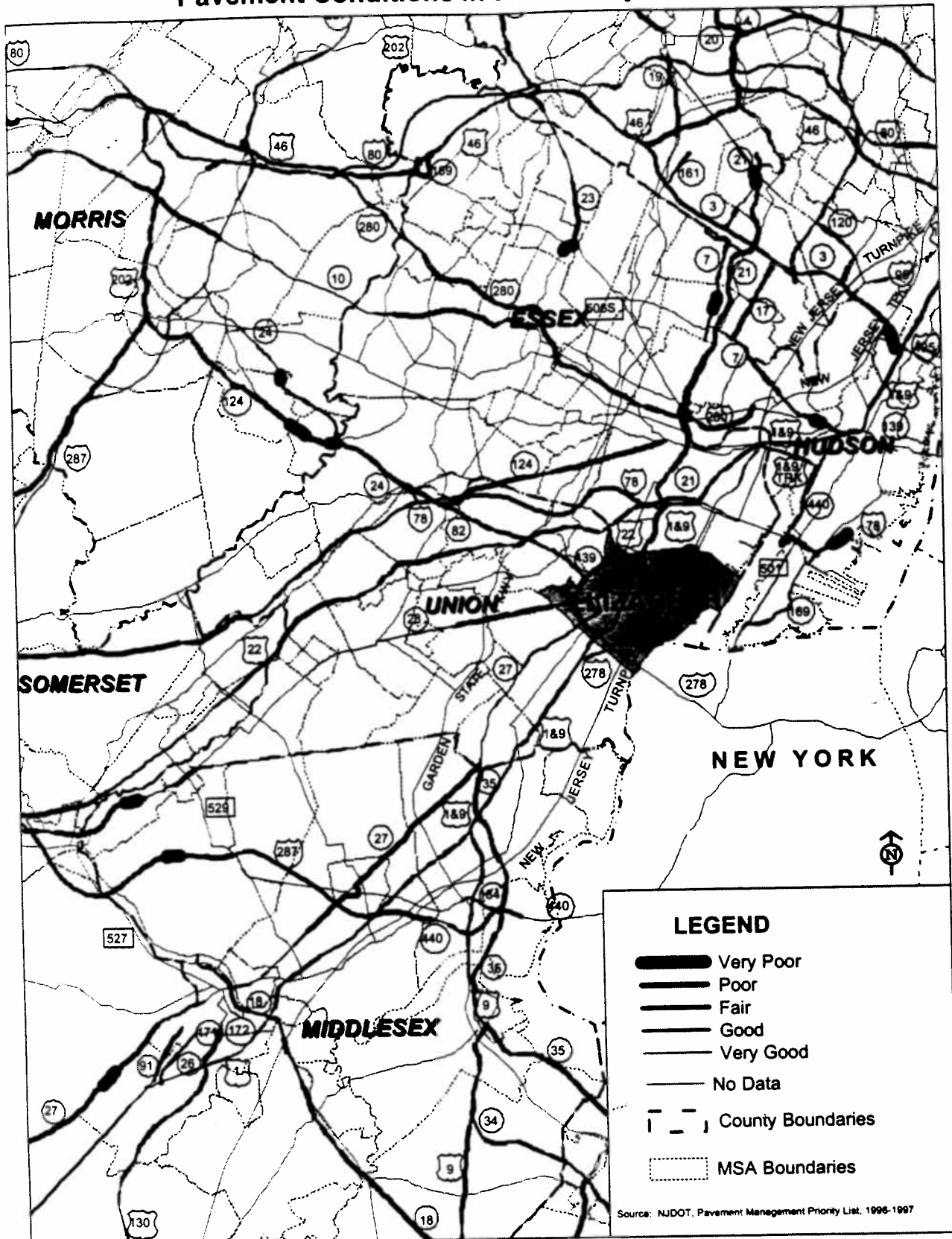
# Map 2 Regional Rail Service in the Vicinity of Elizabeth



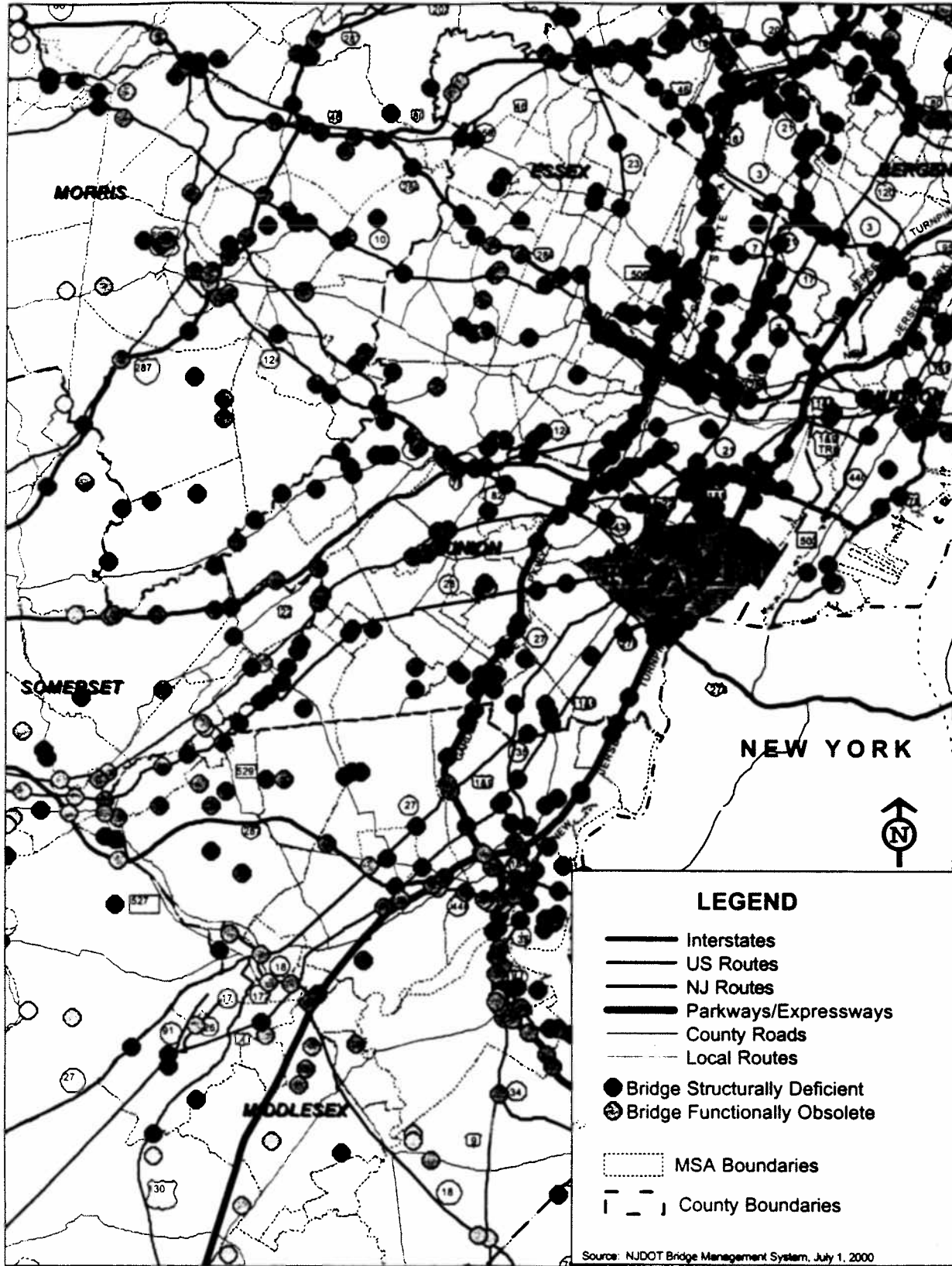
**Map 3  
Regional Bus Service in the Vicinity of Elizabeth**



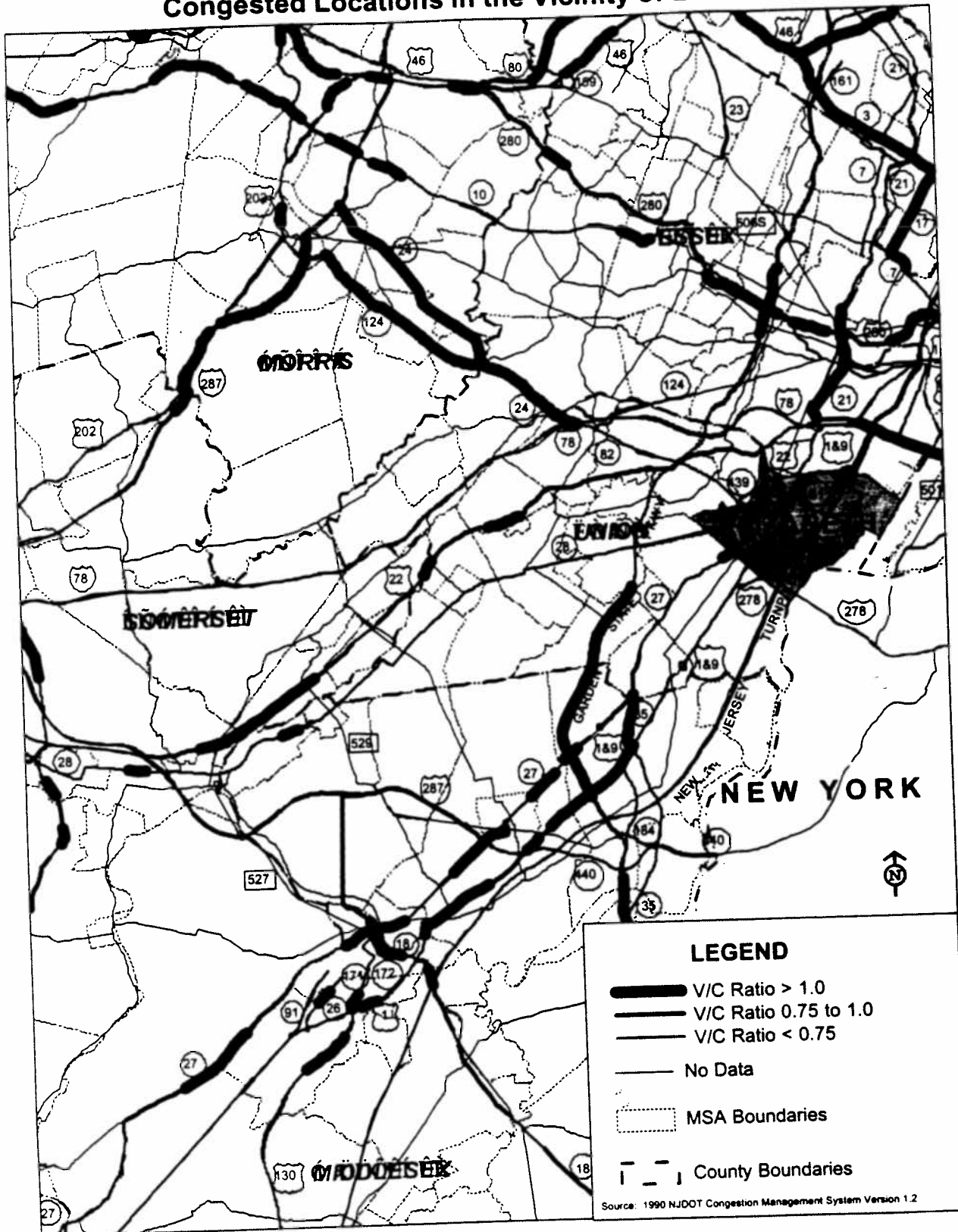
**Map 4  
Pavement Conditions in the Vicinity of Elizabeth**



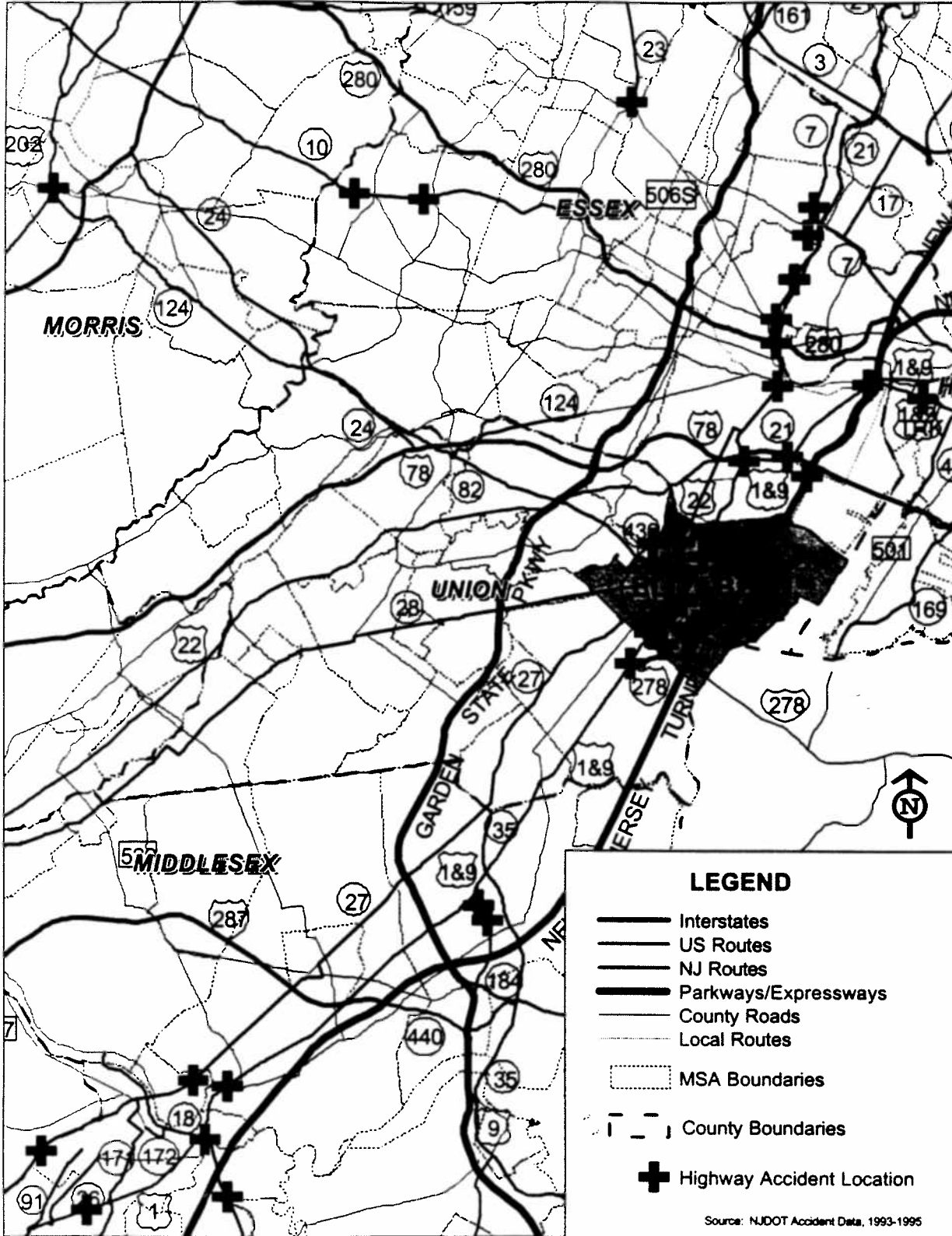
# Map 5 Bridge Conditions in the Vicinity of Elizabeth



**Map 6**  
**Congested Locations in the Vicinity of Elizabeth**



**Map 7**  
**High Accident Locations, 1993-1995, in the Vicinity of Elizabeth**



# **COMPREHENSIVE PLANNING / CMS**

## **PLANNING PROCESS: ORGANIZATIONAL FRAMEWORK**

The organizational framework of government and private entities involved in transportation planning must be examined. Their legal mandates, the funding currently available for transportation projects, and transportation-related legislation all affect the formulation of transportation policy.

The planning of a safe and efficient transportation system in Union County requires the interaction of all levels of government and with the private sector. The county coordinates its planning functions with the New Jersey Department of Transportation, the North Jersey Transportation Planning Authority, NJ Transit, other counties, the 21 municipalities in the county, and the private sector.

Since each participant in the planning process has its own strategies and policies, coordination is critical. In order to understand the present functional organization through which transportation projects are planned, funded, and implemented, the framework of transportation planning and funding will be examined first.

### **Background**

The major impetus for early efforts of comprehensive transportation planning at the regional and local level was federal funding. In order to receive federal funding, the Federal-Aid Highway Act of 1962 required a cooperative, continuing, and comprehensive planning process, the "3-C" process, among state and local agencies for highway construction projects in urban areas. The "3-C" process is at the regional level and requires specific organizational arrangements to ensure coordination and cooperation between planning agencies at different government levels.

Transportation planning was further promoted by the 1973 Highway Act which established Metropolitan Planning Organization (MPO) as the regional agencies responsible for preparing comprehensive plans for both regional roads and transit improvements. The comprehensive plans required for federal funding consist of a long range plan for transit and highway improvements, a five year Transportation Improvement Plan (TIP), which was derived from the long range plan, and an annual element. In addition, Transportation System Management (TSM) plans, which set forth the best management strategies for existing transit and highway facilities, are developed by the MPO at the regional level.

The following section identifies the public and private entities involved in transportation planning in Union County and describes their basic responsibilities.

### **United States Department of Transportation**

The United States Department of Transportation (USDOT) was created in 1966 to provide a focal point for coordinated federal transportation policies. Within the USDOT

are the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). FHWA is responsible for the administration of the Federal Aid highway Program. The FTA was created in 1968 as the Urban Mass Transportation Administration (UMTA) and renamed in 1992. FTA is responsible for mass transit capital and operating programs, technical studies, and other related public transportation services.

#### New Jersey Department of Transportation

The New Jersey Department of Transportation (NJDOT) is responsible for managing and guiding the state transportation network. Although federal and state highways comprise a small portion of the total road miles in the county, they carry a substantial amount of traffic.

In addition to designing, constructing, and maintaining the state and federal highway system, NJDOT is involved in most transportation policy issues affecting the county. NJDOT also has responsibility for the operation of traffic control devices, goods movement, transportation planning, ridesharing, and other transportation programs.

#### New Jersey Transit

NJ Transit is a public corporation created in 1979, by an act of the state legislature to build, operate, and maintain public transit in New Jersey. NJ Transit operates five rail lines in Union County: The Gladstone Branch, Morristown Line, Northeast Corridor Line, North Jersey Coast Line and the Raritan Valley Line. In addition, NJ Transit operates 19 bus routes in Union County.

#### New Jersey Turnpike Authority

The New Jersey Turnpike Authority operates 7.2 miles in Union County, inclusive of Interchanges 13 and 13A. Interchange 13 serves the Goethals Bridge Crossing and access to the industrial areas along Route 1 & 9 in Elizabeth, Linden, and Rahway. Interchange 13A serves Newark Airport and Port Newark and Elizabeth.

#### New Jersey Highway Authority

The Highway Authority operates the Garden State Parkway. In Union County, the Parkway runs in a north/south direction from the Interchange with Interstate Route 78 in Hillside to the Middlesex/Union County line in Clark. It traverses Hillside, Union, Kenilworth, Cranford, and Clark in its 8.5 miles.

#### Port Authority of New York and New Jersey

This bi-state agency was created in 1921. It is comprised of 12 commissioners with an equal number appointed by the Governors of each state. Its jurisdiction relative to the improvement of the port commerce is approximately a 25 mile radius from the Statue of

Liberty with the exception of the western portion of Berkeley Heights, all of Union County is within its jurisdiction.

### Transit Plus

This bi-county agency was formed within NJ Transit to service both Essex and Union Counties. It serves as a Transportation Management Association (TMA) for both counties. Currently, it is primarily working with larger employees to assist in their implementation of the Employee Trip Reduction Plan, as required by the Clean Air Act.

### North Jersey Transportation Planning Authority

The North Jersey Transportation Planning Authority (NJTPA) is the Metropolitan Planning Organization (MPO) for northern New Jersey. The 1973 Federal Highway Act designated MPOs as the agencies responsible for preparing comprehensive transportation plans for highway and transit. MPOs are also responsible for coordinating transportation and land use planning efforts, conducting planning studies, determining the allocation of resources, and resolving conflicts that may arise among agencies within the region. These functions are critical when various public and private entities are involved in different aspects of transportation planning, funding and improvements.

The NJTPA is responsible for initiating and developing plans on a regional basis and for assisting member agencies with obtaining the requisite funding for their planning programs. They coordinate state, county, municipal, and transit agency activities with other public bodies and the private sector.

The NJTPA draws on all levels of government, citizen groups, and transportation providers to develop coordinated plans. There are 20 voting members of the council, including representatives from 13 northern New Jersey counties, the Commissioner of NJDOT, the Director of NJ Transit, the cities of Newark and Jersey City, a citizen representative, a representative from the Governor's Office, and a representative from the Port Authority of New York and New Jersey.

### Union County Government

The county is responsible for the construction, operation, and maintenance of the county road and bridge system. It is also responsible for master plans, intersection improvements, bridge and road inspections, engineering improvements, and review site and development plans. These services are performed within the Union County Department of Operational Services, which consists of four separate divisions. The Union County Department of Operational Services consists of four separate divisions: Engineering, Land & Facilities Planning; Building Services; Public Works; and Parks and Recreation.

The Bureau of Transportation Planning and the Bureau of Traffic Engineering, Safety and Maintenance within the Division of Engineering, Land and Facilities Planning are primarily responsible for transportation improvement programming.

#### The Union County Transportation Advisory Board (UCTAB)

The Union County Transportation Advisory Board (UCTAB), founded in 1975, is in its 19<sup>th</sup> year as this county's mechanism for providing public participation in the entire transportation planning process. The UCTAB serves in an advisory capacity to the Union County Board of Chosen Freeholders and is responsible for reviewing and recommending comprehensive plans for the improvement of all types of transportation affecting Union County.

#### Union County Senior Citizen & Disabled Residents Transportation Advisory Board (UCSCDRTAB)

The Senior Citizen & Disabled Resident Transportation Advisory Board, which was established on November 23, 1976, is Union County's official forum designated to oversee and advise the Board of Chosen Freeholders on all matters regarding those citizens with special transportation needs and to study, consider, and recommend comprehensive plans for the improved transportation of elderly and handicapped persons. This includes its benefits to the elderly and handicapped community.

#### Municipalities

The 21 municipalities in Union County are responsible for the construction, operation, and maintenance of local streets. In addition to these responsibilities, municipalities also develop master plans, review and approve development applications, and coordinate with other levels of government. The State of New Jersey has empowered the municipalities to zone for land use and perform land use planning, which has a direct impact on traffic congestion.

#### Private Sector

The private sector plays a vital role in continuing the viability of the county's transportation network and has made contributions to the county's transportation in several ways, including off-tract roadway improvements, developing transportation management strategies such as car and vanpooling, making financial contributions to transportation management associations, providing transit services to Manhattan and Newark, and providing taxi and limousine services.

#### Union County Alliance

The partnership consists of government, academia, private industry and labor unions. This non-profit agency was formulated in 1993 to act as an umbrella organization

in order to foster the economic growth in Union County. The Alliance has identified infrastructure improvements as a priority issue in Union County.

## **FUNDING**

Transportation improvements such as road construction, lane widening, bridge construction and repair, resurfacing, intersection and safety improvements, and train, bus, and van replacement, have large costs associated with them. Financial assistance, therefore becomes critical, and the availability of funding will often determine the feasibility of an improvement project.

Union County relies on several sources for funding to help finance the costs of planning, public transportation, and county roadway and bridge projects to prevent the dire consequences of deferred maintenance.

### **Paratransit Funding**

The Union County Paratransit System provides special transportation for elderly (60 and over), disabled, and low income residents of Union County. The system provides non-emergency transportation to medical, mental health, dental, hospital, nutrition, employment, education and recreational facilities.

The Paratransit System is funded primarily through social service grants (Title 3), Medicaid funds (Title 19) and casino tax revenues.

### **Highway Funding**

The Transportation Improvement Program (TIP) is a five year program of planned transportation improvements required by the US government for use of federal funds described by limits of the project, year, cost, and type of work. The TIP must be endorsed annually by the Union County Transportation Advisory Board, Union County Board of Chosen Freeholders, North Jersey Transportation The TIP is developed by the county annually to reflect proposed county projects. The projects are Planning Authority, New Jersey Department of Transportation and the Federal Highway Authority. However, inclusion of a project on the TIP does not ensure implementation.

Several sources of funding are used to finance road improvement projects. These include an annual allotment of state aid of \$2.36 million, other state allocations, county funds, and federal bridge and road funding, such as the Bridge Replacement and Rehabilitation program.

Although the county contributes to and receives a substantial amount of funding each year, the needs of the transportation system far outweigh the available funds. The development of an adequate and continuous funding source is imperative for the system to remain safe and efficient.

## Transportation Planning Funding

Union County receives funds from several sources including FTA, formerly UMTA, and FHWA to perform Transportation planning functions. The county matches these funds. The county has received (UMTA) Section 8 funding for technical feasibility studies.

## **LEGISLATION**

Several transportation related legislative measures have been enacted during the last five years at the state and federal levels, while others are still pending. On the state level, legislation has dealt with access and management of the state's highway network, while federal legislation has addressed environmental and transit accessibility. Counties and municipalities are often directly responsible for implementing legislative mandates and therefore must incorporate additional requirements within their transportation planning programs.

### Federal Legislation

Recent federal legislation has centered around improving air quality from mobile source emissions and the Accessibility of the disabled to the transportation network.

### Clean Air Act Amendments of 1990

On November 14, 1990 President Bush signed into law the Clean Air Act Amendments of 1990 (the Act). These amendments are designed to significantly exceed the 1977 Clean Air Act Amendments in curbing the three major threats to the nation's environment: acid rain, urban air pollution, and toxic air emissions. Relating specifically to transportation, the Act requires the development of a state Implementation Plan (SIP) which details the methods of compliance required by the Act.

The Act establishes acceptable levels for ozone and carbon monoxide. Regions are classified by level of existing air pollution ranging from "Marginal" to "Extreme" for ozone, and "Moderate" to "Serious" for carbon monoxide. All of northern New Jersey, including Union County, is categorized as "Severe 2" for ozone and "Moderate" for carbon monoxide.

Each category has its own timetable to reach attainable levels. Northern New Jersey must reach carbon monoxide attainment by November 1995 and ozone attainment by 2007. The Act has suggested a series of transportation control measures to assist the regions in reaching attainment by these deadlines.

There are several technological requirements including cleaner operating cars, higher inspection standards and maintenance, cleaner operating buses and trucks, and oxygenated fuels. Along with these requirements there are 16 transportation control measures, including improved public transit, programs for high occupancy vehicles, and implementation of transportation management strategies.

## American with Disabilities Act

The American with Disabilities Act of 1990 (ADA) governs the accessibility of buses, rail equipment and stations, and paratransit services. This Act's primary goal is to provide accessible public transportation for people with disabilities.

An accessibility plan from every transit system is required by January 1992. This plan must include a six-year budget, details of paratransit services to be provided, and an implementation schedule. For rail transit systems, the regulations require that by June 1993 all key stations be renovated to make them accessible to people with disabilities. The criteria defining a key rail station include:

- Stations where passenger boardings exceed average station boarding by at least 15 percent;
- Transfer stations on a rail line or between rail lines;
- Major interchange points with other transportation modes;
- Terminus stations, unless close to another accessible station;
- Stations serving major activity centers.

## Transportation Efficiency Act For The 21<sup>st</sup> Century (TEA-21)

This legislation will provide funding over a six year period for a wide array of programs ranging from road and bridge work to transit operation and maintenance. States would be given flexibility in deciding how the federal funds are spent.

This Act will coordinate many of the air quality improvement measures required in the 1990 CAAA. This legislation intends to preserve existing infrastructure, relieve congestion, coordinate land use and transportation projects, provide better access to transportation facilities and airports, improve transit, preserve existing right-of-ways, enhance freight movement and increase system management techniques.

Under this Act, the Transportation Improvement Program (TIP), which is a project prioritization and financial plan, will be updated every two years rather than annually as it had been in the past. Increased public participation is also required in the new TIP processes.

## STATE HIGHWAY ACCESS MANAGEMENT ACT

The State Highway Access Management Act of 1989 was created to help manage access to state highways, based on the principle that access to state highways should not interfere with traffic. The Act requires the NJDOT to classify each state highway segment according to its function and environment. The Act also attempts to balance the need for providing reasonable access with maximizing mobility on the highways and to ensure that desired travel speeds can be maintained.

To fulfill the Act's requirements, a series of six access levels were established. The access levels dictate the allowable turning movements along highway segments. The levels range from Access Level 1, with no access from streets or driveways to Access Level 6, the least restrictive, with access limited only by edge clearance, corner clearance, and safety considerations. This act also designed to give local governments the ability to influence roadway levels of performance through land use decisions. The Access Code enables municipalities and NJDOT to jointly develop an access management plan to design all access on a highway segment.

### Transportation Development District

Transportation Development District (TDD) legislation, the second of the three part TRANSPLAN legislation developed by NJDOT, allow for the creation of special financing districts to provide a funding mechanism to meet regional transportation needs. The legislation has developed standards to evaluate the need for establishing a TDD. The four standards to be used in forming a TDD are:

- Growth in population or employment of 10 percent in three of the last five years for three adjoining municipalities.
- Local traffic growth resulting from new development exceeding 50 percent over five years.
- Commercial/Industrial/Office development exceeding 1,000,000 square feet per square mile over five years.
- Projected population or employment growth exceeding 20 percent in ten years.

Currently no region of the county falls within the established criteria for developing a TDD. Until the legislation is revised with less restricting standards, it is highly unlikely that any TDDs will be established in Union County.

# PLANNING INITIATIVES UNDER CMS

## PLANNING INITIATIVES UNDER CMS

The Transportation Equity Act for the 21<sup>st</sup> century of 1998 (TEA-21) required metropolitan planning organizations such as the North Jersey Transportation Planning Authority (NJTPA) in cooperation with the state and public transit operators, to develop transportation plans and programs for urbanized areas. The process for developing these plans and programs require consideration of all modes of transportation.

Prior to TEA-21, the Intermodal Surface Transportation Efficiency Act of 1991, Title 23 of the United States Code required that “within a transportation management area (TMA), the transportation planning process shall include a congestion management system (CMS) that provides for effective management of new and existing transportation facilities...” In effect, that required developing plans for transportation improvements based upon a CMS. Recently, in response to this requirement the NJTPA established a transportation planning process to be in compliance with CMS planning requirements. The County’s Master Transportation Plan builds upon this process.

The NJTPA has identified an extensive set of location specific performance needs that address accessibility, mobility and congestion throughout the northern New Jersey region. The NJTPA has evaluated and selected strategies that can address these needs based on their anticipated performance benefits. The County’s plan as described here in “Localities” these strategies to maintain a consistent comprehensive planning process.

A key part of the NJTPA analysis involves cataloging accessibility, mobility and other congestion related needs in the region. As an initial step, they have created eight categories for measuring the effectiveness of various aspects of the movement of people and goods. These eight aspects are:

- Accessibility – Can travel destinations be reached?
- Reliability – Can the transportation system always be counted on?
- Sustainability – Can the system maintain performance over time?
- Intermodality – Are different modes well connected?
- Highway Mobility – Can roads be traveled without delay?
- Transit Mobility – Can public transit be used without delay or crowding?
- Walk/Bike Mobility – Are walking and bicycling effective modes of travel?
- Freight Mobility – Can freight be moved without delay?

The NJTPA used these eight aspects to identify how well the transportation system is currently performing. In order to analyze this, the NJTPA region was divided into 158 “Needs Districts”, which fall into eleven categories based on the expected future (2025) density of jobs and residents. The district types range from the dense “Urban Core” to the sparsely populated “Rural Low” districts of the western portions of the region.

The eleven districts comprising Union County and their “Transportation Performance” within the eight categories are outlined below. The numbers represent a “relative”

performance on a scale of 0 to 100 with numbers close to a score of 100 being a higher need area.

This scoring process was the result of a complex computer generated modeling effort. The process was refined and corroborated with additional information provided by NJTPA subregions. A consensus was reached and these final working scales were adopted by the NJTPA Board.

The goals are then used to identify regional needs. If a goal is not currently being met in a certain area or not expected to be met at some point within the next twenty years, that area will be considered to have a transportation need. This analysis objectively identifies where and to what extent the transportation system warrants improvement throughout the region.

Subsequent to this process, the NJTPA developed a series of 24 strategies to address the identified needs or deficiencies in each of the districts. These 24 strategies and a description of their content are provided in the chart. The strategies are suitable on several levels: local, regional, corridor and county, and have been identified as such in the chart.

The matching of "Strategies" to "Needs" in order to reach an equilibrium (theoretically 0 in each of the eight Needs categories) by 2025 is the goal of this process. The NJTPA, as the regional agency charged with implementing this process, has to date been able to create a systematic approach of defining how a CMS can be developed using a set of measurement tools.

At this point, the NJTPA, together with the subregions, is refining the ways to apply these strategies to the implementation process (i.e., developing the capital program). How strategies are selected among and between subregions, regions and districts is a work in progress. Factors determining how to prioritize and select strategies for implementation are under discussion at this point.

The County has applied the CMS strategy evaluation process in the development of this Revised Master Transportation Plan. The next section of the plan explains the application to the eleven needs districts in Union County and a paradigm for evaluating and prioritizing strategies in the eleven districts within Union County.

The following table presents the Needs identified by County and District for each of the eight categories of performance measures

**Key**

**District** – Most districts are groupings of census tracts representing about 50,000 residents each. Others are defined to allow a focus on places like urban cores, rural towns and shore communities. A total of 158 districts have been identified.

**Area Type** – A defined area type for each district based largely on density of activity, computed from a sum of forecasted 2025 population and employment per square mile. The eleven defined area types are Urban Core, Urban High, Urban Medium, Urban Low; Suburban High, Suburban Medium, Suburban Low; Shore Communities; Rural Towns, Rural High, and Rural Low.

**Goal Categories** – eight established performance categories defined as follows

**Accessibility** – Can travel destinations be reached?

**Reliability** – Can the transportation system be counted on day in and day out?

**Sustainability** – Can the transportation system maintain performance over time?

**Intermodality** – Are different modes well connected?

**Highway Mobility** – Can roads be traveled without delay?

**Transit Mobility** – Can public transit be used without delay or crowding?

**Walk/Bike Mobility** – Are walking and bicycling effective modes of travel?

**Freight Mobility** – Can freight be moved without delay?

**Need** - A Need is an identification of a district falling short of a particular performance goal, represented in the table below by a positive number in that category. For each category, needs are measured in a common 0 to 100 index system.

**Composite Need** – total value for all Need categories in the district.

**ACCESSIBILITY AND MOBILITY  
BY DISTRICT**

**NEEDS DISTRICT**

		<b>NEEDS</b>								
		<b>ACCESSIBILITY</b>	<b>RELIABILITY</b>	<b>SUSTAINABILITY</b>	<b>INTERMODALITY</b>	<b>HIGHWAY MOBILITY</b>	<b>TRANSIT MOBILITY</b>	<b>WALK/BIKE MOBILITY</b>	<b>FREIGHT MOBILITY</b>	<b>COMPOSITE NEED</b>
<b>UNION COUNTY</b>										
141 - SUMMIT-NEW PROVIDENCE	Urban Low	4	5	10	4	2	11	13	10	59
142- SPRINGFIELD-MOUNTAINSIDE	Urban Low	-	-	8	5	7	9	1	2	32
143 - PLAINFIELD	Urban Medium	14	-	4	2	21	16	-	7	64
144 - SCOTCH PLAINS-CLARK	Urban Low	1	-	6	13	14	7	4	1	46
145 - KENILWORTH-CRANFORD	Urban Low	-	5	5	1	5	10	4	3	38
146 - UNION	Urban Low	-	2	1	-	5	10	10	-	28
147 - LINDEN-RAHWAY	Urban Low	-	-	-	1	5	-	6	5	17
148 - HILLSIDE	Urban Medium	-	3	1	2	5	2	-	1	14
149 - ROSELLE PARK-ROSELLE	Urban Medium	-	-	1	2	6	1	2	-	12
150 - ELIZABETH CBD	Urban Core	-	-	1	4	10	6	-	2	23
151 - ELIZABETH EAST	Urban Medium	8	-	1	2	10	5	16	26	68

## STRATEGIES ANALYZED IN THE STRATEGY EVALUATION

Based on the identification of potential strategies in the RTP and prior NJTPA CMS products, a set of 24 candidate strategies was identified for consideration in the full Strategy Evaluation analysis. These are identified here.\* As described in Section I, projects are only examined in the context of strategies 21 through 24 in this document.

### 1) GROWTH MANAGEMENT / SMART GROWTH

Coordinated Corridor/Land Use/Zoning Strategies to promote densities and mixed land use, thereby enhancing accessibility while reducing the level of necessary auto travel

- i) Zoning, Land Use Standards
- ii) SDRP support
- iii) Access management

### 2) EMPLOYER-BASED TRANSPORTATION DEMAND PROGRAMS

Strategies to reduce trips or shift trip time

- i) Alternate work weeks – reduce trips
- ii) Flex time –shift trip time
- iii) Telecommuting –reduce trips
- iv) Guaranteed ride home – reduce trips
- v) Ride match
- vi) Vanpool subsidies

### 3) FACILITY-BASED TRANSPORTATION DEMAND MANAGEMENT

Strategies to promote shared-ride modes

- i) Exclusive HOV lanes/Bus Priority Lanes
- ii) HOV toll savings
- iii) Park-and-Rides

### 4) TMA ECONOMIC-BASED TRANSPORTATION DEMAND PROGRAMS

Strategies to reduce trips and promote non-SOV modes

- i) Parking pricing policies
- ii) Parking cash out
- iii) Transit Chek
- iv) Business tax incentives

### 5/6) VALUE PRICING/TOLLING\*\*

Strategies to reduce trips or shift trip time

- i) Value Pricing/Tolling

### 7) EXISTING BUS SERVICE ENHANCEMENT

Strategy designed to promote bus mode usage by improving the existing bus service

- i) Increase bus frequency/reduce crowding
- ii) Provide express buses
- iii) Extend hours of operation
- iv) Bike racks

### 8) EXISTING RAIL SERVICE ENHANCEMENT

Strategy designed to promote rail mode usage by improving the existing rail service

- i) Add peak/off-peak service frequency
- ii) New stations on existing lines (not major facilities)

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\* Each strategy— as described in the “Strategy Evaluation Needs Identification and Strategy Analysis” – may be represented by actions such as those defined by the elements indicated. These typical elements are only provided for reference; they may not constitute the entire list of typical elements that would fall under each strategy category.

\*\* Strategies 5 and 6 (Value Pricing and Tolling) were combined during the analysis process. However, it was decided not to change the strategy numbering scheme late in the process to avoid confusion.

# NEEDS AND STRATEGIES

## NEEDS AND STRATEGIES

As explained in the previous section, the NJTPA developed a rational methodology for measuring "Needs" and applying "Strategies" to bring 158 "Needs" districts into compliance with a regional congestion mitigation system (CMS). The strategy evaluation process described in some detail in the previous section is applied to the eleven districts in Union County.

Each district is identified on a map by number in the NJTPA region, reference name in the NJTPA system and the geographical areas in Union County comprising the district. This basic information provides the intensity of development (urban, rural, etc.) and therefore the type of transportation infrastructure that would be needed to service that area.

The next three categories are needs defined in terms of how the system is performing. The regional perspective needs in category 1 is a reporting of the outcome of NJTPA evaluation process on each of eight transportation needs categories for to satisfy CMS goals for that district. As noted, the need is actually 100 minus the performance measure at which the system is operating. The number in the box represents the relative magnitude of the need compared to the seven other categories and other districts of like type in the County and region. Likewise, this is the case for the total need separated in the box marked Total in the extreme left column.

To maintain a coordinated approach to transportation planning, the CMS strategy evaluation measuring process was applied to the localized project implementation and selection process. This was done by adding two "Needs" categories to the CMS regional strategy evaluation process.

Category #2 is a reference to the County's Comprehensive Economic Development (CEDs) strategy. This document is a yearly updated plan for economic development in the County. This plan defines the primary focus of the County's Transportation Plan: to reinvigorate the economic development potential of the County by replacing and/or adding to an aged infrastructure. Hence, the infrastructure's performance to achieve that goal should be evaluated much the same way as it would be for the regional CMS. Thus, using the same eight performance categories as the NJTPA maintains planning consistency and comprehensiveness with regionalized strategies.

Likewise, staff added a third "Needs" category identified (Eng/Plan)(3). These transportation needs have been identified through technical studies, supportive tasks, traffic analyses, bridge and culvert inspections and general upgrading of roadway infrastructure. The transportation performance measures to meet local planning and engineering goals and objectives are embodied in the eight performance categories. Thus, the local planning and engineering performance needs measured using the same methodology for both the Regional CMS and Subregional CEDs goals.

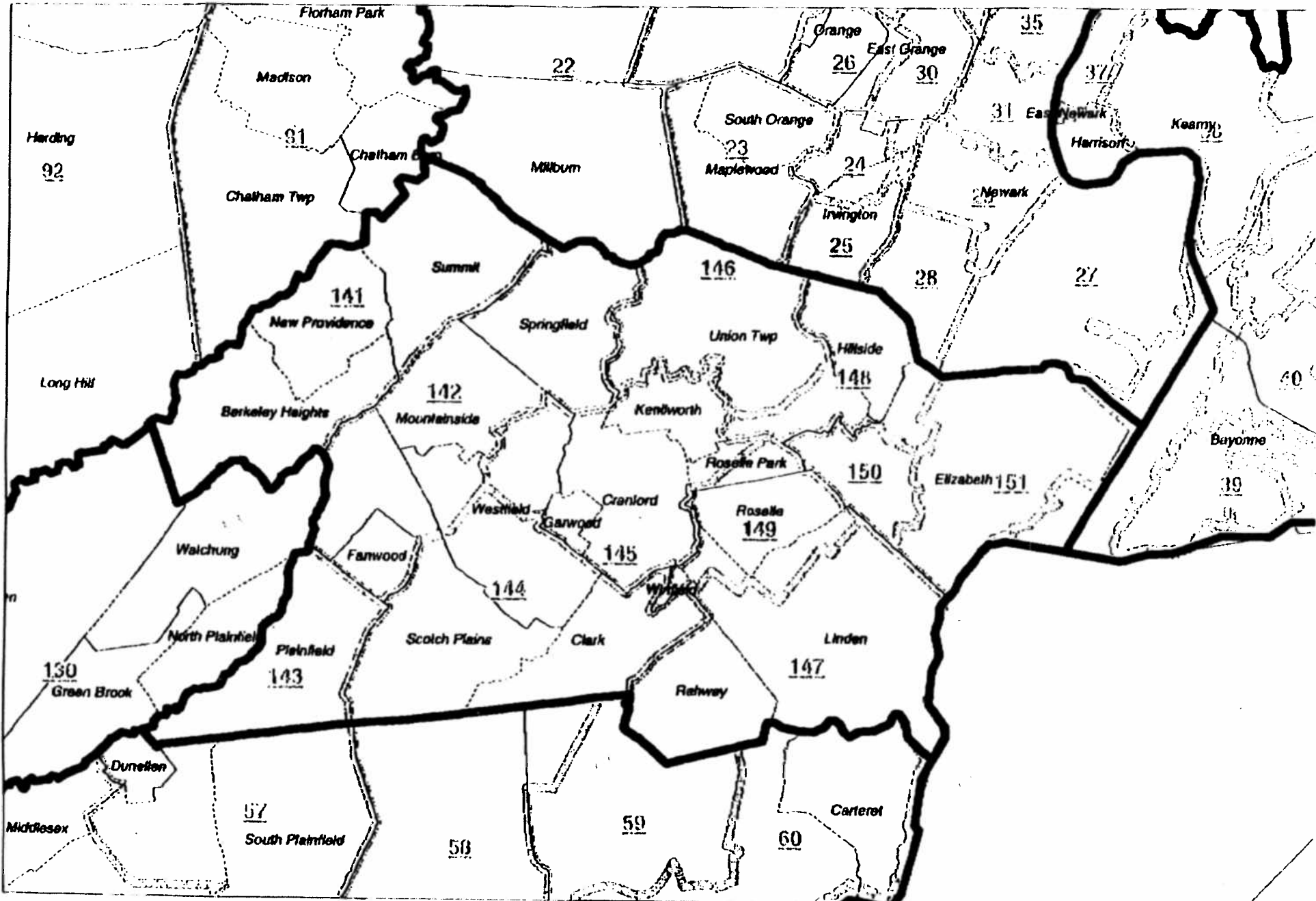
For now, the "Needs" categories 2 and 3 have been either left blank or marked with an X to indicate conditional consistency with the overall CMS. Categories 2 and 3 need to have weighed scores developed at a future point. This scoring remains to be completed as part of the development of a localized evaluation process, which is beyond the scope of this task.

For the purposes of developing a first cut localized Transportation Plan based on the NJTPA strategy evaluation process, the "Selected Strategies" section also contains localized categories 2 and 3. Two additional localized strategies were added: #25 and #26. These represent the strategy areas of localized planning and engineering that is not part of the regional CMS strategy area. These two areas are none the less is critical to the success of a comprehensive planing process.

The crux of the strategy evaluation process on the regional and local level is the identification of capital improvements and projects. This is contained in the subsequent charts identified as "Selection of Improvement by Strategy". All current regional and subregional projects and proposals that would apply to the district and the appropriate implementation agency are identified.

This is the first draft array of strategies by project that combines CMS regional projects and subregional projects. The listing of projects is specific and general, with projects yet to be determined. At this point, this is the sum total of the Union County Transportation Master Plan by strategy.

This strategy and project identification list is a work in progress. As a methodology for scoring and weighing the impacts of these projects is developed, a timetable for implementation, a funding strategy and a prioritization table can be developed. For now, the County's primary focus is on how the regional CMS and its localized application can be coordinated and how effective they are in meeting the overall transportation performance measures of the districts.



<b>DISTRICT:</b>	141
<b>NAME:</b>	Summit-New Providence
<b>TYPE:</b>	Urban Low
<b>GEOGRAPHY:</b>	Summit, New Providence & Berkeley Heights
<b>TRAIN STATION:</b>	Berkeley Heights, Huntley, Murray Hill, New Providence & Summit

**NEEDS (CMS) (1)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
59	4	5	10	4	2	11	13	10

**NEEDS (CEDS) (2)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
	X				X		X	

**NEEDS (ENG/PLAN) (3)**

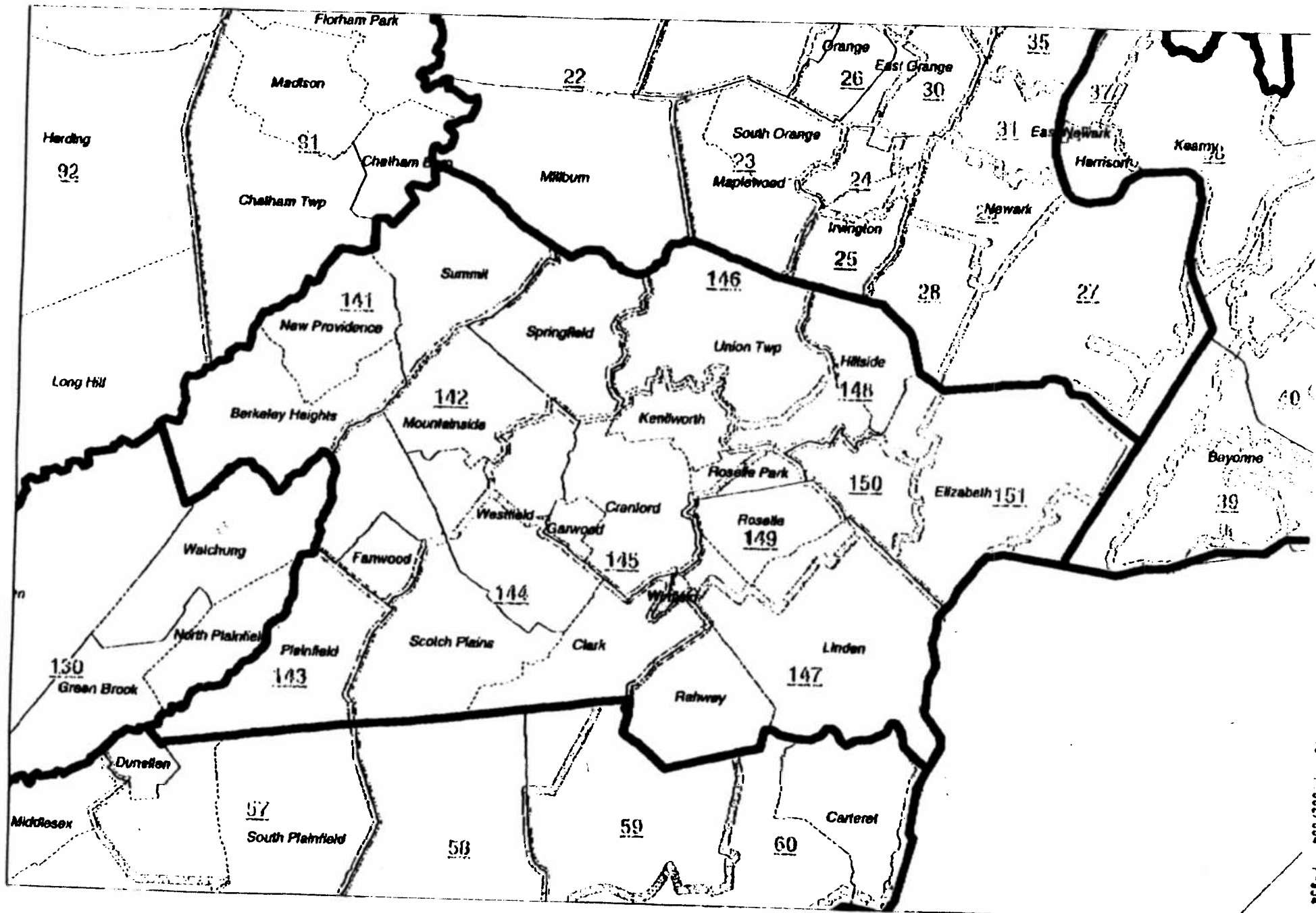
Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
	X				X		X	

**SELECTED STRATEGIES**

STRATEGY	MARKET TYPE	NEEDS
1 Growth Management/Smart Growth	Region	1,2,3
2 Employer-Based Transportation Demand Programs	County	1
3 Facility-Based Transportation Demand Management	County	1
4 TMA Economic-Based Transportation Demand Programs	County	1
5 Value Pricing/Tolling	Toll Corridor	N/A
7 Existing Bus Service Enhancement	County	1
8 Existing Rail Service Enhancement	Transit Corridor	1
9 Existing Ferry Service Enhancement	Ferry District	N/A
10 New Bus Service	County	1
11 Low Cost Transit Capital Investment	Hwy Corridor	1
12 Major New Transit Facilities	Transit Corridor	N/A
13 Major Passenger Transit Facilities/Improved Transit Connections	County	1
14 Transit/Auto Intermodal Facilities	County	1
15 Bikeways/Bicycle Improvements	District	1,2
16 Sidewalks/Pedestrian Improvements	District	1,2,3
17 Operational Freight Facility Improvements	Freight District	1
18 Intermodal Freight Transfer Facilities	Region	1
19 Intelligent Transportation/System Management-Preserve Highway Capacity	Hwy Corridor	1
20 Intelligent Transportation-Maximize Available Roadway Capacity	Hwy Corridor	1
21 New Minor Spot Roadway Capacity	District	1,3
22 New Minor Corridor Roadway Capacity	District	1,3
23 Major New Road Capacity On Existing Facilities	Hwy Corridor	1
24 Major New Roadway Facilities	Hwy Corridor	1
25 Bridge/Culvert Maintenance & Repair	County	2,3
26 Safety/Signage	County	2,3
27 TBD		

# SELECTION OF IMPROVEMENT BY STRATEGY

25	Bridge/Culvert Maintenance & Repair	Reconstruction of River Road Bridge, Reconstruction of Mount Vernon Ave. Bridge, Central Ave. Bridge, Prospect Ave. Bridge, Division Ave. Bridge, Sutton Drive Culverts- Berkeley Heights, Snyder Ave. Bridge & South Street Bridge	County
26	Safety/Signage	General Guide and Warning Signal Upgrade, Bridge and Culvert Weight Restriction Signing, Upgrade of Roadway Marking Reflective Values, Union County Welcome Signs Projects, Overhead Route Identification at County Intersections & 600 Series Route Marker Upgrade	County
27	TBD		



<b>DISTRICT:</b>	142
<b>NAME:</b>	Springfield - Mountainside
<b>TYPE:</b>	Urban Low
<b>GEOGRAPHY:</b>	Springfield, Mountainside, Fanwood, W. Westfield
<b>TRAIN STATION:</b>	Fanwood

**NEEDS (CMS) (1)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
32			8	5	7	9	1	2

**NEEDS (CEDS) (2)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
			X	X	X	X		

**NEEDS (ENG/PLAN) (3)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
			X	X	X	X		

**SELECTED STRATEGIES**

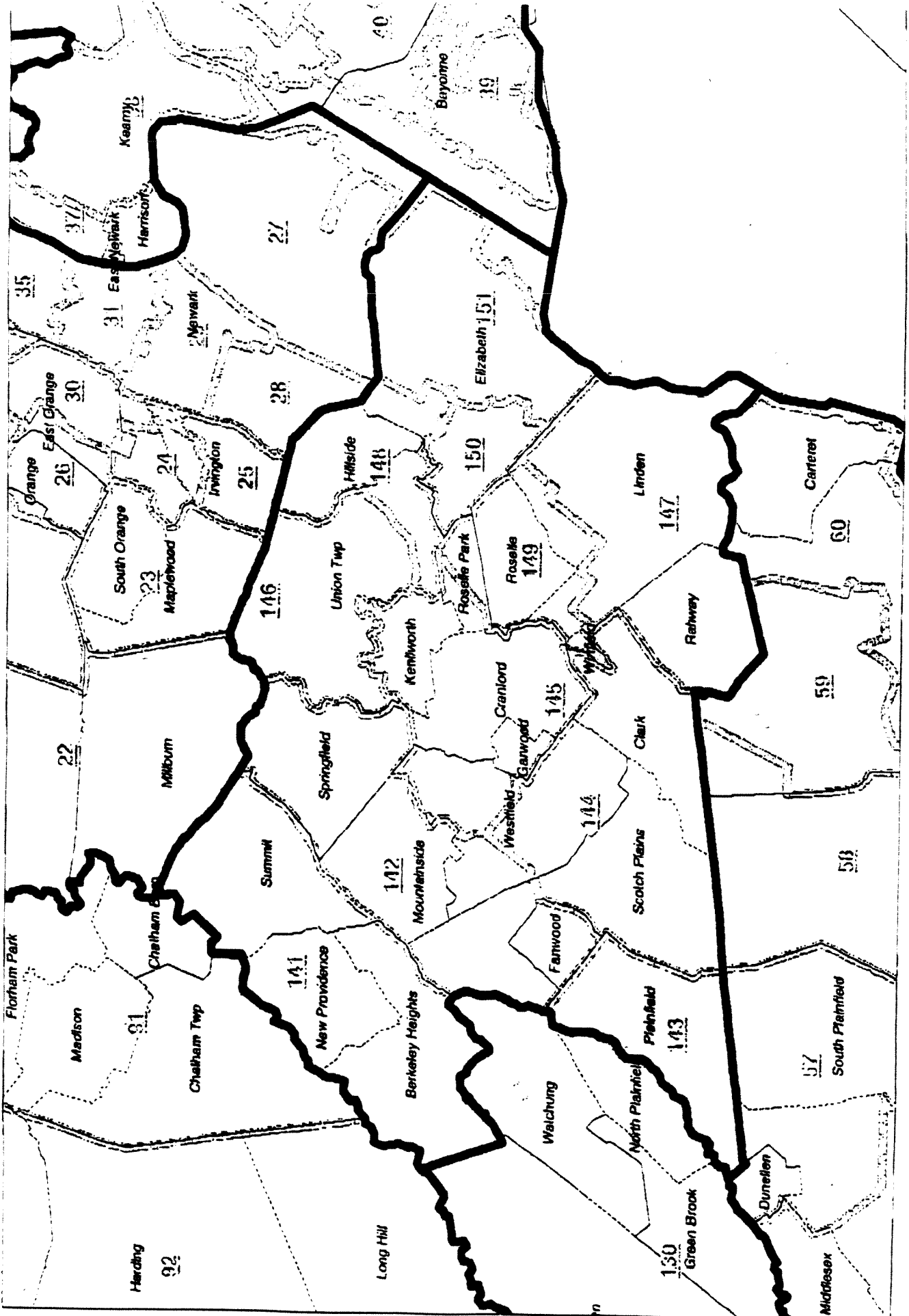
STRATEGY	MARKET TYPE	NEEDS
1 Growth Management/Smart Growth	Region	1
2 Employer-Based Transportation Demand Programs	County	1
3 Facility-Based Transportation Demand Management	County	1
4 TMA Economic-Based Transportation Demand Programs	County	1
5 Value Pricing/Tolling	Toll Corridor	N/A
7 Existing Bus Service Enhancement	County	1
8 Existing Rail Service Enhancement	Transit Corridor	1
9 Existing Ferry Service Enhancement	Ferry District	N/A
10 New Bus Service	County	1
11 Low Cost Transit Capital Investment	Hwy Corridor	1, 2, 3
12 Major New Transit Facilities	Transit Corridor	1
13 Major Passenger Transit Facilities/Improved Transit Connections	County	1
14 Transit/Auto Intermodal Facilities	County	
15 Bikeways/Bicycle Improvements	District	
16 Sidewalks/Pedestrian Improvements	District	
17 Operational Freight Facility Improvements	Freight District	
18 Intermodal Freight Transfer Facilities	Region	1
19 Intelligent Transportation/System Management-Preserve Highway Capacity	Hwy Corridor	1
20 Intelligent Transportation-Maximize Available Roadway Capacity	Hwy Corridor	1
21 New Minor Spot Roadway Capacity	District	1
22 New Minor Corridor Roadway Capacity	District	1
23 Major New Road Capacity On Existing Facilities	Hwy Corridor	1
24 Major New Roadway Facilities	Hwy Corridor	1
25 Bridge/Culvert Maintenance & Repair	County	3
26 Safety/Signage	County	3
27 TBD		

SELECTION OF IMPROVEMENT BY STRATEGY

STRATEGY		PROJECT	IMPLEMENTING AGENCY
1	Growth Mangement/Smart Growth	Downtown Redevelopment	Fanwood/ Springfield
2	Employer-Based Transportation Demand Programs	TBD	
3	Facility-Based Transportation Demand Management	TBD	
4	TMA Economic-Based Transportation Demand Programs	Transit Plus	NJ Transit
5	Value Pricing/Tolling	N/A	
7	Existing Bus Service Enhancement	Bus Service Improvements	NJ Transit
8	Existing Rail Service Enhancement	Raritan Valley Rail Service Upgrades	NJ Transit
9	Existing Ferry Service Enhancement	N/A	
10	New Bus Service	TBD	
11	Low Cost Transit Capital Investment	TBD	
12	Major New Transit Facilities	TBD	
13	Major Passenger Transit Facilities/Improved Transit Connections	Jitney Coordination Project	Scotch Plains/ Fanwood/ County
14	Transit/Auto Intermodal Facilities	TBD	
15	Bikeways/Bicycle Improvements	Enhancement Grant TBD	
16	Sidewalks/Pedestrian Improvements	Enhancement Grant TBD	
17	Operational Freight Facility Improvements	TBD	
18	Intermodal Freight Transfer Facilities	TBD	
19	Intelligent Transportation/System Management/Preserve Highway Capacity	TBD	
20	Intelligent Transportaion-Maximize Available Roadway Capacity	Park Ave./Martine Corridor	County
21	New Minor Spot Roadway Capacity	South Springfield/Hillside Ave.	County
22	New Minor Corridor Roadway Capacity	Park Ave./Martine Corridor	County
23	Major nNew Road Capacity On Existing Facilities	TBD	
24	Major New Roadway Facilities	TBD	

SELECTION OF IMPROVEMENT BY STRATEGY

25	Bridge/Culvert Maintenance & Repair	See Sheet	County
26	Safety/Signage	See Sheet	County
27	TBD		



<b>DISTRICT:</b>	143
<b>NAME:</b>	Plainfield
<b>TYPE:</b>	Urban Medium
<b>GEOGRAPHY:</b>	Plainfield
<b>TRAIN STATION:</b>	Netherwood, Plainfield

**NEEDS (CMS) (1)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
64	14	-	4	2	21	16	-	7

**NEEDS (CEDS) (2)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
	X				X	X		

**NEEDS (ENG/PLAN) (3)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
	X				X	X		

**SELECTED STRATEGIES**

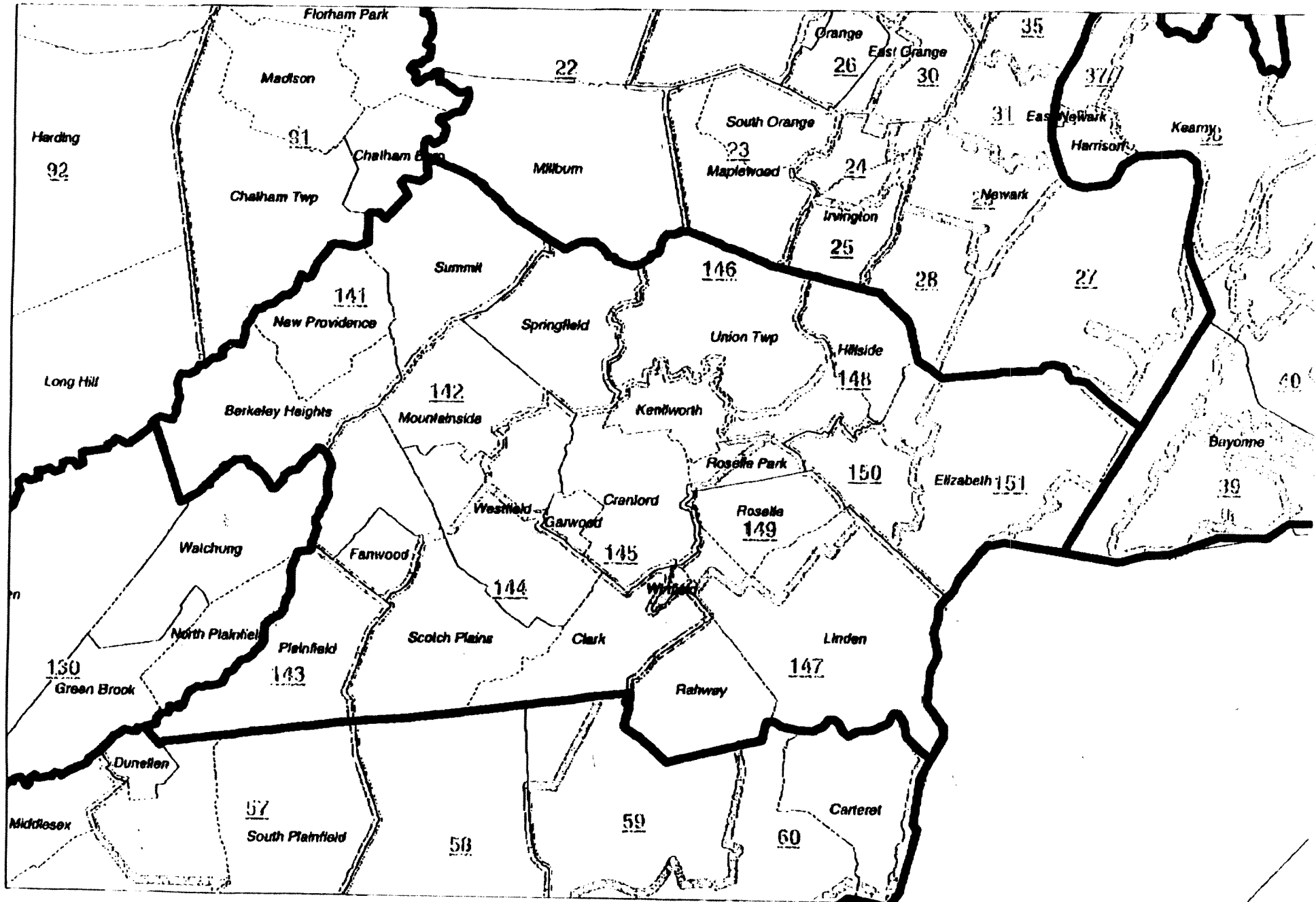
STRATEGY	MARKET TYPE	NEEDS
1 Growth Management/Smart Growth	Region	1
2 Employer-Based Transportation Demand Programs	County	1
3 Facility-Based Transportation Demand Management	County	1
4 TMA Economic-Based Transportation Demand Programs	County	1
5 Value Pricing/Tolling	Toll Corridor	N/A
7 Existing Bus Service Enhancement	County	1
8 Existing Rail Service Enhancement	Transit Corridor	1
9 Existing Ferry Service Enhancement	Ferry District	N/A
10 New Bus Service	County	1
11 Low Cost Transit Capital Investment	Hwy Corridor	1
12 Major New Transit Facilities	Transit Corridor	N/A
13 Major Passenger Transit Facilities/Improved Transit Connections	County	1
14 Transit/Auto Intermodal Facilities	County	1
15 Bikeways/Bicycle Improvements	District	N/A
16 Sidewalks/Pedestrian Improvements	District	N/A
17 Operational Freight Facility Improvements	Freight District	1
18 Intermodal Freight Transfer Facilities	Region	1
19 Intelligent Transportation/System Management-Preserve Highway Capacity	Hwy Corridor	1, 2, 3
20 Intelligent Transportation-Maximize Available Roadway Capacity	Hwy Corridor	1, 2, 3
21 New Minor Spot Roadway Capacity	District	1, 2, 3
22 New Minor Corridor Roadway Capacity	District	1,2, 3
23 Major New Road Capacity On Existing Facilities	Hwy Corridor	1
24 Major New Roadway Facilities	Hwy Corridor	1
25 Bridge/Culvert Maintenance & Repair	County	2, 3
26 Safety/Signage	County	2,3
27 TBD		

## SELECTION OF IMPROVEMENT BY STRATEGY

STRATEGY	PROJECT	IMPLEMENTING AGENCY
1	Growth Mangement/Smart Growth Downtown Redevelopment Streetscape	City of Plainfield
2	Employer-Based Transportation Demand Programs N/A	
3	Facility-Based Transportation Demand Management Continuous Outreach Program	Transit Plus
4	TMA Economic-Based Transportation Demand Programs Continuous Outreach Program	Transit Plus
5	Value Pricing/Tolling N/A	
7	Existing Bus Service Enhancement Wheels 986 Jitney Rt. 59 Improvements	NJ Transit
8	Existing Rail Service Enhancement Raritan Valley Line Improvements	NJ Transit
9	Existing Ferry Service Enhancement N/A	
10	New Bus Service TBD	
11	Low Cost Transit Capital Investment TBD	
12	Major New Transit Facilities New Plainfield Downtown Station	NJ Transit
13	Major Passenger Transit Facilities/Improved Transit Connections N/A	
14	Transit/Auto Intermodal Facilities Improved Parking at Downtown Plainfield Station	NJ Transit
15	Bikeways/Bicycle Improvements Enhancement Grants Downtown Redevelopment, TBD	Municipality
16	Sidewalks/Pedestrian Improvements Enhancement Grants Downtown Redevelopment, TBD	Municipality
17	Operational Freight Facility Improvements TBD	
18	Intermodal Freight Transfer Facilities TBD	
19	Intelligent Transportation/System Management/Preserve Highway Capacity TBD, South Avenue Corridor Study	County/ Municipality
20	Intelligent Transportaion-Maximize Available Roadway Capacity TBD, South Avenue Corridor Study	County/ Municipality
21	New Minor Spot Roadway Capacity TBD, South Avenue Corridor Study	County/ Municipality
22	New Minor Corridor Roadway Capacity TBD, South Avenue Corridor Study	County/ Municipality
23	Major nNew Road Capacity On Existing Facilities N/A	
24	Major New Roadway Facilities N/A	

SELECTION OF IMPROVEMENT BY STRATEGY

25	Bridge/Culvert Maintenance & Repair	Bridge Over Greenbrook West End Avenue	Union County/ Sumerset County/ State County
26	Safety/Signage	Add Tip	
27	TBD		



<b>DISTRICT:</b>	144
<b>NAME:</b>	Scotch Plains - Clark
<b>TYPE:</b>	Urban Low
<b>GEOGRAPHY:</b>	Scotch Plains, Clark & South Westfield
<b>TRAIN STATION:</b>	Westfield

**NEEDS (CMS) (1)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
46	1		6	13	14	7	4	1

**NEEDS (CEDS) (2)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
				X				

**NEEDS (ENG/PLAN) (3)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
				X	X			

**SELECTED STRATEGIES**

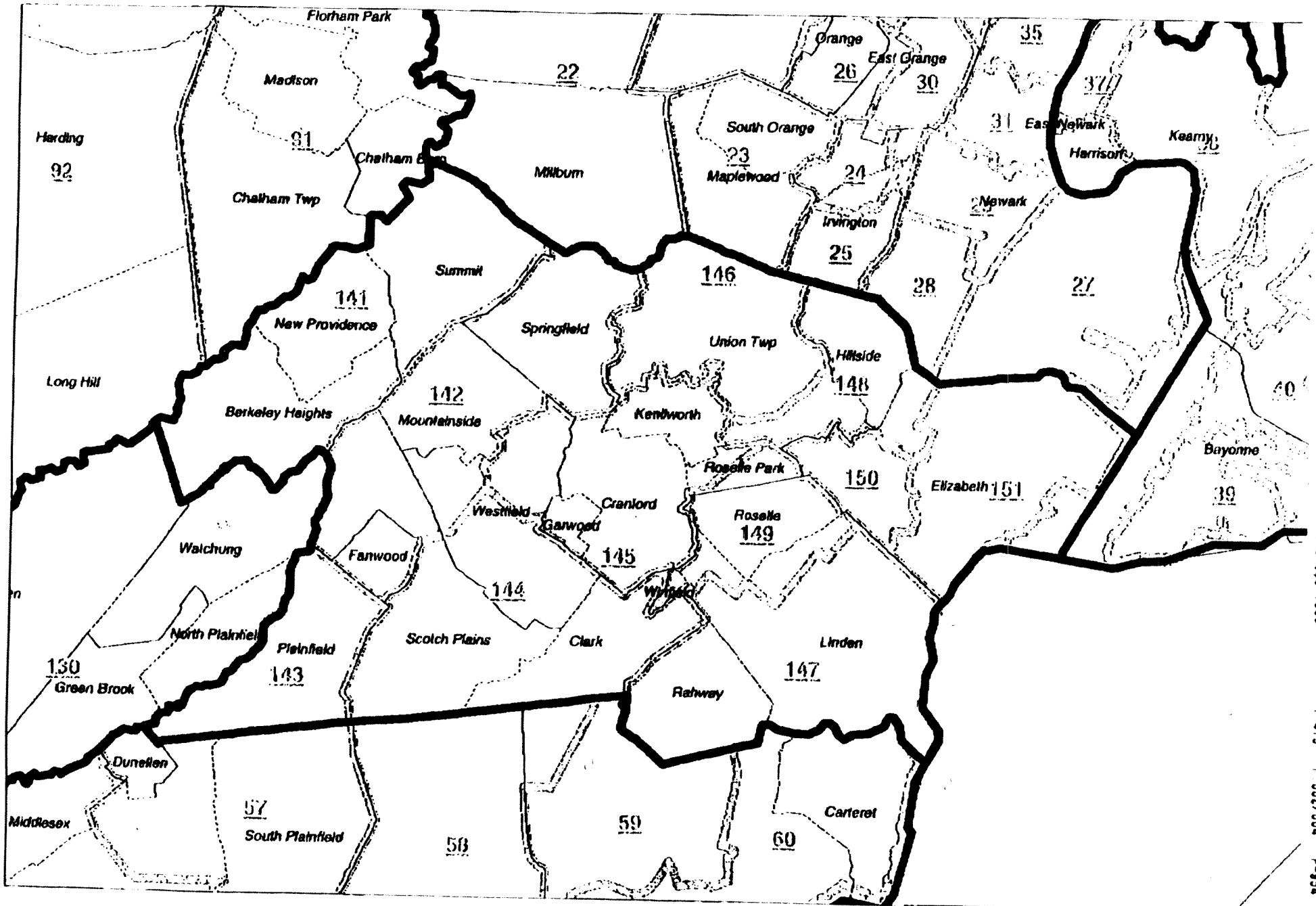
STRATEGY		MARKET TYPE	NEEDS
1	Growth Management/Smart Growth	Region	1
2	Employer-Based Transportation Demand Programs	County	1
3	Facility-Based Transportation Demand Management	County	1
4	TMA Economic-Based Transportation Demand Programs	County	1
5	Value Pricing/Tolling	Toll Corridor	N/A
7	Existing Bus Service Enhancement	County	1
8	Existing Rail Service Enhancement	Transit Corridor	1
9	Existing Ferry Service Enhancement	Ferry District	N/A
10	New Bus Service	County	1
11	Low Cost Transit Capital Investment	Hwy Corridor	1
12	Major New Transit Facilities	Transit Corridor	1
13	Major Passenger Transit Facilities/Improved Transit Connections	County	1, 2
14	Transit/Auto Intermodal Facilities	County	1, 2
15	Bikeways/Bicycle Improvements	District	1
16	Sidewalks/Pedestrian Improvements	District	2
17	Operational Freight Facility Improvements	Freight District	N/A
18	Intermodal Freight Transfer Facilities	Region	1
19	Intelligent Transportation/System Management-Preserve Highway Capacity	Hwy Corridor	1
20	Intelligent Transportation-Maximize Available Roadway Capacity	Hwy Corridor	1
21	New Minor Spot Roadway Capacity	District	1
22	New Minor Corridor Roadway Capacity	District	1
23	Major New Road Capacity On Existing Facilities	Hwy Corridor	1
24	Major New Roadway Facilities	Hwy Corridor	1
25	Bridge/Culvert Maintenance & Repair	County	3
26	Safety/Signage	County	3
27	TBD		

## SELECTION OF IMPROVEMENT BY STRATEGY

STRATEGY		PROJECT	IMPLEMENTING AGENCY
1	Growth Mangement/Smart Growth	Downtown Redevelopment	Scotch Plains/ Clark
2	Employer-Based Transportation Demand Programs	N/A	
3	Facility-Based Transportation Demand Management	Continuing Outreach Program	Transit Plus
4	TMA Economic-Based Transportation Demand Programs	Continuing Outreach Program	Transit Plus
5	Value Pricing/Tolling	N/A	
7	Existing Bus Service Enhancement	Rt. 59 Service Extensions	NJ Transit
8	Existing Rail Service Enhancement	Raritan Valley Improvements	NJ Transit
9	Existing Ferry Service Enhancement	N/A	
10	New Bus Service	Jitney Service to Rail Station	Scotch Plains/ Fanwood County
11	Low Cost Transit Capital Investment	TBD	
12	Major New Transit Facilities	TBD	
13	Major Passenger Transit Facilities/Improved Transit Connections	TBD	
14	Transit/Auto Intermodal Facilities	Commuter Parking Lot Expansion	Fanwood
15	Bikeways/Bicycle Improvements	TBD	Municipality
16	Sidewalks/Pedestrian Improvements	Enhancement Grants Downtown Redevelopment	TBD Municipality
17	Operational Freight Facility Improvements	TBD	
18	Intermodal Freight Transfer Facilities	TBD	
19	Intelligent Transportation/System Management/Preserve Highway Capacity	TBD	
20	Intelligent Transportaion-Maximize Available Roadway Capacity	Maitine Ave. Corridor	Scotch Plains/ Fanwood County
21	New Minor Spot Roadway Capacity	Intersection Improvements - Brant Ave. & Westfield Ave.	County
22	New Minor Corridor Roadway Capacity	TBD	
23	Major nNew Road Capacity On Existing Facilities	TBD	State
24	Major New Roadway Facilities	TBD	State

## SELECTION OF IMPROVEMENT BY STRATEGY

25	Bridge/Culvert Maintenance & Repair	Raritan Rd. Bridge (CL 19), Valley Rd. Bridge (CL 5), Cooper Rd. Bridge (SC 25), Grandview Ave. Bridge (WF 17), Goodman Rd. Bridge	County
26	Safety/Signage	General Guide And Warning Signal Upgrade, Bridge and Culvert Weight Restriction Signing,	County
27	TBD	Upgrade of Roadway Marking Reflective	



<b>DISTRICT:</b>	145
<b>NAME:</b>	Kenilworth, Cranford
<b>TYPE:</b>	Urban Low
<b>GEOGRAPHY:</b>	Garwood, Cranford, West Roselle Park, East Westfield
<b>TRAIN STATION:</b>	Cranford Train Station

**NEEDS (CMS) (1)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
33	-	5	5	1	5	10	4	3

**NEEDS (CEDS) (2)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
			X					

**NEEDS (ENG/PLAN) (3)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
			X					

**SELECTED STRATEGIES**

STRATEGY		MARKET TYPE	NEEDS
1	Growth Management/Smart Growth	Region	1
2	Employer-Based Transportation Demand Programs	County	1
3	Facility-Based Transportation Demand Management	County	1
4	TMA Economic-Based Transportation Demand Programs	County	1
5	Value Pricing/Tolling	Toll Corridor	N/A
7	Existing Bus Service Enhancement	County	1
8	Existing Rail Service Enhancement	Transit Corridor	1
9	Existing Ferry Service Enhancement	Ferry District	N/A
10	New Bus Service	County	1
11	Low Cost Transit Capital Investment	Hwy Corridor	1
12	Major New Transit Facilities	Transit Corridor	N/A
13	Major Passenger Transit Facilities/Improved Transit Connections	County	N/A
14	Transit/Auto Intermodal Facilities	County	1
15	Bikeways/Bicycle Improvements	District	1
16	Sidewalks/Pedestrian Improvements	District	1
17	Operational Freight Facility Improvements	Freight District	1
18	Intermodal Freight Transfer Facilities	Region	1
19	Intelligent Transportation/System Management-Preserve Highway Capacity	Hwy Corridor	1, 2, 3
20	Intelligent Transportation-Maximize Available Roadway Capacity	Hwy Corridor	1, 2, 3
21	New Minor Spot Roadway Capacity	District	1, 2, 3
22	New Minor Corridor Roadway Capacity	District	1, 2, 3
23	Major New Road Capacity On Existing Facilities	Hwy Corridor	1
24	Major New Roadway Facilities	Hwy Corridor	1
25	Bridge/Culvert Maintenance & Repair	County	2, 3
26	Safety/Signage	County	2, 3
27	TBD		

SELECTION OF IMPROVEMENT BY STRATEGY

STRATEGY	PROJECT	IMPLEMENTING AGENCY
1	Growth Mangement/Smart Growth Downtown Recreation	Cranford
2	Employer-Based Transportation Demand Programs N/A	
3	Facility-Based Transportation Demand Management Continuous Outreach Program	Transit Plus
4	TMA Economic-Based Transportation Demand Programs Continuous Outreach Program	Transit Plus
5	Value Pricing/Tolling N/A	
7	Existing Bus Service Enhancement TBD	
8	Existing Rail Service Enhancement Raritan Valley Line Improvements	NJ Transit
9	Existing Ferry Service Enhancement N/A	
10	New Bus Service TBD	
11	Low Cost Transit Capital Investment TBD	
12	Major New Transit Facilities Extension of NERL to Cranford/ Cross County Rail Link	County/NJ Transit
13	Major Passenger Transit Facilities/Improved Transit Connections Potential Jitney Service to Rail Station in Cranford & Roselle Park	Municipality/ County
14	Transit/Auto Intermodal Facilities New Parking Facility in Cranford	Municipality
15	Bikeways/Bicycle Improvements Enhancement Grants & Downtown Redevelopment	Municipality
16	Sidewalks/Pedestrian Improvements Enhancement Grants & Downtown Redevelopment	Municipality
17	Operational Freight Facility Improvements Rahway/Valley/Staten Island Rail Freight Project	County
18	Intermodal Freight Transfer Facilities Rahway/Valley/Staten Island Rail Freight Project	County
19	Intelligent Transportation/System Management/Preserve Highway Capacity TBD - South Ave. Corridor Studies	County/ Municipality
20	Intelligent Transportaion-Maximize Available Roadway Capacity TBD - South Ave. Corridor Studies	County/ Municipality
21	New Minor Spot Roadway Capacity TBD - South Ave. Corridor Studies	County/ Municipality
22	New Minor Corridor Roadway Capacity TBD - South Ave. Corridor Studies	County/ Municipality
23	Major nNew Road Capacity On Existing Facilities N/A	
24	Major New Roadway Facilities N/A	

# SELECTION OF IMPROVEMENT BY STRATEGY

25	Bridge/Culvert Maintenance & Repair	Springfield Ave. Bridge/ Eastman St. Bridge
26	Safety/Signage	Intersection Improvements - E. Broad & Springfield/4 Intersections - Kenilworth Blvd.
27	TBD	



<b>DISTRICT:</b>	146
<b>NAME:</b>	Union
<b>TYPE:</b>	Urban Low
<b>GEOGRAPHY:</b>	Union
<b>TRAIN STATION:</b>	

**NEEDS (CMS) (1)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
28		2	1		5	10	10	

**NEEDS (CEDS) (2)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
							X	

**NEEDS (ENG/PLAN) (3)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
					X		X	

**SELECTED STRATEGIES**

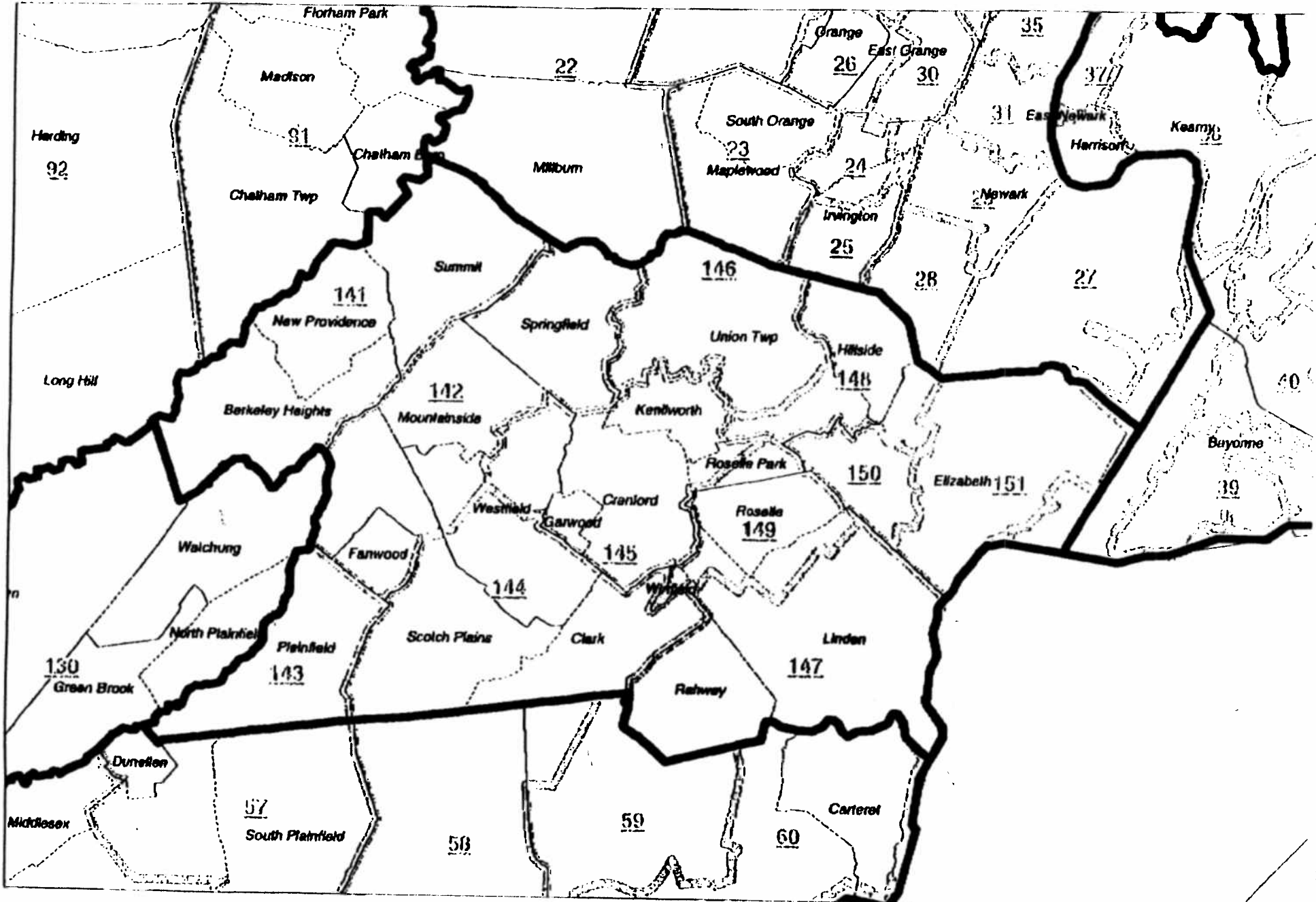
STRATEGY		MARKET TYPE	NEEDS
1	Growth Management/Smart Growth	Region	1
2	Employer-Based Transportation Demand Programs	County	1
3	Facility-Based Transportation Demand Management	County	1
4	TMA Economic-Based Transportation Demand Programs	County	1
5	Value Pricing/Tolling	Toll Corridor	N/A
7	Existing Bus Service Enhancement	County	1
8	Existing Rail Service Enhancement	Transit Corridor	1
9	Existing Ferry Service Enhancement	Ferry District	N/A
10	New Bus Service	County	1
11	Low Cost Transit Capital Investment	Hwy Corridor	1
12	Major New Transit Facilities	Transit Corridor	1
13	Major Passenger Transit Facilities/Improved Transit Connections	County	1, 2, 3
14	Transit/Auto Intermodal Facilities	County	1, 2, 3
15	Bikeways/Bicycle Improvements	District	1, 2, 3
16	Sidewalks/Pedestrian Improvements	District	1, 2, 3
17	Operational Freight Facility Improvements	Freight District	1, 2, 3
18	Intermodal Freight Transfer Facilities	Region	1, 2, 3
19	Intelligent Transportation/System Management-Preserve Highway Capacity	Hwy Corridor	1
20	Intelligent Transportation-Maximize Available Roadway Capacity	Hwy Corridor	1
21	New Minor Spot Roadway Capacity	District	1, 3
22	New Minor Corridor Roadway Capacity	District	1, 3
23	Major New Road Capacity On Existing Facilities	Hwy Corridor	1
24	Major New Roadway Facilities	Hwy Corridor	1, 3
25	Bridge/Culvert Maintenance & Repair	County	3
26	Safety/Signage	County	3
27	TBD		

## SELECTION OF IMPROVEMENT BY STRATEGY

STRATEGY	PROJECT	IMPLEMENTING AGENCY
1	Growth Mangement/Smart Growth Downtown Redevelopment Transit Village at Townley	Union/State
2	Employer-Based Transportation Demand Programs N/A	
3	Facility-Based Transportation Demand Management Ongoing Outreach	Transit Plus
4	TMA Economic-Based Transportation Demand Programs Ongoing Outreach	Transit Plus
5	Value Pricing/Tolling N/A	
7	Existing Bus Service Enhancement TBD	
8	Existing Rail Service Enhancement TBD	
9	Existing Ferry Service Enhancement N/A	
10	New Bus Service TBD	
11	Low Cost Transit Capital Investment TBD	
12	Major New Transit Facilities TBD	
13	Major Passenger Transit Facilities/Improved Transit Connections Townley Railroad Station	NJ Transit
14	Transit/Auto Intermodal Facilities Townley Railroad Station	NJ Transit
15	Bikeways/Bicycle Improvements TBD - Transportation/Enhancement	Municipality
16	Sidewalks/Pedestrian Improvements Rt. 22 Pedestrian Access and Safety Study	County/State
17	Operational Freight Facility Improvements Rahway Valley/Staten Island Project	County
18	Intermodal Freight Transfer Facilities Rahway Valley/Staten Island Project	County
19	Intelligent Transportation/System Management/Preserve Highway Capacity TBD	
20	Intelligent Transportaion-Maximize Available Roadway Capacity TBD	
21	New Minor Spot Roadway Capacity Vauxhill Rd., Burnet Ave., Salem Rd., Galloping Hill Rd.	County
22	New Minor Corridor Roadway Capacity TBD	
23	Major nNew Road Capacity On Existing Facilities TBD	
24	Major New Roadway Facilities Interchange 142 - GSP/Rt. 78	NJDOT

## SELECTION OF IMPROVEMENT BY STRATEGY

25	Bridge/Culvert Maintenance & Repair	Union	County
26	Safety/Signage	Union Avenue Bridge (UN40) Vaux Hall Road Bridge (UN28) Bi-County with General Guide And Warning Signal Upgrade	County
27	TBD	Bridge And Culvert Weight Restriction Signing Upgrade Of Roadway Marking Reflective	



<b>DISTRICT:</b>	147
<b>NAME:</b>	Linden - Rahway
<b>TYPE:</b>	Urban Low
<b>GEOGRAPHY:</b>	Linden & Rahway
<b>TRAIN STATION:</b>	Linden Station, Rahway Station

**NEEDS (CMS) (1)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
17	-	-	-	1	5	-	6	5

**NEEDS (CEDS) (2)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility

**NEEDS (ENG/PLAN) (3)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility

**SELECTED STRATEGIES**

STRATEGY		MARKET TYPE	NEEDS
1	Growth Management/Smart Growth	Region	1
2	Employer-Based Transportation Demand Programs	County	1
3	Facility-Based Transportation Demand Management	County	1
4	TMA Economic-Based Transportation Demand Programs	County	1
5	Value Pricing/Tolling	Toll Corridor	N/A
7	Existing Bus Service Enhancement	County	1
8	Existing Rail Service Enhancement	Transit Corridor	1
9	Existing Ferry Service Enhancement	Ferry District	N/A
10	New Bus Service	County	1
11	Low Cost Transit Capital Investment	Hwy Corridor	1
12	Major New Transit Facilities	Transit Corridor	N/A
13	Major Passenger Transit Facilities/Improved Transit Connections	County	1
14	Transit/Auto Intermodal Facilities	County	1
15	Bikeways/Bicycle Improvements	District	N/A
16	Sidewalks/Pedestrian Improvements	District	N/A
17	Operational Freight Facility Improvements	Freight District	1
18	Intermodal Freight Transfer Facilities	Region	1
19	Intelligent Transportation/System Management-Preserve Highway Capacity	Hwy Corridor	1
20	Intelligent Transportation-Maximize Available Roadway Capacity	Hwy Corridor	1
21	New Minor Spot Roadway Capacity	District	1, 2, 3
22	New Minor Corridor Roadway Capacity	District	1, 2, 3
23	Major New Road Capacity On Existing Facilities	Hwy Corridor	1
24	Major New Roadway Facilities	Hwy Corridor	1
25	Bridge/Culvert Maintenance & Repair	County	3
26	Safety/Signage	County	3
27	TBD		

## SELECTION OF IMPROVEMENT BY STRATEGY

STRATEGY	PROJECT	IMPLEMENTING AGENCY
1	Growth Mangement/Smart Growth Downtown Redevelopment Streetscape	Sumerset
2	Employer-Based Transportation Demand Programs N/A	
3	Facility-Based Transportation Demand Management Continuous Outreach Program	Transit Plus
4	TMA Economic-Based Transportation Demand Programs Continuous Outreach Program	Transit Plus
5	Value Pricing/Tolling NJ Turnpike Toll Paying Policy	NJ Turnpike
7	Existing Bus Service Enhancement N/A	
8	Existing Rail Service Enhancement NE Corridor Improvements	NJ Transit
9	Existing Ferry Service Enhancement N/A	
10	New Bus Service TBD	
11	Low Cost Transit Capital Investment TBD	
12	Major New Transit Facilities TBD	
13	Major Passenger Transit Facilities/Improved Transit Connections TBD	
14	Transit/Auto Intermodal Facilities TBD	
15	Bikeways/Bicycle Improvements Enhancement Grants Town Redevelopment, TBD	Municipality
16	Sidewalks/Pedestrian Improvements Enhancement Grants Town Redevelopment, TBD	Municipality
17	Operational Freight Facility Improvements SIRR Rehab	County
18	Intermodal Freight Transfer Facilities SIRR Rehab	County
19	Intelligent Transportation/System Management/Preserve Highway Capacity TBD	
20	Intelligent Transportaion-Maximize Available Roadway Capacity TBD	
21	New Minor Spot Roadway Capacity TBD	
22	New Minor Corridor Roadway Capacity TBD	
23	Major nNew Road Capacity On Existing Facilities TBD	
24	Major New Roadway Facilities New Exit/Roadway to Tremley Point	NJ Turnpike

## SELECTION OF IMPROVEMENT BY STRATEGY

25	Bridge/Culvert Maintenance & Repair	Elizabeth Ave. Over Peach Orchar Brook (L116)/Culverts of Essex (L136), Cranford Ave.	County
26	Safety/Signage	<del>(L122) Over Peach Orchard Brook/Culverts on Elizabeth Ave. Over Peach Orchar Brook</del> (L116)/Culverts of Essex (L136), Cranford Ave.	County
27	TBD	<del>(L122) Over Peach Orchard Brook/Culverts on</del>	



<b>DISTRICT:</b>	148
<b>NAME:</b>	Hillside
<b>TYPE:</b>	Urban Medium
<b>GEOGRAPHY:</b>	Hillside, Southern Tip of Union, & North East Corner of Elizabeth
<b>TRAIN STATION:</b>	

**NEEDS (CMS) (1)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
14	-	3	1	2	5	2	-	1

**NEEDS (CEDS) (2)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility

**NEEDS (ENG/PLAN) (3)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility

**SELECTED STRATEGIES**

STRATEGY		MARKET TYPE	NEEDS
1	Growth Management/Smart Growth	Region	1
2	Employer-Based Transportation Demand Programs	County	1
3	Facility-Based Transportation Demand Management	County	1
4	TMA Economic-Based Transportation Demand Programs	County	1
5	Value Pricing/Tolling	Toll Corridor	N/A
7	Existing Bus Service Enhancement	County	1
8	Existing Rail Service Enhancement	Transit Corridor	1
9	Existing Ferry Service Enhancement	Ferry District	N/A
10	New Bus Service	County	1
11	Low Cost Transit Capital Investment	Hwy Corridor	1
12	Major New Transit Facilities	Transit Corridor	N/A
13	Major Passenger Transit Facilities/Improved Transit Connections	County	1
14	Transit/Auto Intermodal Facilities	County	1
15	Bikeways/Bicycle Improvements	District	1
16	Sidewalks/Pedestrian Improvements	District	1
17	Operational Freight Facility Improvements	Freight District	1
18	Intermodal Freight Transfer Facilities	Region	1
19	Intelligent Transportation/System Management-Preserve Highway Capacity	Hwy Corridor	1
20	Intelligent Transportation-Maximize Available Roadway Capacity	Hwy Corridor	1
21	New Minor Spot Roadway Capacity	District	1
22	New Minor Corridor Roadway Capacity	District	1
23	Major New Road Capacity On Existing Facilities	Hwy Corridor	1
24	Major New Roadway Facilities	Hwy Corridor	1
25	Bridge/Culvert Maintenance & Repair	County	3
26	Safety/Signage	County	3
27	TBD		

## SELECTION OF IMPROVEMENT BY STRATEGY

STRATEGY	PROJECT	IMPLEMENTING AGENCY
1	Growth Mangement/Smart Growth Downtown Redevelopment Streetscape	Township of Hillside
2	Employer-Based Transportation Demand Programs N/A	
3	Facility-Based Transportation Demand Management Continuous Outreach Program	Transit Plus
4	TMA Economic-Based Transportation Demand Programs Continuous Outreach Program	Transit Plus
5	Value Pricing/Tolling N/A	
7	Existing Bus Service Enhancement N/A	
8	Existing Rail Service Enhancement N/A	
9	Existing Ferry Service Enhancement N/A	
10	New Bus Service TBD	
11	Low Cost Transit Capital Investment TBD	
12	Major New Transit Facilities N/A	
13	Major Passenger Transit Facilities/Improved Transit Connections N/A	
14	Transit/Auto Intermodal Facilities N/A	
15	Bikeways/Bicycle Improvements N/A	
16	Sidewalks/Pedestrian Improvements Enhancement Grants, TBD, Town Redevelopment	Participants
17	Operational Freight Facility Improvements TBD	
18	Intermodal Freight Transfer Facilities TBD	
19	Intelligent Transportation/System Management/Preserve Highway Capacity TBD	
20	Intelligent Transportaion-Maximize Available Roadway Capacity TBD	
21	New Minor Spot Roadway Capacity TBD	
22	New Minor Corridor Roadway Capacity TBD	
23	Major nNew Road Capacity On Existing Facilities N/A	
24	Major New Roadway Facilities N/A	

# SELECTION OF IMPROVEMENT BY STRATEGY

25	Bridge/Culvert Maintenance & Repair	Libery Ave. Bridge	County
26	Safety/Signage		County
27	TBD		



<b>DISTRICT:</b>	149
<b>NAME:</b>	Roselle Park - Roselle
<b>TYPE:</b>	Urban Medium
<b>GEOGRAPHY:</b>	East Roselle Park, Roselle, Westfield, North Tip of Cranford
<b>TRAIN STATION:</b>	

**NEEDS (CMS) (1)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
12	-	-	1	2	6	1	2	-

**NEEDS (CEDS) (2)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility

**NEEDS (ENG/PLAN) (3)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility

**SELECTED STRATEGIES**

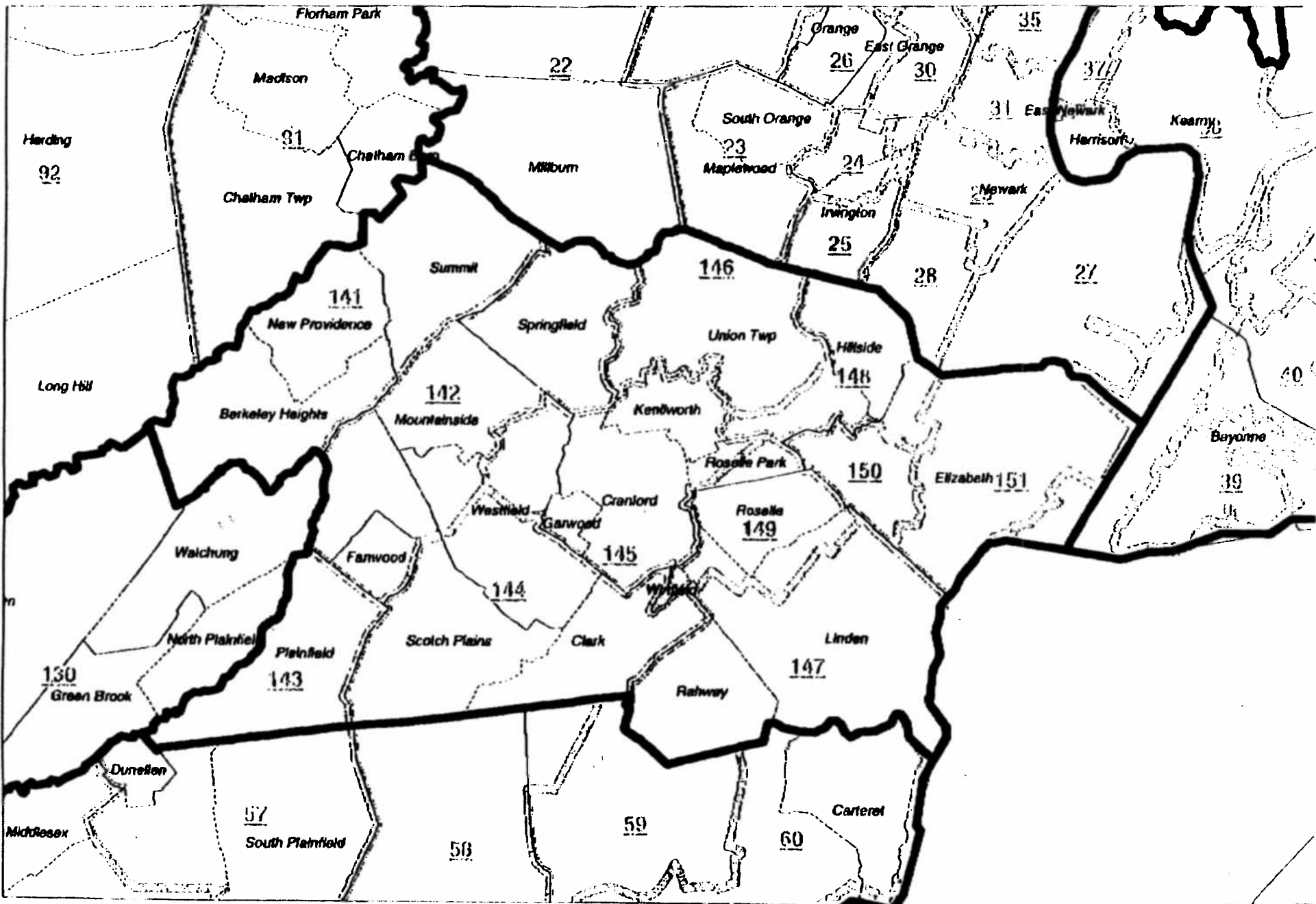
STRATEGY		MARKET TYPE	NEEDS
1	Growth Management/Smart Growth	Region	1
2	Employer-Based Transportation Demand Programs	County	1
3	Facility-Based Transportation Demand Management	County	1
4	TMA Economic-Based Transportation Demand Programs	County	1
5	Value Pricing/Tolling	Toll Corridor	N/A
7	Existing Bus Service Enhancement	County	1
8	Existing Rail Service Enhancement	Transit Corridor	1
9	Existing Ferry Service Enhancement	Ferry District	N/A
10	New Bus Service	County	1
11	Low Cost Transit Capital Investment	Hwy Corridor	1
12	Major New Transit Facilities	Transit Corridor	N/A
13	Major Passenger Transit Facilities/Improved Transit Connections	County	1
14	Transit/Auto Intermodal Facilities	County	1
15	Bikeways/Bicycle Improvements	District	N/A
16	Sidewalks/Pedestrian Improvements	District	N/A
17	Operational Freight Facility Improvements	Freight District	1
18	Intermodal Freight Transfer Facilities	Region	1
19	Intelligent Transportation/System Management-Preserve Highway Capacity	Hwy Corridor	1
20	Intelligent Transportation-Maximize Available Roadway Capacity	Hwy Corridor	1
21	New Minor Spot Roadway Capacity	District	1
22	New Minor Corridor Roadway Capacity	District	1
23	Major New Road Capacity On Existing Facilities	Hwy Corridor	1
24	Major New Roadway Facilities	Hwy Corridor	1
25	Bridge/Culvert Maintenance & Repair	County	3
26	Safety/Signage	County	3
27	TBD		

## SELECTION OF IMPROVEMENT BY STRATEGY

STRATEGY	PROJECT	IMPLEMENTING AGENCY
1	Growth Mangement/Smart Growth Downtown Redevelopment Streetscape	Municipality
2	Employer-Based Transportation Demand Programs N/A	
3	Facility-Based Transportation Demand Management Continuous Outreach Program	Transit Plus
4	TMA Economic-Based Transportation Demand Programs Continuous Outreach Program	Transit Plus
5	Value Pricing/Tolling N/A	
7	Existing Bus Service Enhancement Improvements to #94, #57/Route #58, #59	NJ Transit
8	Existing Rail Service Enhancement Improvements on Raritan Valley Line	NJ Transit
9	Existing Ferry Service Enhancement N/A	
10	New Bus Service TBD	
11	Low Cost Transit Capital Investment TBD	
12	Major New Transit Facilities Extension of NERL to Cranford/Cross County Rail Line	County/NJ Transit
13	Major Passenger Transit Facilities/Improved Transit Connections TBD	
14	Transit/Auto Intermodal Facilities TBD	
15	Bikeways/Bicycle Improvements Enhancement Grants Town Redevelopment TBD	Municipality
16	Sidewalks/Pedestrian Improvements Enhancement Grants Town Redevelopment TBD	Municipality
17	Operational Freight Facility Improvements RVRR Rehab SIRR	County
18	Intermodal Freight Transfer Facilities RVRR Rehab SIRR	County
19	Intelligent Transportation/System Management/Preserve Highway Capacity South Avenue Corridor Management Study	County
20	Intelligent Transportaion-Maximize Available Roadway Capacity South Avenue Corridor Management Study	County
21	New Minor Spot Roadway Capacity South Avenue Corridor Management Study	County
22	New Minor Corridor Roadway Capacity South Avenue Corridor Management Study	County
23	Major nNew Road Capacity On Existing Facilities N/A	
24	Major New Roadway Facilities N/A	

SELECTION OF IMPROVEMENT BY STRATEGY

25	Bridge/Culvert Maintenance & Repair	4 Intersections in Roselle General Guide And Warning Signal Upgrade Bridge And Culvert Weight Restriction Signing	County
26	Safety/Signage	4 Intersections in Roselle General Guide And Warning Signal Upgrade Bridge And Culvert Weight Restriction Signing	County
27	TBD		



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<b>DISTRICT:</b>	150
<b>NAME:</b>	Elizabeth CBD
<b>TYPE:</b>	Urban Core
<b>GEOGRAPHY:</b>	Elizabeth
<b>TRAIN STATION:</b>	N. Elizabeth, Elizabeth

**NEEDS (CMS) (1)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
23			1	4	10	6		2

**NEEDS (CEDS) (2)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
				X	X	X		

**NEEDS (ENG/PLAN) (3)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
	X			X	X	X		

**SELECTED STRATEGIES**

STRATEGY		MARKET TYPE	NEEDS
1	Growth Management/Smart Growth	Region	1
2	Employer-Based Transportation Demand Programs	County	1
3	Facility-Based Transportation Demand Management	County	1
4	TMA Economic-Based Transportation Demand Programs	County	1
5	Value Pricing/Tolling	Toll Corridor	N/A
7	Existing Bus Service Enhancement	County	1, 3
8	Existing Rail Service Enhancement	Transit Corridor	1, 3
9	Existing Ferry Service Enhancement	Ferry District	N/A
10	New Bus Service	County	1
11	Low Cost Transit Capital Investment	Hwy Corridor	1
12	Major New Transit Facilities	Transit Corridor	1, 2, 3
13	Major Passenger Transit Facilities/Improved Transit Connections	County	1, 2, 3,
14	Transit/Auto Intermodal Facilities	County	1, 2, 3
15	Bikeways/Bicycle Improvements	District	3
16	Sidewalks/Pedestrian Improvements	District	3
17	Operational Freight Facility Improvements	Freight District	N/A
18	Intermodal Freight Transfer Facilities	Region	N/A
19	Intelligent Transportation/System Management-Preserve Highway Capacity	Hwy Corridor	N/A
20	Intelligent Transportation-Maximize Available Roadway Capacity	Hwy Corridor	N/A
21	New Minor Spot Roadway Capacity	District	1, 3
22	New Minor Corridor Roadway Capacity	District	3
23	Major New Road Capacity On Existing Facilities	Hwy Corridor	N/A
24	Major New Roadway Facilities	Hwy Corridor	N/A
25	Bridge/Culvert Maintenance & Repair	County	3
26	Safety/Signage	County	3
27	TBD		

## SELECTION OF IMPROVEMENT BY STRATEGY

STRATEGY	PROJECT	IMPLEMENTING AGENCY
1	Growth Mangement/Smart Growth	Downtown Redevelopment Project Elizabeth
2	Employer-Based Transportation Demand Programs	N/A
3	Facility-Based Transportation Demand Management	Ongoing Outreach Program Transit Plus
4	TMA Economic-Based Transportation Demand Programs	Ongoing Outreach Program Transit Plus
5	Value Pricing/Tolling	N/A
7	Existing Bus Service Enhancement	Improvements to Route 62, 59, 24 NJ Transit
8	Existing Rail Service Enhancement	Improvements on Northeast Corridor NJ Transit
9	Existing Ferry Service Enhancement	N/A
10	New Bus Service	TBD
11	Low Cost Transit Capital Investment	TBD
12	Major New Transit Facilities	Extension of NERL to Elizabeth/Cross County Rail Link County/NJ Transit
13	Major Passenger Transit Facilities/Improved Transit Connections	Reconstruction of Midtown Station NJ Transit
14	Transit/Auto Intermodal Facilities	TBD
15	Bikeways/Bicycle Improvements	Enhancement Grants - TBD Elizabeth
16	Sidewalks/Pedestrian Improvements	Enhancement Grants - TBD Elizabeth
17	Operational Freight Facility Improvements	N/A
18	Intermodal Freight Transfer Facilities	N/A
19	Intelligent Transportation/System Management/Preserve Highway Capacity	N/A
20	Intelligent Transportaion-Maximize Available Roadway Capacity	N/A
21	New Minor Spot Roadway Capacity	Improve Signalization at 26 Intersections County/City
22	New Minor Corridor Roadway Capacity	South Avenue Corridor Study County/City
23	Major nNew Road Capacity On Existing Facilities	N/A
24	Major New Roadway Facilities	N/A

## SELECTION OF IMPROVEMENT BY STRATEGY

25	Bridge/Culvert Maintenance & Repair	County
26	Safety/Signage	General Guide and Warning Upgrade, Bridge and County Culvert Weight Restriction Signing, Upgrade of Roadway Marking Reflective Values, Union
27	TBD	



<b>DISTRICT:</b>	151
<b>NAME:</b>	Elizabeth East
<b>TYPE:</b>	Urban Medium
<b>GEOGRAPHY:</b>	Elizabeth
<b>TRAIN STATION:</b>	Elizabeth

**NEEDS (CMS) (1)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
68	8		1	2	10	5	16	26

**NEEDS (CEDS) (2)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
	X				X	X		X

**NEEDS (ENG/PLAN) (3)**

Total	Accessibility	Reliability	Sustainability	Intermodality	Highway Mobility	Transit Mobility	Walk/Bike Mobility	Freight Mobility
	X				X	X		X

**SELECTED STRATEGIES**

STRATEGY		MARKET TYPE	NEEDS
1	Growth Management/Smart Growth	Region	1, 2, 3
2	Employer-Based Transportation Demand Programs	County	1
3	Facility-Based Transportation Demand Management	County	1, 3
4	TMA Economic-Based Transportation Demand Programs	County	1, 3
5	Value Pricing/Tolling	Toll Corridor	1, 3
7	Existing Bus Service Enhancement	County	1, 3
8	Existing Rail Service Enhancement	Transit Corridor	1, 3
9	Existing Ferry Service Enhancement	Ferry District	1, 2, 3
10	New Bus Service	County	1
11	Low Cost Transit Capital Investment	Hwy Corridor	1
12	Major New Transit Facilities	Transit Corridor	1, 2, 3,
13	Major Passenger Transit Facilities/Improved Transit Connections	County	1, 2, 3
14	Transit/Auto Intermodal Facilities	County	1, 2, 3
15	Bikeways/Bicycle Improvements	District	1
16	Sidewalks/Pedestrian Improvements	District	1
17	Operational Freight Facility Improvements	Freight District	1, 2, 3
18	Intermodal Freight Transfer Facilities	Region	1, 2, 3
19	Intelligent Transportation/System Management-Preserve Highway Capacity	Hwy Corridor	1
20	Intelligent Transportation-Maximize Available Roadway Capacity	Hwy Corridor	1
21	New Minor Spot Roadway Capacity	District	1
22	New Minor Corridor Roadway Capacity	District	1
23	Major New Road Capacity On Existing Facilities	Hwy Corridor	1, 2, 3
24	Major New Roadway Facilities	Hwy Corridor	1, 2, 3
25	Bridge/Culvert Maintenance & Repair	County	3
26	Safety/Signage	County	3
27	TBD		

## SELECTION OF IMPROVEMENT BY STRATEGY

STRATEGY	PROJECT	IMPLEMENTING AGENCY
1	Growth Mangement/Smart Growth Downtown Port Redevelopment	Elizabeth
2	Employer-Based Transportation Demand Programs N/A	
3	Facility-Based Transportation Demand Management Ongoing Outreach	Transit Plus
4	TMA Economic-Based Transportation Demand Programs Ongoing Outreach	Transit Plus
5	Value Pricing/Tolling New Jersey Turnpike	NJTP
7	Existing Bus Service Enhancement Revise Bus Routes Serving Downtown and Port	NJ Transit
8	Existing Rail Service Enhancement Northeast Corridor Improvements	NJ Transit
9	Existing Ferry Service Enhancement Implement Service to Lower Manhattan	Elizabeth/County
10	New Bus Service Feeder Service to Rail and Ferry	NJ Transit
11	Low Cost Transit Capital Investment TBD	
12	Major New Transit Facilities Elizabeth Segment of NERL	County/NJ Transit
13	Major Passenger Transit Facilities/Improved Transit Connections Elizabeth Segment of NERL	County/NJ Transit
14	Transit/Auto Intermodal Facilities Park and Rides Along NERL - TBD	County/NJ Transit
15	Bikeways/Bicycle Improvements Enhancement Grant - TBD	Municipality
16	Sidewalks/Pedestrian Improvements Enhancement Grant - TBD	Municipality
17	Operational Freight Facility Improvements New Dockside Port Facilitites	CSX/NS/Port Authority
18	Intermodal Freight Transfer Facilities New Dockside Port Facilitites	CSX/NS/Port Authority
19	Intelligent Transportation/System Management/Preserve Highway Capacity TBD - Implement TDD Plan	County/State
20	Intelligent Transportaion-Maximize Available Roadway Capacity TBD - Implement TDD Plan	County/State
21	New Minor Spot Roadway Capacity Kapkowski Road Study	County/ Municipality
22	New Minor Corridor Roadway Capacity Kapkowski Road Study	County/ Municipality
23	Major nNew Road Capacity On Existing Facilities Replace Rt. 1 & 9 Viaduct	NJDOT
24	Major New Roadway Facilities New Flyover to Port Area	County/ NJDOT

# SELECTION OF IMPROVEMENT BY STRATEGY

25	Bridge/Culvert Maintenance & Repair	South First Street Bridge	County
26	Safety/Signage	General Guide and Warning Signal Upgrade, Bridge and Culvert Weight Restriction Signing, Upgrade of Roadway Marking Reflective	County
27	TBD		

# IMPLEMENTATION STRATEGIES

## IMPLEMENTATION STRATEGIES

The first step to prioritization and developing of a funding strategy and timetable for implementation was to develop short and long range projects and plan by strategy. In revising the Bureau of Transportation Planning 1994 Master Transportation Plan, CMS strategies were overlaid on to several initiatives underway in the long and short term. This was done to begin the process of comparing and contrasting consistency and beginning the process coordination of the localized plan with the NJTPA Regional Plan Access and Mobility: 2025.

As the County's CMS strategies localized are refined, a third timeframe may be introduced: Near Term. Since the Regional Plan Access and Mobility: 2025 is a long range twenty-five year document, intermediate goals such as 5-10 years need to be ready for capital funding, particularly for the purposes of meeting the objectives of the Comprehensive Economic Development Strategy (CEDS) Plan.

In addition, two additional strategies and/or initiatives need to be added to the localized CMS Plan: Waterborn & Port Improvements and Bicycle and Pedestrian Mobility. These two categories need to be identified as independent strategies and not subsumed in other categories as has been the case previously.

**REGIONAL CMS STRATEGIES COMPARED TO DRAFT LONG AND SHORT TERM  
COUNTY IMPLEMENTATION STRATEGIES**

**INITIATIVE 1**

**PRESERVE, MAINTAIN, AND IMPROVE NEW JERSEY TRANSIT'S PASSENGER RAIL  
FACILITIES, IMPROVE ACCESS TO THESE FACILITIES.**

**EXISTING RAIL SERVICE ENHANCEMENTS, CMS NUMBER 8**

**MAJOR PASSENGER TRANSFER FACILITIES AND IMPROVED TRANSIT  
CONNECTIONS, CMS NUMBER 13**

**INTERMODAL FREIGHT TRANSFER FACILITIES, CMS NUMBER 18**

**INITIATIVE 2**

**MAINTAIN, IMPROVE, AND EXTEND PASSENGER RAIL SERVICE TO CAPTURE ECONOMIC  
REDEVELOPMENT OPPORTUNITIES.**

**EXISTING RAIL SERVICE ENHANCEMENTS, CMS NUMBER 8**

**MAJOR NEW TRANSIT FACILITIES, CMS NUMBER 12**

**INITIATIVE 3**

**MAINTAIN AND IMPROVE BUS FACILITIES THROUGHOUT THE COUNTY.**

**EXISTING BUS SERVICE ENHANCEMENTS, CMS NUMBER 7**

**INITIATIVE 4**

**MAINTAIN, IMPROVE, AND EXPAND BUS SERVICE.**

**NEW BUS SERVICE, CMS NUMBER 10**

**INITIATIVE 5**

**IMPROVE TRANSPORTATION SERVICES FOR SENIOR AND DISABLED RESIDENTS;  
MAINTAIN THE QUALITY OF PARATRANSIT SERVICES.**

**EXISTING BUS SERVICE ENHANCEMENTS, CMS NUMBER 7**

**NEW BUS SERVICE, CMS NUMBER 10**

**INITIATIVE 6**

**EXPAND EXISTING AND DEVELOP NEW PARK AND RIDE FACILITIES**

**TRANSIT / AUTO INTERMODAL FACILITIES, CMS NUMBER 14**

**INITIATIVE 7**

**ENCOURAGE THE ELIMINATION OF ON-STREET PARKING IN CONGESTED AREAS DURING  
THE PEAK PERIODS.**

**INTELLIGENT TRANSPORTATION - MAXIMIZE AVAILABLE ROADWAY CAPACITY,  
CMS NUMBER 20**

**INITIATIVE 8**

**RELIEVE SPOT CONGESTION**

**NEW MINOR SPOT ROADWAY CAPACITY, CMS NUMBER 21**

**INITIATIVE 9**

**DEVELOP AND IMPLEMENT CONGESTION MANAGEMENT PROGRAMS ON THE ROADWAY  
SYSTEM.**

**NEW MINOR CORRIDOR ROADWAY CAPACITY, CMS NUMBER 22**

**INITIATIVE 10**

**IMPROVE THE SAFETY OF THE ROADWAY SYSTEM**

**SAFETY IMPROVEMENTS, CMS NUMBER 25**

INITIATIVE 11  
EVALUATE, MAINTAIN, AND IMPROVE EXISTING FACILITIES  
**INTELLIGENT TRANSPORTATION / SYSTEM MANAGEMENT – PRESERVE HIGHWAY  
CAPACITY, CMS NUMBER 19**

INITIATIVE 12  
MAINTAIN SAFE AND EFFICIENT TRUCK TRAVEL THROUGHOUT THE COUNTY.  
**OPERATIONAL FREIGHT FACILITY IMPROVMENTS, CMS NUMBER 17  
INTERMODAL FREIGHT TRANSFER FACILITIES, CMS NUMBER 18**

INITIATIVE 13  
SUPPORT GOODS MOVEMENT ON RAILROADS  
**OPERATIONAL FREIGHT FACILITY IMPROVEMENTS, CMS NUMBER 17  
INTERMODAL FREIGHT TRANSFER FACILITIES, CMS NUMBER 18**

INITIATIVE 14  
SUPPORT CONTINUED OPERATION OF THE COUNTY'S AIRPORT AND HELICOPTER  
FACILITIES.  
**AVIATION FACILITIES, PROPOSED CMS NUMBER 26**

INITIATIVE 15  
DEVELOP AND ENCOURAGE THE USE OF TRAFFIC MITIGATION STRATEGIES  
**EMPLOYER-BASED TRANSPORTATION DEMAND PROGRAMS, CMS NUMBER 2  
FACILITY-BASED TRANSPORTATION DEMAND MANAGEMENT, CMS NUMBER 3  
TMA ECONOMIC BASED TRANSPORTATION DEMAND PROGRAMS, CMS NUMBER 4**

INITIATIVE 16  
REDUCE VEHICULAR ENERGY CONSUMPTION  
**EMPLOYER-BASED TRANSPORTATION DEMAND PROGRAMS, CMS NUMBER 2  
FACILITY-BASED TRANSPORTATION DEMAND MANAGEMENT, CMS NUMBER 3  
TMA ECONOMIC BASED TRANSPORTATION DEMAND PROGRAMS, CMS NUMBER 4**

INITIATIVE 17  
CONTINUE PLANNING EFFORTS IN STRIVING FOR AN EFFICIENT TRANSPORTATION  
NETWORK.  
**GROWTH MANAGEMENT / SMART GROWTH, CMS NUMBER 1**

INITIATIVE 18  
COORDINATE SOUND LAND USE AND TRANSPORTATION PLANNING  
**GROWTH MANAGEMENT / SMART GROWTH, CMS NUMBER 1**

INITIATIVE 19  
MONITOR AND RESPOND TO LEGISLATIVE PROPOSALS WHICH IMPACT TRANSPORTATION.  
**GROWTH MANAGEMENT / SMART GROWTH, CMS NUMBER 1**

INITIATIVE 20  
PORT AND WATERBORN SERVICE  
**EXISTING FERRY SERVICE ENHANCEMENT, CMS NUMBER 9**

INITIATIVE 21  
BICYCLE AND PEDESTRIAN  
**BIKEWAYS / BICYCLE IMPROVEMENTS, CMS NUMBER 15  
SIDEWALKS/ PEDESTRIAN IMPROVEMENTS, CMS NUMBER 16**

**DRAFT**  
**PUBLIC TRANSPORTATION - RAIL**

**INITIATIVE #1**

Preserve, maintain, and improve NJ Transit's passenger rail facilities; improve access to these facilities.

Comment: Rail station facilities need to be improved to meet the public's requirements for safety and comfort. Sufficient parking must be provided for automobiles and bicycles. Maintenance of the passenger rail system is essential to attracting and keeping riders.

**Short Term Proposals:**

- Install trail blazer signs throughout the county to better assist motorists in locating stations.
- Comply with the Americans with Disabilities Act (ADA).
- Establish coordinating inspections of all station facilities in the county and encourage NJ Transit to correct any inadequacies or deficiencies.
- Establish equitable parking fees to residents and non-residents at railroad facilities.
- Encourage municipalities and NJ Transit to install bicycle storage facilities at selected stations.
- Reconstruction of Rahway Station.
- Reconstruction of Mid-town Elizabeth Station.

**Long Term Proposals:**

- Improve access to passenger rail stations in Union County.
- Investigate methods to reduce or eliminate parking fees in an effort to increase ridership.
- Establish an adequately funded capital improvement program for the repair and replacement of facilities.
- Develop a new rail station "Townley" in Union Township on the Raritan Valley Line.
- Construct the Kearny Connection, which will provide direct service from Morris County to Penn Station, New York.
- Construct the Secaucus Transfer, a passenger transfer station on the Northeast
- Corridor at the intersection of the Main, Bergen, and Pascack Valley Lines. This station would link Morristown and Gladstone lines with the Northeast Corridor via the Kearny Connection.
- Encourage NJ Transit to implement a "bike on rails" program.

Implementation: NJ Transit is primarily responsible for evaluating and implementing most of these proposals. The county and municipal governments should encourage and work with NJ Transit to improve and maintain the railroad stations in Union County.

**DRAFT  
PUBLIC TRANSPORTATION - RAIL**

**INITIATIVE #2**

Maintain, improve, and extend passenger rail service to capture economic redevelopment opportunities.

Comment: Improving and extending the passenger rail system is essential to maintaining and attracting riders. Inauguration of new passenger rail service will improve regional mobility.

**Short Term Proposals:**

- Improve express service from Union County to Newark and Hoboken.
- Improve and increase reverse commuter service on the Raritan Valley and Northeast Corridor Lines.
- Continue efforts to improve on-time performance.
- Maintain fares at equitable levels.
- Re-establish passenger service in the Cranford-Elizabeth corridor.
- Work with Somerset County to re-establish Raritan Valley passenger service on the West Trenton Line.
- Work with Somerset and Middlesex Counties to establish reverse commute service.

**Long Term Proposals:**

- Continue maintenance on the rail lines and equipment.
- Implement Newark-Elizabeth Rail Link proposal to improve development potential along the proposed alignment.
- Develop rail access to serve the redevelopment of the Elizabeth Waterfront areas.
- Work toward the establishment of Amtrak service in the Allentown, Bethlehem, Harrisburg, Plainfield, Newark corridor.

Implementation: Primary responsibility for these proposals lies with NJ Transit. The county will continue efforts to improve NJ Transit service.

**DRAFT**  
**PUBLIC TRANSPORTATION - BUS**

**INITIATIVE #3**

Maintain and improve bus facilities throughout the county.

Comment: Improvements to the bus facilities are needed to increase ridership by enabling passengers to safely and conveniently use the bus lines.

**Short term proposals:**

- Install bus shelters at the appropriate locations.
- Designate official bus stops and equip all stops and shelters with signage, schedules and fare information.

**Long Term Proposals:**

- Identify future bus stops and shelter locations as ridership needs develop.
- Identify opportunities for multi-modal facilities.
- Encourage and assist in the development of a universal fare collection system on a countywide basis.

Implementation: The county and municipalities will cooperatively work with NJ Transit and federal agencies to install bus shelters at the above locations.

**DRAFT**  
**PUBLIC TRANSPORTATION - BUS**

**INITIATIVE #4**

Maintain, improve, and expand bus service.

Comment: Service adjustments will improve ridership, safety, and connections between routes. Adding service hours and frequency of service will increase ridership and revenues.

**Short Term Proposals:**

- Develop reverse commute bus services.
- Modify schedules to better coordinate connections between bus routes.
- Establish direct service to Newark International Airport via an appropriate park and ride facility.
- Maintain fares at equitable levels.
- Where feasible, develop bus turnout lanes.
- Establish countywide jitney service to serve rail commuters as well as augmenting NJ Transit routes in Union County.

**Long Term Proposals:**

- Work with NJ Transit in the development of a "hub" and "spoke" system.
- Establish feeder to rail; establish jitney services where applicable.
- Develop a multi-modal transit center in western Union County including park and ride, park and fly, and inter/intra state bus service. Integrate with rail service if feasible.
- Develop and implement a tracking/monitoring system for bus service in Union County.

Implementation: Adequate and stable funding sources will be sought to expand and improve bus routes. Plans will be developed to coordinate and improve bus service.

**DRAFT**  
**PUBLIC TRANSPORTATION - PARATRANSIT**

**INITIATIVE #5**

Improve transportation services for senior and disabled residents; maintain the quality of paratransit services.

Comment: The ability to provide service to those unable to use conventional modes extends transportation equity and stimulates economic growth. Improving paratransit services to the seniors and disabled will increase independence and reduce isolation. The maintenance of paratransit services will continue to enable more people to reach employment centers and receive medical services.

**Short Term Proposals:**

- Coordinate existing municipal, agency, and regional paratransit service for both non-profit and for-profit organizations to take advantage of existing equipment and expertise.
- Provide information and referral on paratransit and other transportation services for seniors and the disabled.
- Comply with the Americans with Disabilities Act.
- Increase total trips provided by increasing productivity through routing and scheduling improvements as well as through increased funding.
- Convert paratransit fleet to natural gas.
- Maintain ongoing driver training programs in passenger assistance, sensitivity and defensive driving for the paratransit services.

**Long Term Proposals:**

- Encourage municipalities without services to assess demands and implement paratransit systems to better serve their residents if needed.
- Increase the number of drivers and vehicles to provide additional service, especially during peak usage trips.
- As demand warrants, provide additional off-peak and weekend service as funding becomes available.
- Continue preventive maintenance and replacement of vehicles.
- Develop a long term, adequately funded capital program.
- Foster public/private/institutional partnerships to improve transit services.

Implementation: Continued and increased funding should be provided by casino revenue taxes and local government support. Modifications to the system may be needed because of the Americans with Disabilities Act. Maintenance of service may require additional funding through casino revenues, local governments, private donations, and fares.

**DRAFT**  
**PUBLIC TRANSPORTATION - PARK AND RIDE FACILITIES**

**INITIATIVE #6**

Expand existing and develop new park and ride facilities.

Comment: The construction of adequate parking facilities in conjunction with transit, carpools, and vanpools can be valuable in alleviating peak hour traffic congestion.

**Short Term Proposals:**

- Monitor existing park and ride facilities annually to assess future demands.
- Install trail blazer signs for all park and ride facilities.
- Install bicycle storage facilities at selected park and ride locations.
- Identify park and ride sites along rail and bus lines.

**Long Term Proposals:**

- Provide park and ride facilities in areas of expanded rail service.
- Provide adequate parking when a facility has a multi-modal function.
- Develop incentive programs for increased use of park and ride facilities.

Implementation: The county will work closely with state and local officials to seek endorsement and adequate funding for construction and maintenance of park and ride lots. The county will also seek to locate new park and ride lots on government owned land to reduce the cost.

**DRAFT  
ROADWAYS AND BRIDGES**

**INITIATIVE #7**

Encourage the elimination of on-street parking in congested areas during the peak periods.

Comment: Elimination of on-street parking during the peak periods will alleviate spot congestion in specific areas. In addition, elimination of on-street parking will increase the safe operation improve air quality, and facilitate traffic through intersections. This effort may also result in alternative parking scenarios.

**Short Term Proposals:**

- Work with the affected municipalities and business communities to initiate parking restrictions and facilitate the free flow of traffic during the peak periods.
- Encourage municipalities to install bicycle parking facilities in downtown business districts.
- Review existing parking ordinances.
- Identify corridors and/or locations where parking has a significant impact on traffic flows.
- Shift responsibilities for establishing and maintaining parking zones from municipal to county level.

**Long Term Proposals:**

- Assist municipalities and businesses in conducting feasibility studies to develop alternatives to on-street parking during peak periods.
- Develop central parking areas.
- Develop a county-wide parking authority.

Implementation: Politically, this can be a very controversial policy. Justifications of such programs are needed to be presented to the business community. This policy requires extraordinary public information and outreach efforts. It must involve developers, the business community, and elected officials. Implementation could occur quickly, although realistically it may have a long timeframe.

**DRAFT  
ROADWAYS AND BRIDGES**

**INITIATIVE #8**

Relieve spot congestion.

Comment: Improving various intersections throughout the county will decrease spot congestion and improve air quality. Identify hot spots where CO level is in the non-attainment category.

**Short Term Proposals:**

- Shift responsibility for traffic signal maintenance from municipal to county level.
- Upgrade substandard and/or outdated signal installations.
- Adopt a systems approach to relieving spot congestion for selected corridors.

**Long Term Proposals:**

- Relieve spot congestion and improve air quality through implementation of Intelligent Vehicle Highway Systems (IVHS).
- Integrate incident management technologies within the county.

Implementation: The state and county must work cooperatively with municipalities to continue to identify and fund construction in areas where spot congestion occurs.

**DRAFT  
ROADWAYS AND BRIDGES**

**INITIATIVE #9**

Develop and implement congestion management programs on the roadway system.

Comment: Congestion on the roadway system place a burden on the existing roadway network. Development and implementation of management programs will alleviate local roads of unnecessary traffic congestion.

**Short Term Proposals:**

- South Avenue corridor between Elizabeth and Plainfield should be upgraded to improve traffic flow.
- Primary arterials to be targeted for congestion mitigation: Springfield Ave. (Berkeley Heights, New Providence and Summit), Central Ave. (Westfield/Clark), Galloping Hill Rd., Boulevard, So. Springfield, Meisel (Roselle Park, Union, Kenilworth, Cranford, Westfield, Mountainside and Springfield)
- Implement one-way systems and reversible lanes where applicable.

**Long Term Proposals:**

- Construction of an exit on the Garden State Parkway northbound to I-78 westbound.
- Construction of an exit on the NJ Turnpike between interchange 12 and 13 to serve eastern Union County industrial redevelopment areas.
- Replace Route 1 & 9 viaduct over the Elizabeth River.
- Replace Route 1 & 9 bridge over the Rahway River.
- Improve signalization on Route 27.
- Intersection improvements on Route 22.
- Acceleration/deceleration lanes on Route 22.

Implementation: A multi-agency effort is required to implement these projects. Some projects may be controversial because of environment concerns or roadway location. Funding is a critical issue.

**DRAFT  
ROADWAYS AND BRIDGES**

**INITIATIVE #10**

Improve the safety of the roadway system.

Comment: High accident locations need to be continually monitored to determine necessary improvements. Roadway deficiencies such as traffic circles, sharp curves, and insufficient sight distance contribute to high accidents rates and should be improved.

**Short Term Proposals:**

- Improve the safety of travel on roadways within the county through the implementation of an innovative sign replacement program in conjunction with municipalities.
- Continue the Comprehensive Traffic Safety Program emphasizing improvements in the following areas:
  - Needs of older drivers
  - Work zones
  - Accident records
  - Bicycle and pedestrian safety
- Conduct skid resistant testing on county roadways.
- Implement ball banking of curves on county roadways.

**Long Term Proposals:**

- Develop and implement a central computerized system linking law enforcement and engineering offices.
- Develop and implement a county-wide safety management system.
- Continue to monitor accident locations to determine future needs.
- Develop and implementation of a countywide traffic signal upgrade and maintenance program.
- Develop and implement a comprehensive pavement striping program for county and municipal roadways.

Implementation: A multi-agency approach is needed to seek adequate funding levels to address and improve the safety inadequacies.

**DRAFT  
ROADWAYS AND BRIDGES**

**INITIATIVE #11**

Evaluate, maintain, and improve existing facilities.

Comments: Maintenance of the existing roadway network is necessary to ensure the network will continue to function and provide adequate circulation. Maintenance and improvement to the existing infrastructure will require less costly future expenditures.

**Short Term Proposals:**

- Conduct bi-annual bridge and roadway inspections.
- Develop capital needs inventory of county bridges, culverts and roadway.
- Develop funding mechanisms for maintenance of roadways, bridges and culverts.
- Implement and develop a pavement management system.
- Install raised pavement markers on selected county roads.
- Develop and implement a County GIS system

**Long Term Proposals:**

- Monitor infrastructure to determine future needs.
- Expand county work force and equipment to perform in-house infrastructure maintenance.
- Utilize G.I.S. to track, evaluate and monitor existing facilities.

Implementation: Inspection of bridges is the responsibility of the county and state governments. Prioritization of projects is necessary since funding is limited. Adequate funding for infrastructure improvements from all levels of government is necessary. Some projects may be controversial because of environmental or other concerns.

**DRAFT**  
**GOODS MOVEMENT - TRUCK FREIGHT**

**INITIATIVE #12**

Maintain safe and efficient truck travel throughout the county.

Comment: Truck traffic movements in some locations may be legally restricted due excessive grades or curves, bridge weight limitations, and insufficient height overweight clearances.

**Short Term Proposals:**

- Identify major truck routes and existing or future roadway features that are unsafe or limit the passage of trucks.
- Support legislation prohibiting increases in truck sizes and weight limits, especially the proposed triple-trailer legislation.
- Increase the number of roadside inspections of large vehicles by county task force.
- Increase enforcement of motor vehicle violations by trucks and other large vehicles.
- Develop and implement driver safety courses.
- Identify low bridge clearances on truck routes.
- Post bridge weight limits.

**Long Term Proposals:**

- Correct roadway deficiencies.
- Continue monitoring legislation.
- Construct intermodal/transloading facilities where appropriate.
- Develop a truck route network to inform and advise companies of the most appropriate route through Union County. This service would be a joint public/private venture.

Implementation: Requires cooperation from the trucking industry and state agencies.

**DRAFT**  
**GOODS MOVEMENT - RAIL FREIGHT**

**INITIATIVE #13**

Support goods movement on railroads.

Comment: Increasing the availability of rail freight services can alleviate truck traffic on roadways. The use of rail freight may be a more economical mode of transporting large amounts of materials and will result in a longer life for road surfaces and bridges.

**Short Term Proposals:**

- Re-establish rail freight service on former Rahway Valley and Staten Island railroads.
- Encourage/develop transportation services for small and medium size companies.
- Explore rail based system for collecting recyclables.
- Preserve freight service where feasible.

**Long Term Proposals:**

- Implement county-wide rail based distribution service for small and medium size companies.
- Build intermodal/transloading facilities.
- Develop and implement where feasible cooperative purchase and movement of salt, sand, stone, etc. for county and municipal programs.

Implementation: Requires land use policies which encourage industries to locate adjacent to existing freight lines. A multi-agency private/public partnership should be promoted.

**DRAFT  
AVIATION**

**INITIATIVE #14**

Support continued operation of the county's airport and helicopter facilities.

Comment: The aviation industry contributes to the county's economic well-being. Continued operation of these facilities will positively impact the county's future.

**Short Term Proposals:**

- Monitor any proposed changes in county aviation facilities and services.
- Encourage mitigation of noise pollution.
- Ensure all safety regulations are obeyed at air facilities.
- Work toward revitalization of Linden Airport as a relief/supplement to Newark International Airport.

**Long Term Proposals: To Be Developed**

Implementation: Aircraft operation may be controversial due to noise. Requires a multi-agency approach with public information and outreach.

**DRAFT  
TRAFFIC MITIGATION**

**INITIATIVE #15**

Develop and encourage the use of traffic mitigation strategies.

Comment: Traffic mitigation strategies include transportation system management (TSM), transportation demand management (TDM), and traffic control measures (TCM) which can increase the person-carrying capacity of the roadways and possibly defer the need to widen roadways. A reduction in travel times and vehicle miles of travel as well as improvement to air quality are the benefits. TSM techniques include flexible or staggered work hours, left turn lanes, lane striping, and high occupancy vehicle lanes.

**Short Term Proposals:**

- Comply with the 1990 Clean Air Act Amendments.
- Reduce peak hour traffic by working with and encouraging businesses to use TDM strategies.
- Assist municipalities to incorporate traffic mitigation techniques into the development review process.
- Coordinate and integrate bus and rail systems.
- Update and revise the 1983 Union County Bikeway Map.
- Develop and implement policies of the bi-county (Union and Essex) Transportation Management Association.

**Long Term Proposals:**

- Develop high occupancy vehicle (HOV) lanes and strategies where feasible.
- Develop shuttles to and between transit stops when stations are beyond walking distances to destinations.
- Monitor transportation system for future TSM needs.
- Continue meeting regulations established by the Clean Air Act Amendments of 1990.
- Coordinate with state and local agencies in the development of traffic mitigation strategies.

Implementation: Public outreach and education is necessary. Adequate funding is essential.

**DRAFT  
TRAFFIC MITIGATION**

**INITIATIVE #16**

Reduce vehicular energy consumption.

Comment: The reduction of vehicular energy consumption will result in improved air quality and improved economic vitality in reducing dependence on foreign oil resources.

**Short Term Proposals:**

- Reduce Vehicle Miles Traveled (VMT) through travel demand management techniques.
- Encourage land uses which reduce energy consumption.
- Encourage use of alternative modes of transportation as opposed to the single occupancy vehicle.
- Support non-vehicular oriented development.

**Long Term Proposals:**

- Convert county fleet to liquefied natural gas.
- Support new technologies which make roadways and vehicles more efficient.
- Support development of alternative fuels.

Implementation: Public outreach and education is necessary. The primary responsibility for implementing these proposals is under the jurisdiction of the federal and state governments.

**DRAFT  
TRANSPORTATION PLANNING**

**INITIATIVE #17**

Continue planning efforts in striving for an efficient transportation network.

Comment: Comprehensive, coordinated, and continuous planning is required at the county and municipal levels to assure the transportation network is improved and expanded to meet the growing needs of the county.

**Short Term Proposals:**

- Improve the county's efforts to solicit public input on transportation issues.
- Continue the Subregional Transportation Planning Program including public participation, traffic counts, development of the Transportation Improvement Program (TIP), and other efforts.
- Continue transportation planning efforts in order to comply with Clean Air Act amendments.
- Support regional transportation committees to coordinate policies and ordinances between municipalities.
- Work toward the renewal of the New Jersey Transportation Trust Fund which expires in 1995.
- Maximize obtaining ISTEA funding for county road and transit projects.
- Identify and improve transportation within specific corridors.

**Long Term Proposals:**

- Re-examine and revise, if necessary, the county's transportation plan every five years.
- Continue adequate Union County Bureau of Transportation Planning staff and resources to appropriately manage the dynamic transportation requirements.

Implementation: The county should actively obtain transportation funds from state and federal sources for continued planning efforts. Multi-agency cooperation is required.

**DRAFT  
TRANSPORTATION PLANNING**

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Implementation: The county should actively obtain transportation funds from state and federal sources for continued planning efforts. Multi-agency cooperation is required.

## DRAFT LAND USE

### INITIATIVE #18

Coordinate sound land use and transportation planning.

Comment: Benefits derived from coordinated transportation and land use planning include higher transit ridership, higher auto occupancy rates, improved air quality, and reduced traffic congestion.

#### Short Term Proposals:

- Continue reviewing proposed major subdivisions and site plans for transit and transportation impacts.
- Include transit stops in the development of employment and residential centers.
- Encourage development near existing transit system routes and facilities.
- Encourage limitations on parking.
- Preserve right-of-ways for future transportation use.
- Inventory of current vacant lands in conjunction with Union County Economic Development Agency.
- Identify vacant lands and zoning.
- Review subdivisions and site plans to ensure that they are designed with consideration to bicycle and pedestrian access.

#### Long Term Proposals:

- Ensure the transportation system is adequate to support development.
- Encourage mixed-use development.
- Encourage infill development.
- Encourage controlled growth in developing areas as well as established areas of the county in accordance with the State Development and Redevelopment Plan.
- Promote integration of adequate transportation with proposed developments.
- Develop a Union County Zoning Board of Adjustment.
- Fly an aerial survey of the county, link it with G.I.S. to identify growth/development corridors.
- Develop user impact fee for sights which fail to comply with vehicle reduction goals.

Implementation: Private sector involvement is necessary. Multi-agency cooperation is required. This should be done in coordination with the State Development and Redevelopment Plan.

**DRAFT  
LEGISLATION**

**INITIATIVE #19**

Monitor and respond to legislative proposals which impact transportation.

Comment: Legislation directly affects transportation systems and should be reviewed for their impacts.

**Short Term Proposals:**

- Monitor, analyze, and make recommendations concerning legislative proposals and disseminate information to municipalities, freeholders, and state and federal legislative representatives.
- Promote joint meetings between all levels of government to discuss and recommend a position on applicable legislation.
- Assess impact of state highway access code on county roadways.

**Long Term Proposals:**

Continue monitoring and responding to applicable transportation legislative proposals.

**Implementation:** Union County should continue to support legislation that provides funding for the transportation system and is consistent with the goals, objectives, and policies of this plan.

# INDEX

## INDEX

This index contains three sections:

1. Study & Development
2. Outreach
3. CEDS Plan Elements

The Study & Development section is a compendium of all of the supportive task work and technical studies completed under the Subregional Transportation Planning Work Program. This body of work together with the technical work conducted by the Division of Engineering is the basis for determining the "Needs" category #3 for the localized application of the CMS strategy evaluation process.

The Comprehensive Outreach section was conducted by staff in 2001-2002 as part of the Transportation Plan Update task. Formal interviews were set up with officials and staff in all twenty-one municipalities. Extensive minutes of these meetings were taken and are contained herein. The outreach has given a sense of what problems and priorities exist on the municipal level and subsequently what "Needs" exist at the CMS District level.

The outreach also provides a basis for future prioritization of strategy projects and a good indication of available resources for implementation of these projects.

The third and final section of the index contains a section of the County's Comprehensive Economic Development Strategy (CEDS) relating to infrastructure and Smart Growth Initiatives. This portion of the CEDS document provided the basis for the developing "Needs" category #2 in the localized application of the CMS strategy selection process previously described.

The CEDS document is a yearly updated plan defining short and long range strategies for sustainable economic development. From the County's perspective, these economic development strategies are high priority goals and therefore the transportation infrastructure needed to support them becomes a critical and an integral part of the economic development strategy.

The transportation plans and projects contained within the CEDS document are high priority items for the County and ideally should be consistent with NJTPA Regional CMS "Needs" and "Strategies". However, emphasis areas may differ and prioritization of projects and implementation plans may vary. The task of reconciliation of divergences remains; the difference between the "Regionalized" and "Localized" CMS strategies may be in how respective implementation agencies are asked to address respective goals and objectives. This "reconciliation" or "consensus" building is a task which remains an ongoing work in progress.

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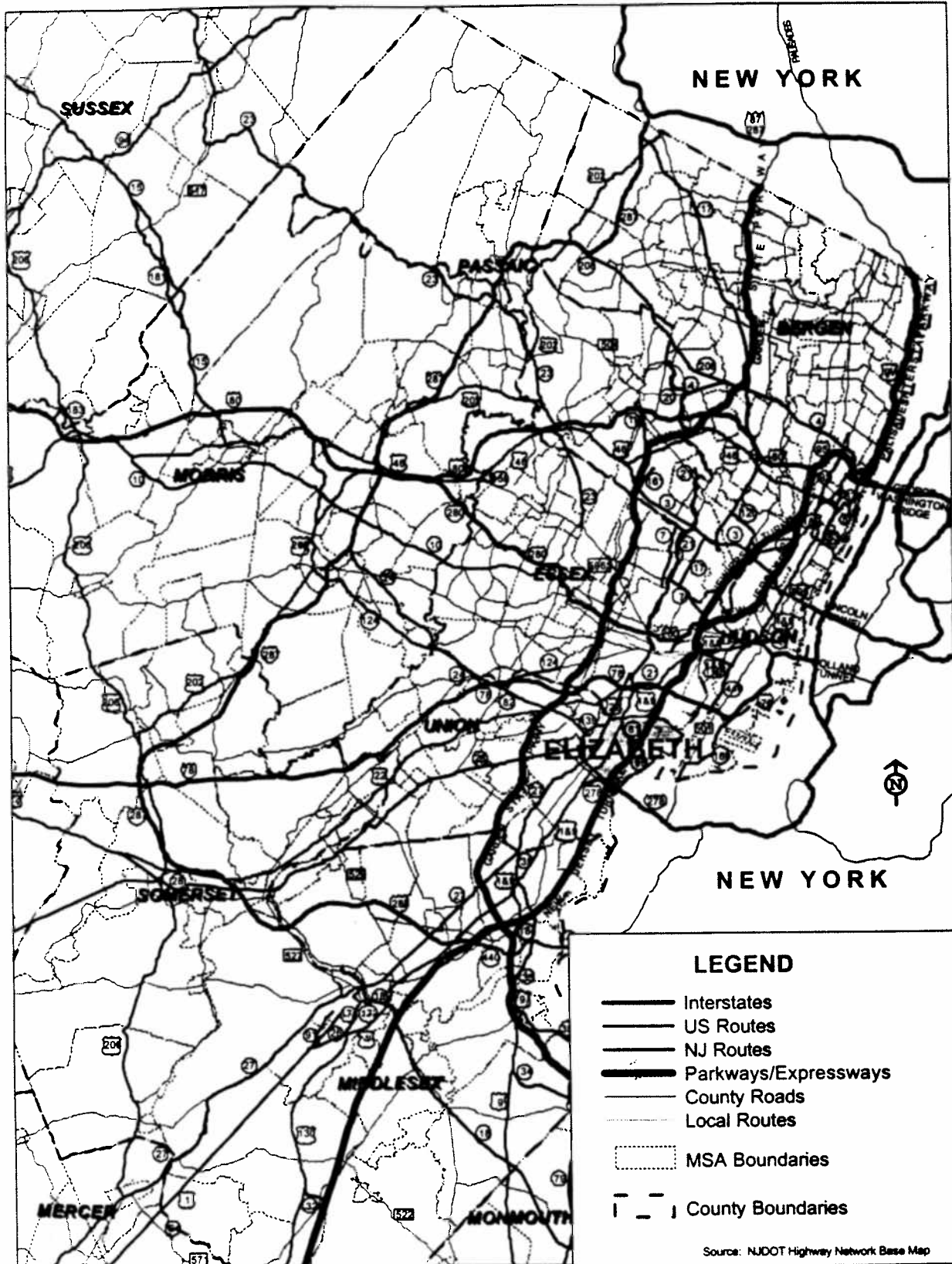
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**Map 1  
Regional Roadways in the Vicinity of Elizabeth**



# STUDY AND DEVELOPMENT

## **PLANNING PROCESS: STUDY AND DEVELOPMENT**

The Bureau of Transportation Planning implements the Union County Subregional Transportation Planning Program which is developed in concert with the North Jersey Transportation Planning Authority. This planning program is structured so that specific county transportation issues are studied and analyzed. Each year the bureau has undertaken a specific issue(s) for study. This section consists of summaries of those studies, which have formed the basis for the ongoing Transportation Planning Program.

### Subregional Transportation Planning Program In-House Studies:

#### **Summit Woodbridge Bus Study - FY'82**

This study has been performed to assess the feasibility of a cross-county bus route in central Union County. The motivation of the study was a proposal by Union County for a bus route connecting Summit and Woodbridge Shopping Center via Springfield, Cranford and Rahway. This proposal consisted of a route layout and a general statement of the major generators served by the route. This study was thus charged with the following tasks:

- Review of the proposed route, development of alternatives and selection of a recommended route.
- Identification of travel roads and location of major trip generators in the corridor and preparation of ridership estimates for the proposed route.
- Development of schedules, operation characteristics, fare structure costs, and revenues for the proposed route.
- Identification and evaluation of potential operators of the route.
- Review of financial feasibility.

The study concluded that the cross-county route can best be described as marginally feasible. Usage levels and subsidy requirements would be within an acceptable range, if the route were currently operating. However, usage estimates for transit routes are notoriously imprecise. It is quite possible that usage would be substantially lower than projected, particularly if service was unsatisfactory. For this reason, implementation of this route should be on a trial basis. This should be of sufficient duration, and be supported by adequate promotion, to give the route a fair chance of success.

#### **Union County Rail and Bus Corridor Study - FY '87**

This study was designed to review rail and interstate bus service improvements in the inner portion of the Raritan Valley corridor including the municipalities of Union, Roselle, Roselle Park, Cranford, and Westfield. In addition, certain intrastate bus service improvements and the effect of traffic engineering changes

on bus service were to be examined in the same area, as well as in an adjacent area including Elizabeth and Linden.

Specific improvements to be examined are:

1. A new rail station at the intersection of the Raritan Valley Line of New Jersey Transit with Morris Avenue in Union. This location is often referred to as Townley.
2. A new rail station at the location where the Garden State Parkway crosses the Raritan Valley Line, at the location of the former Aldene yard.
3. Improvements to parking at Cranford and Roselle Park Stations.
4. Increased train service during peak periods.
5. Restructuring of interstate bus service in the study area including New Jersey Transit Routes #15, #111, #143, and #222.
6. Restructuring and extension of New Jersey Transit intrastate bus route #56.
7. Review of the impact of the proposed pattern of one-way streets in Elizabeth on bus service.

Each chapter deals with a specific area of improvements. Chapter 2 provides an overview of transportation system usage in the study area that serves as background to the following chapters. Chapter 3 is an analysis of the Townley Station proposal. Chapter 4 includes a review of the Aldene Station proposal. Chapter 5 includes an identification of sites for additional parking at Cranford and Roselle Park Stations. Chapter 6 covers rail service improvements and Chapter 7 covers bus service improvements.

### **Rail Freight Study - FY'87**

The Union County Rail Freight Study was undertaken to identify possible way of enhancing rail freight services. Extensive research into the so called "Railroad Problem" from an economic and historical perspective was undertaken, covering the years from the creation of the Interstate Commerce Act of 1887 up to the creation of Conrail in 1976.

This report highlights the origins of the decline of the rail freight infrastructure in the northeast and its impact upon rail freight service in Union County. This analysis identifies the structural, operational and marketing changes needed in order to preserve a viable rail freight infrastructure for Union County's industrial and distribution sector.

Chapter One of this report first briefly traces the origins of the rail system in Union County and how the overall problems of the industry impacted.

Chapter Two is a proposal for a restructures system that can better serve a highly urbanized, truck defined transportation environment. This position paper, known

as region rail, highlights the possibilities for a more service oriented rail freight system in a deregulated transportation environment.

Part three assesses the impact region rail would have on industrial retention in Union County.

### **Rail Freight and Modal Shifts Study: The Impact of Deregulation on Goods Movement - FY'87**

This study takes a close look at the deregulated transportation environment by examining the interplay between truck and rail modes. Part of the failure of the Northeastern rail system to maintain its marketability has been attributed to the inability of railroads to adjust rates and services to a motor carrier defined freight service environment. With much of the structures rate-making process removed with the passage of the Staggers Act in 1980, the state was set for rail industry leaders to prove whether or not deregulation would resolve the ills of their industry.

The motor carrier industry did share some of the same inhibiting factors preventing it from reaching maximum efficiency. Restrictions on entry and exit from particular markets and structured rate making process under close ICC scrutiny was characteristic of the trucking industry since federal regulation of the industry began with the Motor Carrier Act of 1935. The Motor Carrier Act of 1980 was enacted to increase the efficiency of truck operations as well as to reduce and/or hold rates down based upon marketing conditions rather than on an outmoded rate making structure. It also allowed for greater freedom of entry and exiting from various markets.

The aims of both the Staggers Act and the Motor Carrier Act can be succinctly stated: marketing prerogatives and market place behavior as opposed to regulatory mandated parameters would determine much of the freight industry's structure. Pre-deregulation objectives required that service between two points be maintained by an ICC defined balanced transportation system that mitigated against destructive competition among and between modes; that kept rate wars in check; and allowed entry or exit from a particular market by a particular mode only if it did not negatively impact on requisite transportation services as defined by the Interstate Commerce Commission. In the past deregulation market place, the level of service between two points and between and among modes is largely determined by modal response to shipper requisites.

This type of marketing has had a traumatic impact on the structure of all modes. Since deregulation, approximately 15,000 new trucking companies have commenced operation, most being owner-operators with less than 5 trucks in their fleet. They have taken the place of larger trucking operations required to provide common carrier services prior to deregulation. Likewise, class one railroads have begun and are increasingly spinning off branch lines and secondary lines to short

line rail operators. This alignment occurring in both industries has as yet to be fully evaluated.

This study looks at this restructuring as it relates to commodity flows into and out of Union County from outside New Jersey. By examining several of the shipping patterns of the key industries in Union County to determine how they have been impacted by deregulation this paper differentiates between how deregulation and other modal choice factors impact on the industrial base of Union County. Of primary importance is how to measure the effect these respective factors have on the goods movement infrastructure as it relates to the transportation planning process and, what role, if any, county government and agencies can have in maintaining the necessary freight haulage infrastructure so that the marketing advantages of the industrial sector of the county can be maintained if not strengthened. This report suggests how these goals can be obtained in light of deregulation induced modal shifts and the economic requisites of the industrial sector.

The study is divided into four chapters: Chapter One is an overview of deregulation, the county's freight infrastructure and its manufacturing base; Chapter Two is an analysis of basic commodity flows into and out of Union County, concentrating on the key industrial traffic generators and projections in modal reliance; Chapter Three is an analysis of the expected changes in modal reliance; and Chapter Four contains recommendations for infrastructure improvements to reflect changes anticipated in a deregulated haulage environment.

### **Eastern Union County Transportation Improvement Study - FY' 88**

As part of its 1987 Subregional Transportation Planning Program, the Union County Bureau of Transportation Planning conducted a special study of the transportation infrastructure of Eastern Union County. The purpose for this project was basically twofold: (1) To identify needed improvements in the transportation infrastructure as it relates to projected economic development activities; and (2) To determine how an improved transportation infrastructure will contribute to maintaining projected economic activities in the eastern section of the county.

The Bureau of Transportation Planning anticipates as much changed Eastern Union County transportation infrastructure in response to regional economic changes. A greatly expanded Newark Airport, the proposed commercial development in the Route 1 corridor, the increased use of the Goethals Bridge Crossing and the proposed expansion of Elizabethport shipping facilities will place a heavy demand on an older infrastructure. Projected journeys-to-work in the region will see increased usage of these Transportation facilities as well. Eastern Union County has the available land and facilities already zoned for commercial and industrial development and/or redevelopment. Thus, this section

of the county may experience the type of commercial development more characteristic of the fringe areas of the region – notably Morris, Ocean, Somerset, and Monmouth counties. A planning effort to guide an orderly construction and funding of transportation improvements is necessary; and a timetable for implementation is imperative.

Several transportation facilities in Eastern Union County have already been identified by various agencies for improvement. These facilities have been cited for improvement to meet increased demand through the beginning of the next century as a result of projected regional economic activity. For example, Newark International Airport 2000, a major airport capital expenditure program developed by the Port Authority is already being implemented, since a major influx of airport users is occurring via both public transit and private automobile. Likewise, the New Jersey Turnpike Authority announced in November 1985 a major widening program of several segments of the roadway's main line from Exit 8A North, including the main line from interchange 12 through 13A in Union County. Together with projected development in Eastern Union County, these major initiatives need to be integrated into a comprehensive and coordinated planning effort.

A potential conflict exists between commercial growth and industrial growth within the defined study area. With the proposed expansion of port facilities, the development of air freight services at Newark Airport and the construction of new double stack rail freight container facilities in Port Newark and Elizabeth, truck vehicle use of these facilities will increase. Traffic flows to and from these areas will compete with increased vehicular traffic generated by office and commercial expansion. This report defines these potential areas of conflict and seeks to minimize them in the proposed five-year plan of improvement.

This study is divided into three parts: (1) An overview of the economic and demographic trends affecting travel patterns in Union County along with an overview of the transportation infrastructure analyzed in this study; (2) An analysis of the impact regional and county economic activities have upon these transportation infrastructure; and (3) A concluding chapter delineating a Five Year Transportation Improvement Plan.

### **Elderly and Handicapped Transportation Service Study - FY'88**

The Union County Paratransit system is a comprehensive specialized transportation system providing service to the elderly, handicapped, and poverty level residents of Union County. The paratransit system, established in 1978, is a unit within the Union County Department of Human Resources. More than 220,000 rides were provided in 1985. These rides were provided mostly to senior citizens, needing transportation for medical services. The success of the service has placed increasing demand on the system, which presently is capable of handling 95% of potential demand.

This study examines some of the options to expand the paratransit system, focusing on how available van fleets of both private and public agencies may be integrated into the paratransit system. It was undertaken to assess an almost obvious, if not logical way to expand the paratransit system. The rationale goes as follows: the paratransit system is in need of additional vehicles to expand its service. Union County has many agencies and organizations, which have their own vans or vehicles for transportation. Many of these vehicles are not used all of the time and are available for additional use during certain parts of the day. Therefore, why not integrate those vehicles into the paratransit system?

The paratransit system can be expanded by using both the resources of the private sector and the public sector. This study examines the possibility of increase usage of available private sector and public sector sources of vehicles in Union County. However, a cost/benefit analysis of that option is reviewed in comparison to other current and prospective alternatives.

The objectives of this study are as follow: (1) to determine if the base locations of the provider agencies are in strategic locations; (2) to determine if insurance is a problem in using additional vehicles; (3) to determine prospective provider agencies; (4) to determine if vehicles of other agencies could be used in a paratransit system (are these vehicles well equipped?); (5) to determine the age of fleet vehicles; and (6) to determine if there is a need for additional vehicles.

#### **County Roadway And Bridge Capital Needs Inventory Study – Phase I - FY ' 89**

The Bureau of Transportation Planning Staff completed this first phase of the County Roadway and Bridge Capital Needs Inventory Study. During phase I, staff collected and compiled data on approximately 80 miles of county roadway, 51 bridges and 46 culverts in the following municipalities: Berkeley Heights, Clark, Cranford, Garwood, Fanwood, Mountainside, New Providence, Plainfield, Scotch Plains, Springfield, and Summit.

#### **County Roadway & Bridge Capital Needs Inventory Study – Phase II - FY'90**

This study is the second phase of the County Roadway and Bridge Capital Needs Inventory Study. It was initiated to develop a master database for evaluating county roadways, bridges and culverts located on these roadways for use in creating a long-range capital improvement plan. During this phase, staff collected and compiled data on approximately 73 miles of county roadway, 14 bridges and 30 culverts in the following municipalities: Clark, Elizabeth, Hillside, Kenilworth, Linden, Rahway, Roselle Park, Union and Winfield.

## **Commodity Flow Analysis of the Chemical and Allied Products Industry (SIC Code 28) in Union County - FY'90**

The purpose of this study is to determine the transportation infrastructure required for the safe and efficient movement of the chemical and allied product industries (Standard Industrial Commodity Code 28) located in Union County. These industries produce and process primarily materials that are classified as "hazardous materials". In fact, they are the primary source of hazardous material commodity flows into and out of Union County. The next largest category of industries producing hazardous materials are the petroleum and oil based industries of SIC Code 29.

Staff chose the SIC Code 28 industries for examination to determine how the commodity flows to and from facilities located in Union County relate to infrastructure requirements and modal preferences since deregulation. Issues on transportation safety have surfaced since deregulation and identifiable modal shifts have occurred. The impact of these changes on transportation efficiency and safety in hazardous material transportation has become a major concern of the federal government.

Efforts to minimize the impact of a hazardous material mishap have also been heightened by the Bhopal, India incident of 1984, where more than 2,000 people were killed from poisonous vapors escaping from a liquid spill. Thus, by focusing on the transportation needs of the chemical and allied products industry, staff anticipated uncovering potential areas of improvement in the transportation SIC Code 28 products which, subsequently could reveal general needs for safe hazardous material transportation in other SIC code categories.

In addition, the shift in a modal preference which might be uncovered in this study would also serve to identify more general trends in freight transportation in the county's basic manufacturing segment. What is needed to provide as well as encourage facilities improvement to maintain a safe and efficient freight transportation network for these industries would be another outcome of this study effort.

The manufacturing industries in the chemical and allied products area employ 19,000 people, making it the largest manufacturing industry in the county. Currently, there are 69,600 manufacturing employment jobs in Union County, down from 76,400 in 1986. The industry is dominated by large firms such as Merck, Ciba-Geigy Corporation, Schering Plough Corporation, Arco Industrial Gases, Inc., and Bristol Myers. The product category contains both bulk and packaged goods, and as noted above, the commodity flow into and out of these facilities are products that are used in basic industrial manufacturing processes as opposed to end use. However, the firms making end use products, particularly drugs, soap, cleansers and toilet goods, employ the largest amount of workers in this industry group.

There are three major manufacturing groups in this SIC Code classification as noted in the "Standard Industrial Classification Manual":

1. Basic Chemicals which include acids, alkalized salts, and organic chemicals.
2. Chemical products to be used in further manufacturer such as synthetic fibers, plastic materials, cry colors and pigments.
3. Finished chemical products to be used for ultimate consumption such as drugs, cosmetics and salts; others to be used as materials or supplies in other industries, such as paints, fertilizers and explosives.

The establishments in Union County are primarily engaged in the first and second categories based upon commodity flow tonnages generated to and from their facilities. Likewise, these categories generate most of the hazardous materials commodities in Union County.

This study is divided into three chapters. Chapter 1 is an overview of hazardous materials transportation and how Union County relates to compiled national and state data on hazardous material transportation issues. Chapter 2 is a commodity flow analysis of the SIC Code 28 industries in both the non-hazardous and hazardous material classifications. Four modes are examined, rail, truck, water and air. Chapter 3 is an analysis of the infrastructure improvements necessary for the efficient and safe movement of SIC Code 28 commodities in Union County.

### **Off-System County Bridge and Culvert Capital Needs Inventory Study - FY'91**

#### Off-System Roadway Inventory

The Union County roadway network consists of 155.3 linear miles of roadway. As noted in the introduction, in the County Roadway and Bridge Inventory Study Phases I and II, the complete county network was inventoried and recorded on a database. The inventory was designed to provide sufficient data to generate reports relative to land use planning, traffic flow, roadway capital improvements programming, and the potential impact of mass transit and ridesharing alternatives in specific corridors.

Likewise, the off-system roadway inventory database was developed by the staff to provide sufficient detail to serve these same broad objectives. The roadway inventory report contained herein was designed to provide a database from which additional reports could be generated relative to the non-federal aid system of roadways.

Union County is allotted \$2.3 million in state aid funds annually for the duration of the New Jersey Transportation Trust Fund. This state capital funding is programmed annually as part of the county's five year Transportation

Improvement Program (TIP). However, the off-system roadway network of largely local streets is under municipal jurisdiction. Maintenance, repair or replacement projects are funded by the municipality. The fund will be up for renewal in 1994. These funds can be applied to county roadway construction and resurfacing projects on the county designated FAS roadway system.

Two hundred forty-two roads were surveyed and the following information was collected: number and location of traffic signs; width of roadway; existence and type of curbing; existence of and type of sidewalk; location of bus stops; location of train stations; existence of traffic signals; and street parking.

### Bridge Inventory

Union County owns and is responsible for the repair and rehabilitation of 140 bridges countywide. Seventy-six of these bridges are located on off-system roadways, consisting of bridges not on the FAS system as described in the Introduction section of the report. Transportation Planning Staff inventoried and compiled data on 56 bridges located on the off-system roadways. The remaining 20 off-system bridges are bi-county bridges which are included in the Roadway and Bridge Inventory Study – Phase I database.

The county defines a bridge as a structure having a clear span length of 20.0 feet or more as measured along the centerline of the roadway normal to the face of the abutments or inside of the box. This definition is consistent with state and federal government definitions of a bridge. Bridge structures meeting this criteria, are eligible for matched federal funds for repair and replacement pursuant to establishment of the Highway Bridge Replacement and Rehabilitation Program (HBRRP). Federal matched bridge funds are available for repair and replacement of bridges on the defined federal aid (FAS) system as noted in the introduction.

In addition, a portion of the total HBRRP funds are allocated to states for repair and replacement of bridges that are not on the FAS system. These are classified as off-system bridges, which include those bridges under county jurisdiction but located on municipal roadways. Pursuant to the renewal of the Surface Transportation Assistance Act (STAA) on October 1, 1991, additional funds may be available for the HBRRP.

The database for this inventory was developed, in part, from the most currently available bridge inspection reports on file in the office of the Division of Engineering.

### Culvert Inventory

The county defines a culvert as having a clear span from five feet to twenty feet in length as measured along the center line of the roadway normal to the face of the abutments or inside of the reinforced concrete box substructure. There are 275

culvert structures under county jurisdiction, most of which are located on off-system roadways and not on the county roadway system.

Transportation Planning Staff inventoried and compiled data on 211 culverts location on off-system roadways in the 21 municipalities surveyed. The database was developed from the most currently available data contained in individual culvert inspection reports on file in the office of Engineering.

Currently, \$2.3 million in New Jersey Transportation Trust Funds and county budgeted funds are the primary sources for rehabilitating or replacing of culverts on off-system roadways.

Data collected for these bridges and culverts included the following: superstructure dimensions; substructure dimensions; roadway dimensions; safety features; stream characteristics.

### **The Impact of Changing Regional Travel Patterns on the Raritan Valley and Northeast Corridor Rail Lines in Union County - FY'92**

The objective of the study was to assess through the use of available computer generated transportation demand models and other travel forecasting techniques to assess the potential impact of the Hudson River Waterfront Connection upon Raritan Valley and Northeast Corridor Rail Line commuting patterns, station parking, as well as development and redevelopment at station sites.

This study indicated that the demand for rail service to the waterfront from Union County along the Raritan Valley and Northeast Corridor would be modest. Given the full development of the Hoboken Waterfront by the Year 2000, Union County residents would comprise approximately 2,125 of the anticipated 12,861 workers at Hudson River commercial sites. Of this amount, approximately 1,090 would use rail service to commute to job site.

While adjustments in scheduling and additional equipment will be necessary to accommodate this demand, major capital improvements at certain rail stations will be required to satisfy parking demand. Notably, Rahway and Linden will require additional space. On the Raritan Line, Plainfield, Scotch Plains/Fanwood, Westfield, Cranford, and Roselle/Roselle Park need to be addressed since demand has been high in spite of the recession.

The parking spaces within 1,000 feet of the train stations in Union County along the Northeast Corridor Line and the Raritan Valley Line were inventoried. Those stations along the Northeast Corridor Line included North Elizabeth, Elizabeth, Linden, North Rahway and Rahway. Those stations along the Raritan Valley Line include Roselle Park, Cranford, Garwood, Westfield, Fanwood, Netherwood, and Plainfield.

### **Union County Mass Transit Guide - FY'93**

Bureau of Transportation Planning staff and the Union County Transportation Advisory Board have identified the need to update the Union County Mass Transit Guide. This map and guide was last published in 1983.

As Part of the Subregional Transportation Planning Program for FY'93, staff developed a computer generated guide using a Map Information System (MIS). The new guide will be available for distribution upon identification of a funding source.

### **Impact of Changing Demographics and the Americans with Disabilities Act of 1980 Upon the Paratransit Services in Union County - FY'93**

A study was done to show how the Union County Paratransit System has an impact on senior citizens and disabled residents of the county. The system provides transportation services to places of employment, educational, medical, recreational, and shopping facilities. Currently, this transportation system serves 74,125 senior citizens and 29,447 disabled residents.

The purpose of this study was to identify, on a general basis, the two groups who benefit from the Paratransit System. The disabled citizens and the elderly population are the recipients of the system. The study identified their location in the county and determined how this group could best be served by the Paratransit System.

According to the 1980 Census of Population, the Cities of Elizabeth, Linden, and Plainfield, and the Township of Union Consists of 60% of the county's total disabled residents. The following is a breakdown of the population of the disabled residents by municipality: City of Elizabeth - 8,545; City of Linden - 2,486; City of Plainfield - 3,435; and Township of Union - 3,391.

The same four municipalities hold the county's largest senior citizen population. The following is a breakdown of the population of senior citizens by municipality: City of Elizabeth - 13,270; City of Linden - 7,094; City of Plainfield - 4,596; Township of Union - 10,789.

The combined total of the senior citizen population of these four municipalities comprise of 49% of the county's total population and 36% of the county's land area.

### **Union County Subregional Air Quality Plan – Phase I: Transportation Control Measures (Preliminary) - FY'93**

The Bureau of Transportation Planning within the Division of Engineering, Land and Facilities Planning is the Union County agency primarily responsible for

developing a county-wide plan to reduce transportation related emissions in compliance with the Clean Air Act Amendments of 1990 (CAAA). This plan, as required by the state Department of Transportation (DOT) and the state Department of Environmental Protection and Energy (DEPE) will be incorporated into a statewide Air Quality Plan.

Development of the plan is divided into several phases and has specific target dates for implementation. This initial report is Phase I of the project. It consists of identification of local transportation control measures (TCM's) which, when combined with other emission control measures, will reduce ozone and carbon monoxide levels. Phase II of the project consists of determining the cost/benefits of applying these TCM's statewide.

The transportation control measures identified herein are aimed at reducing the formulation of ground level ozone and carbon monoxide, which results primarily from automobile emissions. The northeastern section of the state is in non-attainment of acceptable levels of ozone as defined by the Clean Air Act Amendments. In addition, Bergen, Hudson, Essex and Union counties are in non-attainment of acceptable levels of carbon monoxide.

In order to achieve attainment levels as defined in the federal legislation, the transportation control levels applied statewide must conform with a statewide implementation plan by certain target dates, with overall compliance of ozone levels by November 15, 2007 and carbon monoxide levels by November 15, 1996.

This report is a summary of the Phase I tasks undertaken by the Bureau of Transportation Planning. The transportation control measures that may be applicable to Union County will be examined further as transportation demand data becomes available.

The report is divided into six sections: (1) Introduction; (2) Demographic and Journey-to-Work data; (3) Transportation Control Measures; (4) Public Outreach; (5) County of Union Employee Vehicle Reduction Strategies; and (6) Conclusions and Recommendations.

#### **Raritan Valley Station Study - FY'94**

The purpose of this study is to evaluate the potential development of a new station on the Raritan Valley Line in order to achieve the following objectives:

1. Divert single occupancy vehicle trips from the Route 22/78 corridor;
2. Foster development in this section of Union Township consistent with current municipal master plan.
3. Assess potential use of station by local industries for ETR programs;
4. Assess the potential use of station by Kean College students and faculty; and

5. Evaluate potential to interface with local bus service.

The tasks included in this study will be to review previous studies of Raritan Valley Line ridership projections. In addition, Union Township's master plan for redevelopment and current and future travel demands related to the Employee Trip Reduction Program will be assessed. Finally, New Jersey Transit will do an analysis of the site relative to parking ADA requirements and the Conrail freight traffic. A final report and recommendations will be made in late summer 1994.

#### **Union County Transportation Master Plan - FY'94**

Union County adopted its most recent Master Transportation Plan on July 11, 1979. This plan needs to be revised and updated accordingly. Given the adoption of the Statewide Development and Redevelopment Plan, the requirements of the Clean Air Act and the change in transportation funding mechanisms pursuant to the Intermodal Surface Transportation Efficiency Act (ISTEA), a new master plan would reflect the goals and objectives embodied in this recent legislation.

The Master Transportation Plan will be developed from the current plan in effect. Staff will consult special county transportation studies, Transportation Executive Council Reports, North Jersey Transportation Coordinating Council Regional Transportation Plan, the State Development and Redevelopment Plan and NJ Transit's Five Year Business Plan. The proposed master plan would identify the following new planning objectives: Goods movement improvements, air quality related projects, bicycle and pedestrian improvements, transportation enhancement projects, potential transportation development and redevelopment districts. In addition, the plan would contain statistical data relevant to the transportation planning process as well as transportation control measures and transportation demand management strategies.

#### **Transportation Management Association (TMA) – TransitPlus/# 986/ETR - FY'94**

#### **Union County Intermodal Facility Location Study - FY'95**

A previous supportive task study (Rail Freight and Modal Shifts Study: The Impact of Deregulation of Goods Movement, 12/87) recommended that multi-modal and multi-commodity goods movement facilities be considered to serve Union County. This facility would be primarily a rail/truck transfer service. The facility would be designed to serve small to medium size companies that do not have direct rail service or require shipping and receiving in less than carload lots.

Union County industries primarily are small to medium size companies. A shared facility offering trucking, warehousing, packaging, and transferring services may

accommodate this market. This service may be an inducement to remain and/or relocate in Union County.

The purpose of this study would be to determine how this type of intermodal facility could be useful in attracting redevelopment of key industrial properties as well as encouraging expansion of existing companies. The study will focus on one primary industrial commodity group.

### **Union County Strategic Plan: Transportation Infrastructure Development - FY'95**

Union County developed a revised Master Transportation Plan as a Supportive Task Project in the FY'94 Subregional Transportation Planning Program. This Master Plan identified road and highway as well as mass transit and goods movement improvements that conform to regional and state transportation planning goals. In addition, implementation strategies and funding sources were identified.

Currently, Union County is developing a strategic plan for economic redevelopment. This plan includes specific strategies for revitalizing the economy of the county. Union County has a diminishing manufacturing base which has resulted in significant declines in employment and loss of tax rateables. The plan includes key transportation and infrastructure projects designed to foster economic development.

This supportive task will analyze these key transportation elements as they relate to economic development objectives.

### **Master Transportation Data Book – Phase I - FY'96**

The collection of data for transportation planning purposes has primarily been to provide a base of information for redevelopment projects occurring on county roads. Since Union County is a mature and almost completely developed county, data has primarily been used to provide information for individual redevelopment and improvements along county roads. Thus, data has been collected and provided upon request.

However, the county has embarked on a strategic redevelopment plan, which focuses on key corridors for major infrastructure and economic development projects. Data for this type of decision making requires more than just collecting, revising and providing pertinent information.

That is, the data must be able to be integrated into longer range and more comprehensive development projects. Data will be required to evaluate the impact of transportation improvements from a cost effective perspective so that the county will better be able to determine how and when to allocate resources. In

addition, the six management systems required by ISTEA impact on the data collection and interpretation function.

This supportive task will identify how data should be collected and organized to reflect the goals and objectives of the county's strategic redevelopment plan(s).

#### **Master Transportation Data Book – Phase II - FY'97**

This supportive task included continuing the collection of data to promote economic development, to monitor the flow of traffic along the major corridors in the county, and to enhance the infrastructure in the following major corridors: 1) roadway: NJ Turnpike, Garden State Parkway, Route 1, Route 22, Route 78 and Route 82; 2) rail freight: Lehigh Valley Railroad, Raritan Valley Railroad, Morris and Essex Line, Rahway Valley Railroad, Staten Island Railroad and Northeast Corridor; 3) railway passenger: Northeast Corridor, Raritan Valley Railroad, Gladstone Branch, and Morris and Essex Line; 4) ports: Port Newark and Port Elizabeth; 5) airports: Linden Airport and Newark International Airport; and 6) waterways.

#### **Union County Non-Motorized Transportation Option Study - FY'98**

The goals of this supportive task included the identification and inventory of sidewalks along county roads; to establish the condition of sidewalks, and evaluate the need for repair, availability of curb cuts and cross markings on streets to indicate safe, convenient passage sites for pedestrians. It also included the identification of pedestrian routes now in use where there is lack of sidewalks, location of benches or the need for benches along popular walkways to activity centers to ensure resting places for those in need. Also, to assess if there is adequate lighting to ensure safe passage for pedestrians, in particular commuters traversing in the darkened a.m. and p.m. hours.

#### **Union County Non-Motorized Transportation Options Study - FY'99**

This supportive task included the identification of bike routes on all county roads, the identification of bike facilities and signage along the routes, and the condition of each. It included the promotion of the use of bikes for recreational use and for transportation to work and key activity centers in the county. It explored the identification of ways to prevent the theft of bikes and options for safe biking along congested roadways and to identify commuter travel trips.

#### **The Plainfield Area Transportation Efficiency Study - FY'00**

In order to implement the statewide Work First Program, each county was required to identify mobility and access problems relative to matching welfare recipients to potential job sites. The Bureau of Transportation Planning staff in conjunction with the Dept. of Human Services staff and the consulting firm

assigned to Union County by the NJDOT, identified deficiencies in the county's overall mass transit services.

Using data from 1990 census and current NJ Dept. of Labor statistics, welfare clients were located countywide. Target populations requiring support services, training as well as transportation services were identified. The need to look closely at certain subareas with high concentrations of welfare clients where services of public and private transportation providers can be better coordinated and integrated emerged. In addition, these improvements were seen as a way of serving other transit dependent populations such as lower income, handicapped and student employees.

The Plainfield subarea was selected for study because of its sizable transit dependent population and the need to improve the linkage of this urban area to surrounding suburban locations where job opportunities have increased.

The objective of this supportive task was to identify the existing modes of transportation in Plainfield, Fanwood, Scotch Plains, South Plainfield, Piscataway, Green Brook, Dunellen and North Plainfield. To identify and categorize the demand for those modes; to determine if those modes of transportation meet the demand; to determine any demand for transportation that is not being met; and to make recommendations as to implement measures to improve the efficiency and integration of transportation modes.

#### **TDD Transportation Alternative Database - FY'01**

The objective of this supportive task was to create a GIS compatible comprehensive database of potential transportation demand markets within the TDD corridor from which alternative services may be established.

The tasks included the development of a transportation profile in the study area. Identification of bus, rail van, taxi, special services, paratransit, etc. in the area under study. Array transportation services in a GIS format, which illustrates ridership generators. Tasks also include the identification of new target activity and ridership generators; collection of data on targeted activity and ridership generators including but not limited to a) origin and destination, b) modal choice, c) employee incentive programs, d) work scheduling and e) demographic data; data base of trip generators and potential new transit users; develop a new profile of the transportation demands in the subarea; and develop possible scenarios for improving, integrating and expanding transportation services for further analysis.

#### Consultant Studies:

**Summit-Woodbridge Bus Study, November 1982, Chase, Rosen & Wallace, Inc., E.C. Vlisides, VEP Assoc.**

**Union County Rail and Bus Corridor Study, May 1987, Logicon/CRW, E.C. Vlisides, VEP Assoc.**

**Congestion Mitigation & Air Quality (CMAQ) – Route 22/I78 Corridor - FY'94**

The Clean Air Act Amendments of 1990 dramatically changed the scope of air pollution regulations for the country. In addition to requiring technological innovations in the production of energy, the Act required a change in commuting behavior. Sites with over 100 employees were required to determine the transportation resources available for this purpose and the current commuting patterns of their employees; and propose, implement and justify a set of policies that will reduce the use of the single occupancy vehicle (SOV).

The Employee Trip Reduction Program was an important step in reaching the Clean Air Act's goals. Achieving the trip reduction targets set for the State of New Jersey will require some short-term pain from all sectors of the society.

The following task summaries were included in the project:

**Task 1 – Identification of Cooperative Sites**

- Selection of three to five work locations with certified plans.
- Evaluation of management awareness and responsiveness.
- Identification of employee/management relations issues.

**Task 2 – Development of Implementation and Monitoring Measures**

- Behavior modification research.
- Examination of chosen employee commute options.
- Creation of numerical values and performance measures.
- Resurvey of employees to determine extent of compliance.

**Task 3 – Influence of Mass Transit on ETRP**

- Comparison of transit-supportive work location with non supportive.
- Identification of successful transportation system management plans that maximize usage of transit.
- Creation of transit impact plan for transit starved work location.

**Task 4 – Union County ETRP Report**

- Analysis of re-survey of employees compliance efforts.
- Identification of successful behavior modification strategies.
- Listing of survey administration and response enhancement techniques.
- Evaluation of Employee Trip Reduction Programs.

**South Avenue Corridor Study - FY'94**

South Avenue is a primary arterial running east-west in Union County. It connects the City of Elizabeth on the east, the City of Plainfield on the west, and traverses the municipalities of Scotch Plains, Fanwood, Westfield, Garwood, Cranford, Roselle Park, and Roselle. This corridor directly serves eight central business districts in all, with the Township of Scotch Plains being the only exception. Nine out of the county's 21 municipalities are within this corridor.

This corridor is unique in that there are actually three transportation facilities running parallel to each other. The Raritan Valley Rail Line parallels the South Avenue Corridor from Plainfield to Cranford. East of Cranford, this rail line is freight only. The rail line is also sandwiched between South Avenue and Route 28 on the north for almost its entire length. In addition to the commercial areas in the central business districts, the corridor also contains industrial properties along its borders.

Transportation elements within this corridor include the Raritan Valley Line passenger service, Conrail freight service, New Jersey Transit local and interstate bus routes, Union County paratransit service, and significant amount of truck traffic serving the commercial and industrial areas. However, automobile traffic dominates the corridor and its growth has led to the poor level of service in the corridor.

In Westfield, South Avenue becomes the state highway, and North Avenue becomes a continuation of the county roadway (Route 610).

Intersecting these two primary arterials are several major arterials running north and south, which connect with Route 22 to the north and the Garden State Parkway to the south. This corridor serves as the crossroads of the county, with all north, south, east and west traffic flows crisscrossing within the study area. Volume ratios at a number of locations within the corridor are greater than one. It appears there is also potential redevelopment pressures which may add to the already congested conditions.

With the already growing vehicular traffic volumes on these primary arterials, in combination with the requirements of the Clean Air Act, it has become even more critical to identify transportation demand management strategies that may relieve congestion within the corridor.

Therefore, the purpose of this study is to develop a database on the travel patterns by examining origin/destination through journey-to-work data. In addition, the study will determine transportation control measures that may be implemented so that an appropriate level of redevelopment can occur within the study area.

## **Route 82 – Morris Avenue Corridor Study - FY'96**

This corridor was the subject of a previous Section 8 study prepared for Union County. This study was entitled, "Union County Rail and Bus Corridor Study" which was completed in 1987. The impact of a proposed rail station at the intersection of Morris Avenue and the Raritan Valley Line and restructuring bus service were evaluated. The study concluded that the station not be constructed at that time, but be evaluated again in the future.

Since 1987, a new set of circumstances have arisen which promise to impact on traffic flow within this corridor. First, several parcels of land are available for redevelopment. Secondly, Kean College has experienced significant expansion and will continue to grow. Thirdly, Schering Plough Corporation, one of the largest employers in the corridor, continues to expand their facilities. All of these entities recognize that a cohesive plan needs to be developed if the growth in this corridor can be sustained. Thus, Kean College, Schering Plough Corporation, Elizabethtown Gas Corporation and the Township of Union have agreed to support this study. Together, this private/public partnership has pledged to supplement this corridor study with a \$50,000 match.

The study has two primary goals:

- 1) to estimate the area's development potential and its associated travel demand, and assess the market potential, recommending improvements and suggesting financial solutions; and
- 2) investigate both short term and long term solutions to mitigate the impact of development in this corridor.

Specifically, the proposal to construct a rail station in this location, now that land is available, should be re-evaluated. NJ Transit is supportive of this effort and has prepared preliminary ridership estimates for a station, less any demand generated by development at the site.

### **Transportation Development District (TDD) Phase I - FY'96**

The Transportation Development District (TDD) for Union County was established in July 1996 under New Jersey's Transportation Development District Act of 1989. The TDD was established as a tool to address the demands associated with the surge in economic development opportunities along the US 1 & 9 corridor, in the municipalities of Elizabeth, Linden and Rahway, including the Port Elizabeth and Linden Airport sub-areas. The full implementation of the TDD will result in a special funding district and a transportation infrastructure plan that will target transportation infrastructure investment needed along the corridor to address the mobility needs of new development over a twenty-year planning horizon.

### **Union County Intermodal Freight Marketing Study - FY'97**

Economic revitalization is the core priority of Union County's Strategic Plan, occurring with the modernization of the county's transportation and infrastructure. The purpose of creating a revitalized rail freight system is to generate new employment and income opportunities within Union County. The objective of this scope of work will be to create a comprehensive industrial redevelopment program linked with the reactivation of the Rahway Valley and Staten Island Rail Lines. A strategic marketing plan needs to be developed and an overall strategy for sustaining appropriate economic development within these corridors needs to be established. A prime objective is to leverage existing resources and identify and apply for appropriate funding to support the implementation of this marketing program.

The county is seeking to establish an ongoing program with short term and long term goals. The consultant firm will work closely with the selected rail operator to identify a customer base to apply logistics management techniques and strategies; to recommend the construction and operation of intermodal facilities and to identify appropriate industrial and service activities for this corridor.

#### **Union County Cross County Rail Link Study - FY'97**

The County of Union has identified the establishment of an east-west rail transit link between Plainfield and Elizabeth as a key element in its strategic plan. Currently in Union County, rail service via NJ Transit's Raritan Valley Line exists between Plainfield and Cranford. The Raritan Valley Line provides a commuter oriented service to Newark and New York; the Cross County Rail Link Study will focus on rail transit options which will be appropriate for the corridor from Cranford to Midtown Elizabeth, Elizabethport and Newark International Airport.

The study will examine the following: 1) re-establishing rail transit service in the Elizabethport to Cranford corridor along the former Central Railroad of New Jersey; 2) linking this service to Newark International Airport, port freight facilities, a proposed ferry service from Elizabethport to Lower Manhattan; and 3) integrating this service with the current NJ Transit service on the Raritan Valley Line between Plainfield and Cranford.

The Cross County Rail Link study will focus on market analysis and customer base projects in developing a number of rail passenger options including a linkage to Newark International Airport. In addition, a conceptual plan and cost analysis will be conducted to determine the scope of the project. One important outcome is to determine how a private/public partnership can be established to implement this project.

### **Route 22 Pedestrian Safety, Mobility & Access Study - FY'00**

US Route 22 is a state highway running east-west through Union County. The proposed section of this corridor to be studied includes the Union County municipalities of Union and Springfield. The 3½ mile segment extends from the Garden State Parkway in Union to Mountain Avenue in Springfield. Travel patterns in this corridor demonstrate a wide range of mobility needs. The majority of trips within the US Route 22 corridor are for commercial, industrial, retail, service and recreational needs, as well as, journey to work. The proposed study will focus on improving pedestrian and transit access, which, to date, has not been addressed and to recommend and implement short term, practical solutions.

The goals and objectives of this study are to: 1) conduct and map an inventory of existing conditions along the study segment of US Route 22 taking into consideration the State Highway Access Plan; 2) identify where pedestrians and bicyclists are actually crossing Route 22; 3) identify means for safe access across US Route 22 for pedestrians and bicyclists; identify a safe means of pedestrian and bicycle access to retail, industrial and commercial establishments with a particular focus on those businesses located on the center island; 4) identify available right-of-way for pedestrian access to transit connectors and bus pull-off locations; 5) obtain origin and destination data from passengers on key bus routes impacting Route 22; 6) identify the impact of access to the area for employment opportunities emphasizing Work First goals; and 7) identify accessibility options and funding sources for necessary improvements.

### **South Avenue/Route 28 Corridor Management Plan - FY'00**

The purpose of this study is to develop a prioritized management plan factoring in transportation and land uses within an area approximately 1,000 feet on either side of the former Central Railroad of New Jersey rail line between midtown Plainfield and the Elizabeth waterfront. This unique corridor is comprised primarily of the Raritan Valley Rail Line sandwiched between parallel roadways, which are under state, county or municipal jurisdiction at various sections along the corridor. Building upon previous studies, this corridor wide analysis involving highway and transit infrastructure will seek to preserve and more effectively use current and proposed transportation facilities as well as to apply Intelligent Transportation System (ITS) technology to enhance the flow of traffic on a constrained roadway system. In addition, the land use, redevelopment and brownfields reclamation elements of the plan will be based upon enhanced use of transit facilities, reactivation of unused rail lines, as well as identifying opportunities for intermodal freight movement alternatives.

### **Transportation Development District - Phase II - FY'00**

Phase II of the Union County Transportation Development District (TDD) will allow the TDD planning to be advanced toward full implementation. The focus of the phase II work will include:

- Update of the TDD Financial Plan – A final determination of the applicable funding strategies will be critical to this effect.
- Administrative Plan – A plan to outline the specific administrative framework for the full operation of the TDD will be completed.
- Transportation Plan Update – The TDD Draft Transportation Plan will be updated relative to the finding in related transportation project planning studies. This effort will include any necessary modeling updates that will be required by NJDOT to fulfill the NJDOT TDD requirements.
- Continued Outreach – Outreach to the business community as well as a potentially expanded Joint Planning Committee will be a key component of this phase.

### **Development of a Global Freight/Distribution Village Framework in Union County - FY'01**

This study will examine the applicability of implementing a Global Freight Village in the eastern part of Union County in the Tremley Point area. This area was identified in both the County's Port Master Plan the Transportation Plan for the Route 1 & 9 Transportation Development District (TDD) as an important area for industrial expansion. Key to this effort would be an analysis of the various transportation modes that are needed to support this concept. It is anticipated that investment in both rail and truck accessibility will be critical. It is also likely that waterside linkages, either by direct dockage or for freight ferry operations could be part of the mix. This analysis will also look carefully at the intermodal linkages required to develop this area as an offsite facility to Newark Airport's growing air freight business, thus addressing a full array of intermodal possibilities for the area. This study will include looking at Global Freight Villages in Europe as well as some start up facilities under consideration in the United States.

### **Kapkowski Road Transportation Planning Study - FY'01**

The purpose of this study is to develop a comprehensive transportation plan for the entire Kapkowski Road area in the City of Elizabeth. The study will be conducted in two phases. Phase I will provide a detailed transportation plan for the area including an assessment of current and planned development as well as planned transportation improvements, such as those recommended in the Union County Transportation Development District (TDD) and the Union County Light Rail Project. Phase I will also include a circulation plan, an aesthetics plan, a Congestion Management System (CMS) and a recommended list of projects needed to support anticipated development in the area. Phase II will prioritize the project identified in Phase I and advance the most critical projects to preliminary

engineering, including schematic design, project cost estimates and environmental screening.

**MINUTES TO OUTREACH MEETINGS WITH THE MUNICIPALITIES**

**BERKELEY HEIGHTS**

**CLARK**

**CRANFORD**

**ELIZABETH**

**FANWOOD**

**GARWOOD**

**HILLSIDE**

**KENILWORTH**

**LINDEN**

**MOUNTAINSIDE**

**NEW PROVIDENCE**

**PLAINFIELD**

**RAHWAY**

**ROSELLE**

**ROSELLE PARK**

**SCOTCH PLAINS**

**SPRINGFIELD**

**SUMMIT**

**UNION**

**WESTFIELD**

**WINFIELD**

## **BERKELEY HEIGHTS**

Ronald S. Weening and E. Wesley Day from the Union County Bureau of Transportation Planning met with Traffic Officer Michael Delia, Paul J. Leso, and Joseph A. Graziano at 9:10 AM in the Berkeley Heights Municipal Building on March 25, 2002. Paul Leso is the Assistant Township Engineer. Joseph Graziano is the Assistant Director of the Department of Public Works.

Bike theft is not an issue in the township. Few bikes are used to go to and from work. Few children ride bikes to and from school. It was noted that two bikes were in a bike rack adjacent to the municipal building. There is no interest in constructing a bikeway along the Passaic River on parkland. The township officials thought that the bikeway on parkland would be a hangout for teenagers. The township would like a bikeway to be built around a pond adjacent to Snyder Avenue.

The township has one bike shelter. New Transit maintains the bus shelter. The township is not interested in having more bus shelters.

Lakeland buses use Springfield Avenue. There are no designated bus stops on Springfield Avenue. The Wheels #986 bus services Dunn and Bradstreet, Lucent Technologies, Connell, and the Murray Hill Train Station.

There is congestion on Springfield Avenue during peak hours and all day on Saturdays. There is congestion at the intersection of Springfield Avenue and Plainfield Avenue. There is some congestion by the train station on Plainfield Avenue. During peak hours, there is a severe congestion problem at Columbia School on Plainfield Avenue. There is congestion at Valley Road and Diamond Hill Road. There is congestion at the intersection of Glenside and Moutmain.

There is a need for new curbing on county roads. There is no curbing on Mountain Avenue, Plainfield Avenue, and Snyder Avenue. Horseshoe Road may need curbing. Curbing is needed on local roads. Most of the curbing that the township has is in good condition.

The township has no flooding problems on the local streets. No erosion was identified along the Passaic River. It was noted that a section of creek behind Kings backs up and floods. There is no problems with flooding along the Passaic River. There is a flooding problem near Sutton Drive.

The township may be interested in local jitney service.

Airplane noise is not an issue in the township. Truck noise is not an issue in the township. The township prohibits trucks from parking overnite. The noise from train whistles is not an issue.

There is a parking problem in the Central Business District along Springfield Avenue in the township. A municipal master plan is being developed and the parking issue will be addressed. The high school has no parking problem. There is a lack of commuter parking near the train station. There are 100 commuters waiting for permits to park near the train station. The township would like to have at least 50 more commuter parking spaces near the train station. The township has identified a piece of land near the train station to build a commuter permit lot. The land is presently owned by New Jersey Transit. The YMCA has a severe parking problem. The YMCA has only 8 parking spaces for a membership of 400.

Springfield Avenue is scheduled to be paved this summer by the county.

The pedestrian crossings on Plainfield Avenue near Columbia School were recently improved. The pedestrian crossings on Springfield Avenue are to be improved this summer. A pedestrian crossing from the municipal building to the train station by way of the tracks needs to be improved. A pedestrian crossing from the municipal building to the train station by way of Plainfield Avenue needs to be improved. Pedestrians use the train trestle that crosses over the river in the western part of the township.

The township has no rail freight service.

The township has no taxi service. The township has no limousine service.

The township has a train station near the municipal building.

The township maintains the traffic lights in the township. The township has generators for all of the traffic lights in the township in case the power goes out. The public works replaces bulbs at traffic signals. A private contractor fixes traffic lights and bills the township. The township would like to be able to use generators regarding the traffic lights at the intersection of McMane and Diamond Hill Road and at the intersection of I78 and Diamond Hill Road. The township is interested in coordinating some of the light signals in the township. The timing of the traffic lights was a concern when traffic is backed up on Springfield Avenue on Saturdays.

There is a significant number of accidents regarding deer being hit by vehicles. The Berkeley Heights Police keep a record of traffic accidents. Traffic accident data can be gotten by going to the police station and reviewing traffic reports. There are accidents in the center turning lane on Springfield Avenue. The township is concerned about speeding trucks heading northbound on Plainfield Avenue near Columbia School. The township wants to reduce the speed limit on Plainfield Avenue by Columbia School. There is concern about traffic safety for northbound traffic on Plainfield Avenue just north of the intersection of Plainfield Avenue and Mountain Road. The intersection of Horseshoe Road and Plainfield Avenue is a dangerous intersection. The intersection of Glenside Avenue and Glenside Road is accident prone. There are accidents at Glenside Avenue and Hamilton Boulevard.

The township does not favor traffic calming measures.

The township does not do any traffic counts.

Plainfield Avenue is the designated truck route from Interstate 78. There is a concern regarding speeding trucks on Plainfield Avenue by Columbia School. Snyder Avenue has a weight limit restriction of 4 tons. Springfield Avenue is a truck route. Trucks have a hard time in turning at the intersection of Plainfield Avenue and Springfield Avenue.

## **CLARK**

E. Wesley Day and Liza Betz from the Union County Bureau of Transportation Planning met with Detective Sergeant Raymond Palmer and Richard O'Connor, the Municipal Engineer, in Room 16 of the Clark Municipal Building on March 15, 2001 at 10:13 in the morning. John Laezza, the Township Administrator, briefly attended the meeting.

There is no public transportation that connects the Township of Clark with the Rahway Train Station and the Westfield Train Station.

There is recreational biking in the township on weekends. Some workers who work at local gas stations and restaurants ride bikes on Raritan Road, Central Avenue, Lake Avenue, and Valley Road going to and from work. Some of these workers live in Rahway.

The Bus #112 serves the Township of Clark. The Bus #112 connects the Township of Clark with New York City. The officials of the Township of Clark stated that New Jersey Transit maintains the bus shelters in the township. The officials stated that there is adequate bus service in the township.

There is congestion on Central Avenue, Westfield Avenue, and Raritan Road. There is severe congestion on Central Avenue during peak hours. The traffic circle that is an access to the Garden State Parkway has severe congestion during peak hours. Central Avenue and Raritan Road are very heavily traveled. During peak hours, there is congestion around the schools. Parents drop off their children in the morning and pick their children up in the afternoon. Valley Elementary School has a significant congestion problem during peak hours. At times, there is congestion at a railroad crossing on Westfield Avenue.

The officials stated that the curbing adjacent to the county roadways is in need of repair. The township has no money to repair the curbs adjacent to the county roadways.

There is flooding along Pumpkin Patch Brook. Water flows from the surrounding towns in Pumpkin Patch Brook into the reservoir in the township. The water then flows from the reservoir into the Robinson Branch of the Rahway River. During a heavy rainstorm, Pumpkin Patch Brook overflows and floods the basements of adjacent homes. Also, the Robinson Branch of the Rahway River back flows toward the reservoir during a heavy rainstorm. On occasion, the township cleans some of the debris from the brook.

The county planners informed the township officials of the enhancement grants. The township gets community block grant funds.

It was noted that there could be a shuttle bus service connecting the Rahway Train Station and the Westfield Train Station with the Township of Clark.

Plane noise can be heard in the township, but plane noise is not an issue in the township. There is a railroad crossing on Westfield Avenue in the township. Approaching locomotives are required to sound their horns three times when near the railroad crossing. The horns can be heard at three in the morning.

The bridge on Central Avenue that crosses the Lehigh Valley Rail Line is an orphan bridge. The orphan bridge may be in need of repair.

There is no parking on Raritan Road in the Central Business District. There is a parking problem at the high school, the library, and the police station. Students from the high school who do not have permits for the high school parking lot park in the lots for the police station and the library. Forty more parking spaces are being added in the area of the high school. There is no parking of trucks allowed overnight in the township. There is an ordinance that prohibits trucks parking on the streets overnight. There are no complaints of trucks making noise when making deliveries. Trucks that deliver to the Firestone Facility at the corner of Raritan Road and Central Avenue block the roadway when backing in to the unloading area.

There is a severe pedestrian problem on Central Avenue in the township. There is heavy traffic on Central Avenue and there are many retail establishments along Central Avenue. Officer Palmer stated that many senior citizens and employees as pedestrians cross Central Avenue. Pedestrians on Central Avenue walk to activities centers such as Shop Rite, MacDonalds, Target, Barnes and Noble, and Ballys Fitness Center. There are pedestrian crossings needed on Raritan Road. There is definitely a need for pedestrian ways on the orphan bridge on Central Avenue.

There are two industrial sites that use rail freight. The sites are located along the Lehigh Valley Rail Line. Gypsum is one site that uses rail freight. Unfortunately, Gypsum is in bankruptcy at the present time. Carnack is the second site.

The Township of Clark gets special signs from the county sign shop. The traffic officer gets regular traffic signs from a vendor. There were pros and cons as far as the county taking over the maintenance of traffic signals on county roadways.

The township does not have the money to repair sidewalks. Some sidewalks along county roadways are in need of repair. Asphalt paths adjacent to Westfield Avenue in the township are in need of repair.

The signal at the intersection of Raritan Road and Central Avenue is maintained by the state and the state bills the township for the cost of maintenance. The township privately contracts out to Kevco to maintain traffic signals. The public works department in the township is short of manpower.

There was no mention of taxi and limousine service in the township.

Most of the traffic that travels through Clark is traffic going to and from the parkway. Recently, the amount of traffic accidents in the township has increased by three times. The police department keeps an up to date record regarding traffic accidents.

The police department does traffic counts. The records are kept by the police department.

There are truck routes in the township.

## **CRANFORD**

Ronald S. Weening, Liza Betz, and E. Wesley Day from the Union County Bureau of Transportation Planning met with Lieutenant John Baer at 9:15 AM at the Cranford Police Station on April 1, 2002.

The township has 13.5 miles of bikeways and bike paths. Residents are using bikes to go to and from work in the township and the surrounding towns. The workers go to restaurants, landscaping businesses, and other places. The township has a bike advocacy group.

Bikes are stolen in the township. Owners of bikes are encouraged to lock their bikes in their garages. Many bikes are stolen by nonresidents. Many pedestrians use the bike paths and bikeways in the township. There are bike lockers and bike racks at the train station. All of the bike lockers are used at the train station. The bike racks at the train station are underutilized. The police hold bike rodeos at the schools and these rodeos are popular. Very few students ride their bikes to and from school.

New bus stops were created through out the township. New Jersey Transit incurs the cost of putting in a bus shelter. The township has the responsibility of maintaining bus shelters.

At peak hours, there is congestion on North Avenue and South Avenue. At peak hours, there is congestion on Centennial Avenue between North Avenue and South Avenue. During peak hours, there are parking restrictions along North Avenue and South Avenue.

There was no reference to the need for curbing.

There was a reference to a project called the Cranford Crossing Project. This project is located on South Avenue. New stores will be built. There is a proposal for the building of condos along South Avenue.

The township has submitted an application regarding the Enhancement Grant Program. The township would like to improve the landscape adjacent to the post office. The township submitted an application regarding the expansion of its bike paths and bikeways.

There is flooding in the northeast section of Cranford and the southeast section of Cranford. There is flooding near the Canoe Club adjacent to Springfield Avenue in the township. There is flooding on Springfield Avenue near Memorial Park. The county is scheduled to replace the bridge on Springfield Avenue near Memorial Park.

The Township of Cranford has a Senior Citizen bus that transports senior citizens for shopping trips and other activities. Catholic Community Services that is located on South Avenue also provides some van service in the township.

Airplane noise is an issue in Cranford. The township has an airplane noise advocacy group. Truck parking over night is monitored on a daily basis. Truck noise is not an issue in residential neighborhoods. At the present time, there has not been a report of excess train noise.

The Township of Cranford has a parking problem. There are about 250 people waiting for commuter lot permits. Commuter parking is seasonal in the township. Usage of commuter parking is highest in September. Usage of commuter parking is lowest in December and during the summer months. North Avenue and South Avenue has restricted parking during peak hours. The township has 12 hour permits and 9 hours permits. The 12 hour permits are for commuters. The 9 hour permits are for local business owners.

The permits are given on a first come first serve basis. The 9 hour permits are good from 9 in the morning to six in the evening six days a weeks excluding Sundays. The 12 hour permits are good from 9 in the morning to six in the evening five days a week excluding Saturdays and Sundays.

The cost of the permits for permit parking is \$90 per quarter. The township has 9 municipal lots in the Central Business District. There are also parking lots adjacent to Centennial Avenue, at the public library, and at the community pools. There is a parking problem at the high school. There is no parking problem at Union County College. There is a parking problem at some of the schools during peak hours especially in the afternoons. The Cranford Traffic Division maintains the parking meters and the painting of lines on the streets and in the parking lots.

Pedestrian crossings are maintained by the police department. The township provides 27 school crossing guards. In the future, the township will be using a special paint to repaint all of the pedestrian crossings in the township. The township hires two college interns to paint lines on the roadways and in the lots in the township during the summer. The township has a program that informs the school children of the safest route to and from school. The township obtains price quotes through the county cooperative pricing programs.

The township would like new sidewalks at the industrial office center near Raritan Road. Pedestrians walk in the street during lunch time at the industrial office center. The sidewalks in the township are in good condition. The property owners have the responsibility to maintain the sidewalks.

The township has gotten traffic signs from the county sign shop.

The township maintains all of the traffic signals except the signals on state highways. The Cranford Traffic Division maintains the traffic lights, and the street lamps. There is no service that is contracted out.

The township has four taxi companies that serve the community. There was no mention of limousine service.

The Cranford Police keep records of traffic accidents. The data is computerized. The data is available to the county. Intersections with the highest accident rate are South Avenue and Walnut Street, and South Avenue and Lincoln Avenue East.

The township is in favor of traffic calming.

The police department provides traffic counts for investigative purposes. Traffic counts are done in relationship with studies. Traffic counts are available to the county.

There has been an increase in truck traffic. Springfield Avenue is used by tractor trailer trucks to go to and from Route 22. Several streets in the township are noted as truck routes. There are many trucks that use South Avenue and North Avenue in the township.

## **ELIZABETH**

E. Wesley Day and Liza Betz met with Lieutenant E. Baginski in the Traffic Division Office of the Elizabeth Police Station at 9:15 AM on March 18, 2002.

There is no room for bike lanes on the streets in Elizabeth because the streets are congested and narrow. The officer was not aware of any problems with bike theft in the city. The officer stated that there is not much bike use in the city.

There is adequate busing in the city. The Elizabeth Board of Education bus children to different schools in the city. The police just reviewed all of the bus stops in the city. New Jersey Transit maintains the bus shelters in the city. The shelters are seldom repaired due to continued vandalism.

Congestion is a problem for the entire City of Elizabeth. At peak hours, there is congestion at the schools. Parents dropping their children off in the morning and picking them up in the afternoon. There is severe congestion by the high school in the afternoon. Students leave the high school between two thirty and three in the afternoon. There are 5000 students who attend the high school. At mid afternoon, there is a shift change at the hospital by the high school. At mid afternoon, St. Marys School is let out. St Marys School is near the high school. There is congestion on the entire length of Route 1. The viaduct acts as a bottleneck for the traffic on Route 1.

There is new housing being built by the waterfront. Four new hotels are being built and are soon to open by the Jersey Gardens Mall. An office building is being built by the mall. A new ferry terminal is being built. The city is to build 21 new schools. There is a shortage of schools because of a growing population of youth.

The City of Elizabeth has no flooding problems.

There was no need identified for more funding.

There is a problem of private cars providing taxi service. This problem especially occurs on Elizabeth Avenue to the east of Route 1. A jitney service may be needed on Elizabeth Avenue east of Broad Street to the waterfront. A jitney service may be needed to connect the main business district with the Jersey Gardens Mall. There is taxi service provided at the main train station. Parking for the taxis adjacent to the train station was eliminated.

Parking is a problem for the entire City of Elizabeth. Parking spaces are being added on local streets near the Court House. New housing is being built by Third Avenue in the city. Parking is not being provided for at the new housing. All of the parking facilities of the Elizabeth Parking Authority are full. There is not enough parking at the high school or at any of the elementary schools. The parking lots at the schools were used for trailers that provide building space for the preschool program. There is limited parking at the downtown train station. A new restaurant is planned for the Old Jersey Central Rail Station. There will be no parking for patrons of this restaurant.

There is need for two pedestrian crossings. Both crossings are needed across Route 1. One crossing is needed at the intersection of Jersey Avenue and Route 1. The second crossing is needed at the intersection of North Avenue and Route 1.

Rail freight is not an issue in the city.

There was no reference to Senior Citizen busing.

The City of Elizabeth makes its own traffic signs.

There is no need for new signals in the city. The city maintains the traffic signals.

The city uses a portable radar information device to inform drivers of their speed. The police at times use radar near the portable information device to snag speeders who do ten miles plus over the speed limit. The radar information device is not used overnite due to vandalism.

Traffic accidents are a major problem for the City of Elizabeth. The Elizabeth Police keeps a record of traffic accidents. There was a report stating that there was a drag race near the Jersey Gardens Mall last Friday evening at about 7:30 PM and two teens were killed.

There was no reference to traffic calming measures.

The Elizabeth Police does no traffic counts.

A major transportation project in the future is the replacement of the Route 1 viaduct.

After the tolls were increased on the turnpike, the truck traffic in Elizabeth increased by three times. There are no designated truck routes in the City of Elizabeth. There are many light traffic streets with weight limitations. There is a problem that weight limit signs are stolen adjacent to the streets in the city. There is no problem with trucks parking overnite. An ordinance prohibiting commercial vehicles in parking overnite is strictly enforced. This ordinance pertains also to taxi cabs. There was a problem of taxi cabs from Newark parking on the streets in Elizabeth overnite. There are no problems with trucks blocking streets during deliveries. The Elizabeth Police are busy escorting oversized trucks in the City of Elizabeth.

## FANWOOD

Ron Weening and Wesley Day from Union County Transportation Planning met with Lieutenant Trigo of the Fanwood Police Department in a conference room at the Fanwood Police Department on January 10, 2002.

It was noted that the bridge crossing Route 22 near Park Avenue in Scotch Plains would be widened.

Lieutenant Trigo stated that the Borough of Fanwood has not had a problem with maintaining bus shelters. He said that New Jersey Transit maintains the bus shelters in Fanwood.

Lieutenant Trigo stated that there are six bus stops on Midway Avenue in the Borough of Fanwood. He stated that there are too many bus stops on Midway Avenue. He preferred the bus stops to be located near the corners of Terrill Road, Martine Avenue, and North Avenue. He would like 50% of the bus stops along Midway Avenue eliminated. He noted that there is a bus stop on the westbound side of Midway Avenue near North Avenue that is a danger to motorists. He said that not all of the buses on Midway Avenue pull to the curb and that veering cars created dangerous situations. There are no problems at the bus stops on South Avenue in Fanwood. There are no problems with the Olympia bus service to New York on South Avenue.

It was noted that Fanwood has plans for a bicycle path system in the borough. The Fanwood police official stated that most of the bicyclists in the borough are children who ride their bikes to the parks or ride their bikes in the neighborhoods. He stated that there are a few bicyclists who ride their bikes to the train station to take the train.

It was noted that there are flooding problems at Martine Avenue near Tillotson Road, at Watson Road near Russell Road, and at Westfield Road by Birchwood Terrace. During heavy rains, barricades are put up at these locations.

It was noted that the Fanwood policeman was not aware of some funding sources. Community enhancement programs were mentioned.

Lieutenant Trigo stated that there is adequate parking for customers in the downtown section of Fanwood. He stated that there are parking spots for customers, merchants, and train riders in Lot 2. Lot 2 is located behind a row of stores on Martine Avenue between La Grande Avenue and South Avenue.

There are two primary parking areas to serve rail and bus commuters. The primary lots are at the north and south sides of the Fanwood Train Station. There are 252 permit parking spaces and 103 daily spaces totally. Across the street between South Avenue and LaGrande is Lot #2 with 48 additional permit spaces along with parking for merchants and shoppers. All permits have been sold out. One hundred ten requests for permit

parking have been turned away. More parking spaces were added at the Fanwood Train Station. There is a huge demand for permit parking. There are spaces for permit parking and daily parking at the train station. Permit parking is at capacity at the station. There is daily parking still available at the train station. It costs \$3 per day for daily parking at the train station.

Several years ago, the Borough of Fanwood upgraded its pedestrian crossings in the borough.

It was noted that the neighborhood between Martine Avenue and Hunter Avenue near Midway Avenue needs sidewalks. There is a school in that area.

The borough has no local taxi service. There are no taxi companies located in the borough.

Lieutenant Trigo stated that there is a huge problem with the ITS Signal System on Martine Avenue. There was an increase in traffic on Martine Avenue by ten percent. There was a decrease in traffic on Terrill Road by ten percent. The signals could not handle the increase in traffic and congestion developed. The Borough of Fanwood contacted the people at the county engineering office and told them about the problem. It was noted that the borough notifies a private contractor about a problem with a signal on an as needed notice and the signal is repaired. The borough has problems with repairing the signals after a major storm; the contractor puts the borough on the bottom of the list if there is a huge demand for the contractor's business. It was noted that the county might be interested in cost sharing with the borough in regards to the maintenance of the traffic signals.

It was noted that there are many Weldon trucks that use Martine Avenue. There is a Weldon business that is located on Diamond Hill Road on the north side of Route 22. Many contractor trucks also use Martine Avenue. There was a discussion about designating truck only routes in the borough.

It was noted that there would be a shuttle service that will be started traveling to and from the Fanwood Train Station.

## **GARWOOD**

Ronald S. Weening and E. Wesley Day from the Union County Bureau of Transportation Planning met with Officer J. Wilds at the Garwood Police Station at 9:20AM on March 1, 2002.

Airplane noise is not an issue in the Borough of Garwood.

Workers who live to the east of Garwood ride their bicycles on North Avenue in Garwood to go to and from the Westfield area to work at restaurants as cleaners. Groups of workers on bicycles have been seen traveling eastbound on North Avenue at three in the morning. The borough does not see a need for bikeways in the borough. About six elementary school children ride their bikes to three schools in the borough. The theft of bicycles in Garwood is a minor issue. Bicycles usually get stolen when they are unattended and unlocked on the front lawns of the residents. Bike swapping in Garwood is not a common occurrence.

There is adequate bus service in Garwood. Four to seven commuters from the Westfield area park their cars in the lot adjacent to Kings Supermarket and take the Olympia Trails bus to New York City. There is no busing of school children to elementary schools in Garwood. The high school students are bused to the high school in Clark. There is a bus stop on North Avenue that is going to be moved. The borough has several bus shelters. Vandalism to the shelters is not a problem.

There is congestion on both North Avenue and South Avenue during peak hours. Traffic is heavy on North Avenue and South Avenue during lunch time.

There is a constant need to repair curbing in the borough.

A mini mall is being built on North Avenue to the east of Center Street on the south side of the street. A CVS store will be the anchor store for that mall.

Flooding is a major issue in the borough. Along South Avenue, near the Pathmark, there is a creek that flows eastward. The water from the creek travels under a narrow railroad bridge near the Pathmark. During a heavy rain storm, the water backs up from the narrow railroad bridge. The area near the Pathmark floods. At times, there is flooding at the Center Street railroad underpass. The water pumps at that bridge are maintained by the borough.

There is no commuter parking at the Garwood Train Station. At times, there is not enough parking in the downtown area. There is traffic enforcement when there are drivers parking unlawfully. There are 16 permit parking places for commuters in the Shop Rite lot adjacent to North Avenue. These spaces are for commuters. Bus commuters primarily use these parking places. These spaces are not far from the train station and train commuters could use these spots.

Plastic pedestrian crossing signs were used to slow down traffic. These signs were run over by drivers.

There is no local railroad freight service provided to industries in the borough.

There is limited passenger train service in the borough.

The borough has an interest in shared services with the county.

The borough has no need for new sidewalks. There are no sidewalks in some residential sections. There is no need for sidewalks in these sections because of the lack of pedestrian traffic. The borough repairs sidewalks on an annual basis. The borough pays for the repair of sidewalks in the borough, primarily where tree roots have uplifted slabs.

The borough has a program to replace traffic signs. The borough does not use the Union County Sign Department for services.

The borough maintains the traffic signals at South Avenue and Center Street. The borough maintains the traffic signals at South Avenue and East Street. The state maintains the traffic signals on state roads. The borough contracts the services out for the maintenance of traffic signals. The borough replaces the bulbs at the traffic signals that the borough maintains.

The Garwood Police keeps record of traffic accidents. Officer Wilds maintains the records on traffic accidents in the borough.

The Borough of Garwood does limited traffic counting. The borough does some traffic counts on borough roads. The borough is in need of updated equipment for traffic counting. Union County does traffic counts on county roads. The New Jersey Department of Transportation does traffic counts on state roads.

There are not problems with trucks accessing North Avenue from South Avenue or vice versa. The bridges under the railroad tracks have proper heights. Tractor trailer trucks have a tough time making the right turns onto Center Street northbound from South Avenue westbound. Tractor trailer trucks have a tough time making right turns from Center Street northbound to North Avenue eastbound. A traffic light pole on the southeast corner of Center Street and North Avenue often gets damaged by trucks making right turns.

Tractor trailer trucks tie up traffic on South Avenue when backing into loading docks. Also, trucks block traffic when loading and unloading on South Avenue. Tractor Trailer trucks tie up traffic on North Avenue when making deliveries near Mr. Frosty Freeze on North Avenue.

## **KENILWORTH**

Ronald S. Weening and E. Wesley Day from the Union County Bureau of Transportation Planning met with Sergeant Kenneth Grady at the Kenilworth Police Station at 9AM on February 11, 2002. Police Chief William Dowd briefly sat in on meeting.

Aviation noise is not an issue in the Borough of Kenilworth.

The borough has a problem with bicycle thefts especially during the summer. Many juveniles steal better bikes and leave their old bikes. The public uses parks for recreational biking. The borough has no interest in creating bikeways along roads. It was noted that there are residents from Roselle Park who ride bikes to and from work. They work at diners and gas stations in Kenilworth along the boulevard and Route 22.

The borough does not want anymore bus stops. It was noted that there was a bus shelter near the municipal building on the Boulevard. The borough has two senior citizen buses. The borough just received a new senior citizen bus through a grant from the county.

There is congestion on the boulevard at certain times of the day. The boulevard is four lanes except at a short section in the downtown district to where it is two lanes. The boulevard is heavily traveled. There is angle parking on the boulevard in the downtown district. The angle parking causes congestion on the boulevard. There is congestion on North Michigan Avenue northbound near Route 22 at early morning, noontime, and mid afternoon.

There is a new mini mall that is being built on the boulevard by the new A&P. Schering is expanding its facility in Kenilworth.

There is flooding in the area of the A&P on the Boulevard.

The borough needs more funding, especially for equipment. More funding is needed to buy traffic counters, radar detectors, street horses, and radio communication equipment.

The county will be improving four intersections along the boulevard. Those intersections are at 8<sup>th</sup>, 21<sup>st</sup>, Coolidge, and Market.

The borough has 3 municipal parking lots. All of the municipal lots are free. There is no metered parking in the borough. There is not enough parking in the downtown district of the borough. There is a parking time limit of two hours.

There are pedestrian crossings on the boulevard which have been improved. Each crossing has a sign signifying the crossing. Basically, there is no need for more pedestrian crossings. The borough was not in favor of putting a pedestrian crossing on Galloping Hill Road near the parkway.

There are no sidewalks by the cemetery on Galloping Hill Road. There is some pedestrian traffic on that section of Galloping Hill Road. The borough has no immediate need for new sidewalks or the repair of sidewalks.

The borough demonstrated that it uses share services with the county. The borough gets its street signs from the county sign shop. The borough borrows the county police street variable message board.

The borough has a problem with speeders on the boulevard. The posted speed limit is 25 MPH. The police enforce the speed limit on the boulevard. Residents complain of traffic using residential streets for shortcuts.

There is a limousine service that is located on the Boulevard.

It was noted that there were a number of traffic fatalities on Galloping Hill Road in Kenilworth. There has been an increase in motorcycle deaths in the county. In 2000, there were 68 traffic fatalities in the county. In 2001, there were 42 traffic fatalities in the county. The Kenilworth Police keep records of traffic accidents.

The county and the borough both do traffic counts. The Kenilworth Police keep records of traffic counts.

There has been an increase in truck traffic in the borough. There has been no problem with trucks idling at night in the borough. There has been a problem with trucks accessing Route 22 from North Michigan Avenue.

## LINDEN

E. Wesley Day from Union County Transportation Planning met with John A Ziemian, the City Engineer of Linden, in the Engineering Office in the City of Linden at 9 AM on January 25, 2002. The meeting was held in a conference room.

It was noted that John Ziemian met with county officials in the county engineering office in Scotch Plains on the morning of January 24, 2002.

John Ziemian stated that there is airplane noise over the City of Linden but there are few complaints about the airplane noise. It was noted that Councilman Albert Youngblood in the past investigated the plane noise over the City of Linden.

The City Engineer of Linden stated that the roadways are too congested to build bike ways. Also, there is little demand for bikeways. He did note that there are some workers who use bikes for transportation to and from work.

It was noted that several bus routes serve the city. Buses adequately serve the city. Most of the bus stops have been designated bus stops for a long time. The City of Linden has several senior citizen buses. Buses serve the new malls on Route 1/9. It was noted that the city maintains bus shelters. He said that there has been no problem recently in maintaining the bus shelters (no vandalism).

It was noted that during peak hours that Wood Avenue and Stiles Avenue get congested.

The City of Linden has a curb maintenance program. The curbs are repaired prior to the city repaving a street.

There were some plans for development. Three hundred acres of brownfields in the Tremley Point area are slated for development. There is an access route that is planned to Tremley Point from Carteret. There is a truck route planned for Tremley Point. The engineer stated that there were once 5,000 people working at Tremley Point. He stated that presently there are few people working at Tremley Point. Twenty-five acres of land by the airport is slated for development. Mercks is planning a \$4 billion plant expansion for the next ten years.

There is flooding along Peach Orchard Brook. The city hopes to have five bridges over the brook raised to create a better flow in the brook. There is flooding at the Rahway Linden line near the Merck property.

The City Engineer stated that there is always an issue of funding. There is always a lack of funds. The engineer stated that the city never applies for enhancement grants. There were never projects ready to go to apply for enhancement grants. Also, he stated that there is intense competition for enhancement grants.

The engineer stated that there is no parking problem in downtown Linden. He stated that the new lot that New Jersey Transit built near the train station is at one third capacity. He stated at four to five elementary schools and at a junior high school, there is a parking problem prior to school and after school. Parents park and watch their children enter the schools in the morning. In the afternoon, parents park and wait for their children to get out of the schools.

It was noted that there are no serious issues regarding pedestrian crossings in the city.

The engineer thought that there was adequate train passenger service in the city. The engineer stated that he knew that the Staten Island Railroad was being renovated. He noted that there is rail freight service to the General Motors plant and Merck. He stated that Tosco is building a plastics manufacturing facility.

Property owners are responsible for maintaining and repairing the sidewalks. In some cases, the city repairs sidewalks. The city repairs the sidewalks when trees planted by the city damage the sidewalks. There are some sections of the city where neighborhoods do not have sidewalks. It was noted that in these sections, the residents do not want sidewalks.

It was noted that the county installs new signals and the city maintains the signals.

There is one taxi company in the city that serves the train station.

It was noted that the police station has information regarding traffic counts and traffic accidents. He was not familiar with traffic accident reports or traffic count reports. He did refer to three dangerous intersections: at Henry and DeWitt, and at Dewitt and Fernwood.

The City Engineer stated that there are some problems with trucks. Frequently, trucks hit the Northeast Corridor railroad overpass at Wood Avenue. There are no problems with trucks hitting the Northeast Corridor overpass at Street. He stated that he noted an increase in truck traffic in the city. There are problems with trucks loading and unloading on the entire length of Elizabeth Avenue and on Park Avenue. Trucks temporarily block traffic on Elizabeth Avenue. There are many small businesses on Elizabeth Avenue. Trucks block traffic on Park Avenue. Linden Motor Freight and Linden Bulk is located in the city. There is another trucking company located on Stiles Street near Route 1/9.

## MOUNTAINSIDE

Ronald S. Weening and E. Wesley Day from the Union County Bureau of Transportation Planning met with Police Chief Borough Administrator Jim Debbie and Public Works Director Bob Farley in a conference room at the Mountainside Police Station in Mountainside at 9:15 AM on February 8, 2002.

Airplane noise is not an issue in Mountainside.

There is a pedestrian bikeway that connects the Mountainside Library with Deer Path. This pedestrian bikeway is adjacent to New Providence Road in Mountainside. The borough stated that there is enough room on the streets in Mountainside to create bike paths. There was a thought about connecting borough hall to Echo Lake Park with a bicycle path adjacent to a footpath. The police chief stated that the theft of bikes is not an issue. There are no workers who ride bikes through the borough to and from work. It was noted that the Spanish Tavern on Route 22 has its own bus that transports workers from the Newark area to the Spanish Tavern on Route 22 in Mountainside. There was one Hispanic Spanish Tavern employee who was killed trying to cross Route 22. This employee lived in the City of Plainfield.

Bus #59, Bus #65, Bus #66, Bus #114, and Bus #117 serve the Borough of Mountainside. The borough has had problems with bus shelters being vandalized. A shelter on Mountain Avenue near Route 22 needs to be repaired. The bus shelter near borough hall has just been repaired and is in good condition. It was noted that the boy scouts built a bench on the westbound side of Route 22 near New Providence Road for commuters. The borough has two park and ride lots. On the south side of Route 22, there is a park and ride lot that has about 10 permit parking spaces. On the north side of Route 22, there is a park and ride lot that has about 46 permit parking spaces. The commuters who ride the buses use the spaces. All of the permit spaces are rented. There is no waiting list for permit parking spaces in the borough.

During rush hour, there are traffic backups on the New Providence light on Route 22. Traffic backups occur eastbound on Route 22 in the morning. Traffic backups occur westbound on Route 22 in the evening. There is also congestion on New Providence Road between Mountain Avenue and Route 22. The county would like to widen New Providence Road to 2 lanes northbound. There would still be 1 lane southbound. It was noted that there is a congestion problem at the Deerfield Middle School. There is a new school called Beechwood School that is soon to open. The opening of the new school will help alleviate the congestion at the old school. It was noted that a third of the children at Deerfield Middle School will be transferred to Beechwood School. The teens in Mountainside go to Governor Livingston High School in Berkeley Heights.

Most streets in Mountainside do not have curbing. The borough is in the process of installing curbs on streets.

There is no new development planned for Mountainside. It was noted that the Friendly's Restaurant on Mountain Avenue was converted into a bank.

It was noted that there is flooding at the intersection of New Providence Road and Route 22. There is a drain that collects water and the water stays in the drain because there is nothing that connects to the drain for drainage. There has been a problem of flooding in an underpass from Route 22 east to Mountain Avenue in the eastern part of the borough. There is a flooding problem under a bridge on Route 22 near Echo Lake Park. The stream underneath the bridge drains water from the reservation to Echo Lake Park. It was noted that the western section of the watershed in Echo Lake Park needs dredging. There needs to be stream renovation to prevent stream erosion in the borough. It was stated that there is flooding by Possum Way and flooding by Charles Street.

The borough has been very successful in applying for grants and getting funding for various areas in the borough.

Mountainside has a parking problem in the downtown district. There is no municipal parking. All of the parking in the downtown area is privately owned. There was a parking problem on New Providence Road prior to the Children's Specialized Hospital building a five tier parking garage. Presently, there is no parking problem on New Providence Road.

It was noted that there is a pedestrian problem on Route 22 in Mountainside. Commuters and workers cross Route 22. The Children's Specialized Hospital wants to build sidewalks and do landscaping along New Providence Road from Route 22 to the hospital. The borough supports the project.

The borough just received a new Senior Citizens bus from the county. On Tuesdays, the bus takes the senior citizens to medical facilities. On Thursdays, the bus takes the senior citizens to go shopping.

The borough is having the sidewalks near borough hall on Route 22 repaired.

There is no taxi service in the borough. There is some activity of illegal taxi service. There are two limousine companies in the borough that serve the borough and the surrounding area.

It was noted that there are no dangerous intersections in the borough. It was noted that there used to be a lot of deer that were being hit by vehicles in the borough. The county did a series of deer hunts on the reservation for the past few years and there has been a significant decline in deer being hit by vehicles. It was noted that a law was recently passed stating that counties in the state could not apply for deer hunt permits. Only municipalities would be able to apply for deer hunt permits.

At times, the police department conducts traffic counts.

The borough stated that the only problem regarding trucks is the idling of truck engines at night in or near residential neighborhoods.

## NEW PROVIDENCE

Ronald Weening and E. Wesley Day from Union County Transportation Planning met with Andre Luboff and Herb Lauterwald at the New Providence Borough Hall in the morning on January 18, 2002.

It was noted that New Providence has no bike trails. There are not many commuters who ride bikes to the train stations and commute by trains. There are children who ride their bikes to school and in their neighborhoods. Groups of adults are seen riding to Watchung Reservation for biking or the Great Swamp Refuge for biking. There was not much interest in creating a bike trail along the Passaic River in town. The theft of bikes is not an issue.

There was no concern regarding airplane noise.

Congestion was noted. It was noted that traffic is backed up during peak hours on Union Avenue northbound. Traffic on Springfield Avenue is at times heavy and vehicles have to wait to make left turns on Springfield Avenue from Union Avenue. Also there is a MacDonaldis in the area and the traffic to and from the MacDonaldis creates traffic problems. It was noted that traffic on Union Avenue southbound was congested at the Mountain Avenue intersection. Vehicles coming from Route 24 use Springfield Avenue and Union Avenue to get to Interstate 78 and Route 22. There is a lot of through traffic on Springfield Avenue.

There is a problem with the access driveways to the Village Mall from South Street and Springfield Avenue. During the weekends and evenings, it is difficult to access South Street and Springfield Avenue from the mall. It was suggested that there should be signals at the driveways to the mall on South Street and Springfield Avenue. There should be an intersection improvement at the intersection of Maple Street and Central Avenue. It was noted that there is a pedestrian railroad crossing near Spring Street at the railroad. The railroad crossing on Central Avenue has no problems. There is rough pavement at the railroad crossing on Union Street in New Providence. New Jersey Transit has just repaired the railroad crossing on Central Avenue.

The Borough of New Providence wants an interchange improvement on Diamond Hill Road at Interstate 78. The borough wants improved signalization at that interchange. The borough wants an evaluation study of the Diamond Hill Road/ Union Street Corridor. There is no congestion at the intersection of Springfield Avenue and South Street. It was noted that the borough maintains traffic signals. Speeding cars is not an issue.

Maintenance of the curbing along the streets was not an issue.

It was noted that the concept of environmental justice was important.

It was noted that there is flooding along the Passaic River and a creek that runs near the intersection of Central Street and South Street. There is also flooding in local spots.

Enhancement grants were discussed briefly. New Providence is thinking of submitting an enhancement grant.

The parking in the downtown section can be better utilized. Customers do not feel comfortable parking on Springfield Avenue because of the heavy traffic on Springfield Avenue. The parking lots in the downtown section are full. There is need for more parking. It was noted that parking at professional buildings could be used when the town parking lots are full. There is adequate parking on South Street near the catholic church and adequate parking on Springfield Avenue and Passaic Street by the protestant church. There is a severe parking problem at two elementary schools in the borough. There is no busing of school children to the elementary schools in the borough. Many parents take their children to school and drop them off. There is a lot of congestion at these schools before and after school.

Parking at both trains stations is at capacity.

The pedestrian crossings in the borough have been improved. On Springfield Avenue, there are several crossings that are marked well with signs and signals. There are other pedestrian crossings in the borough like those on Springfield Avenue.

It was noted that New Providence does not think that the lack of sidewalks in some areas is a problem.

It was noted that the New Providence Police keep record of traffic accidents. It was reported that on occasion vehicles hit deer. New Providence has a deer problem. It was noted that the deer problem is a regional issue and not a municipal issue.

The borough keeps records of traffic counts.

It was noted that trucking is not an issue. There are trucks that make local deliveries.

It was noted that the Wheels bus does not fully serve the borough.

The city officials stated that the infrastructure is slowly aging and as time passes, more of the infrastructure will be in need of repair. There is an issue of finding more funding to cover the costs of repairing the aging infrastructure.

The city officials stated that there are several jurisdictional issues. It was noted that the City of Plainfield maintains portions of Route 28. Route 28 is a state highway.

It was noted that there is no shortage of parking in the Central Business District. The city in the future predicts that there will be a shortage of parking spaces in the Central Business District. There is development that is taking place in the Central Business District. There was a thought on possibly putting a parking deck at the parking lot that is across from the Plainfield Police Station. At the Madison Park Development site, there is suppose to be a three story parking deck that will be built. It was reported that there is more parking at the new Plainfield Train Station that is scheduled to be opened in late Spring of 2002. The parking at the Netherwood Train Station is at capacity. There is residential permit parking for the streets in the vicinity of the Netherwood Train Station in the city. The city has no interest in so called Park and Ride lots. The city does have monthly parking for commuters.

The city officials stated that there are many areas that pedestrian crossings can be improved. At signaled intersections, there can be pedestrian light improvements.

There are many streets in the City of Plainfield that do not have sidewalks. There are streets in the Sleepy Hollow section of Plainfield that do not have sidewalks. It was noted that the residents in the Sleepy Hollow section of Plainfield do not want sidewalks. It was noted that some streets in the Netherwood section of Plainfield do not have sidewalks. Many sidewalks are in need of repair in the city.

City officials would like East Fifth Street between Roosevelt Avenue and Watchung Avenue turn into a two way street. It was noted that East 6<sup>th</sup> Street in the city is narrow and that 6<sup>th</sup> Street should become a one way street. It was noted that the intersection of South End Parkway and Woodland Avenue needs to be improved. It is a very dangerous intersection.

The city is served by about 3 to 4 taxi companies.

It was noted that the Cross County Rail Link would not extend as far west as Plainfield. The city officials would like to see the Raritan Valley Train Line to be electrified. It was noted that the city would like 6 to 10 minute train service on the Raritan Valley Line once the Cross County Rail Link extends to Cranford. The city officials do not want any further restrictions of train travel on the Raritan Valley Train Line such as limiting the tracks to two tracks at the train stations. The city would like the Raritan Valley Freight Line to be both a commuter train line and a freight line. It was noted that the city would like track improvements on the rail line extending from Cranford to the Arches in the City of Elizabeth. There was a thought that the Union County Central Railroad would be able to service industry adjacent to the tracks from the Arches to Cranford.

## **PLAINFIELD**

**MASTER TRANSPORTATION PLAN OUTREACH MEETING  
PLAINFIELD CITY HALL  
DECEMBER 6, 2001  
9:15AM – 11:00AM**

Liza Betz and E. Wesley Day from the Union County Bureau of Transportation Planning met with William Nierstedt, Jacques Howard, Jay Steinmetz, and Wayne Awald from the City of Plainfield. The meeting was held in a conference area on the second floor of the city hall. The city officials discussed transportation issues with the county officials.

The city officials stated that airplane noise is not an issue in the City of Plainfield. It was noted that many individuals use bikes in the city. The city officials stated that most the bikes were used for local trips. Very few bicyclists use their bikes to travel to and from work. It was noted that the city would like to create a bike pedestrian path along the Green Brook from the western boundary to the eastern boundary. The city owns about 60% of the property along the Green Brook. The city would like an easement for the path. There are property issues in the eastern section of the city along the Green Brook.

The city officials stated that there was adequate bus service for the town. The city officials were not aware of the Wheels Buses that connect the Plainfield Train Station with the Summit Train Station.

The city has many bus shelters. There is a problem of vandalism with the bus shelters.

It was noted that there is congestion on Park Avenue in the City of Plainfield during peak hours. The city officials stated that the signals on Park Avenue are not in sequence and congestion occurs. At times, there is congestion on Seventh Street during peak hours.

One flooding issue was the Green Brook. During bad rain storms, East Front Street, North Avenue, and Richmond Avenue floods. It was noted that there are no flooding problems at the Rock Avenue overpass at the Raritan Valley Line. There is much work that needs to be done along the Green Brook. The banks have been improved to prevent erosion. The Green Brook might need to be widened. There are buildings in the city that are built over the Green Brook. These buildings restrict the flow of water when there is a heavy rain storm. It was noted that several bridges along the Green Brook need to be improved. The Mayor of Plainfield announced that he did not want any bridges closed connecting Plainfield with North Plainfield over the Green Brook.

The city officials are very aware of the governmental resources for funding.

**The city officials claimed that trucking was not an issue in the City of Plainfield.**

**The city officials stated that gypsy vans are prevalent in the City of Plainfield.**

## RAHWAY

Ronald S. Weening and E. Wesley Day from Union County Transportation Planning met with Lieutenant Kevin Sherwood of the Rahway Police Department at an office in the Rahway Police Department at ten twenty in the morning on January 16, 2002.

Lieutenant Sherwood was not familiar with any complaints regarding airplane noise. It was noted that Merck's helicopters land on a landing pad adjacent to Route 1/9. Also, medic helicopters land at the Merck's site or at a site at Greenfield Junior High.

Lieutenant Sherwood stated that there is a bike path that extends from Elizabeth Avenue to St. George Avenue along the river. Recent immigrants have been observed riding their bikes to and from work in the city. The police reported that no one uses the bike lockers at the train station and that few bicyclists use the bike racks at the train station. There were about ten bicycles that were observed in the racks during midday at the Rahway Train Station on January 16, 2002.

It was noted that there were some bus shelters located in the city. The City of Rahway maintains the bus shelters. New bus signs were recently posted in the city.

Lieutenant Sherwood stated that there is congestion at the intersection of Westfield Avenue and Madison Hill Road. He stated that three patrolmen are in the Merck area during the late afternoon to direct traffic. It was noted that there was no significant congestion on Route 1/9. It was noted that there is congestion on the exit ramp from Route 1/9 going to Hazelwood Avenue. There is some congestion on Hazelwood Avenue. Route 1/9 will be realigned near the resource recovery facility.

Lieutenant Sherwood stated that there much development going on in the city. He stated that there will be 100 to 130 condos that will be built near the intersection of Lower Essex Street and Milton Street. The Huffman Koos property will be developed. A new city library will be built by the recreation center near the river. A major hotel may be built near the train station. Another 100 plus condos will be built on property in the downtown section of the city.

The Rahway policeman stated that there is flooding by six roads near Route 27, at the intersection of New Brunswick Avenue and Inman Avenue, along the Robinson Creek, at the site of the former library, at the intersection of Lower Union and Allen Street, at the intersection of Central Avenue and St. George Avenue, and at the intersection of Inman Avenue and Leesville Road, and in some sections of Route 1/9.

Lieutenant Sherwood was not aware of different funding sources.

It was noted that the municipal parking authority has the responsibility of regulating parking in the city. There are permit parking lots near the train station. There are also permit parking spaces on streets near the train station. There is a permit parking lot for train commuters that is several blocks away from the train station. It was noted that there

is a shortage of parking spaces for downtown customers. There is a shortage of parking spaces by the hospital and also by the county cultural center. There was a parking problem at the high school before the parking lots were restriped and expanded. High school students are given stickers for their cars.

Lieutenant Sherwood stated that pedestrian crossings had been improved several years ago. He stated that the pedestrian crossings in the downtown area need to be improved.

The Rahway Train Station serves the North Jersey Coast Line and the Northeast Corridor Line. Many pedestrians are seen walking from the commuter lots to the train station. There are no plans to rebuild the North Rahway Railroad Station.

The policeman had no knowledge regarding the need for sidewalks. He referred us to the Director of Public Works.

The City of Rahway is about to get 16 signals upgraded in the city. It was stated that there will be a signal upgrade at the intersection of Lawrence Avenue and Grand Street.

It was stated that there are 26 taxi licenses issued for the city. There are at least two major taxi cab companies. A license is issued to each cab. Taxis service the Rahway Train Station.

Lieutenant Sherwood stated that there are problems with trucks using alternate routes to the resource recovery facility adjacent to Route 1/9. It was noted that there is very heavy truck traffic going to and from Carteret.

The Rahway policeman was not aware of any Wheels program in his community. It was noted that Merck has its own van shuttle program.

## **ROSELLE**

Ronald S. Weening and E Wesley Day from the Union County Bureau of Transportation Planning met with Joseph E. Croteau, Mayor of Roselle, and Vincent A. Belluscio Jr., Borough Administrator, in the mayor's office in the borough hall at nine forty-five in the morning on February 4, 2002.

The municipal officials stated that there was no problem with aviation noise from Newark International Airport. They did state that there was a problem with helicopter noise associated with Linden Airport.

It was stated that there is no room for bikeways in the borough. The officials did state that they would support a bikeway on the Staten Island Railroad right of way. There has been an influx of Mexican immigrants into the borough. It was noted that many of these immigrants, up to 100, may use bicycles for transportation to and from work. The officials stated that there is a problem with juvenile bike theft.

The officials stated that the two orphan bridges (Gordon Street bridge and Walnut Street bridge) are dangerous to be used. They are old structures and are in need of repair. It was noted that the Gordon Street bridge carries a lot of traffic to and from the parkway. It was noted that truckers try to use the Walnut Street bridge and get stuck on the bridge. This especially happens to car carriers. The borough wanted to know if the county would take over the maintenance of the West Fifth Street bridge.

Bus Routes 59, 94, and 112 serve the Borough of Roselle. There is a problem with vandalism to bus shelters. The borough stated that it needs a new Senior Citizen bus. Presently, they have a Senior Citizen bus that is ten years old. In the past, the borough applied for shuttles and was not successful. It was noted that buses use Locust Street to travel from West First Avenue to West Second Avenue. Buses on Locust Street waiting to make left turns on to West Second Avenue cause traffic congestion.

It was noted that there is congestion on Chestnut Street. The lights on Chestnut Street in the downtown district are not in sequence. There is a long line of cars that back up on Chestnut Street waiting to access First Avenue.

It was noted that there is a new Walgreens that is being built near the corner of East First Street and Chestnut Street. There is a new mini retail mall that is being built on East First Street at the municipal line. The borough is trying to develop land adjacent to St. George Avenue in Roselle. The borough stated that it would be getting an enterprise zone. The downtown district would be included in the enterprise zone. Also, Cox Street and Highland Parkway will be included in the enterprise zone. The borough wants to attract small businesses.

The municipal officials stated that there is flooding at Highland Parkway. A 48-inch pipe is needed to replace a 24-inch pipe. It was noted that a stream from Roselle Catholic High School to South Avenue needs to be improved.

It was noted that several intersections along Third Avenue need improvement. Accidents occur at these intersections.

There is a parking problem regarding employees of the post office on Chestnut Street. The employees park on the side streets. There is no problem with the parking of store owners in the downtown district. There is a parking problem at the high school. Students park their cars on the streets by the high school. It was noted that there is a parking problem at the schools during peak hours. There is no busing of students in the borough.

There is a problem with truck parking at the Roselle Paper Company on East First Avenue. There is a problem with truck parking on borough streets during the night. Trucks are not allowed to park on municipal streets overnight.

There is a problem with pedestrians walking in the streets. Many students walk in the streets to and from school. Pedestrians walking in the streets create a traffic hazard. There is a problem with adults as pedestrians walking in the streets. There was no concern about unsafe pedestrian crossings.

The borough was concerned about the rehabilitation of the Staten Island Railroad. The officials of the borough stated that they would not benefit from a freight rail line. The officials were concerned with safety at the railroad crossings. They claimed that the majority of the railroad is adjacent to municipal residences. The movement of emergency equipment was a concern. The borough was concerned about through rail traffic. The borough claimed that there were no plastics companies located in Roselle that would benefit from Tosco's new polypropelene facility.

The borough was interested in the light rail line. The borough would like to have a station on the light rail line. It was noted that there would be a study that will soon start regarding the light rail line.

The borough is in needs of sidewalks

There are no taxi companies located in the Borough of Roselle.

The Borough of Roselle is interested in a local jitney service or van service. There is a medical transport facility located adjacent to Chestnut Street in Roselle.

The Roselle Police Department has records of traffic accidents. The Borough of Roselle in not interested in traffic calming measures. The Roselle Police Department has records of traffic counts.

The municipal officials would like traffic studies done regarding the Chestnut Street Corridor, the South Avenue Corridor, the St. George Avenue Corridor, and the Linden Road Corridor.

St. George Avenue, Chestnut Street, and First Avenue were identified as truck routes. Trucks use St. George Avenue to access the Highland Parkway industrial area. Trucks use First Avenue to access the Cox Street industrial area. Trucks use Chestnut Street from St. George Avenue to access the Linden Road railroad crossing. It was noted that most truck traffic is through traffic.

## **ROSELLE PARK**

**MASTER TRANSPORTATION PLAN OUTREACH MEETING  
ROSELLE PARK POLICE STATION  
DECEMBER 4, 2001  
9:15AM – 11:30AM**

Ronald Weening, Liza Betz, and E. Wesley Day from the Union County Bureau of Transportation Planning met with Sergeant Carl Hokanson of the Traffic and Safety Unit of the Roselle Park Police Department at 9:15AM in a room on the second floor of the Roselle Park Police Station. At the meeting, the sergeant discussed with the county officials the various traffic issues regarding the Borough of Roselle Park.

The sergeant stated that airplane noise was at one time an issue. Since the September 11<sup>th</sup> attack on the twin towers, the noise had dramatically declined. The sergeant stated that on occasion residents hear noise from an airplane. It was noted that planes are not allowed to fly below the 1000 foot level of air space.

The sergeant stated that there are bicyclists seen at all hours. Many use Westfield Avenue to travel to and from work. He stated that there are many Hispanics that ride bicycles to and from work. It was noted that the borough has a huge bicycle theft problem. The sergeant claimed that youths on bikes carrying youths on handle bars travel from Roselle to Roselle Park to steal bicycles. He also stated that youths will find better bikes, discard their bikes, and steal the better bikes. Bikes are stolen from garages and from in front of stores. It was noted that the roads in the borough are narrow and that there is no room to build bike facilities on the roads. It was noted that bike riding is prohibited on sidewalks in the business district. The sergeant stated that the recovered bikes are held for six months and then auctioned off at a bike sale. The bikes that are not sold are given away at a facility in the City of Elizabeth.

It was noted that there are some roads that need improvements because of traffic congestion. Some roads are too narrow and vehicles making left turns tie up traffic behind them. The sergeant stated that there is congestion on Westfield Avenue due to oversize trucks blocking the roadway while unloading. It was also noted that huge tractor trailer trucks drive down Westfield Avenue the wrong way to maneuver to back into a loading dock area. It was the only way that the trucks could gain access to the loading area.

Bus routes in the borough were noted. It was stated that all of the bus stops were identified and posted in the borough.

It was noted that all of the roads that had flooding problems were improved. There was a note that there is a drainage issue regarding water flowing through the borough from the

north and flowing to the south. There is poor drainage through Roselle. The pipes are not large enough to accommodate the flow from the north. Water from the north backs up in Roselle Park and the water is retained in a retention basin. There needs to be drainage improvements in Roselle. It was noted that the City of Linden has a good drainage system.

There were no funding sources that were identified. The borough did not identify any programs that it was interested in participating in.

It was noted that there is not enough parking in the business district of Roselle Park. In the business district, there is a large catering hall. When there is a large event at the catering hall, there are no parking spaces available and there is a shortage of parking spaces. The sergeant stated that the local business owners park in front of their businesses and feed the meters all day. It is against the law to feed the meters in the borough. The borough does not have manpower to enforce parking laws. It was noted that the borough has no policemen that walk the beat. All of the patrolmen are in police vehicles. There is talk that the borough may gain control of the commuter parking lot at the train station. That lot has about 200 spaces. The lot may be revenue producing for the borough. It was noted that there were some commuters who park on Colfax Avenue near the train station and climb an embankment to hop on to the train platform to catch a train. There are no parking regulations on Colfax Avenue and parking is free on the street.

It was noted that there were some intersections that do not have pedestrian crosswalk signs. The borough is interested in upgrading these intersections.

It was noted that all of the county roads and the state roads have sidewalks. The sergeant stated that some borough roads have no sidewalks. It was noted that it would be very expensive to build sidewalks on one borough street because of the cost to remove trees, remove fences, and repair driveways.

The sergeant stated that the borough has no local taxi service or van service.

The sergeant stated that there is a definite increase in truck traffic. It was noted that the Walnut Street bridge should be removed and a grade crossing built there for truck access between First Avenue and Westfield Avenue. The closest truck access for Roselle Park was the Linden Avenue crossing to the east and the Central Avenue bridge underpass in Cranford, that is access between First Avenue and Westfield Avenue. The sergeant stated that there should be designated trucks routes. The patrolman claims that large tractor trailers use local streets in the borough. There is a weight limit on streets for trucks which is 80,000 pounds. There is talk that there is a proposal to boost the weight limit to 90,000 pounds. The borough did have problems with trucks stopping and running at night disturbing the borough residents. The borough told these truckers that they could not stop in the borough and create disturbing noise at night. The trucking issue is a big issue in the borough.

## **SCOTCH PLAINS**

**MASTER TRANSPORTATION PLAN OUTREACH MEETING  
SCOTCH PLAINS MUNICIPAL HALL  
NOVEMBER 29, 2001  
9 AM – 10:30 AM**

Ronald Weening and E. Wesley Day from the Union County Bureau of Transportation Planning met with Joe Timko, the municipal engineer, and Sergeant J. Rau, the Traffic Officer for the Scotch Plains Police Department, at 9AM in the engineering office of the municipal building. At the meeting, the municipal officials discussed with the county staff the various traffic issues regarding the Township of Scotch Plains.

The municipal officials stated that airplane noise was not an issue. They stated that it was a huge issue a year or two ago.

The municipal officials stated that two roads were used by bicyclists at peak hour. The streets that were used are wide and considered safe for bicycle use. It was noted that the Martine Avenue Extension was dangerous for bicyclists who use that roadway.

There was a lengthy discussion about the Route 22/ Park Avenue overpass. The municipal officials stated that many options were being studied regarding the improvement of the circulation patterns and the bridge. During peak hours, there is bad traffic congestion on Route 22, and on Park Avenue northbound in the township. There was talk about renovating the bridge. Also, there was talk of improving Bonnie Burn Road and Diamond Hill Road. Both of these roadways are north of the bridge. The township claimed that it has not seen any immediate traffic impact regarding traffic to and from the new mall on Route 22 in Watchung.

It was noted that several New Jersey Transit buses serve the Township of Scotch Plains. It was stated that the township only has 3 bus shelters. The municipal officials stated that there was a problem on Mountain Avenue. Commuters who live outside of the township park their cars all day long on Mountain Avenue. They park their cars on Mountain Avenue, pick up the bus, and return later in the day. There was a suggestion that there should be a park and ride lot for bus commuters near the intersection of Glenside Road and Mountain Avenue. County staff made reference to several new wheel programs that will be instituted in Fanwood, Roselle Park, Scotch Plains, and Westfield. The municipal officials referenced a bus service for senior citizens. The municipal recreation department provides this service. The service is used to transport senior citizens to medical facilities and stores for shopping.

The township stated that there are no immediate flooding problems in the township. It was noted that several streets do flood when there is a severe rain storm.

Ronald Weening talked about several sources of funding for the township. Several sources were the Transportation Enhancement Program and the Local Lead Funding Program.

The municipal officials stated that they thought that there was enough parking in the business district of the town. They stated that there was paired street parking on Park Avenue. Paired parking minimized traffic congestion on Park Avenue regarding the parking of cars.

It was noted that there were pedestrian crossings on various streets. They claimed that the pedestrian crossing in front of the Post Office was used and that they tried to minimize the danger to the pedestrians at that crossing. It was noted that there was a pedestrian crossing near two schools on Terrill Road and that new warning lights had been installed near the crossing. It was noted that there were 116 residential units that were being built behind the Macdonalds on Route 22. There was a concern that some of the new residents would be bus commuters and would try to cross Route 22 during peak hours.

It was noted that the township is in need of sidewalks. There is a lack of sidewalks along the Martine Avenue Extension and that it is dangerous for pedestrians at that location. There is a lack of sidewalks along Lake Avenue. Also, on Lake Avenue, there are narrow shoulders and there is some danger to bicyclists. The municipal officials stated that there the asphalt pathways near Union Catholic High School on Martine Avenue need to be repaired. In the township, there are streets with no sidewalks. The township would like sidewalks to be built at these locations.

It was noted that there will be an ITS system installed on Park Avenue in Scotch Plains. It will extend from the LeGrande intersection in Fanwood to the Diamond Hill Road light just north of the Route 22 bridge. The township expressed that the county should take the responsibility of maintaining roadway signals. It would cost the county less and that it is costly for the towns to do it themselves or contract the work out. The township stated that they would like the signals on Terrill Road at Front Street and at East Second Street improved. Also, the township expressed an interest of having an ITS System on Terrill Road from Seventh Street to Front Street.

The township knew of no taxi companies located in the township serving the township residents.

The township stated that there needs to be designated truck routes in the county. The township complained about the trucks on Park Avenue. There was talk that Terrill Road should be a county truck route. The township stated that there is a problem of tractor trailer trucks using the Malibu property on Terrill Road as a storage site for cabs and

trailers. The township will inform the trucking operators that the Malibu property can not be used as a truck storage facility.

## **SPRINGFIELD**

Ronald Weening, E. Wesley Day, and Liza Betz from Union County Transportation Planning met with Samuel Mardini and Richard Sheola on January 17, 2002 at the Springfield Municipal Annex Building in the morning.

Mr. Mardini stated that at times there is plane noise in the township. He stated that during the morning of the 17<sup>th</sup> of January a jumbo jet flew over the township early in the morning creating loud noise. Some citizens of the township make loud plane noise a huge issue.

Mr. Mardini stated that there are no bike paths in the township. It was thought that a bike path could be put on Meisel Avenue or along the Rahway Valley Rail Line rail tracks in the township.

It was noted that there is congestion on Mountain Avenue, South Springfield Avenue, Millburn Avenue, Milltown Road, Route 22, Route 24, Route 78, and Morris Avenue. It was stated that the intersection of Millburn Avenue and Morris Avenue is a dangerous intersection and is need of improvement. The volume of truck traffic on Milltown road has dramatically increased. It was stated that the intersection of South Springfield Avenue and Shunpike Road is a dangerous intersection. The intersection needs to be improved and the stop bars should be removed from the county roadway. It was stated that the bridge on Milltown Road over the Rahway River needs to be improved. Presently the pavement on the bridge is rough.

It was emphasized that during peak hours Mountain Avenue and South Springfield Avenue are backed up for miles. The signalization at the intersection of Hillside Avenue and South Springfield Avenue needs to be improved. There is congestion in the area of that corner. It was stated that the u-turn on Route 22 near the diner and Barnes and Noble Store should be removed. Drivers are traveling westbound on Route 22 and taking the u-turn to go directly across the highway to Autoland. Dangerous situations occur when drivers dart across the highway to Autoland during heavy eastbound traffic. Drivers traveling south on Hillside Avenue come to Route 22 and dart across the westbound lanes to a u-turn. This creates dangerous situations. Vehicles were seen darting across Route 22 from a side road by Charlie Browns. This creates dangerous situations. Pedestrians have been observed darting across Route 22 amongst speeding vehicles during peak hours. It was noted that Route 22 has too many driveways and some the driveways need to be eliminated. Also, there is a lack of acceleration lanes and a lack of deceleration lanes on Route 22.

It was noted that there are accidents on a weekly basis at the curve where I78 westbound connects Route 24 northbound. There is congestion at the I78 interchanges. It was noted that there is a dangerous intersection near city hall on Mountain Avenue.

There is a new development of 140 units near Bryant Park. There is a new senior citizen center that is to be built on Black Street. The center will be a three story building and house 36 units. There is a CVS complex that will be built on the Stanley's Restaurant property. A proposed Stop and Shop is proposed for Millburn Avenue. The Township of Milburn, Essex County, neighborhood residents, and Shop Rite oppose the plan to build the Stop and Shop. The township would like to improve the parking and landscaping of downtown along Morris Avenue. Presently, customers are hesitant in parking on Morris Avenue in the downtown section because of speeding cars.

It was stated that Storm Floyd flooded Springfield Township with four feet of water by the municipal building. It was also stated that Springfield Township was flooded from a storm in 1973. Township officials stated that silt should be removed from underneath I78 bridges. They also stated that silt underneath the Milltown Road bridge needs to be removed. It was stated that the silt may be contaminated. Storm Floyd was a 150 year storm. The 1973 storm was a 100 year storm.

The township officials did not state much about funding sources.

It was noted that there are limousine services in the township; until recently there was a taxi service.

The Township of Springfield has a jitney service. The township has one van to provide the service. A senior citizen van and a recreation van are provided as back ups. About 40 to 60 riders per day use the jitney service. The jitney service connects the Township of Springfield with the Short Hills Train Station. The drivers are paid \$12 per hour with no benefits. The township has had problems trying to find drivers, especially during the summer. The van operates from seven to nine in the morning and five to eight in the evening five days per week. The jitney is used at times to transport school children during the day. It costs a jitney user \$350 per year for the jitney pass and parking. It costs each taxpayer of Springfield Township about \$2 per year for the jitney service.

The township has a parking problem. Customers do not like to park on Morris Avenue where there are speeding cars. The customers park in the parking lots in the downtown area. There are not enough parking spaces in the lots.

It is dangerous for pedestrians to cross Morris Avenue. There are speeding cars.

The right of way of the Rahway Valley Line is preserved for future railroad service. The township would like to use some of the right of way for a bike path.

It was stated that a lot of sidewalks in the township are in need of repair. It is the responsibility of the property owners to repair the sidewalks on private property.

It was noted that there is no taxi service company located in the township. The officials stated that a taxi company went out of business.

The police department keeps a record of traffic accidents. The township has no problem with cars hitting deer.

The engineer at times does traffic counts on roads.

The township officials had no extra transportation projects to be proposed.

Truck traffic on Milltown Road has dramatically increased. The trucks use Milltown Road to access Route 22 from Route 24 and I78.

## SUMMIT

Ronald S. Weening and E. Wesley Day from the Union County Bureau of Transportation Planning met with Councilmember Cynthia B. Martin, Deputy Police Chief Robert C. Lucid, and Lori B. Toth, Assistant City Engineer, at Summit City Hall at nine in the morning on February 15, 2002.

Aviation noise is not an issue in the City of Summit.

It was noted that there is a significant number of commuters who go to the train station by bike and use the bike lockers at the train station. The city is interested in bike ways in the city.

There have been complaints by residents regarding a Wheels mid size bus using Ashland Road. There is a limousine service that provides vans and a bus for American Express employees who commute from the City of New York to the City of Summit. These employees work at offices near the Short Hills Mall. It was noted that there is reverse commuting from New York City to the City of Summit.

The bridge over the railroad on Morris Avenue needs improvements. A bridge on Springfield Avenue has been improved. There is a bridge near the municipal building on Springfield Avenue that needs to be repaired.

Lackland Bus service has been cut back. The bus #70 serves the city. Also the Wheels bus #986 serves the city.

It was noted that the bus shelters that are in the City of Summit are maintained by New Jersey Transit.

There is congestion on Morris Avenue, Springfield Avenue, and River Road during peak hours. There are six to seven educational institutions that are located along Morris Avenue in Summit. Congestion occurs at the schools during opening and closing times. There is congestion on the bridge over the railroad on Morris Avenue near Springfield Avenue. It was noted that the bridge is narrow. This bridge during rush hour is a hindrance to emergency vehicles.

Further development is expected at the pharmaceutical site at the corner of Morris Avenue and River Road. The area near Overlook Hospital may be cited for redevelopment. The city is concerned about the sewage system that is on county roads. The system is old and is in need of renovation.

It was noted that there are no flooding issues in Summit. It was noted that there are erosion issues. There is significant erosion along the Salt Creek in Summit. There is erosion near River Road at the Passaic River. Erosion is not an issue along the Passaic River because most of the land adjacent to the river is county park land.

It was noted that there is minimal freight rail traffic in the city. Rail freight traffic is not an issue.

The county is planning to improve intersections along Morris Avenue.

It was determined that there is currently enough parking for the commuters who use the Summit Train Station. The parking for shoppers in the downtown district is adequate. Parking at Overlook Hospital is adequate. Overlook had built several parking facilities. Parking may be a problem on some evenings when there are people going to restaurants.

Pedestrian Crossings along Morris Avenue need to be improved.

It was noted that one of the most dangerous intersections in the city is at Glenside Road and Morris Avenue. There are many traffic accidents at this location.

There are many deer that are hit by vehicles through out the city.

It was noted that at least one third of the traffic in Summit is through traffic. There is a heavy volume of daily traffic on River Road. There is a heavy volume of daily traffic on Springfield Avenue. There is a heavy volume of daily traffic on Morris Avenue. Route 24 in Summit has a huge traffic impact in the city. Many vehicles that travel in Summit go to and from Route 24. The same can be said for Interstate 78. Overlook Hospital has a huge traffic impact on the city. There are many vehicles that go to and from Overlook Hospital on a daily basis.

The City of Summit is interested in Traffic Calming measures.

There were complaints that the trucks of today are too large for the streets that were designed in the past. Some trucks go on residential streets because there are limitations on other roads

## UNION

Ronald S. Weening, Liza Betz, and E. Wesley Day from the Union County Bureau of Transportation Planning met with Police Chief Thomas Kraemer, Captain Joseph S. Golden, and Sergeant Peter G. Quance of the Union Township Police Department at the Union Township Police Station at 9:15 in the morning on February 22, 2002.

Aircraft noise is not an issue in the Township of Union.

Union Township is not interested in bike lanes. There is a problem regarding bike theft in the township. There was no mention of workers traveling to and from places of employment on bikes.

The officials of Union Township stated that bus service is adequate in the township. The police stated that the only way that a bus stop would be moved is if it is determined that it is a safety hazard. Property owners frown upon bus stops in front of their houses. It was stated that New Jersey Transit locates the bus shelters in the township and that New Jersey Transit maintains the bus shelters.

Congestion is an issue in the township. There is congestion at the schools during opening and closing times. There is congestion along Morris Avenue, Vauxhall Road, and Stuyvesant Avenue. Vehicles are going through town to access Route 78, Route 24, or Route 22.

Curbing is not an issue in the township. Some streets do not have curbing. Some property owners want curbing. The township is not interested in installing curbing.

There is major development that is planned for the Green Lane area. A sports complex, 200 condos, and a strip mall are to be built in the Green Lane area. It was noted that 8,000 employees work at the Schering site on Morris Avenue. It was noted that 4,000 employees work at the Elizabethtown Gas Facility on Morris Avenue. It was noted that 12,000 students attend Kean University.

The Township of Union is not interested in applying for funding regarding enhancement grants.

Flooding is a problem along the rivers by the Elizabeth border and the Springfield border.

Union Township was not interested in Jitney service. Jitney service appears to be too expensive to be operated on Route 22.

Parking in the business district is not an issue. Parking in the neighborhood of the police station is a major problem. There is not enough parking at the police station complex.

There is a parking problem in some residential areas. Parking is not an issue at or near the high school. There is a parking problem near Costco on Route 22. There is a problem of truck parking on Route 22. The large trucks park on the shoulder of Route 22 to get something for lunch. It was noted that new development has not been keeping up with their demand for parking.

Pedestrian crossing is an issue on Route 22. Pedestrians cross Route 22, especially during the lunch hour. Union Township proposed that a pedestrian bridge be built across Route 22 near the residential complex called the Point. Union Township proposed that a pedestrian bridge be built across Route 22 near the Target Store. It was noted that Schering is planning to build a pedestrian bridge across Morris Avenue near the new train station.

Pedestrian tunnels under Route 22 were not favorable with the township. Many utility lines and sewage pipes would have to be relocated for pedestrian tunnels.

There is rail freight service that operates on the Lehigh Valley Line in the township. There are no complaints regarding the operation of the freight service in the township.

There is a new train station that is being built on the Lehigh Valley Line in the township. Rail passenger trains operate on the Lehigh Valley Line in the township. There are no complaints regarding the operation of the passenger rail trains in the township.

The officials in the township would like to do shared services with the county. This was a very important issue in the township.

Sidewalks are not an issue in the township. Some residential areas do not have sidewalks. Property owners in these areas do not want sidewalks. Sidewalks are repaired when needed.

Union Township would like Union County to maintain all traffic signals on the county roads in the township. Presently, the Union Township has township employees maintain the traffic signals on county roads.

Union Township has a small taxi service that operates in the township.

The police stated that traffic accident numbers do not necessarily indicate the most dangerous accident locations in the township. The Union Township Police collect data on traffic accidents. It was noted that there are 3,000 traffic accidents on Morris Avenue each year.

Union Township does not do traffic counts. It was noted that Union County and New Jersey Department of Transportation do traffic counts.

The police stated that trucks operate in the township. The trucks make local deliveries. Trucks park on Morris Avenue, make deliveries, and tie up traffic. Trucks travel on the

county roads and state roads in the township to access Route 22, I78, and Route 24. Trucks are not allowed to park on township streets over night. Trucks are not allowed to idle their engines when making deliveries.

## **WINFIELD**

E. Wesley Day from Union County Transportation Planning met with John A. Ziemian, the City Engineer of Linden, in the Engineering Office in the City of Linden at 9 AM on January 25, 2002. The meeting was held in a conference room.

It was noted that John Ziemian met with county officials in the county engineering office in Scotch Plains on the morning of January 24, 2002.

John Ziemian stated that there is airplane noise over Winfield Township but there are few complaints about the airplane noise.

The township has 2.7 miles of road. There is no congestion on the roads in Winfield. There is a county road that circles the township on the outskirts of the municipality. It was noted that many residents go to the county road for recreational bike riding. There is no demand for bike ways in the township.

Several bus routes serve the township. It was noted that there are no bus stops on Stiles Street near Winfield. There are some bus stops and bus shelters in the township.

It was noted that there is no congestion in Winfield. There is a congestion of vehicles in accessing and exiting the township. Two streets access the township and these two streets connect to Stiles Street. At those two intersections, it is hard for traffic leaving Winfield to get on to Stiles Street. Stiles Street is a very busy roadway. These two intersections are dangerous. The intersections need improvement.

It was noted that the county park road adjacent to Winfield connects Stiles Street with Raritan Road. The intersections of the county road and Stiles Street, and the intersection of the county road and Raritan Road are dangerous intersections. These two intersections need improvement.

Winfield Township has a curb maintenance program.

Winfield Township has no land for development.

Winfield Township has no problems with flooding.

Winfield Township has limited funds due to its size.

Winfield Township has a residential parking problem. There are about 744 households in Winfield. It is estimated that the population of Winfield is 3000 to 4000 residents. The township is thinking about building several parking lots to alleviate the parking problem. The township has 2 to 3 stores, a municipal building, a community center, and an elementary school. The township has no post office.

The township has no issues with pedestrian crossings.

There is no train station in the township. To access a train station, a resident must take a bus to the Linden Train Station.

There are no freight trains in the township. There is no industry.

The township has a sidewalk maintenance program. The township has sidewalks on both sides of the street in the municipality.

Winfield has no traffic signals.

Winfield has no taxi companies.

The police station is in the municipal building.

High school students go to a high school out of the township.

There is no problem with trucks in the township. It is noted that Winfield has no through traffic.

**APPENDIX A**  
**CEDS PLAN ELEMENTS**

**TRANSPORTATION / INFRASTRUCTURE OBJECTIVES**

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**TID-1 Develop a Strategic Transportation Plan for Union County**

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**Description:**

Union County has been an important transportation hub for many years. In order to capitalize upon this strength in the next century, it is necessary for the County to assess its current transportation situation, and to develop a coherent and complete plan of action. To fully use this transportation resource as a competitive advantage, a Strategic Transportation Plan, addressing air, surface and deep-water transportation issues is necessary to define a complete economic development strategy and action plan.

**Potential Funding Level:** \$1 million

**Potential Funding Source:** To be Determined

**Implementation Responsibility:**

- Union County Department of Economic Development

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)

**Performance Measures:**

- Completion of Strategic Transportation Plan document

**TRANSPORTATION / INFRASTRUCTURE OBJECTIVES**

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**TID-2 Transportation Development District**

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**Description:**

The Transportation Development District (TDD) for Union County was established in 1996 as a tool to address infrastructure and redevelopment in the port area. The district will address the mobility requirements of the port and rail and truck access. The full implementation of the TDD will result in a special financing district and a transportation infrastructure plan targeting investment along this corridor. Initial studies to develop a 20-year visionary plan are under way.

**Potential Funding Level:** \$500,000 beyond the initial work currently in progress

**Potential Funding source:**

- State Resources
- County Appropriations
- Local Governments
- Public/private resources

**Implementation Responsibility:**

- Union County Department of Economic Development

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)

**Performance Measures:**

- Full Implementation of TDD and its programs

**TRANSPORTATION / INFRASTRUCTURE OBJECTIVES**

**TID-3 Support efforts to maintain and improve the competitiveness of the Seaport**

**Description:**

The Port of Elizabeth is a vital part of the County's economic strength. Consistent and intense efforts must be undertaken to see that the Port is maintained and improved to retain and enhance its competitive position.

**Potential Funding Level:** To be determined

**Potential Funding source:**

- Federal Resources and Programs
- State Resources
- County Appropriations
- Public/private resources

**Implementation Responsibility:**

- Union County Department of Economic Development
- The Union County Alliance
- The Port Authority of New York/New Jersey

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)
- On-going

**Performance Measures:**

- Continued full use of Port capacity and capabilities
- Expansion of Port capacity and services

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**TRANSPORTATION / INFRASTRUCTURE OBJECTIVES**

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**TID-4 Development of Cross-County Rail Link**

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**Description:**

The need for improved east/west mass transit from Plainfield to the Port of Elizabeth is a County priority, especially in light of the redevelopment of the Port area. Such a transit system appears viable, making use of the Central Railroad of New Jersey right-of-way. Initial feasibility studies are under way using grant funds allocated to the communities along the proposed line. Other studies are necessary to evaluate the concept, and the formation of public/private partnerships will facilitate this work.

**Potential Funding Level:** \$500,000 for continued feasibility analyses

**Potential Funding source:**

- Federal Transit Administration
- State Resources
- County Appropriations
- Public/private resources

**Implementation Responsibility:**

- Union County Department of Economic Development

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)
- On-going

**Performance Measures:**

- Completion of initial studies
- Funding and execution of further analyses

TRANSPORTATION / INFRASTRUCTURE OBJECTIVES

TID-5 Revitalization of Freight Rail Lines and Development of Intermodal Facilities

**Description:**

The revitalization of the Rahway Valley, Staten Island and other freight rail lines in the County will provide critical links to the national transportation system that will permit Union County to offer new transportation and distribution options, such as intermodalism, Value Added Services, and logistics management. At the same time the reuse of these lines will permit the County to take full advantage of its seaport access.

**Potential Funding Level:** \$10.4 million (approximately)

**Potential Funding source:**

- Federal Transit Administration
- New Jersey Department of Transportation
- Public/Private Partnerships
- Private Investment

**Implementation Responsibility:**

- Union County Department of Economic Development

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)
- On-going

**Performance Measures:**

- Completion of initial studies
- Funding and execution of further analyses
- Reuse of lines; development of new intermodal facilities

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TRANSPORTATION / INFRASTRUCTURE OBJECTIVES

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TID-6 Union Station Project

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**Description:**

The stakeholders in area of the proposed station formed a public/private partnership to develop a comprehensive mass transit-oriented redevelopment plan. The construction of a new rail station and of intermodal facilities is the focal points of the current analyses.

**Potential Funding Level:** \$1,000,000

**Potential Funding source:**

- Federal Transit Administration
- New Jersey Transit
- Private Investment

**Implementation Responsibility:**

- New Jersey Transit
- Union County Department of Economic Development

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)
- On-going

**Performance Measures:**

- Completion of station

**TRANSPORTATION / INFRASTRUCTURE OBJECTIVES**

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**TID-7 South Avenue/Route 28 Corridor Management Study**

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**Description:**

The purpose of this technical study is to develop a prioritized transportation management plan within the South Avenue/Route 28 Corridor. The County, along with the nine municipalities within the corridor, is in the process of identifying and implementing a corridor-wide redevelopment plan. In order to effect this plan, a multimodal corridor management plan needs to be developed.

**Potential Funding Level:** \$168,000

**Potential Funding source:**

- County resources
- North Jersey Transportation Planning Agency

**Implementation Responsibility:**

- New Jersey Department of Transportation
- Union County Department of Economic Development

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)
- On-going

**Performance Measures:**

- Completion of corridor management plan

**TRANSPORTATION / INFRASTRUCTURE OBJECTIVES**

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**TID-8 Union County Pedestrian Safety, Mobility and Access Study – US Route 22 Corridor**

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**Description:**

The purpose of this study is to evaluate congestion conditions in the Route 22 corridor. Route 22 is a State highway running east-west through Union County. A 3.5-mile section of the highway in Springfield and Union will be the subject of this effort. The study will make recommendations about pedestrian safety, safe access to transit, and pedestrian access to the numerous businesses along the corridor.

**Potential Funding Level:** \$60,000

**Potential Funding source:**

- County resources
- North Jersey Transportation Planning Agency

**Implementation Responsibility:**

- Union County Department of Economic Development

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)
- On-going

**Performance Measures:**

- Completion of study

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**TRANSPORTATION / INFRASTRUCTURE OBJECTIVES**

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**TID-9 Global Freight Village Study**

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**Description:**

This study was conducted as an outgrowth of the Transportation Development District (TDD) and Port Master Plan Studies. It confirmed the applicability of redeveloping an older industrial area into a highly integrated logistics, intermodal and transportation center for businesses focused on international trade. The village will become an industrial park with all of the support services to enhance global trade competitiveness.

**Potential Funding Level:** \$53,000

**Potential Funding Source:**

- County resources
- North Jersey Transportation Planning Authority

**Implementation Responsibility:**

- Union County Department of Economic Development

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/ High (within three years)
- Longer Term/ Medium (within five years)
- On-going

**Performance Measures:**

- Completion of study and implementation of redevelopment plans for the Tremley Point area in Linden.

**Transportation / Infrastructure Objectives**

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**TID-10 Jitney Service Efficiency Study**

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**Description:**

The project is an offshoot of the South Avenue/Route 28 Corridor/Plainfield Study. Its goal is to develop a regionalized program to provide jitney service in three municipalities to serve train stations on the Raritan Valley Line. Three additional municipalities are also included that will benefit from jitney services in the future. This service will also enhance access to the CBDs in the South Avenue Corridor.

**Potential Funding Level:** Phase I - \$ 65,000  
Phase II - \$ 45,000

**Potential Funding Source:**

- County resources
- New Jersey Department of Community Affairs – REDI Grant Program

**Implementation Responsibility:**

- Union County Department of Economic Development

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/ High (within three years)
- Longer Term/ Medium (within five years)
- On-going

**Performance Measures:**

- Viable jitney services using shared services.

**Transportation / Infrastructure Objectives**

**TID- 11 Kapkowski Road Planning Study**

**Description:**

Comprehensive Transportation and Circulation Plan within the Elizabethport area of the Transportation Development District (TDD) bounded by Trumbull Street and Routes 1 & 9. This multi-modal plan will identify additional infrastructure improvements within the TDD that will accommodate and encourage port and airport growth. This is a TEA-21 high priority project with immediate impact on port viability.

**Potential Funding Level:** \$2,000,000

**Potential Funding Source:**

- County resources
- Federal Highway Administration (FHWA)

**Implementation Responsibility:**

- New Jersey Department of Transportation/ Port Authority of NY & NJ
- Union County Department of Economic Development

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/ High (within three years)
- Longer Term/ Medium (within five years)
- On-going

**Performance Measures:**

- Completion of plan and identification of new projects and funding sources.

Transportation / Infrastructure Objectives

**TID-12 NJ Turnpike Exit 12 Reconstruction and Access Roadway**

**Description:**

The Union County Transportation Development District (TDD) Transportation Plan identified the need for direct access from the NJ Turnpike in order to redevelop sizable brownfield areas along the Arthur Kill. The NJ Turnpike concurred with this need. They have begun to design an access road to this area as part of their overall plan to reconstruct Exit 12.

**Potential Funding Level:** \$15,000,000

**Potential Funding Source:**

- NJ Turnpike Authority

**Implementation Responsibility:**

- NJ Turnpike Authority
- Union County Department of Economic Development
- City of Linden

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/ High (within three years)
- Longer Term/ Medium (within five years)
- On-going

**Performance Measures:**

- Construction of the roadway.

Transportation / Infrastructure Objectives

TID-13 Dredging of the Port Channels

**Description:**

The continued viability and competitiveness of the Port of Elizabeth depends upon its ability to accept the new generation of deep draft vessels. Funding has been obtained to proceed with deepening the channels in the Port to 50 feet. This will allow the Port to handle the larger class of container vessels now entering service and continue a growth rate that has averaged 5 to 6 percent annually. Simultaneously, the major port terminals of Maersk, Maher, Port Newark and Howland Hook are in the midst of multi-million dollar upgrades and expansions of their facilities. The dredging project will also allow for deeper draft ships to serve petroleum facilities located along the Arthur Kill and Kill Van Kull.

**Potential Funding Level:** \$150,000,000-\$200,000,000

**Potential Funding Source:**

- US Department of Transportation
- US Army Corps of Engineers

**Implementation Responsibility:**

- Port Authority of New York and New Jersey

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/ High (within three years)
- Longer Term/ Medium (within five years)
- On-going

**Performance Measures:**

- Completion of dredging.

Transportation / Infrastructure Objectives

**TID-14 Development of Ferry Service Between Elizabeth and Manhattan**

**Description:**

The concept of ferry service between Elizabeth and Manhattan has been a part of overall transportation planning in Union County for some time. However, recent events and progress in the development of the County's transportation system have brought this concept to reality. Recent grants from the Federal Transportation Administration and/or the Federal Emergency Management Agency will provide the funds to dredge the docking site and construct appropriate landside facilities.

**Potential Funding Level:** \$10,000,000

**Potential Funding Source:**

- Federal Transportation Administration
- Federal Emergency Management Agency

**Implementation Responsibility:**

- County of Union, Department of Economic Development

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/ High (within three years)
- Longer Term/ Medium (within five years)
- On-going

**Performance Measures:**

- Initiation of ferry service

Transportation / Infrastructure Objectives

TID-15 Implementation of Ferry Service

**Description:**

Union County, working with the City of Elizabeth as well as NY Waterway and others involved in the implementation of a new ferry service from the Elizabeth waterfront, will conduct an analysis of the new Ferry service as it begins operation and determine any new or expanded service needed. This study will examine the ridership base, identify new ridership potential, assess parking needs, look at existing and future intermodal connections (particularly bus, light rail and connections to Newark Airport), assess future needs for passenger and/or freight service and look at and/or implement marketing strategies that will enhance the service.

**Potential Funding Level:** \$500,000

**Potential Funding Source:**

- Federal Transportation Funding (TEA - 21)

**Implementation Responsibility:**

- Union County Department of Economic Development

**Time Frame for Implementation:**

- Immediate (within one year of service implementation)
- Longer Term/ High (within three years)
- Longer Term/ Medium (within five years)
- On-going

**Performance Measures:**

- Increasing and sustaining ridership.

Transportation / Infrastructure Objectives

**TID-16 Newark Elizabeth Light Rail (NERL) Project - Elizabeth Segment**

**Description:**

The Elizabeth segment of the NERL Project is a proposed 5.8 mile light rail system that will link several key transportation facilities with major redevelopment projects and low-to-moderate income neighborhoods all within the City of Elizabeth. The project has significant intermodal components. It links the Northeast Corridor main line at Midtown Elizabeth, proposed ferry service to Manhattan at the Bridgeview Office complex, bus routes along the New Jersey Turnpike and Routes 1 & 9 to Newark International Airport. This is the first private public partnership mass transit project authorized in New Jersey pursuant to legislation adopted in 1997.

**Potential Funding Level:** \$390,000,000

**Potential Funding Source:**

- Union County Improvement Authority

**Implementation Responsibility:**

- Union County Department of Economic Development

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/ High (within three years)
- Longer Term/ Medium (within five years)
- On-going

**Performance Measures:**

- Completion of the light rail line
- Increasing ridership.

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**COMMERCIAL REVITALIZATION OBJECTIVES**

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**CR - 1 Assist Municipalities in Conducting Assessments to Improve Community Shopping Opportunities**

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**Description:**

Provide assistance, coordination, and sharing of information and findings among those communities with downtown shopping districts.

**Potential Funding Level:** Minimal

**Potential Funding source:**

- Municipalities
- Urban Enterprise Zones (where applicable)
- Special Improvement Districts (where applicable)
- County support

**Implementation Responsibility:**

- Municipalities
- Downtown/business organization

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)
- On-going

**Performance Measures:**

- Conduct and sharing of downtown studies and concepts

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**COMMERCIAL REVITALIZATION OBJECTIVES**

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**CR - 2 Expand Commercial Revitalization Programs**

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**Description:**

Utilize Community Development Block Grant (CDBG) funds, and other funds to assist municipalities to revitalize their business districts by offering matching grants to commercial and service establishments. The goal of the program is the creation of aesthetically pleasing and functioning shopping areas that promote economic activity.

**Potential Funding Level:** To Be Determined by Each Municipality

**Potential Funding source:**

- CDBG funds
- Urban Enterprise Zones (where applicable)
- Special Improvement Districts (where applicable)

**Implementation Responsibility:**

- Union County Department of Economic Development
- Municipalities
- Urban Enterprise Zones
- Special Improvement Districts

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)
- On-going

**Performance Measures:**

- Improvement of downtown shopping areas
- Growth and diversity of shopping opportunities

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**COMMERCIAL REVITALIZATION OBJECTIVES**

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**CR - 3 Intensify Property Maintenance, Clean Up, and Beautification Actions in Commercial Areas**

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**Description:**

The municipalities have worked to improve property maintenance in their shopping and downtown areas in recent years. Both public and private actions need to be intensified to improve conditions further. Small actions, such as litter removal façade maintenance, and tree planting can positively impact the images of several such areas. Projects to create attractive public open spaces, public parking facilities and improved amenities must accompany security, beautification and maintenance measures.

**Potential Funding Level:** To Be Determined by Each Municipality

**Potential Funding source:**

- CDBG funds
- Municipal funds
- New Jersey Clean Communities Program funds
- Urban Enterprise Zones (where applicable)
- Special Improvement Districts (where applicable)

**Implementation Responsibility:**

- Municipalities
- Urban Enterprise Zones
- Special Improvement Districts

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)
- On-going

**Performance Measures:**

- Improvement of downtown shopping areas
- Growth and diversity of shopping opportunities

**COMMERCIAL REVITALIZATION OBJECTIVES**

**CR - 4 Promote the Expansion of Special Improvement Districts and Downtown Management Organizations Across the County**

**Description:**

SIDs and local management organizations provide the types of assistance and focus that can best assist local businesses and downtowns in their efforts to remain vital parts of the County's economy. These organizations should be fostered and assisted in their work, especially as they provide valuable services at little or no cost.

**Potential Funding Level:** Minimal

**Potential Funding source:**

- Municipal funds
- Private resources
- Urban Enterprise Zones (where applicable)
- Special Improvement Districts (where applicable)

**Implementation Responsibility:**

- Municipalities
- Urban Enterprise Zones
- Special Improvement Districts
- Public/Private Partnerships

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)
- On-going

**Performance Measures:**

- Increased number of SIDs and other such organizations

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**COMMERCIAL REVITALIZATION OBJECTIVES**

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**CR - 5 Improve Commercial Area Infrastructure**

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**Description:**

As a mature economy and fully developed land area, Union County faces an on-going challenge to provide adequate utilities and infrastructure to commercial areas within the County. This aging infrastructure requires special attention, but the scale of the problem is such that issues must be attacked one project at a time. The County, the municipalities, and the CEDS Committee must monitor this situation, establish priorities, and, working together with Federal and State agencies, maintain the roads, utilities and related infrastructure that are vital to continued economic prosperity and growth of the County's commercial areas.

**Potential Funding Level:** Not determined at this time

**Potential Funding source:**

- A wide range of Federal and State programs
- US Economic Development Administration
- Private investment by utility companies and developers
- Urban Enterprise Zones
- Special Improvement Districts
- County resources

**Implementation Responsibility:**

- Union County Department of Economic Development
- CEDS Committee

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)
- On-going

**Performance Measures:**

- Number of significant projects undertaken
- Funds spent on infrastructure

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**INDUSTRIAL DEVELOPMENT OBJECTIVES**

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**ID - 1 Implement Brownfields Redevelopment Activities**

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**Description:**

In a fully developed area like Union County, economic growth will depend upon the revitalization of older, often contaminated, sites. The County has identified the brownfields sites across the County, especially those in and along rail corridors. In addition, the County has obtained a Brownfields Assessment Demonstration Pilot Grant from the US Environmental Protection Agency, and work is to begin on this Pilot project in the summer of 2002. These and other such initiatives should be vigorously pursued in order to capitalize upon this asset. Information on cleanup programs should be made readily available to owners of contaminated sites, and State resources and programs used for municipally owned sites

**Potential Funding Level:** To Be Determined

**Potential Funding source:**

- New Jersey Department of Environmental Protection funds
- CDBG funds
- Private investment
- UEZ funds
- Environmental Opportunity Zone and other incentive programs

**Implementation Responsibility:**

- Union County Department of Economic Development
- Municipalities
- Private property owners

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)
- On-going

**Performance Measures:**

- Number of brownfields sites returned to productive use

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**INDUSTRIAL DEVELOPMENT OBJECTIVES**

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**ID – 2 Expand Foreign Trade Zones to Encourage International Trade**

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**Description:**

Foreign Trade Zones offer particular benefits to certain firms. While not an attraction tool by itself, an FTZ can be a significant incentive for firms involved in international trade. Union County should explore the status of existing Zones and the potential for expanding existing ones or developing new ones, especially along rail lines or near the ports and airport in order to obtain full benefit of this legislation.

**Potential Funding Level:** \$150,000

**Potential Funding source:**

- County Funds
- Municipal economic development organizations

**Implementation Responsibility:**

- Union County Department of Economic Development
- Municipalities

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)
- On-going

**Performance Measures:**

- Completion of analysis or analyses

**INDUSTRIAL DEVELOPMENT OBJECTIVES**

**ID - 3 Provide Industrial Parks for New or Expanding Industries**

**Description:**

Having adequate, appropriate and developed sites for new or expanding industries is imperative for Union County. This task is made more difficult by the lack of developable space in the County, thus calling for brownfields redevelopment, discussed in ID-1 above. Based upon the findings of that strategy, the County should pursue select an appropriate site (or sites), and develop adequate infrastructure for it, and aggressively market the project.

**Potential Funding Level:** Estimated at \$5 million for analysis, acquisition, clean up and development

**Potential Funding source:**

- US Economic Development Administration
- US Environmental Protection Agency
- New Jersey Department of Environmental Protection
- New Jersey Economic Development Authority
- CDBG funds
- County funds
- Private investment

**Implementation Responsibility:**

- Union County Department of Economic Development

**Time Frame for Implementation:**

- Immediate (within one year)
- Longer Term/High (within three years)
- Longer Term/Medium (within five years)
- On-going

**Performance Measures:**

- Identification of potential site(s)
- Application for assessment funds