



New Jersey's Long-Range Transportation Plan

For Public Discussion
September 2008

URBAN SUPPLEMENT REPORT

City of Camden

Prepared for
**NEW JERSEY DEPARTMENT
OF TRANSPORTATION and
NJ TRANSIT**

Prepared by
DMJM HARRIS | AECOM



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TABLE OF CONTENTS

INTRODUCTION	1
I. TRANSPORTATION AND DEMOGRAPHIC CONDITIONS	2
A. EXISTING TRANSPORTATION NETWORK	2
1. Roads	2
2. Public Transit	4
3. Bicycle and Pedestrian Facilities	6
4. Goods Movement	8
B. SYSTEM PERFORMANCE	8
1. Congestion Management System	8
2. Pavement Conditions	10
3. Bridge Conditions	11
4. Safety Management	11
C. DEMOGRAPHIC PROFILE	11
1. Population and Households	11
2. Age Distribution	12
3. Racial and Ethnic Composition	12
4. Income & Poverty	13
5. Automobile Ownership	14
6. Labor Force	14
7. Unemployment	15
8. Employed Residents by Industry	15
9. Employed Residents by Occupation	15
10. Journey to Work – Resident Labor Force	16
11. Employment	17
D. FUTURE CONDITIONS	18
1. Population and Employment Projections	18
2. Transportation Conditions	18
E. CURRENT AND FUTURE DEVELOPMENT	23
1. City of Camden	23
2. Suburbs	27
3. Philadelphia	28
F. TRANSPORTATION SYSTEM ISSUES	30
1. Roads	30
2. Public Transit	31
3. Bicycle/Pedestrian Facilities	34
G. ASSESSMENT OF PROGRESS	34
1. Roadways	34
2. Transit System	35
II. TRANSPORTATION PROJECTS	35
A. ROADS	35
1. Regional/State Roads	35
2. Local Roads	37
3. Freight Movement	38
B. PUBLIC TRANSIT	39
1. Rail Service	39
2. Bus Service	39
3. Delaware River Tram	39
C. BICYCLE AND PEDESTRIAN	40
III. RECOMMENDATIONS	41
A. ROADS	41
1. State/Regional Roads	41
2. Local Roads	42
B. PUBLIC TRANSIT	43
C. BICYCLE AND PEDESTRIAN	45
REFERENCES	46

INTRODUCTION

State law requires the New Jersey Department of Transportation (NJDOT), in conjunction with NJ TRANSIT, to prepare and submit to the legislature an Urban Transportation Supplement to the state's Long-Range Transportation Plan. The state requires that the Urban Supplement identify and address the transportation needs of the state's seven largest cities: Atlantic City, Camden, Elizabeth, Jersey City, Newark, Paterson, and Trenton. Because the State Development and Redevelopment Plan (State Plan) recognizes New Brunswick as an eighth urban center, an Urban Supplement has also been prepared for that city. The Urban Supplement must outline means of improving access to these major urban centers, emphasizing the transportation needs of city residents who are employed or seeking employment in suburban locations.

The State Plan recognizes the importance of cities to future development in the state, and it proposes to target infrastructure investments to urban areas to support urban development and redevelopment. In recent years, cities have begun to experience modest to substantial gains in new development, and projections and plans indicate that urban development is likely to continue.

The transportation needs of the major cities can be summarized follows:

- ◆ Diverse populations, including low-income, minority, and elderly citizens, many of whom depend on public transportation.
- ◆ A need to serve both increasing development and redevelopment.
- ◆ An aging infrastructure that must be maintained and rehabilitated.
- ◆ A mismatch between the locations of housing and jobs.

This Urban Supplement updates previous reports from 1993 and 2001. NJDOT intends for this document to be a user-friendly guide to inform its planning and capital programming processes, and those of the counties and municipalities involved, particularly to support local economic development and land use objectives.

This report provides background data on transportation and demographic conditions, and it assesses transportation system issues and needs, especially in terms of meeting existing demands and accommodating new development and redevelopment. The report also identifies current and proposed transportation investments and their status, and it proposes means of advancing key projects.

The study process involved interviews and other contacts with representatives of several agencies including NJDOT Local Aid; NJ TRANSIT; the Delaware Valley Regional Planning Commission (DVRPC); the city Department of Development and Planning (economic development, redevelopment and planning and capital programming) and the Greater Camden Partnership.

The process also involved reviewing reports, information, and data from several agencies, including the US Census, NJ Department of Labor, NJDOT, NJ TRANSIT and DVRPC. Key local planning documents included Center City Camden, the Economic Engine of Camden's Revitalization; the Downtown Camden Strategic Development Plan; the Camden Strategic Revitalization Plan; the Camden County Smart Growth Transit Analysis; the Camden Downtown Market Study; and the Camden Master Plan.

I. TRANSPORTATION AND DEMOGRAPHIC CONDITIONS

A. EXISTING TRANSPORTATION NETWORK

1. Roads

Regional State and County Roads

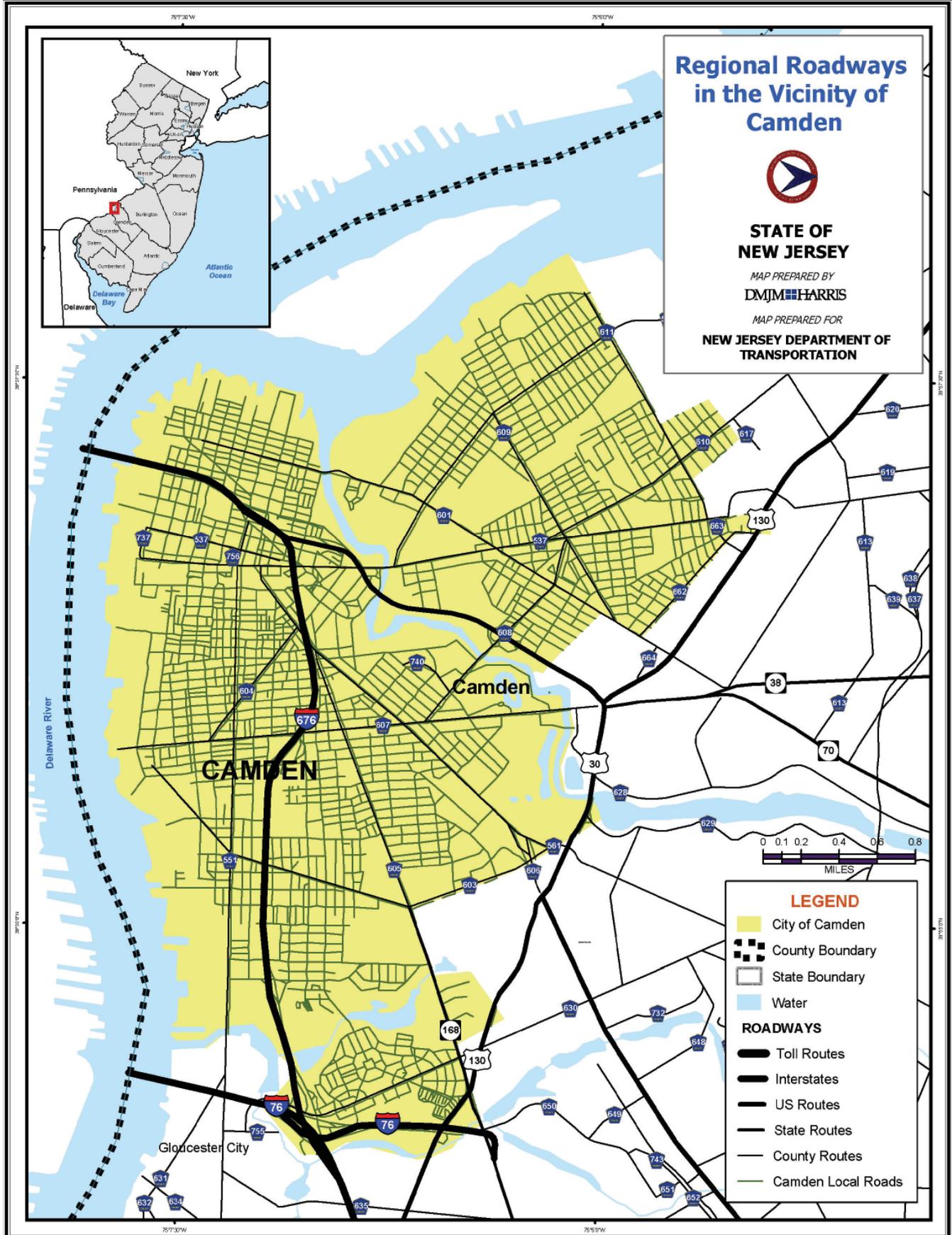
Camden is situated at the hub of a number of roadways that historically carried traffic to both the Camden city center and over the Benjamin Franklin Bridge to Philadelphia. Among these are the following major arterial roadways: US 30, and State Routes 38, and 168 (Mount Ephraim Avenue). In addition, US 130 and State Route 70 meet Routes 30 and 38 at the Airport Circle interchange and feed into Camden and Philadelphia via Route 30. The following County Routes (CR) also lead into Camden in a radial pattern: 543 (River Road), 610 (Westfield Avenue), 537 (Federal Street), 561 (Haddon Avenue), and 551 (Broadway). Cutting across this radial pattern are CRs 611 (36th Street), 609 (27th Street), 601 (State Street), 607 (Kaighns Avenue), and 603 (Ferry Avenue). Interstate 676 connects Camden with Philadelphia and Interstate 95 to the west via the Benjamin Franklin Bridge; I-676 also connects Camden to Interstate 76, via the Walt Whitman Bridge, I-295 and Route 42 to the south. According to data available from the New Jersey Department of Transportation (NJDOT), the city contains 9.0 centerline miles of state and authority roadways and 28.4 centerline miles of county roadways

Table 1 shows the length of each major roadway in the city and the jurisdiction of each. Map 1 shows the location of and relationship among these highways and the City.

Table 1: Major Roadways within Camden

Roadway	Length in Camden	Jurisdiction
Route 30	1.9 miles	NJDOT
Route 130	0.2 miles	NJDOT
Route I-76 (Connector)	2.0 miles	Delaware River Port Authority
Route I-676	3.7 miles	NJDOT
Route I-676	1.2 miles	Delaware River Port Authority
CR 537 Spur – Market Street	1.1 miles	Camden County
CR 537 – Federal Street	3.1 miles	Camden County
CR 551 – Broadway	2.7 miles	Camden County
CR 601 – State Street/Marlton Avenue	5.0 miles	Camden County
CR 603 – Ferry Avenue/Dwight Avenue	2.4 miles	Camden County
CR 604 – Newton Avenue	1.1 miles	Camden County
CR 605 – Mount Ephraim Avenue	1.4 miles	Camden County
CR 606 – White Horse Pike	0.1 miles	Camden County
CR 606A	0.2 miles	Camden County
CR 607 – Kaighns Avenue	2.3 miles	Camden County
CR 608/740 – Baird Boulevard	1.5 miles	Camden County
CR 609 – 27th Street	2.0 miles	Camden County
CR 610 – Westfield Avenue	2.9 miles	Camden County
CR 611 – 36th Street	1.3 miles	Camden County
CR 630 – Collings Avenue	1.3 miles	Camden County

Map 1: Camden Area Road Network



Within Camden, US 30 is an eight-lane arterial, running just north of the Cooper River. This road carries regional traffic between the Airport Circle and the Benjamin Franklin Bridge.

Municipal Streets

Major municipal streets within the city include Delaware Avenue, Linden Avenue, Martin Luther King Boulevard, Atlantic Avenue, Morgan Boulevard, Baird Boulevard, Erie Street and 10th Street. These streets and the regional roadway network are complemented by an extensive interconnected grid of city streets. Atlantic Avenue and Morgan Boulevard provide access to the two port terminals and other industries along the city's Delaware River waterfront. Both roads carry a significant number of trucks to and from I-676.

Bridges

Two toll bridges cross the Delaware River between Camden and Philadelphia: the Benjamin Franklin (I-676) and the Walt Whitman (I-76). Both bridges are owned and operated by the Delaware River Port Authority, which is headquartered in Camden. These bridges provide easy access to center city Philadelphia and the southern area of this city, including the sports complex and Philadelphia International Airport.

2. Public Transit

Rail Service

Camden is served by two rail passenger lines: the PATCO Speedline, operated by the Delaware River Port Authority through its Port Authority Transit Corporation (PATCO), and the River LINE, operated by NJ TRANSIT. These rail lines and bus service in Camden are depicted on Map 2.

PATCO provides a high quality, 24-hour rail service linking Camden with suburbs to the east and Philadelphia to the west. The PATCO system has thirteen stations; three stations are located in the city: Ferry Avenue, the Walter Rand Transportation Center (WRTC, at Broadway) and City Hall. The WRTC provides connecting service with 26 bus routes and the River LINE. The six New Jersey stations outside Camden are Collingswood, Westmont, Haddonfield, Woodcrest, Ashland and Lindenwold. The PATCO trains access center city Philadelphia at four stops: 8th and Market Streets, 9th-10th Streets, 12th-13th Streets and 15th-16th Streets. Ferry Avenue and the six suburban stations all offer parking (12,623 total spaces), with the most spaces being at Lindenwold, Woodcrest, and Ferry Avenue. Trains arrive every three to four minutes in the peak periods and from 12 to 40 minutes apart during other hours, weekends and holidays. Travel time to the 15th-16th Street Station in Philadelphia from Lindenwold is 26 minutes. Average daily weekday ridership on PATCO is 38,000.

The River LINE began service in March 2004. The line connects the Camden downtown waterfront to the Trenton Train Station, with 20 station stops along 34 miles of track. Except for the Camden, Burlington Towne Center, Cass Street (Trenton) and Trenton Rail Stations, all stops have free parking. The larger (over 350 parking spaces) park-and-ride stations are 36th Street (Camden/Pennsauken), Route 73 / Pennsauken, Burlington South, and Florence. Trains run every 15 minutes during weekday peak periods and every 30 minutes during off-peak periods, weekends and holidays, from approximately 6:00 A.M to 10:00 P.M. Saturday hours are extended to about 1 A.M. Weekday ridership on the River LINE increased from under 6,000 in November 2004 to over 8,000 in November 2005. The line also carries substantial weekend ridership for shopping, tourism and recreational purposes.

NJ TRANSIT also operates the Atlantic City Rail Line between Philadelphia and Atlantic City. This rail line does not directly serve Camden, but a nearby stop is in Cherry Hill, and transfer with the PATCO service is available at the Lindenwold station. NJ TRANSIT estimates 2005 ridership

to average 3,150 persons per weekday, a 12.5% increase from 2000. Fourteen daily trains operate on a set schedule between 4:30 A.M and 2:30 A.M., with trains running between one and two hours apart.

Bus Service

Reinforcing Camden's role as a transit hub and primary pathway to Philadelphia, NJ TRANSIT provides many fixed-route bus services from all areas of southern New Jersey; these routes run along the primary regional roadways into the city. The routes serving the city of Camden are 313, 315, 317, 318, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 412, 413, 418, 419, 450, 451, 452, 453, 457, 460 and 551 (See Map 2). These routes provide an extensive bus service network in Camden, connecting Camden to the suburban corridors north, east and south of the city and to Philadelphia to the west.

In general terms, of the 26 routes providing service in Camden, four service patterns exist:

- ◆ Three routes (452, 453, and 460) provide circulation within the city.
- ◆ Four routes (313, 315, 408, and 551) stop only at the WRTC and connect to Philadelphia, Turnersville, Millville, Atlantic City, and Cape May with no or few intervening stops.
- ◆ Four routes (317, 409, 413, and 418) also stop only at the WRTC in Camden but do offer service to multiple points along the Route 38 and US 130 suburban corridors described above.
- ◆ The remaining 15 routes offer stops within the city and provide access to various locations outside Camden including many of the suburban employment corridors.

Some recent service adjustments on NJ TRANSIT's bus routes include:

- ◆ Route 452 within Camden – Extended hours of operation from 7:00 P.M. to midnight seven days a week.
- ◆ Route 419 to Pennsauken Industrial Park – Added early morning service.
- ◆ Route 406 to Cherry Hill – Extended service to employment centers.
- ◆ Route 457 to Mt. Laurel – Improved service to East Gate.
- ◆ Route 400 to Sicklerville - Increased service to Pennco Tech in Blackwood and added service between Audubon and Turnersville.
- ◆ Route 402 to Pennsville – Added service that provides increased access to the Pureland Industrial Park for earlier morning and later evening work shift times.
- ◆ Route 413 to Burlington – Adjusted service to provide direct access to the new Centerton Square Shopping Center in Mount Laurel.

In March of 2005, all routes provided over 1,170 bus trips per weekday, as well as some service on Saturday and Sunday. The median weekday ridership on all 26 routes combined was over 34,300, which is 6.5% less than the March 2000 ridership despite a small increase in service (4 additional bus trips).

Other Transit Service

City residents have several other transit options including the following:

- ◆ NJ TRANSIT's Access Link program provides paratransit service comparable to local bus service to persons with disabilities. The origin and destination of each trip must be within $\frac{3}{4}$ mile of a local bus route, but the service is curb to curb and set by advance reservations.

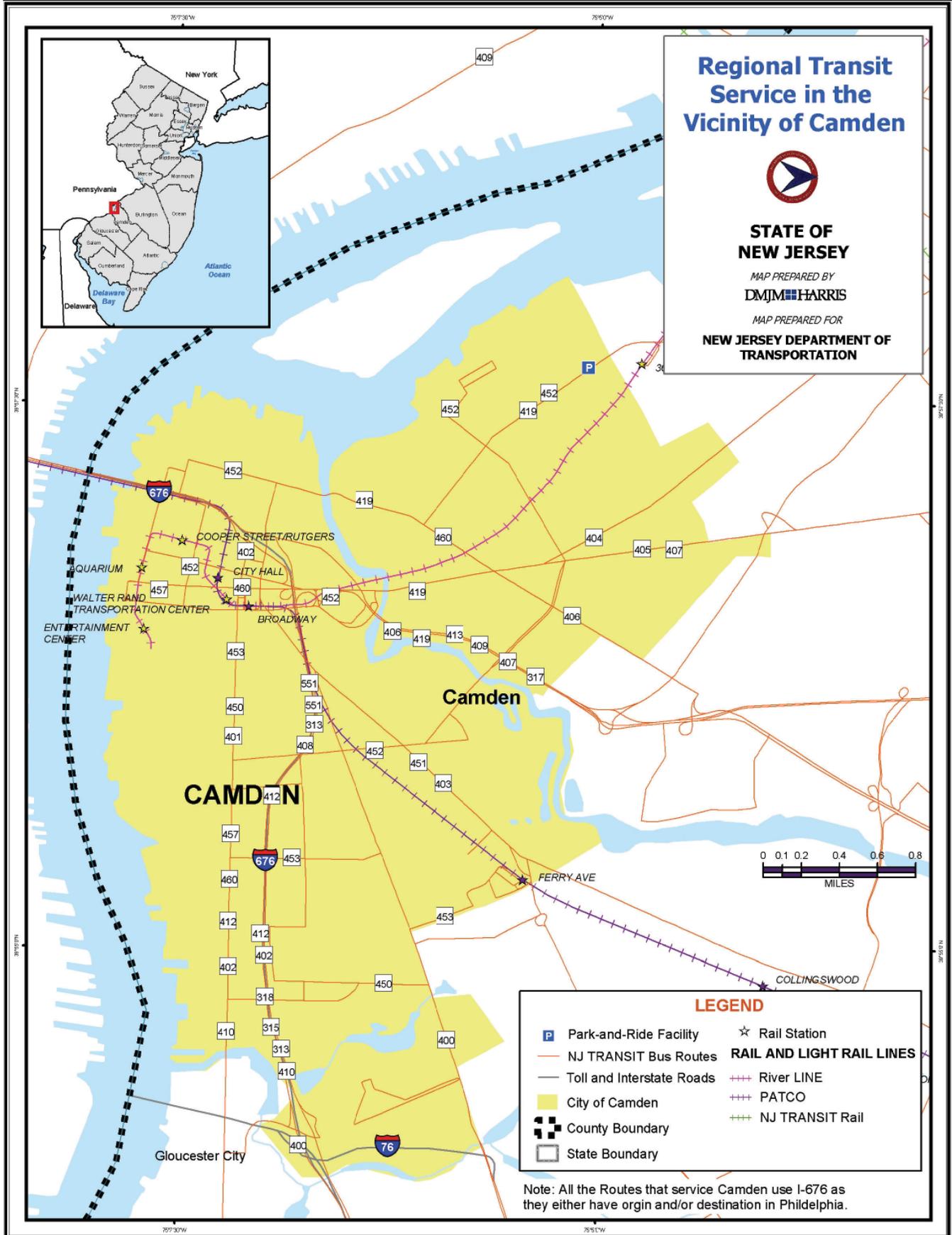
- ◆ Senior Citizens United Community Services of Camden County is a non-profit agency providing coordinated special transportation services to elderly persons and persons with disabilities who reside in the county. The services include non-emergency medical trips, modified fixed-route shopping trips, post-secondary school trips and special event trips.
- ◆ The South Jersey Transportation Authority provides shuttle services between Camden and employment opportunities at the Pureland Industrial Complex in Logan Township, the Pennsauken Industrial Park and the Moorestown Industrial Park (from the River LINE Pennsauken Station), the U.S. Vision facility in Glendora, and the UPS facility at Philadelphia International Airport. These services operate at hours beyond those of regular bus route service in some cases.
- ◆ In Burlington County, the BurLink shuttle service carries River LINE passengers to work and other destinations. NJ TRANSIT and BurLink have established a transfer system that improves connectivity for riders using the two services.

3. Bicycle and Pedestrian Facilities

The city has several trails available for pedestrian and bicycle use including:

- ◆ Waterfront Promenade - In Wiggins Park, an element of the Camden Entertainment and Recreation Waterfront, this 4000-plus-foot paved walkway runs directly on the water's edge from south of the Benjamin Franklin Bridge to Clinton Street and links Campbell's Field, the Adventure Aquarium, the Tweeter Center and the Battleship New Jersey.
- ◆ New Camden Park - Located in central Camden between Park Boulevard and the Cooper River, New Camden Park includes a 0.5 mile bike path.
- ◆ Admiral Wilson Boulevard "Gateway Trail" - The trail runs between Admiral Wilson Boulevard (US 30) and the Cooper River from just east of the Cooper River Bridge almost to Kaighns Avenue, a distance of a little over one mile.
- ◆ Benjamin Franklin Bridge Walkway - Walkways on both sides of the bridge permit pedestrian and bicycle (walk only) access between Camden and Philadelphia.

Map 2: Camden Area Transit Network



4. Goods Movement

The Port of Camden, owned and operated by the South Jersey Port Corporation, which was established by state statute in 1968, is an important port on the east coast. From north to south, the three terminals comprising the Port of Camden are Beckett Terminal, Broadway Terminal, and Broadway Produce Terminal. The terminals occupy 340 total acres and offer six docking berths. The terminals specialize in bulk and break-bulk commodities, the most important of which are wood/lumber, steel, scrap metal, iron ore, furnace slag, cocoa beans, minerals and fresh fruit. The port activities generate associated freight movement and industrial processing that are the largest sources of private sector employment and business growth in Camden. The Port handled a record 3.6 million tons of cargo in 2005.

Access to the Beckett and Broadway terminals is provided via Atlantic Avenue and Morgan Boulevard from I-676 Interchanges 4 and 3, respectively. I-676 and I-76 are both part of the National Network of highways for large trucks.

Direct rail freight access exists at the port with service from Conrail connecting to three Class I operators: Norfolk Southern, CSX, and Canadian Pacific Railway. Pavonia Yard, located in the northern portion of the city, is the hub of Conrail operations in South Jersey.

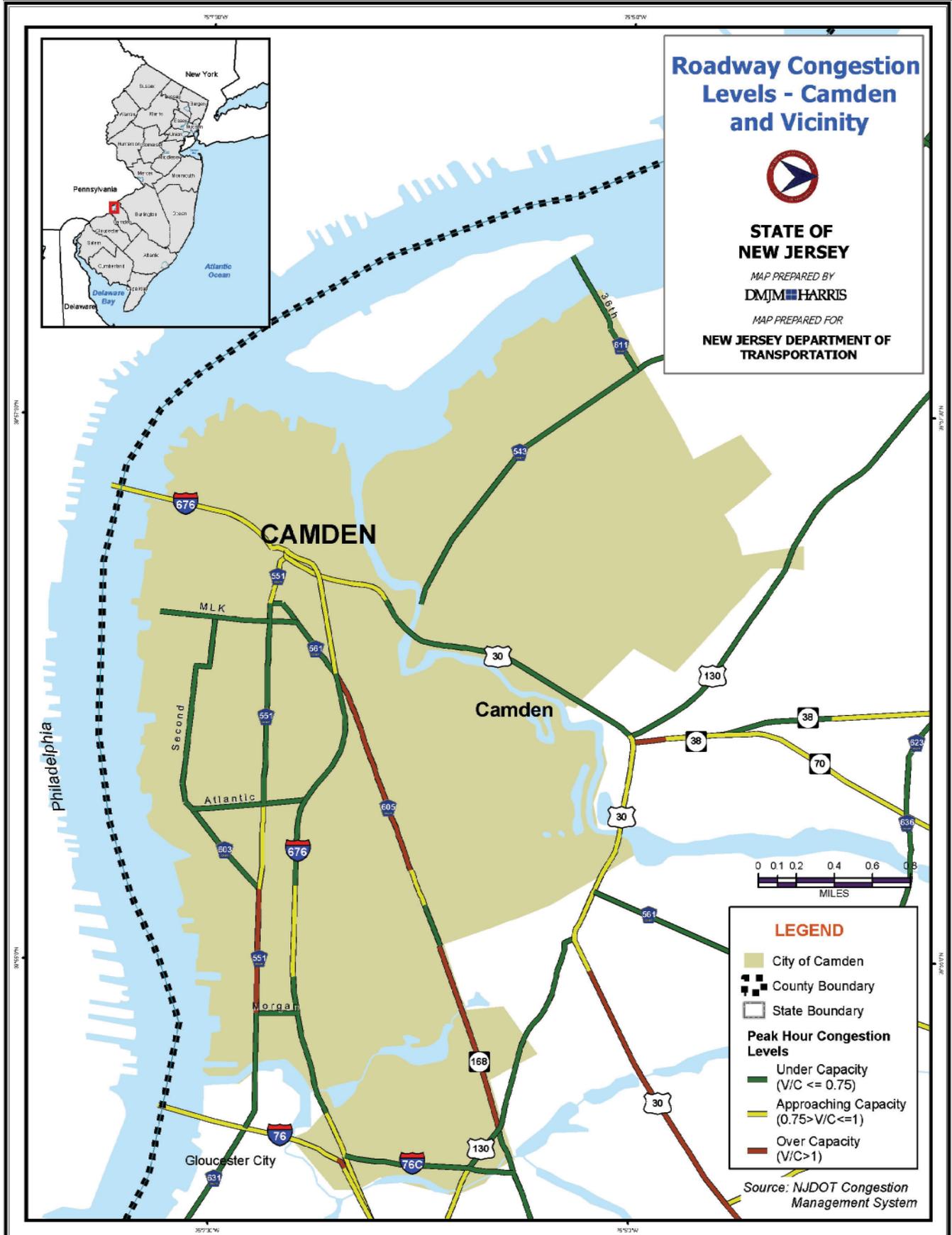
B. SYSTEM PERFORMANCE

This section provides information on transportation system performance based upon management system data that NJDOT maintains.

1. Congestion Management System

NJDOT's Congestion Management System (CMS) is a primary source of information on roadway congestion. The CMS measures congestion based upon a volume-to-capacity (v/c) ratio. Roadways operating below a 0.75 v/c ratio operate well and have the capacity to accommodate growth. Roadways approaching a 1.0 v/c ratio have little ability to accept additional growth, and a v/c over 1.0 indicates that the roadway is operating at failing conditions and does not have the capacity for added traffic. Map 3 shows the 2005 congestion levels for the city and the immediately surrounding area. Within the city, only two facilities are operating at an over-capacity condition: Mount Ephraim Avenue (CR 605) and Broadway (CR 551). Outside the downtown, two roadways are operating at over-capacity conditions: Route 38 just east of the Airport Circle (junction of Routes 30, 130 and 38) and Route 30 (the White Horse Pike) from just south of Route 130 to south of Cuthbert Road. Just off the map to the south but of regional significance and importance for access to Camden, Interstate 295 and Route 42 are over capacity as they approach and pass through their interchange with Interstate 76.

Map 3: Roadway Congestion Levels – Camden and Vicinity



2. Pavement Conditions

NJDOT maintains a Pavement Management System (PMS) database with information on pavement conditions. The PMS includes all interstate, state and U.S. highways, plus significant 500- and 600-level county roads, and some local routes of regional significance. The rating system for the roadways is based primarily on two criteria: ride quality and surface distress. The Ride Quality Index (RQI) describes the comfort level by measuring roughness, and the Surface Distress Index (SDI) compiles and measures the severity of surface distresses such as cracking, patching, shoulder condition, shoulder drop, faulting and joints. A final pavement rating is calculated from RQI and SDI to determine pavement quality. These ratings, in conjunction with roadway types, are used to determine priorities for resurfacing projects throughout the state.

Table 2 shows the pavement condition of state roads in Camden in 2004, rated by the SDI reflecting the structural integrity of the pavement surface even though some of the distress factors present may not have produced a rougher surface at the time of measurement. The data show that most roads have fair or better pavement conditions.

Table 2: Camden Pavement Condition Summary by SDI

Facility	Total Pavement Miles (Both Directions)	Very Good Pavement SDI > 4	Good Pavement 4 > SDI > 3	Fair Pavement 3 > SDI > 2	Poor Pavement 2 > SDI > 1	Very Poor Pavement SDI < 1
30	3.8	0.3	0.4	1.9	1.2	0.0
130	0.4	0.0	0.4	0.0	0.0	0.0
676	7.4	5.2	1.2	0.9	0.1	0.0
Total	11.6	5.5	2.0	2.8	1.3	0.0
%	100%	47.4%	17.2%	24.1%	11.2%	0.0%

Source: NJDOT, Pavement Management System

In terms of roughness or ride quality, the International Roughness Index (IRI) only reflects the amount of existing surface irregularities that cause a vehicle to lose contact with the surface (measured as the amount of suspension over distance). As a single dimension measurement, deficiencies are more striking but treatment may be less costly in terms of overlays, with or without milling, than rehabilitation or reconstruction which may be the treatment for SDI-indicated problems. Table 3 indicates that over 60% of the state roadways within Camden had deficient pavement conditions in 2004.

Table 3: Camden Pavement Condition Summary by IRI

Facility	Facility Type	Total Pavement Miles (Both Directions)	Good Pavement*	Fair Pavement*	Deficient Pavement*
30	NHS	3.8	0.0	2.6	1.2
130	NHS	0.4	0.0	0.2	0.2
676	NHS	7.4	0.2	1.5	5.7
Total	-	11.6	0.2	4.3	7.1
%	-	100%	1.7%	37.1%	61.2%

Source: NJDOT, Pavement Management System

3. Bridge Conditions

NJDOT employs a Bridge Management System (BMS) to maintain an inventory of all bridges with a span over 20 feet. The BMS lists the physical characteristics, condition and ownership of each bridge. The bridges are rated for their structural condition as well as functional characteristics. Information on structural condition is also combined with bridge size and roadway type to help determine priorities for bridge improvement projects.

Of the 43 bridges in Camden, 7% were structurally deficient and 19% were functionally obsolete in 2005, for a total proportion of substandard bridges of 26% (see Table 4). This figure compares favorably with a county percentage of 33% substandard bridges and a statewide share of 35% substandard bridges.

Table 4: Camden Bridges with Substandard Conditions

	Structurally Deficient		Functionally Obsolete		Not Deficient		Total
	Number	Percent	Number	Percent	Number	Percent	
Camden	3	7.0%	8	18.6%	32	74.4%	43
Camden County	23	9.1%	61	24.2%	168	66.7%	252
State	779	12.1%	1,459	22.7%	4,177	65.1%	6,415

Source: NJDOT, Bridge Management System.

4. Safety Management

NJDOT's Bureau of Safety Programs produces an annual report of motor vehicle crash rates (per one million vehicle miles traveled) for roads under NJDOT jurisdiction. Table 5 shows the state road segments in Camden with the highest crash rates in 2004.

Table 5: State Road Segments with Highest Crash Rates in Camden, 2004

Road	Location	Length	Crashes	Rate
US 130	Between Myrtle & Federal Streets	0.13	8	4.84
US 30	West of Airport Circle	1.09	93	3.10
I-76	Interchange with Route I-676	0.04	7	3.02
I-676	Interchanges at Collings Road, Route 130 and I-76	0.40	30	2.86

Source: NJDOT, Bureau of Safety Programs.

With the exception of US 130, comparing these crash rates with the state rate for all roads for 2004 (3.88 per million miles of vehicle miles traveled) indicates that state roadways in Camden are not particularly more prone to crashes than other roads.

C. DEMOGRAPHIC PROFILE

This section provides a summary of demographic characteristics for the city. It examines trends over the past 20 years and compares trends for the city, county and state.

1. Population and Households

Between 1990 and 2000, the city's population reversed a modest increase in the 1980s with a 9.9% decline. In the same period, county and state populations increased (see Table 6). Camden County grew by 1.3% despite the decline in Camden. Even with this decline, Camden ranked number eight among the state's municipalities by population.

Table 6: Total Population, Camden, Camden County, New Jersey 1980 - 2000

	1980	1990	2000	Change 1990-2000	
				Number	Percent
Camden	84,910	88,675	79,904	-8,771	-9.9%
Camden County	471,650	502,824	508,932	6,308	1.3%
New Jersey	7,365,011	7,730,188	8,414,350	684,162	8.9%

Source: U.S. Department of Commerce, Bureau of Census, Population and Housing 1980, 1990, 2000.

2. Age Distribution

The age distribution of the city's population is different from that of the county and state (see Table 7). The city has a higher percentage of population under the age of 19 and a lower percentage over the age of 65. Between 1990 and 2000, while the county and state's median age increased, the city's median age decreased. The higher proportion of younger persons places pressures on households for income and housing resources and stresses the city's fiscal resources for public facilities and services, especially schools.

**Table 7: Age Profile of the Population
Camden, Camden County, New Jersey 1980-2000**

	1980	1990	2000
<5 Years			
Camden	9.2%	10.7%	9.1%
Camden County	7.2%	8.1%	6.8%
New Jersey	6.3%	6.9%	6.7%
5-19 Years			
Camden	33.8%	28.4%	29.1%
Camden County	25.2%	21.2%	22.4%
New Jersey	24.2%	19.1%	20.4%
20-64 Years			
Camden	45.9%	52.5%	54.0%
Camden County	57.1%	58.6%	58.3%
New Jersey	57.8%	60.6%	59.7%
65+ Years			
Camden	11.1%	8.4%	7.6%
Camden County	10.4%	12.1%	12.6%
New Jersey	11.7%	13.4%	13.2%
Median Age			
Camden	29.5	30.4	27.2
Camden County	32.1	33.3	35.8
New Jersey	32.0	34.4	36.7

Source: U.S. Bureau of the Census, Population Division, 1980, 1990, 2000.

3. Racial and Ethnic Composition

The city experienced a change in racial and ethnic composition during the 1990's (see Tables 8 and 9). The percentage of both white and black population decreased; the white percentage changed from 19% to 16.8% while the black percentage changed from 56.4% to 53.3%. Meanwhile, the percentage of other populations increased from 24.6% in 1990 to 29.8% in

2000. At the same time, the percentage of Hispanic population grew to 38.8% of the total population in 2000. By comparison, the county's year 2000 racial and Hispanic population proportions were 70.9% white, 18.1% black, 11% other races and 9.7% Hispanic. The state proportions were similar to the county's. These data reveal a city with a concentration of non-white and Hispanic populations that is very different from the county and state pattern.

**Table 8: Racial Composition of Population
Camden, Camden County, New Jersey 1990-2000**

	1990	2000
White		
Camden	19.0%	16.8%
Camden County	76.6%	70.9%
New Jersey	79.3%	72.6%
Black		
Camden	56.4%	53.3%
Camden County	16.2%	18.1%
New Jersey	13.4%	13.6%
Other		
Camden	24.6%	29.8%
Camden County	7.2%	11.0%
New Jersey	7.3%	13.8%

Source: U.S. Bureau of the Census, Population Division, 1980, 1990 and 2000.

* "Other Races" include Asian, Pacific Islander, American Indian, Alaska Native and persons of two or more races. It also includes persons who reported that they are "2 or more" races. Since the Census Bureau used this category for the first time for the 2000 Census, some of the shift in the racial composition between 1990 and 2000 may be attributable to persons selecting this category. Hispanic origin is not a race; persons of Hispanic origin may be included in any of the race categories.

**Table 9: Percentage of Hispanic Population
Camden, Camden County, New Jersey 1990-2000**

	1990	2000
Camden	31.2%	38.8%
Camden County	7.6%	9.7%
New Jersey	9.6%	13.3%

Source: U.S. Bureau of the Census, Population Division, 1980, 1990 and 2000.

4. Income & Poverty

Median household income in Camden increased 33.7% in the 1990s, a rate comparable to the experience in the county and state. However, the city's 2000 median income reflects the clear disparity in income levels, the city's being less than half that of the county and a little over forty percent that of the state (see Table 10). The percentage of persons below the poverty level decreased slightly during the 1990s, but the city's poverty rate is over three times that of the county and over four times that of the state. These data show that Camden contains a concentration of lower income households and below poverty individuals.

Table 10: Income and Poverty, Camden, Camden County, New Jersey 1979-1999

	1979	1989	1999	Change 1989-1999	
				Number	Percent
Median Household Income					
Camden	\$9,285	\$17,386	\$23,241	\$5,885	33.7%
Camden County	\$30,256	\$36,190	\$48,097	\$11,907	32.9%
New Jersey	\$33,178	\$40,927	\$55,146	\$14,219	34.7%
% Individuals Below Poverty Line					
Camden	24.9%	24.2%	23.6%		
Camden County	12.6%	9.4%	10.5%		
New Jersey	9.5%	7.6%	8.7%		

Source: U.S. Department of Commerce, Bureau of Census, Population and Housing 1980, 1990, 2000.

5. Automobile Ownership

The rate of household vehicle ownership increased slightly in Camden between 1990 and 2000, but it remained well less than the rates for the county and state (see Table 11). For the city, 70% of households had one or no vehicles, compared to a statewide average of 48%. This data indicates a higher reliance on transit and other modes of travel by city households.

**Table 11: Percentage of Households with a Vehicle
Camden, Camden County, New Jersey 1980-2000**

	1980	1990	2000
Camden	56.7	56.4	59.4
Camden County	85.6	86.7	87.4
New Jersey	85.2	87.1	87.3

Source: U.S. Census, Population and Housing 1980, 1990, 2000.

6. Labor Force

Between 1990 and 2000, the number of employed residents in Camden decreased by 16%, compared to a county decrease of only 1.5% and a gain of 2.1% by the State (see Table 12). This trend is due to a decrease in the number of persons aged 16 and over and a decrease in the labor force participation rate.

Table 12: Employed Residents, Camden, Camden County, New Jersey 1980 – 2000

	1980	1990	2000	Change 1990-2000	
				Number	Percent
Camden City	23,609	27,306	22,973	-4,333	-15.9%
Camden County	204,100	238,834	235,355	-3,479	-1.5%
New Jersey	3,288,302	3,868,698	3,950,029	81,331	2.1%

Source: U.S. Department of Commerce, Bureau of Census, Population and Housing 1980, 1990, 2000.

7. Unemployment

The 2000 civilian resident unemployment rate for Camden decreased to 15.9 percent, while the county and state experienced minor increases from 1990. However, the city rate was still more than double that of the county and state in 2000 (see Table 13).

**Table 13: Resident Unemployment Rate
Camden, Camden County, New Jersey 1980-2000**

	1980	1990	2000
Camden	17.9%	16.3%	15.9%
Camden County	6.6%	5.9%	6.0%
New Jersey	7.2%	5.7%	5.8%

Source: U.S. Department of Commerce, Bureau of Census, Population and Housing 1980,

8. Employed Residents by Industry

Table 14 shows the number of employed city residents who work in different industrial sectors. The leading industries of employment are educational health and social services (25%), manufacturing (15.1%) and retail trade (11.9%). City resident employment in manufacturing (15%) was higher than that of the county (10.3%) and the state (12%), reflecting the continued presence of manufacturing jobs within the city.

Table 15: Industrial Sector of Employment, Camden City Residents 2000

Industry	Number	Percent
Agriculture, forestry, fishing and hunting, and mining	35	0.2
Construction	1,079	4.7
Manufacturing	3,460	15.1
Wholesale trade	993	4.3
Retail trade	2,731	11.9
Transportation and warehousing, and utilities	1,073	4.7
Information	529	2.3
Finance, insurance, real estate, and rental and leasing	1,126	4.9
Professional, scientific, management, administrative, and waste management services	1,958	8.5
Educational, health and social services	5,735	25.0
Arts, entertainment, recreation, accommodation and food services	1,744	7.6
Other services (except public administration)	1,310	5.7
Public administration	1,200	5.2

Source: US Census 2000.

9. Employed Residents by Occupation

Table 15 shows the number of employed residents with different occupations. The percentage of city workers in "Management, Professional, and Related Occupations" (17%) was considerably less than that of the county (36%) or state (38%).

Table 15: Occupation of Employment, Camden City Residents 2000

Occupation	Number	Percent
Management, professional, and related occupations	3,850	16.8
Service occupations	5,858	25.5
Sales and office occupations	5,763	25.1
Farming, fishing, and forestry occupations	68	0.3
Construction, extraction, and maintenance occupations	1,528	6.7
Production, transportation, and material moving occupations	5,509	25.7

Source: US Census 2000

10. Journey-to-Work - Resident Labor Force

The journey-to-work data from the 2000 Census reports that the percentage of Camden's resident labor force employed in the city was 31%, which was a decrease from 40% in 1990. Over 15,000 city residents worked in locations outside the city (see Table 16); 26.6% worked in the nearby suburbs of Cherry Hill, Pennsauken and Collingswood, and almost 8% worked in Philadelphia. Some 10% worked in the more distant suburbs of Moorestown, Mount Laurel, Gloucester Township and Voorhees. Over 71% were employed in Camden County, 11.7% worked in Burlington County, and 3.4% worked in Gloucester County. Minor employment locations included Atlantic, Morris and Mercer Counties in New Jersey and Montgomery, Bucks and Delaware Counties in Pennsylvania.

Table 16: Location of Employment, Camden City Residents 2000

	Number	Percent		Number	Percent
Total Employed Residents	22,161	100%			
Top Ten Municipalities			Top Ten Counties		
Camden	6,889	31.1	Camden	15,755	71.1
Cherry Hill	2,884	13.0	Burlington	2,584	11.7
Pennsauken	2,740	12.4	Philadelphia, PA	1,696	7.7
Philadelphia	1,696	7.7	Gloucester	764	3.4
Mount Laurel	597	2.7	Atlantic	220	1.0
Gloucester Township	561	2.5	Montgomery, PA	183	0.8
Moorestown	521	2.4	Bucks, PA	149	0.7
Voorhees	501	2.3	Morris	119	0.5
Collingswood	267	1.2	Delaware, PA	112	0.5
Evesham	250	1.1	Mercer	109	0.5

Source: US Census, 2000.

In 2000, over 54.4% of resident workers used modes other than single-occupancy vehicles as their primary commute mode, compared to 26% in the county and 27% in the state. The share of commuters using public transit as their preferred mode was 20.8% compared to 9.6% in the county and 9.9% in the state.

The average commute time for all city workers who do not work at home was 26.7 minutes. This duration was lower than the county average of 27.9 minutes and the state average of 30.0 minutes.

11. Employment

Total covered employment in Camden (including private sector, federal government and local government jobs) in 2003 was 29,918, a 7% decrease from 1998. The leading private sector industry in the city is health care and social assistance. Manufacturing, construction and utilities accounted for only 16% of private sector jobs (see Table 17).

Table 17: Covered Employment by Sector, Camden 2003

Sector	Number
Agriculture, forestry, fishing and hunting	0
Mining	0
Utilities	0
Construction	606
Manufacturing	2,711
Wholesale trade	1,454
Retail trade	1,068
Transportation and warehousing	549
Information	165
Finance and insurance	170
Real estate and rental and leasing	284
Professional and technical services	1,554
Administrative and waste services	660
Educational services	121
Health care and social assistance	9,002
Arts, entertainment, and recreation	612
Accommodation and food services	667
Other services, except public administration	985
PRIVATE SECTOR TOTAL	21,038
FEDERAL GOVERNMENT	610
LOCAL GOVERNMENT	8,270

Source: NJ Department of Labor. New Jersey Employment and Wages: 2003 Annual Report, Municipalities by Industry. Covered Employment refers to all jobs with businesses required to participate in the Unemployment Insurance Program. Private sector total does not match sum of individual industries because NJDOL suppresses data for industries with few units (businesses) or where one employer is a significant percentage of employment or wages of the industry.

Using U. S. Census data, the Camden Downtown Market Study investigated the economic structure of the City. The study revealed an industrial distribution of employment comparable to that presented in Table 17. The distribution of firms by industry in the study showed a concentration in the health care, social assistance, accommodations and food services, educational services, transportation and warehousing. The distribution of employees by the size of firms in Camden is as follows:

Number of Employees	Number of Firms	% of All Firms	% of Employees
Under 10	459	57.5%	5.7%
10 to 49	247	30.9%	17.1%
50 to 124	59	7.4%	15.3%
125 and more	33	4.1%	61.6%

This distribution shows that while there are many smaller firms (88% have below 50 employees), employment is concentrated among large firms of 125 employees or more.

D. FUTURE CONDITIONS

1. Population and Employment Projections

DVRPC prepares population and employment projections for its region, which includes Camden. These projections indicate that the city's population will continue its trend of decline, decreasing by 3.8% between 2000 and 2030 (see Table 18). However, this projection may be tempered by current US Census population estimates provided by DVRPC that show a decline of only 0.2% between 2000 and 2004, compared with DVRPC's projected decline of 0.7% from 2000 to 2005.

Table 18: Population Projections, Camden, Camden County 2000 - 2030

	2000	2005	2010	2015	2020	2025	2030	Percent Change 2000-2030
Camden	79,904	79,320	78,560	78,400	78,330	77,220	76,900	-3.8
Camden County	508,932	511,770	512,710	512,790	514,760	513,530	515,425	1.3

Source: DVRPC

DVRPC also projects that employment in the city will decrease between 2000 and 2030; a county growth rate of 8.5% is projected (see Table 19).

Table 19: Employment Projections, Camden, Camden County 2000 - 2030

	2000	2005	2010	2015	2020	2025	2030	Percent Change 2000-2030
Camden	33,516	32,717	32,152	32,112	31,610	30,890	30,093	-10.2
Camden County	216,931	217,083	220,339	226,509	230,586	233,122	235,453	8.5

Source: DVRPC

2. Transportation Conditions

Regional transportation models enable analysis of current and future travel conditions based upon various assumptions about land use and transportation system capacity. The model output can be used to prepare "travel time contour" maps, which show how far a motorist could travel between a specific point (e.g., the center of a city) and other points on the surrounding roadway system within given time frames. These maps reflect the impact of roadway congestion upon travel time.

The work on the New Jersey Long-Range Transportation Plan included analyzing and preparing travel time contour maps for existing conditions (2005) and the 2030 Plan. These maps cover the surrounding roadway network that lies within the DVRPC region and portions of Somerset and Middlesex Counties. The calculations are based upon evening peak hour traffic volumes, and they are based upon traffic heading both to and from the central point.

The 2005 existing condition map shows the current travel time limits (see Map 4).

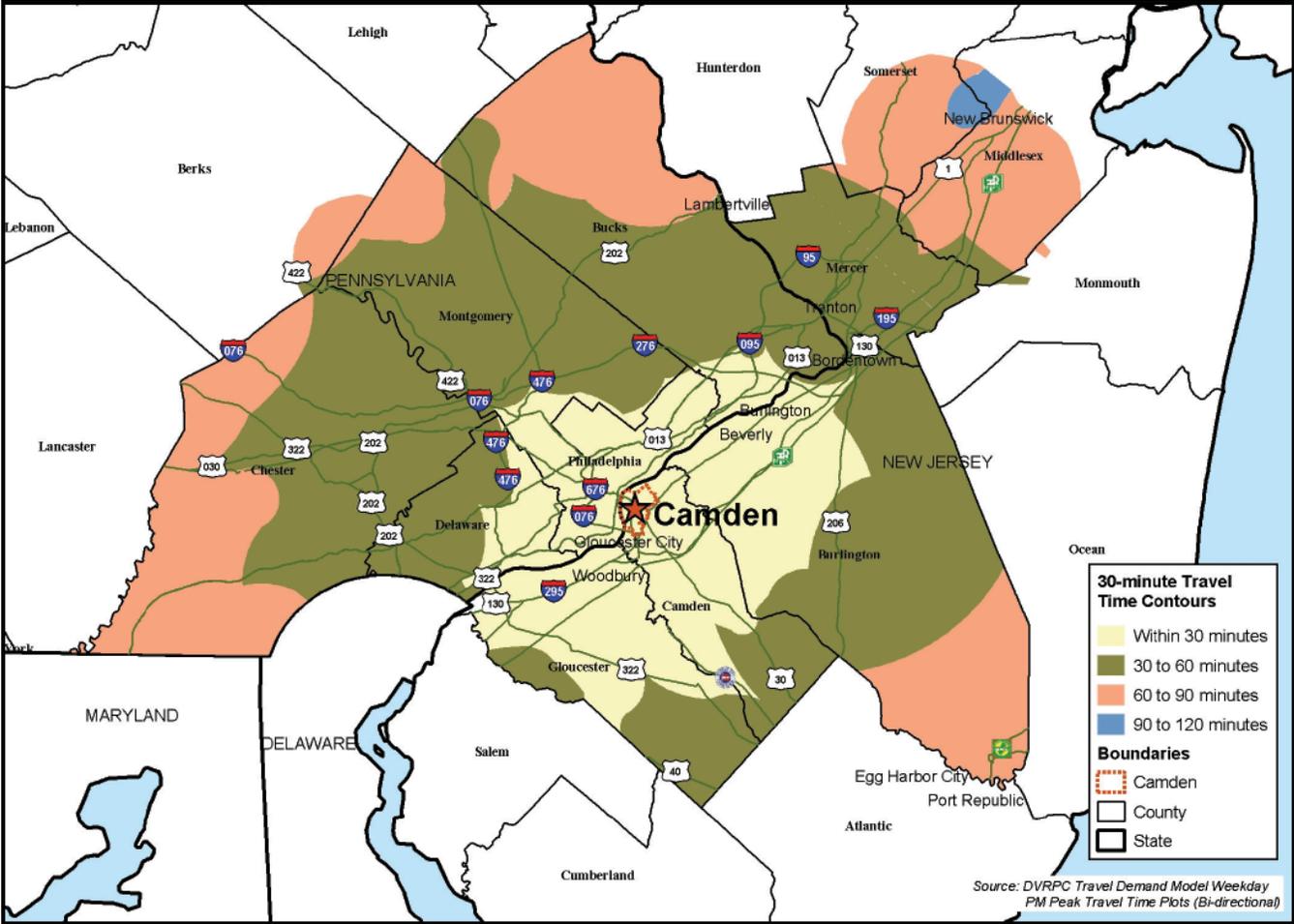
The 2030 Plan map illustrates travel time with the package of transportation system investments contained in the 2030 Plan (see Map 5). The statewide long-range transportation plan, Transportation Choices 2030, contains specific information on these investments, and the plan is available on the internet at www.njchoices.com, the website for the statewide long-range transportation plan. The 2030 Plan recognizes the importance of completing key transit

projects, and it envisions a significant infusion of additional funds for transit-related projects and bringing transportation infrastructure to a state of good repair. The 2030 Plan also assumes reducing some auto trips by more aggressive travel demand management measures and adopting smart growth measures for new development and redevelopment.

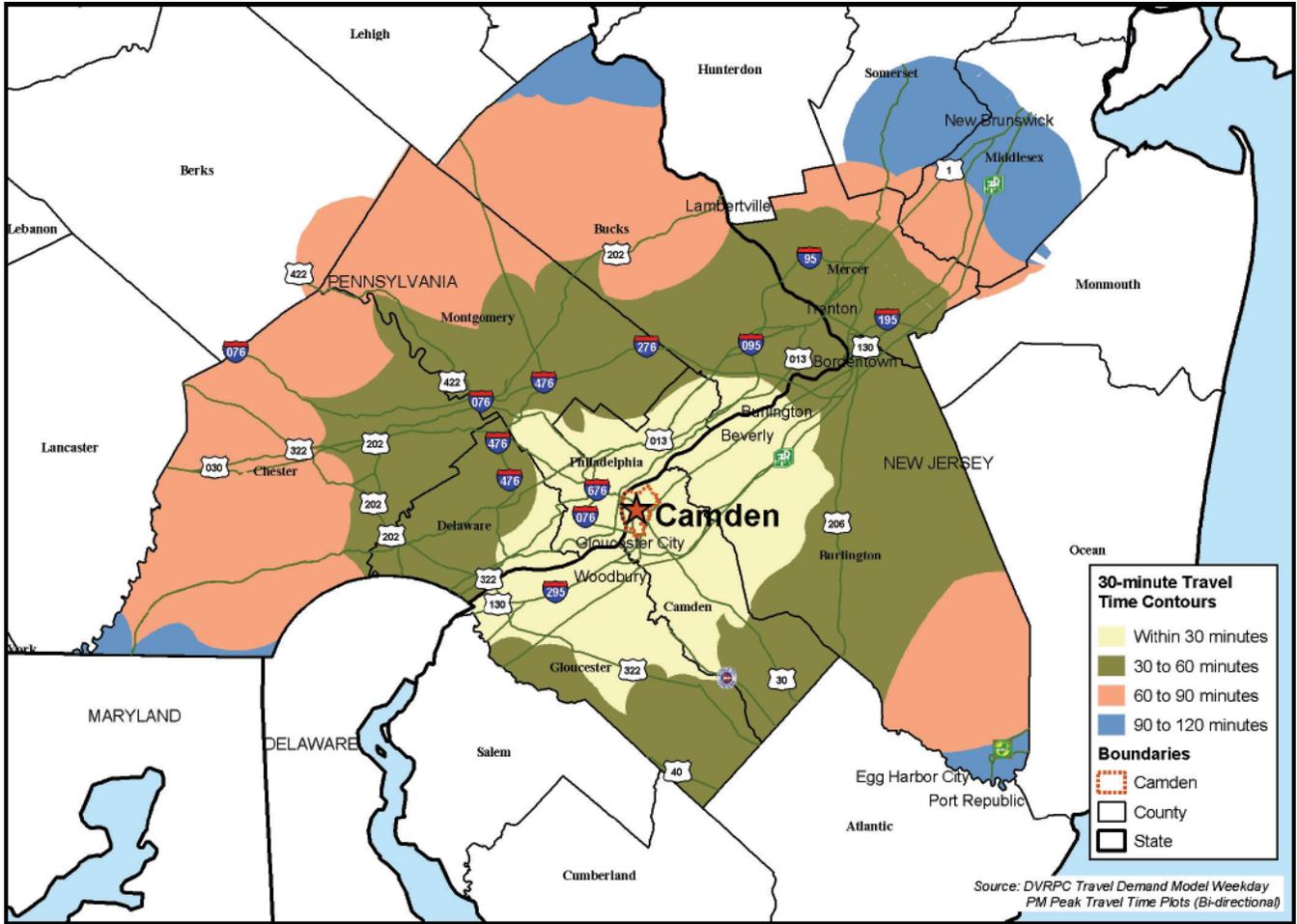
As a contrast, Map 6 shows anticipated travel time limits in 2030 without the level of investments that are contained in the 2030 Plan.

It is important to understand that these maps do not reflect public transit travel times. Public transit provides significant levels of access and mobility for the state's largest cities, and increases in transit service would be expected to increase these levels of access and mobility.

Map 4: Travel Time Contours, Camden, 2005



Map 5: Travel Time Contours, Camden, 2030 – Plan



E. CURRENT AND FUTURE DEVELOPMENT

1. City of Camden

Existing Development

The City of Camden comprises neighborhoods that vary in terms of their dominant land uses, their scale of development, and their current degree of vitality. Current development patterns reflect these variations. The Camden Master Plan, Future Camden, defines three Neighborhood Planning Districts (NPDs): the downtown area, east Camden, and south Camden. Each NPD contains from five to seven neighborhoods.

Neighborhood Planning District 1 (NPD1) is the core of the city and includes the central business district (CBD) containing commercial/government offices, retail outlets and the Cooper medical complex on Martin Luther King Boulevard; the university corridor along Cooper Street; the entertainment/recreation waterfront along Delaware Avenue (Campbell Field, Adventure Aquarium, Tweeter Center, Battleship New Jersey); technology research and development and light industry (L-3 Communications, technology center), a state prison and marine services in North Camden; a portion of the port (Beckett Terminal) and associated warehousing and industries south of Clinton Street; and light industry/office east of I-676 (Campbell's Soup).

An investigation into recent market potential for redevelopment in the CBD, as part of the Camden Downtown Market Study, revealed a housing vacancy rate in the city of 18.8%, compared to the larger Philadelphia region rate of 6.1%. This study also identified the larger employers among these firms and their location in the City, as follows:

Employer	Number of Employees	Location
L-3 Communications	1,000	Downtown/Waterfront
Campbells Soup	1,200	Downtown/Gateway
Rutgers University	700	Downtown/Cooper Street
Cooper Health Systems	3,100	Downtown/CBD
One Port Center	400	Downtown/Waterfront

In addition, the South Jersey Port Corporation estimates that employment in the ports and related activities accounts for 3,600 jobs. Additional significant employment in the CBD is at the Federal Courthouse, the County Justice Complex, and other county and city offices.

Neighborhood Planning District 2 (NPD2), east of NPD1, is primarily residential with associated retail services, but also contains Pavonia Yard and commercial corridors along Federal Street, Marlton Avenue, Westfield Avenue, and River Avenue.

Neighborhood Planning District 3 (NPD3), south of NPD1, is less intensely developed and largely residential with supporting retail. NPD3 encompasses the southern portion of the port (Broadway Terminal) and associated processing industries (cocoa, fruit, scrap metal and lumber), waterfront dependent industries (cement, gypsum and waste water treatment) along the Delaware River, and commercial corridors along Mount Ephraim Avenue and Broadway.

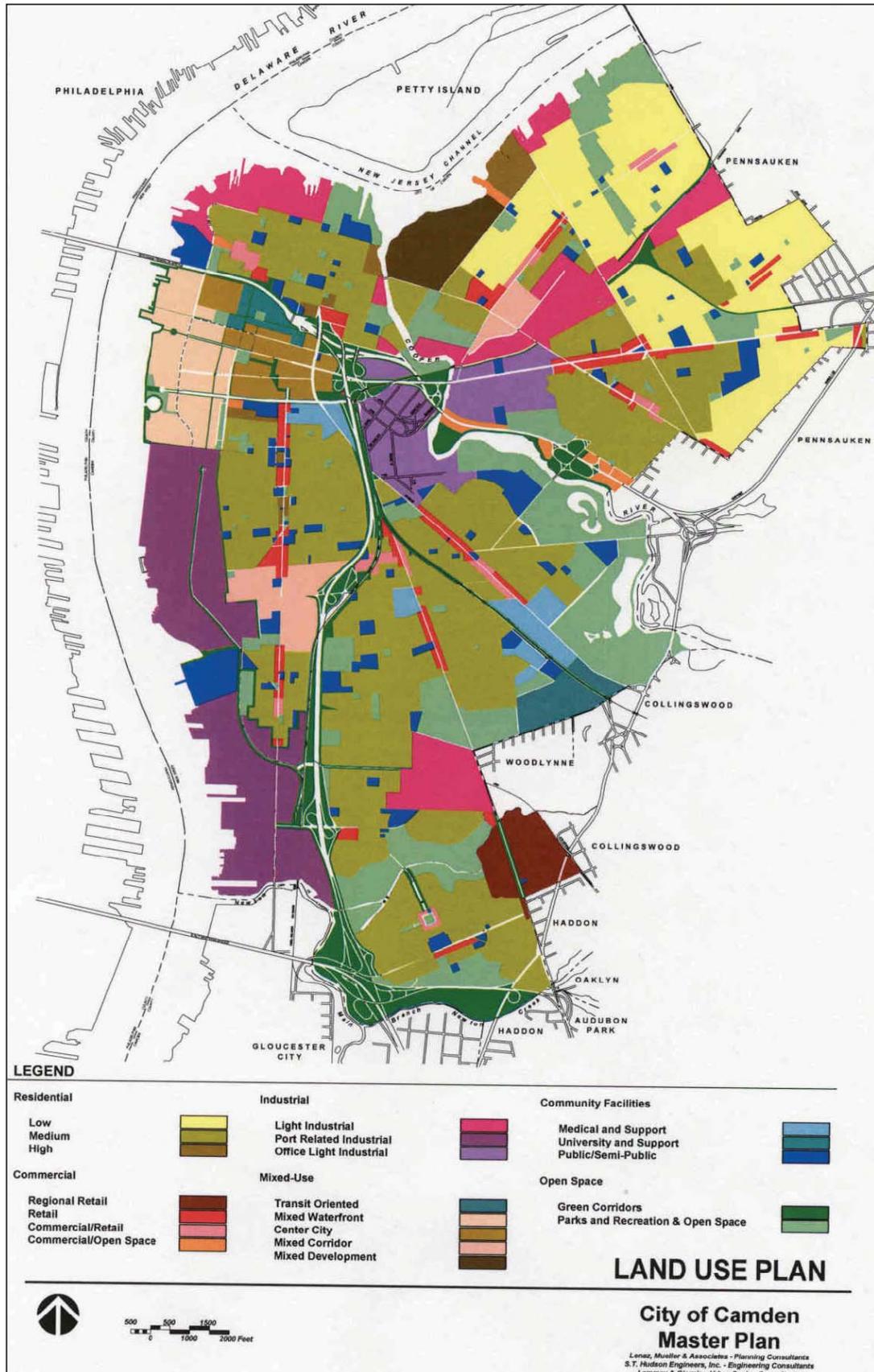
Future Development

Camden has been studied and analyzed from several perspectives; many studies yielded a planning or strategy document proposing one or more directions for future development. Among these are the following:

- ◆ Camden Waterfront Master Plan, Coopers Ferry Development Association, 1984 - This initial waterfront plan called for yet unrealized housing, hotel and retail elements, in addition to several completed entertainment and other elements (see NPD1 above).
- ◆ Camden County Smart Growth Transit Analysis, Voorhees Transportation Policy Institute, December 2002 - This regional analysis focused on the smart growth economic development opportunities that investments in heavy rail, light rail, bus, ferry and aerial tram facilities and services offer.
- ◆ FUTURE Camden Master Plan, City of Camden, March 2002 - The official comprehensive, long-range plan for the growth of the City of Camden (see Map 7).
- ◆ Camden Strategic Revitalization Plan, Camden Economic Recovery Board (ERB), July 2003 - The Plan established key neighborhood, employment and transition opportunity areas, as well as a method to evaluate and select among competing revitalization proposals to allocate the \$175 million bond fund created in the 2002 Municipal Rehabilitation and Economic Recovery Act (MRERA).
- ◆ Center City Camden, the Economic Engine of Camden's Revitalization, The Greater Camden Partnership, April 2003 - This report details a vision for the CBD, considering recent waterfront redevelopment, the River LINE light rail line and the MRERA as assets. For ten center city districts, the vision identified concepts (and their implementation requirements) that could create a coherent, unified downtown.
- ◆ Downtown Camden Strategic Development Plan, NJ TRANSIT, DVRPC, Greater Camden Partnership and Camden Redevelopment Agency, March 2004 - This plan advances the concepts in the CBD with a comprehensive redevelopment/urban design strategy to attract private investment. It establishes three key principles: build on existing resources, emphasize public environments and complete the first stage in five years. It presents four major recommendations: 1) unique but complementary design concepts for four major east-west streets (Cooper, Market and Federal Streets and Martin Luther King Boulevard), 2) a set of well distributed shared parking facilities; 3) a new Gateway District (around City Hall), and 4) revitalization of downtown retail.
- ◆ Camden Hub Strategic Revitalization Plan, The Senator Walter Rand Institute for Public Affairs for the Camden County Improvement Authority (CCIA), 2005 - The Plan presents a regional strategy for developing Camden and thirteen adjacent or nearby municipalities with a focus on corridors and nodes.

In addition, the Camden Redevelopment Agency continues to prepare Redevelopment Plans and Neighborhood Area Plans specific to the opportunities and challenges in each of the city's 19 neighborhoods. Each neighborhood may have one or both types of plans. As of April 2005, 13 of the 19 neighborhoods had adopted or proposed redevelopment plans.

Map 7: Camden Future Land Use



Source: Future Camden: Master Plan, City of Camden, March 2002.

These publicly-sponsored plans and studies have pointed to a number of overlapping, often reinforcing, and occasionally conflicting development strategies, actions and projects within the city. Recent and proposed development activities demonstrate an upswing in development and investment interest in the city. The following are examples of this activity:

Health Care

- ◆ Our Lady of Lourdes Medical Center Expansion - Emergency and critical care facilities and a state-of-the-art nursing school are under construction in Parkside (NPD3).
- ◆ CAMCare Gateway Health Center – Construction is completed on the fourth of four facilities in the city, providing primary care health services in the CBD (NPD1).
- ◆ Cooper Health System Expansion - A \$117 million hospital expansion for critical care services, pediatric critical care services and 140,000 square feet for patient care (rooms, nursing, etc) is under development in the CBD (NPD1).

Education

- ◆ Camden County College, Camden Technology Center – Construction is completed on new technology training facilities in health, business and computer sciences in the CBD (NPD1).
- ◆ School construction program - \$437 million is dedicated to developing 15 new and almost two dozen renovated schools citywide.
- ◆ Rutgers Law School Expansion - New classrooms and other facilities are under development in the CBD (NPD1).
- ◆ Rowan University building - New classrooms, labs, cafeteria, and meeting rooms are proposed in the CBD (NPD1).

Housing

- ◆ City-wide housing investments - From 2002 thru 2004, 1,500 new housing units were completed.
- ◆ Additional currently active or proposed projects include;
 - Bergen Square Town Center - 2,500 housing units and supporting retail are proposed in Bergen Square (NPD1).
 - East Camden (three projects) – The project consists of over 600 rehabilitated and/or new units; 336 have been constructed while the remainder are in progress (NPD2).
 - Centerville/South Camden - The project consists of 230 new units; 66 have been built while the remainder is in progress (NPD3).
 - Victor Loft Apartments - 431 luxury units in the historic RCA Nipper Building in Coopers Grant are either under construction or being leased (NPD1).
 - Faison Mews - 51 units are under development in Parkside (NPD3).
 - Cherokee Cramer Hill - An updated redevelopment plan calls for building about 1,200 new housing units and renovating another 1,000, along with various recreational, institutional, retail, and open space uses (NPD2).

Technology

- ◆ Waterfront Technology Center at Camden – The center is a five-story, 100,000-square foot building for bioscience, microelectronic, advanced materials, information technology and other high tech applications for established and start-up firms (NPD1).

Retail

- ◆ North Camden Shopping Center - The center is a proposed 60-70,000 square foot retail space with a major grocery store in Pyne Poynt (NPD1).
- ◆ Town Center – The center is a proposed development of restaurants, open space and a public park in Coopers Grant (NPD1).
- ◆ Neighborhood retail corridors - It is proposed to enhance and expand local retail services along primary neighborhood streets: Federal Street, Mount Ephraim Avenue, Haddon Avenue; Broadway, Main Street, Marlton Avenue, and River Avenue.
- ◆ Fairview Regional Retail Center - A proposed development consisting of big box retail, a movie theater, a grocery store and restaurant in Fairview (NPD3).

Commercial

- ◆ Port expansion and redevelopment - There are various proposals for port and port-related industries between Clinton Street and Newton Creek as well as Waterfront Central and Waterfront South (NPD1 and NPD2, respectively).
- ◆ Gateway office/light industrial park - This project has been proposed in Gateway (NPD1).
- ◆ Marlton light industry – This is a proposed redevelopment project in the Marlton neighborhood (NPD2).
- ◆ Ferry Avenue Transit Oriented Development – A reuse plan has been proposed for the PATCO station area including residential (new plus rehabilitated), retail and office in Whitman Park (NPD3).

In sum, Camden is experiencing greater current activity and development interest than in the past several years, in part supported by the infusion of state funds (Camden ERB funding and schools program). The potential for a turnaround for Camden has not yet been reached but may be not far off if these projects, proposals and plans advance to completion. The transformation of the physical and economic elements of the city will help the local residents better engage in and enjoy the social and economic life of the region.

2. Suburbs

Following is a summary of key suburban job locations identified in the Camden resident journey-to-work data presented above. These locations are primarily associated with regional highway corridors in the New Jersey portion of the greater Philadelphia region.

- ◆ Route 70, in Cherry Hill and Evesham, is flanked by highway commercial development with some office and a great deal of retail. Major retail nodes include current redevelopment of the former Garden State Park race track as a retail super center (760,000 square feet) with a hotel, one million square feet of office space, and luxury residential units.
- ◆ Route 38, east of Camden, contains mixed highway commercial and office development with a major retail complex at and surrounding the Cherry Hill Mall and environs.

Significant office and light industrial development known as East Gate Center is located off Route 38 in Moorestown and Mount Laurel. Additional office campuses and a new retail center are nearing completion near the interchange with I-295 in Mount Laurel.

- ◆ Route 73, between Route 38 and the vicinity of Route 70, is home to major retail and office development. Aside from East Gate Center, described above, major office campuses and additional highway commercial enterprises are found in Mount Laurel and Evesham Townships south of the Turnpike. In Evesham and Voorhees, The Pavilions is a noteworthy upscale center. Route 73 is also host to 23 hotels and motels in Mount Laurel alone.
- ◆ US 130, north of the City, is an older suburban highway-commercial corridor with a mix of smaller and, in some cases, underutilized or vacant properties. The Route 130 corridor houses smaller scale retail uses in the segment traversing Pennsauken up to Route 90. From Route 90 to Route 73, industrial, retail, warehousing and flex-space development exists, including the Pennsauken Industrial Park. In Burlington County, to the north, development and redevelopment is occurring in Delran and Willingboro Townships in Burlington County. Development is also present further north in Burlington and Florence Townships at the Haines Industrial Center that will ultimately comprise 6 million square feet of flex-space and warehousing near NJ Turnpike Exit 6A.
- ◆ The Interstate Route 295 corridor, primarily in Gloucester County, is home to three employment nodes: Korman Interstate Business Park in Bellmawr; the Mid Atlantic Corporate Center in West Deptford; and the Pureland Industrial Complex in Logan (15 million square feet). This corridor also contains several industries in the petrochemical and related sectors, primarily located along the Delaware River.
- ◆ Other developments of note that are not located in corridors but can offer employment opportunities include:
 - Moorestown Industrial Park.
 - Deptford Mall and surrounding retail.
 - Echelon Center, including mixed retail, office and housing in Voorhees
 - Burlington Center, including a mall and other big box retail.
 - Virtua West Jersey Hospital facilities in Evesham and Voorhees
 - Kennedy Health Services facilities in Cherry Hill, Stratford, Voorhees, and Turnersville.
 - Underwood Memorial Hospital in Woodbury.

3. Philadelphia

Located just across the Delaware River, Philadelphia offers significant sources of employment for Camden residents. Philadelphia is easily accessed by highway via the Benjamin Franklin and Walt Whitman Bridges, by the PATCO rail, and by NJ TRANSIT bus services. Despite experiencing declining employment over recent years and a projected low rate of employment growth (5% from 2005 to 2030), Philadelphia offers over 720,000 jobs. It is important to note that future employment is forecasted to be located in areas in the city served by rail transit: Center City, West Philadelphia and South Philadelphia.

Table 20 presents employment data for year 2005 and forecast to 2030 from the DVRPC for the municipalities that host the above corridors and for the City of Philadelphia. Two of the closer Camden suburbs, Cherry Hill and Pennsauken, are forecast to lose employment by 2030,

suggesting that enhanced access to the farther employment nodes in Mount Laurel, Gloucester and Voorhees warrants consideration. Philadelphia also will continue to grow, although slowly.

Table 20: Current and Projected Employment in Key Municipalities near Camden

Location	2005	2030	Change	
			Number	Percent
Cherry Hill	46,325	43,678	-2,647	-6%
Pennsauken	23,130	19,556	-3,574	-15%
Philadelphia	726,569	763,176	36,607	5%
Mount Laurel	30,737	36,511	5,774	19%
Gloucester Twp.	15,636	20,347	4,711	30%
Moorestown	21,331	24,344	3,013	14%
Voorhees	21,730	28,973	7,243	33%
Totals	885,458	936,585	51,127	6%

Source: DVRPC.

F. TRANSPORTATION SYSTEM ISSUES

This section assesses the operations and performance of existing transportation system facilities and services. The objective is to identify critical transportation system issues and needs to support the city's land use and development objectives.

1. Roads

State Roads

Regional Highway Access

Camden is well served in terms of overall access to the regional roadway network, as described in Section A.1. However, two concerns regarding access to the system have emerged relative to development proposals and in response to environmental justice issues in the City. First, for the full development of the Cherokee Cramer Hill major proposals, a new connection over the Cooper River from east Camden would be needed in the vicinity of River Avenue and State Street. It is proposed that this connection also provide access to Route 30, I-676 and the Benjamin Franklin Bridge.

Second, access to the regional roadway network for port and port related freight movements is generating a substantial amount of truck traffic that imposes noise, vibration and air pollution burdens in the Waterfront South neighborhood and in East Camden. The Waterfront South location involves access between the Beckett Street Terminal, the Broadway Terminals, waterfront industries, and I-676. The East Camden location involves truck traffic traveling on local streets from Petty's Island and other areas.

As indicated in Chapter II, some locations along the PATCO system have been identified as candidates for transit-oriented development. Regional access to these locations may require improvement.

Traffic Volumes/Congestion

Section B.1 provides information on regional roadway locations that experience high levels of traffic congestion based on data from the Congestion Management System. Outside Camden, locations include Route 38 at Route 70, US 30 in Collingswood and Oaklyn, and I-295 and Route 42 at their interchange with I-76.

The Route 38 congestion results from the merge of traffic in both directions to and from the ramps serving the elevated portion of the "Airport Circle" interchange, and to and from Routes 70, 38, 30 and 130. The congestion on I-295/Route 42 occurs where traffic merges as I-295 uses a short piece of Route 42. Congestion on US 30 is driven by high volumes on two lanes with few designated turning lanes and frequent signalized intersections. These three congestion locations impact regional accessibility into Camden. State highway congestion is also mentioned as a concern for continued growth in the Camden Hub Revitalization Plan.

Pavement and Bridge Conditions

Section IB provides information on state roads with poor pavement conditions and substandard bridges. These data indicate that over 60% of the pavement of state highways in the city is in deficient condition based on surface quality. This coincides with the view of local officials that state highways in Camden need better maintenance. The bridge condition assessment indicates that 7% of bridges in Camden are structurally deficient and 19% are functionally obsolete. Combined, bridge conditions in the city are somewhat better than the statewide average of just over 33%. However, continued investment in bridge rehabilitation is needed to assure bridge safety and the links they provide.

Safety Issues

As described in Section B.4, state roads in Camden generally are experiencing a lower crash rate than roadways statewide. Even the highest roadway segment crash rates are below the state average, with the exception of I-76 at the interchange with I-676.

Local Roads

Congestion

Peak hour congestion over a v/c ratio of 1.0 occurs on stretches of two major streets in Camden: Broadway (CR 551) and Mount Ephraim Avenue (CR 605). Both are two-lane streets with parking and frequent intersections. Many intersections are signalized without turning lanes. A determination of the means to address this congestion is needed.

Circulation

A number of reports call for a circulation plan for the city and for the CBD in particular, including the FUTURE Camden Master Plan, the Camden Capital Improvement and Infrastructure Master Plan, and the Downtown Camden Strategic Development Plan. Wayfinding to key destinations is well marked in Camden, but local street signs vary widely in size and condition.

Parking

Parking in Camden is available in both structures and large surface lots, especially on the waterfront. As redevelopment takes place, surface lots will be converted to new uses that must incorporate parking within site and building designs.

Road and Bridge Conditions

The Camden Capital Improvement and Infrastructure Master Plan recognized the continuing challenge Camden faces to maintain local streets. While the city does not maintain a local street condition inventory, field investigations found that many streets, especially in residential areas, are in moderate or severe need of repair.

Although the city has received funding for various projects from the NJDOT Local Aid program and other sources, it is clear from Camden's proposed capital budget that the City's roadway improvement needs exceed available funding.

Truck Traffic

The port terminals, port related industry, and other manufacturing in or near Camden generate truck traffic. As discussed above, the key challenges are to provide the most direct and limited travel routes to move trucks between their destinations and the regional roadway system and to direct trucks to these routes as opposed to using other streets.

2. Public Transit

Rail Transit

The city is well served by the PATCO and River LINE station locations with daytime service on weekdays and weekends. However, the limited weeknight service on the River LINE does not support access to jobs with late shifts that exist or will develop in the city and at points with ready access to the light rail line such as in the Haines Industrial Center on US 130 in Burlington County.

Extension of the River LINE to the south within the city also merits consideration to improve access for residents to the larger rail system and to stimulate local redevelopment interest.

Similarly, interest in proposed or potential redevelopment suggests the need for additional stations in the State Street/River Avenue/17th Street area and in Bergen Square.

To provide a travel alternative and mitigate the growth in congestion along the Routes 42/55 corridor into Gloucester and Cumberland Counties, expanded regional rail service to Glassboro, and perhaps beyond, is under investigation by the Delaware River Port Authority.

The PATCO City Hall station is in the heart of the proposed “education corridor” along Cooper Street. As the elements of additional development in that corridor are advanced, the interface with this station at the street level will be assessed relative to the fit with the emerging development. Likewise, the PATCO Broadway Station which is part of the WRTC was upgraded to integrate access with the adjacent River LINE stop using the old headhouse site on the west side of Broadway. On the street level, however, the station may need reevaluation as redevelopment occurs to assure clear convenient and inviting connections between the transit system and adjacent new uses.

Regional and Local Bus

Bus service is extensive within the City, providing access to many locations along the primary corridors described in Section A.2. Weekday daytime service frequency is adequate, but night and weekend service frequency (maximum headways range up to 60 minutes in off-peak hours) and hours of operation (most from 5:00 A.M. to 10:00 P.M. or midnight) are less and do not meet all the needs of the community, especially relative to access to and from employment during late or early shifts. Route 551 does provide 24-hour service between Camden and Atlantic City. Many of the bus stops have no protective shelter. Resource constraints facing NJ TRANSIT limit the number of buses in the system. Further significant expansion of the service will be difficult. The availability of employer-based shuttles is helping to meet this need.

System Integration

Bus and intermodal transfers are possible at the WRTC. All bus routes operating in the City make stops at the WRTC. Peak hour bus headways provide reasonable bus transfers among most routes, but off-peak service can require a wait of an hour or more for service to the farther points served by the commuter bus services.

The integration of service and fares between NJ TRANSIT, PATCO and the Southeastern Pennsylvania Transportation Authority (SEPTA) systems needs some attention. Service coordination is a function of service headways and works fairly well for the PATCO/River LINE interface at WRTC during peak-hour riders. Off-peak riders may wait up to 30 minutes for the next River LINE train. Coordination between SEPTA and PATCO and NJ TRANSIT also varies depending on the frequency of each service.

Job Access/Reverse Commute

A detailed comparison of the primary corridors where jobs exist or may develop outside the city with existing bus and rail transit services routings found that bus service exists on portions of most corridors, but other portions of the corridors remain underserved, and additional shuttle buses may be needed to pick up employees where bus routes fall short.

Most of the employment locations identified in the suburban highway corridors have some bus service, sometimes quite frequent during the peak hours, but not as frequent during off-peak periods and sparse or non-existent in the evening. This issue is important for Camden residents who work or could work in suburban retail or office centers in these corridors and do not own a car. Corridor transit service details are as follows:

- ◆ Route 70 Corridor - Bus Route 406 serves the Pennsauken, Cherry Hill, and Marlton portions of this corridor. Route 450 cuts across and connects Routes 168, 30, 70 and 38, and serves the Garden State Pavilions in Cherry Hill. The Atlantic City Rail Line also has a station at the Garden State Pavilions. Service frequency is good during peak periods and drops to one-hour headways during off-peak periods. Buses operate until 11:30 P.M. on weekdays and until midnight on weekends.
- ◆ Route 38 Corridor - Bus Routes 317, 404, 405, 413, and 450 serve the Cherry Hill Mall from different routings in Camden County, with 317 and 413 using Route 38 as the most direct route and the others providing access through various communities in the county, all connecting from Camden. Route 317 provides service to Mount Laurel, Hainesport and Lumberton. Routes 407, 413 and 457 reach the Moorestown Mall and East Gate retail and office center in Mount Laurel. No rail service operates in this corridor. Considering the combined service of all routes, service frequency is good during the peak hours, with about one hour between buses during midday. Weekday service runs until 12:15 A.M., and weekend service until 11:00 P.M.
- ◆ Route 73 Corridor - An alternate routing on Route 406 serves the southern portion of this corridor in Evesham, Voorhees, and Berlin. Bus Route 451, following CR 561, also extends to the Echelon Mall, the Main Street center and Virtua West Jersey Hospital in Voorhees. Route 457 serves the East Gate complex from Fellowship Road, which also hosts many of the hotels in Mount Laurel. Service hours here are less extensive than in the preceding corridors, with buses running hourly or less frequently and no evening service after 8:00 P.M.
- ◆ US 130 Corridor - An alternate routing on Route 404 provides access to Pennsauken Industrial Park and to Cherry Hill Mall. Routes 409 and 418 serve the entire corridor from Camden to Trenton and extend into Willingboro and Florence serving the Haines Industrial Center on Route 130. Route 419 runs to Burlington through the riverfront communities of Pennsauken, Palmyra, Riverton, Cinnaminson, Delran, Riverside, Delanco, Beverly and Edgewater Park. Bus Route 413 reaches Burlington City via route 38 (Mount Holly) and CR 541. The Route 130 corridor is also indirectly served by the River LINE, although much of the corridor is not within walking distance of the River LINE stations. Bus service frequency is higher during the peak hours, at 20 to 45 minutes, and hourly or more during midday. Weekday service runs until 1:00 A.M., but weekend service is less frequent.
- ◆ I-295 Corridor - Bus Route 402 runs the full length of this corridor, accessing both the Mid-Atlantic and Pureland industrial centers and the waterfront industries despite the distance of some of these destinations from the bus line. Service varies from over one hour to just under one hour and does not operate after 11:00 P.M.
- ◆ Service to additional employment locations is provided as follows:
 - Moorestown Industrial Park – No direct bus service is provided, but van service is provided by the SJTA from the Route 73 / Pennsauken station of the River LINE.
 - Deptford Mall and surrounding retail – Bus Route 400 provides hourly service.
 - Burlington Center (mall and other big box retail) – Bus Route 413 provides hourly service.
 - Kennedy Health Services facilities – Bus Route 457 provides hourly service to the Cherry Hill site, but the Stratford, Voorhees, and Turnersville sites receive no direct service.
 - Underwood Memorial Hospital in Woodbury – Bus Routes 401, 402, 410, and 412 together provide frequent weekday service until 1:00 A.M.; weekend service is more limited.

3. Bicycle and Pedestrian

Need for Greenway/Trail Connections

Camden possesses a number of parks and open spaces along the Delaware River, Cooper River, and Newton Creek waterfronts. However, they do not all have bicycle or walking trails, nor are they linked. The city has no overall bicycle and pedestrian plan, although elements exist for specific greenway systems and pedestrian/streetscape improvements downtown. The Future Camden Master Plan calls for the development of a bicycle and pedestrian plan.

G. ASSESSMENT OF PROGRESS

The 2001 Urban Supplement recommended transportation improvements in several categories. This section presents the progress in implementing these recommendations.

1. Roadways

- ◆ Relieve congestion on major roadways and improve the traffic flow along various roadways and at key intersections.
 - Routes 30/130 Collingswood Circle Elimination - The construction contract was awarded in 2005 but has not been completed.
 - I-676/Martin Luther King Boulevard - The on-ramp widening construction contract was awarded in 2005 and is now under construction.
- ◆ Undertake bridge upgrades and replacements.
 - NJDOT completed a project to reconstruct the Federal Street Bridge over the Cooper River and won a historic preservation award in 2003 for the project.
- ◆ Improve pavement conditions.
 - Route 168 Resurfacing in Mount Ephraim and Haddon Heights is complete.
 - I-295 has been rehabilitated and resurfaced between CR 561 and Route 38.
- ◆ Make improvements to local city streets by upgrading the traffic signal system.
 - The city has advanced numerous improvements to municipal streets. Several projects involve street resurfacing or rehabilitation and intersection upgrades.
 - NJDOT has also looked into truck traffic concerns in Cramer Hill and proposed changes described in Section F.1.
- ◆ Increase access to the Camden waterfront.
 - Improved access to the Waterfront remains in the planning stages and is further discussed in Chapter II.
- ◆ Provide adequate signage throughout the city to direct visitors to major destinations.
 - A wayfinding sign program has been developed and implemented in the city to direct visitors to major attractions, businesses and institutions.

2. Transit System

- ◆ Comprehensively review Camden bus routes and schedules; provide 24-hour-a-day, 7-day-a-week bus service; and improve intra-city bus service.
 - NJ TRANSIT has extended the coverage and hours of service on several intracity-suburban routes, thereby providing extended coverage and service to several of the employment areas (see Section A.2).
 - NJ TRANSIT has increased bus service on intracity Route 452: it now runs until midnight, rather than only until 7:00 P.M.
- ◆ Add late evening and/or early morning bus service to accommodate employees who work the second and third shifts and increase service in locations that are underserved.
 - Bus service to Pureland Industrial Park was initiated in September, 2005. Bus service has been enhanced to the Pennsauken Industrial Park (earlier morning run), Cherry Hill Corporate Center, Horizon Corporate Center and East Gate Center in Mount Laurel.
 - Most routes serving employment locations in the suburbs now operate until midnight.
- ◆ Facilitate bi-state commuting by transit.
 - NJ TRANSIT is discussing improved transfers and joint fares with both PATCO and SEPTA.
- ◆ Use transit stations to enhance livability in Camden.
 - Some areas adjacent to the River LINE in Camden, particularly some areas around the stops, have been rehabilitated and made more attractive with streetscape improvements.
- ◆ Make all PATCO stations handicapped and wheelchair accessible.
 - The PATCO system is compliant with FTA requirements for Americans with Disabilities Act regulations by being fully accessible at five key stations: Lindenwold, Woodcrest, and Broadway in New Jersey and 8th & Market Streets and 15th & Locust Streets in Philadelphia.

II. TRANSPORTATION PROJECTS

This section provides information on currently planned or proposed transportation improvement projects in the Camden area. Programming/funding sources include the NJDOT / NJ TRANSIT Transportation Capital Program, the NJDOT Local Aid program, the Delaware River Port Authority (DRPA), Camden County, and the city.

A. ROADS

1. Regional/State Roads

Including a project on one of the several approved capital programming documents (NJDOT Transportation Capital Program; the NJDOT Statewide Transportation Improvement Program, or STIP, and the DVRPC Transportation Improvement Program, or TIP) indicates a commitment from the State and the DVRPC to advance the project to completion and allocates funding from current year resources for that purpose (see Table 21). Programmed roadway projects of significance to Camden's accessibility, mobility and development include:

- ◆ Camden County Civic Center Access Improvements – This project will address operations and access on Routes 130, 73 and 90 around proposed redevelopment on the site of the now-relocated Pennsauken Mart and may improve access to the Pennsauken Industrial Park.

- ◆ Cooper River Drainage Improvements – A drainage and storm water management project is proposed to correct recurrent flooding on Route 30 in the vicinity of Baird Boulevard in Camden.
- ◆ Route 73/70 Marlton Circle Elimination – This project will improve traffic flow in both corridors.
- ◆ Routes I-295/38 Missing Moves – This project will improve access and traffic flow between these two roadways in Mount Laurel.

In addition, NJDOT's STIP includes the following two projects:

- ◆ Route I-295/42/I-76 Direct Connection - This project will provide a direct alignment for I-295 through the interchange and replace an existing "dog leg" using Route 42 and I-76 in Bellmawr and Mount Ephraim, improving regional traffic flows.
- ◆ I-295 / Route 42 Missing Moves – This project will provide new ramps between I-295 and Route 42.

Table 21: Summary of Regional Roadway Projects on NJDOT Transportation Capital Program or STIP

Project	Capital Program	STIP	Phase of work
Routes 130, 73 & 90 -Civic Ctr. Ops and Access	●	●	Design
Route 30, Cooper River Drainage	●	●	Design
Route 73/70 Marlton Circle Elimination:	●	●	R.O.W.
Routes I-295/ 38 Missing Moves	●	●	Design
I-295 / Route 42 / I-76 Direct Connection		●	Prelim. Design
I-295 / Route 42 Missing Moves		●	Construction

Source: NJDOT website, January 2006.

NJDOT also has programmed for each of Fiscal Years 2005-2007 about \$1.2 million for roadway safety improvements for the four-county New Jersey portion of the DVRPC region. In addition, funding for statewide programs to address various aspects of roadway safety, such as beam guide rail, impact attenuators, fencing, fixed object removal, striping and safe streets to schools, totals \$16.75 million for Fiscal Years 2005-2007. Individual improvements will be selected on the basis of the severity of the problem. State highway high accident locations in Camden and vicinity will be candidates for the application of these funds.

The Delaware River Port Authority has programmed bridge maintenance projects to preserve the integrity of its four Delaware River crossings. A special allocation will upgrade the anchorage system and rail track fastenings on the Benjamin Franklin Bridge.

In addition to these programmed projects, NJDOT undertakes work to investigate the need, develop conceptual solutions and refine the solutions and consider environmental effects of potential solutions for travel problems in a program known as Study and Development. Solutions under consideration and advancement that are important to Camden in this program include:

- ◆ Routes 30/130 Cooper River to PATCO Bridge - In Camden, Collingswood and Pennsauken, this project would provide a new bridge over the Cooper River and related roadway improvements.

- ◆ Route 130 Brooklawn Circles - Reconfiguration is proposed to rationalize some movements and improve safety. The circles lie just south of Gloucester City and feed traffic to Broadway (CR 551) north through Gloucester into Camden City.
- ◆ A series of corridor studies are centered on the triangle formed by Route 130, 73 and 70 - Route 38 from Airport Circle to Route 206, Route 70 from Route 38 to Route 73, Route 73 from I-295 to Route 70, and Route 130 from airport circle to Wood Lane in Burlington. Each project will address safety, operations, capacity and context sensitive design approaches to improving travel in these corridors. These studies are important to Camden because these are the corridors hosting much of the suburban job opportunities that Camden residents seek to exploit. Improvements may place job opportunities more within the reach of the Camden worker, particularly if accessible by bus.
- ◆ I-295 from Route 45 to Berlin-Haddonfield Road (CR 561) - This project will rehabilitate or reconstruct and upgrade the interstate highway from Route 45 to Berlin-Haddonfield Road.

The DVRPC Destination 2030 Long-Range Plan lists the following as desired regional improvements that may enhance regional access for Camden:

- ◆ An interchange upgrade on Route 55 at Deptford Center Road.
- ◆ Widening the New Jersey Turnpike from Exit 4 to Exit 1.
- ◆ Widening the New Jersey Turnpike from Exit 6A to Exit 6.
- ◆ Widening Route 70 from Marlton to Medford.
- ◆ New access roadway to Cramer Hill redevelopment site.

2. Local Roads

For FY 2006, Camden is programmed to receive \$568,000 in Municipal Aid and \$1,005,000 in Federal Aid. The city will use the Municipal Aid funding to resurface various city streets. The Federal Aid is for a signal upgrade project included in the NJDOT transportation capital program. This project involves installing new signal equipment or loops at various intersections in the city. The FY 2006 capital budget of the City of Camden is proposed but not yet adopted. However, it is very ambitious in presenting a list of needs totaling \$33.3 million. These needs are expected to be funded over Fiscal Year 2006 and future years; the 2006 portion is \$15.3 million.

The major projects within the proposed 2006 budget include resurfacing various streets, traffic signal improvements, new roads to improve Downtown Waterfront access, and four streetscape projects.

The DVRPC's Local Scoping Program provides state/federal funding to investigate, frame and propose projects for the local roadway system. Rehabilitation or replacement of the State Street Bridge in North Camden is included in the April 2005 program for final design.

Improved roadway access to the Ferry Avenue Station area on the PATCO line is proposed by the CCIA and is in the Camden County Smart Growth Transit Analysis.

The Camden Capital Improvement and Infrastructure Master Plan recommended a set of priority transportation projects in the City of Camden. Those not identified in alternative plans or reports include:

- ◆ Upgrade the intersection and signalization at 10th and Newton Streets.
- ◆ Upgrade the intersection at Broadway and Newton Street.

- ◆ Develop a coherent set of improvements for the three intersections among Baird Boulevard, 27th Street, Federal Street and Westfield Avenue.
- ◆ Widen the ramp at Federal Street/Flanders Avenue and Admiral Wilson Boulevard (US 30).

The Southern New Jersey Waterfront Master Plan is investigating development opportunities along the river's edge in Camden, Gloucester and Salem Counties. The plan includes converting brownfield sites to maritime and industrial uses and constructing several housing and mixed use or recreation/preservation developments. In Camden, the plan proposes to create a port district-dedicated roadway and a new local connector roadway to separate truck and other port traffic from city and neighborhood traffic, including restricting port truck traffic to the Morgan Street I-676 interchange.

As part of assessing transportation requirements for the Cramer Hill Redevelopment Plan, the NJDOT also investigated the impacts of heavy truck traffic on local streets, in particular River Avenue (CR 543). River Avenue is the primary through route in Cramer Hill and directly connects to the rest of Camden. The alternate route, US 130, is a major arterial road that runs parallel to River Avenue about one and half miles to the southeast. A phased plan for addressing truck traffic emerged from collaboration among the state and local stakeholders. The four-phase plan includes traffic calming on River Avenue, signage to direct trucks to a preferred route and intersection improvements on that route to better accommodate trucks. Implementation of Phase 1 of the plan is about to begin.

Downtown Circulation

Several of the studies described above have indicated the need for a comprehensive city-wide circulation study to rationalize two-way versus one-way streets, identify treatments for critical intersections, consider pedestrian flows where they are significant and investigate missing linkages across the local network. Included would be reconsideration of any proposal for downtown from the various previous studies. This effort has not been framed and advanced for completion to date.

Parking

Rutgers University has called for an analysis of parking needs in the downtown and waterfront areas, and development of a shared-use parking strategy. This need is also expressed in the Downtown Camden Strategic Development Plan

3. Freight Movement

Improving truck freight movements in Camden is the focus of the proposals in the draft Southern New Jersey Waterfront Master Plan. The port district roadway would focus port- and waterfront-related truck traffic at I-676 Interchange 3 (Morgan Boulevard), thereby removing truck traffic from other local streets, especially Atlantic Avenue.

Rail access to the port terminals in Camden may be upgraded as port planning determines the configuration, scale and commodity focus of the two terminals. Any improvement in rail access, operations or capacity and subsequent utilization would provide relief for truck traffic accessing the city.

B. PUBLIC TRANSIT

1. Rail Service

The new River LINE has provided a major focus for redevelopment in downtown Camden. NJ TRANSIT has programmed funding for debt service on the bonds issued to construct the River LINE. In statewide line items, various guideway and vehicle maintenance projects are funded that will support the operation of the River LINE, the Atlantic City Line, and all the bus services operating into and within Camden. Likewise, DRPA has programmed several items for maintenance of PATCO system vehicles, track, signals and other right-of-way features.

Extending the River LINE southward to Gloucester City has been proposed in several plans, including the City's Master Plan and the Draft Southern New Jersey Waterfront Master Plan, and it has been suggested by city officials. New stations on the River LINE have also been proposed at two locations: Bergen Square adjacent to downtown and around State Street/17th Street/River Avenue in Cramer Hill.

DRPA recently completed the "Southern New Jersey to Philadelphia Transit Study," which identified three alternatives for providing new rapid transit service between Camden and Gloucester and Cumberland Counties in South Jersey, as well as two alternatives for new transit service in Philadelphia, which would connect with the existing PATCO service. The next steps involve evaluating and comparing detailed alternatives based upon estimated need, ridership, costs, and public input, which will lead to selecting a locally preferred alternative.

Joint fare opportunities between NJ TRANSIT and PATCO have been explored, but a satisfactory program will await the installation of an upgraded fare collection system at PATCO, which is expected within the next few years.

2. Bus Service

No major changes to bus routes and service levels are proposed beyond the changes made over the last few years. Regardless, the needs of the Camden resident work force to reach suburban employment locations and access areas of the city will continue to fuel demand for increased hours of operations and service frequency. NJ TRANSIT plans to implement the following service changes in April 2006:

- ◆ Route 317 – Adjust route to provide direct access to the CVS warehouse in Lumberton, particularly for the second shift.
- ◆ Route 419 and Route 452 – Revise night schedule so that all service runs through North Camden, increasing the service span for residents of the area

3. Delaware River Tram

NJDOT's Transportation Capital Program includes construction funding for an aerial tramway, which will carry passengers from the Camden Waterfront to Penns' Landing in Philadelphia via cable cars. The facility comprises two tower structures, in the river, supporting a suspended cable system that will carry 8-person gondolas between terminals in Camden and Philadelphia. DRPA has designed and will construct the system, which it intends to support waterfront development.

C. BICYCLE AND PEDESTRIAN

A non-profit coalition among the City, Camden County, community, environmental and business interests, called Camden Greenways Inc., has updated past plans for a greenways system in the city. The key trails in this plan are a bike loop along the Cooper River, extension of the waterfront esplanade from the Downtown Waterfront up through North Camden, and other connections between existing park and park trails. These trail proposals would also feed into a larger system proposed to follow greenway links primarily along river and stream system to connect the Delaware River to the Barnegat Bay in Ocean County.

The Southern New Jersey Waterfront Master Plan proposes a bicycle/pedestrian trail linking to the existing waterfront promenade, the Cooper River Trail, and the Camden Greenway.

The Camden Capital Improvement and Infrastructure Master Plan contains a bike needs inventory that identified 16 pathway connections including designating six streets as bike routes that are not marked today.

In addition, the City has developed an extensive list of streetscape proposals and projects that would use tree plantings, sidewalk improvements/reconstruction, and attractive lighting and street furniture to make walking safer and more attractive. Many of these projects are focused on existing neighborhood retail streets throughout the city. The Camden Capital Improvement and Infrastructure Master Plan inventoried these proposals from all sources, identifying 17 locations for streetscape treatment. Further, the Downtown Camden Strategic Development Plan proposed as a major element of the downtown strategy the creation of pedestrian-oriented streets and public spaces on four east-west streets in the district.

Outside the city, NJDOT's Transportation Capital Program includes funding for a project to replace a pedestrian bridge, destroyed by a truck accident, across Route 38 at the Cherry Hill Mall. The project will include providing ADA-compliant ramps and improved sidewalks, which will restore safe pedestrian access to bus stops on both sides of Route 38.

III. RECOMMENDATIONS

Based upon the analysis and findings of this report, the following section presents recommendations for transportation improvements. An overarching recommendation is to advance proposed solutions and investigate new ones in a two-pronged response that includes actions to support revitalization and renewal within the city and access between the city and the surrounding suburbs and Philadelphia to meet the needs of current and future residents, businesses and developers/investors.

A. ROADS

1. State/Regional Roads

These recommendations preserve existing roads and support improved regional accessibility to and from Camden via the regional roadway network.

Improve the interface between Camden and the regional road network.

- ◆ NJDOT should continue their close collaboration with the City, the neighborhood residents, the developer and other interested parties in completing the development of the new access bridge linking Cramer Hill to US 30, I-676 and the Benjamin Franklin Bridge. NJDOT should advance the preferred viable alternative for implementation and draw on all potential funding sources including a private/public cost sharing partnership with the Cramer Hill developer(s).
- ◆ The City of Camden, Camden County, and NJDOT should implement all phases of the Cramer Hill truck access routing to US 130 to alleviate the truck traffic impacts to the neighborhood and further support the redevelopment process.
- ◆ Upon completing the Southern New Jersey Waterfront Master Plan, the DRPA and NJDOT should work with the City of Camden, Camden County and the South Jersey Port Corporation to advance planning for a single point of access to I-676 for port traffic at Morgan Boulevard. This will involve refining the planning concepts in the Waterfront Master Plan in terms of alignment, environmental and community impacts and mitigations and benefits, and preliminary engineering to develop a project ready for final design and construction. Advancing the port access road will require parallel advancement of the proposed new local connector roadway to Gloucester City to enable Broadway to become an integral element of the port access road. These two new facilities will require installing new directional and wayfinding signs for truck operators.

Pursue strategies and projects to manage congestion along key regional roads.

- ◆ NJDOT should complete construction of the Routes 30/130 Collingswood Circle elimination project and the I-676/Martin Luther King Boulevard on-ramp widening.
- ◆ NJDOT should advance through design and into construction the following state highway pipeline projects in the STIP and DVRPC TIP:
 - Cooper River Drainage Improvements.
 - Route 73/70 Marlton Circle Elimination.
 - Routes I-295/38 Missing Moves.
 - Camden County Civic Center Access Improvements in Pennsauken.
- ◆ NJDOT should advance to design and implementation the following initiatives in the NJDOT Study and Development Program:

- US 30/130 Cooper River to PATCO Bridge Replacement.
- US 130 Brooklawn Circles Reconfiguration.
- I-295/ Route 42 /I-76 Direct Connection.
- ◆ NJDOT and DVRPC should complete the following corridor studies listed in the Study and Development Program and advance selected priority solutions through the NJDOT project pipeline:
 - Route 38 from Airport Circle to Route 206
 - Route 70 from Route 38 to Route 73
 - Route 73 from I-295 to Route 70
 - Route 130 from Airport Circle to Wood Lane in Burlington.

Pursue opportunities to improve regional accessibility to locations that offer future employment opportunities for residents of Camden, working from the desired regional improvement in the DVRPC Long-Range Plan.

- ◆ NJDOT should continue development of an interchange upgrade on Route 55 at Deptford Center Road to improve regional access to Deptford Center, a major retail employment location.
- ◆ The NJ Turnpike Authority should add to its capital project development pipeline investigating widening the New Jersey Turnpike from Exit 6A at Route 130 to Exit 6 on the Turnpike mainline to support industrial and warehouse development on Route 130 as another employment center for Camden residents.

Address sub-standard pavement and bridge conditions.

- ◆ NJDOT should advance the Route I-295 (Route 45 to CR 561) rehabilitation project.
- ◆ DRPA should continue maintenance projects to preserve the integrity of its four Delaware River crossings.
- ◆ NJDOT should give priority for pavement and bridge improvements to state roadways within the City of Camden: Routes I-676, US 30 and US 130.
- ◆ Within the Safety Management System, NJDOT should identify high-accident locations on regional roadways providing critical access to Camden and determine alternatives for improving safety at these locations. This work should draw on the several safety programs within the NJDOT STIP to implement priority safety improvements.

2. Local Roads

These recommendations focus on improving the local street network within the city, thereby supporting existing and developing neighborhoods and commercial and industrial areas.

Reduce congestion and improve circulation on the local roadway network.

- ◆ DRPA and NJDOT should implement the Southern New Jersey Waterfront Master Plan to advance the port access road and local connector concepts (provided they remain in the plan) to reduce congestion and designate appropriate truck routes.
- ◆ The city, with possible financial or technical assistance from NJDOT and/or DVRPC, should immediately undertake a comprehensive citywide circulation analysis and prepare a circulation plan, placing particular attention on the best means to accommodate traffic flows within the CBD, the Central Waterfront areas and the stretch of Mount Ephraim Avenue identified in the CMS data review. This analysis is proposed in several reports

including Center City Camden, the Economic Engine of Camden's Revitalization; the Downtown Camden Strategic Development Plan; and the Camden Capital Improvement and Infrastructure Master Plan.

- ◆ Camden should implement the remaining city streets traffic signal upgrades in the Camden Capital Improvement and Infrastructure Master Plan and those added in the subsequent Local Aid Program for Camden. The city should use the new circulation plan as a guide for priority use of available funds.
- ◆ As development and redevelopment occurs, Camden should periodically revisit the current directional signing and wayfinding system for revisions and upgrades.
- ◆ Camden should work with the NJDOT to advance the proposals for Cramer Hill truck traffic management as described above.

Address parking needs.

- ◆ The city should, as a high priority and with technical or financial assistance from NJDOT or DVRPC, develop a coordinated downtown parking strategy, considering all users of parking (students, tourists, government and business patrons and employees) to optimize shared use by time-of-day and locational efficiencies. The parking strategy should build on the various proposed development strategies, especially for the Downtown, and should be coordinated with the city circulation analysis proposed above. It would establish a City policy relative to parking in an urban context, evaluating the relative roles of on-street and structured off-street parking and exploring parking charges/cash-out options. The city should implement the parking strategy as redevelopment occurs, using both public and private funds.

Expedite local street improvements.

- ◆ The city should advance the remaining proposals for local street improvements from its capital budget, including the out-year unfunded or partially funded projects, projects in the Camden Capital Improvement and Infrastructure Master Plan, and any new projects added by the NJDOT Local Aid Program. The city should aggressively pursue all avenues of public and private funding.
- ◆ Camden and NJDOT should collaboratively use the NJDOT pavement management system to accelerate additional repairs along city streets. Camden should, as indicated in the Camden Capital Improvement and Infrastructure Master Plan, develop and maintain a city street pavement inventory as a local counterpart to the state pavement management system to identify the highest priority investing of local and state funds.

B. PUBLIC TRANSIT

These recommendations include a range of actions and strategies for improving transportation choice, reducing congestion and pollution, and promoting "smart growth" land use patterns.

Improve rail passenger services.

- ◆ DRPA should expedite further development and ultimate construction of the extension of the PATCO system southward to Glassboro, and perhaps beyond, as identified by the recent DRPA study.
- ◆ NJ TRANSIT, in collaboration with the City of Camden, Gloucester City, DRPA and neighborhood groups in south Camden, should further explore and determine the viability of extending the River LINE to south Camden or Gloucester City. Particular attention should be paid to the relationship between the proposed port access road and

local connector roadway in the draft Southern New Jersey Waterfront Master Plan to assure complementary alignments and optimal station stop locations. This extension was proposed in the Future Camden Master Plan and is supported by local Camden officials.

- ◆ NJ TRANSIT should seek further means to extend River LINE hours of operation to provide service for workers on late night shifts, particularly to the Haines Industrial Center, as identified in the Camden Capital Improvement and Infrastructure Master Plan.
- ◆ NJ TRANSIT should undertake a full assessment of the merits and options for adding a transfer station between the River LINE and the Atlantic City Rail Line as an alternative means to access suburban employment and activity locations.
- ◆ As redevelopment projects advance Downtown, NJ TRANSIT should further consider adding new River LINE stops as proposed in the Center City Camden, the Economic Engine of Camden's Revitalization and the Downtown Camden Strategic Development Plan on Bergen Square and in the vicinity of State Street/17th Street/River Avenue in Cramer Hill.
- ◆ NJ TRANSIT should promote and enhance the River LINE connecting fare options, including free bus rides to and from Philadelphia for holders of River LINE 10-trip tickets or monthly passes, free travel on the River LINE for holders of weekly or monthly rail passes, and transfers between the River LINE and NJ TRANSIT buses.
- ◆ NJ TRANSIT should capture the opportunity the PATCO fare collection upgrade project will provide to determine and implement a shared fare and ticketing system among PATCO, NJ TRANSIT and SEPTA.
- ◆ DRPA should advance the on-going investigation into transit-oriented development at four PATCO stations: Ferry Avenue, Collingswood, Haddonfield and Woodcrest. These studies should consider including commercial development in the station area plans and identify needs for improved access and parking in conjunction with the redevelopment concept for each. As part of the redevelopment strategy, DRPA should incorporate enhancements to station access for disabled persons.
- ◆ DRPA should work with the City and emerging developers to determine the need, benefits and options for station upgrades at the PATCO Broadway/WRTC and City Hall stations within the context of the Downtown Camden Strategic Development Plan proposals. In conjunction, Camden should use the River LINE stops as focal points for public space concepts in this corridor. In all cases and locations, the DRPA should seek every means to insure ease of transfer among the modes and systems to provide a user-friendly and efficient experience for the entire trip. Center City Camden, the Economic Engine of Camden's Revitalization and the Downtown Camden Strategic Development Plan have provided proposals in this regard.
- ◆ NJ TRANSIT and the DRPA should continue to invest in system maintenance and state-of-good-repair for their facilities.

Enhance local bus service.

- ◆ NJ TRANSIT should continue to review local and regional bus routing and operations as development and redevelopment occur in the City and the suburbs, explore resource options including public/private partnerships and recognize growth in employment at emerging centers and city sites as ridership opportunities. NJ TRANSIT should investigate potential changes to extend coverage and expand the days, hours and frequency of service in priority locations with high job growth potential through creative cost sharing arrangements, in light of the keen competition for the limited available funding.

- ◆ As new development/redevelopment occurs along the River LINE, transit operators (NJ TRANSIT, Burlington County and the South Jersey Transportation Authority) should work together to ensure adequate connecting bus or shuttle services are provided between stations and nearby work sites.

Promote other public transit options.

- ◆ DRPA should complete the programmed Delaware River Tram between Camden and Philadelphia.
- ◆ The City should work with the Cross County TMA and Camden County Work Force Investment Board to review current bus/shuttle and paratransit services relative to the changing focus of employment, public services, health care and other activities in the city and the region and identify service needs and options for meeting them, including through public/private funding or operations arrangements. This planning should pay particular attention to shifts in employment growth among the primary employment host communities.

C. BICYCLE AND PEDESTRIAN

This category of recommendations, just as public transit does, seeks to provide a range of travel options and complement center-based development patterns.

Advance planning for a greenway/trails network.

- ◆ The city should take the lead to advance the implementation of the Camden Greenways Plan. Camden should work with Camden Greenways and the NJDOT bicycle and pedestrian unit to create an integrated trail system primarily following the three waterfront corridors in the Camden.
- ◆ In conjunction with the Greenways Plan, Camden should advance implementation of the multi-use trail and Delaware River waterfront access concepts identified in the Draft South Jersey Waterfront Master Plan. The trail should follow port district buffer zones, existing parklands and city streets.
- ◆ To augment these primary trails concepts, Camden should develop, potentially with technical assistance from the NJDOT, a comprehensive bicycle and pedestrian plan for the City, also drawing on the proposals in the FUTURE Camden Master Plan, the concepts and projects inventoried in the Camden Capital Improvement and Infrastructure Master Plan and the streetscape/pedestrian elements of the Downtown Camden Strategic Development Plan. The plan should identify any deficiencies for safe and convenient pedestrian movement at the WRTC, the City Hall PATCO Station, the River Line stops, the bus routes, and neighborhood commercial districts throughout the city. In this comprehensive plan, Camden could confirm the value of and set the priority among all the various proposals from the three source documents and any new concepts identified in the plan.
- ◆ From this plan, Camden should work to advance the top priority concepts to construction, including any bicycle or pedestrian improvements that can be built as part of development and redevelopment projects, in area-wide public/private partnerships, or as part of roadway projects for on-road designated bike routes.

Improve pedestrian access and safety.

- ◆ NJDOT should complete the programmed project to replace the Route 38 pedestrian bridge near the Cherry Hill Mall.

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INTERVIEWS and CONTACTS

May 16, 2005. Meeting with City of Camden municipal staff and Greater Camden Partnership: Edward Williams, Assistant Director, and Paul Redman, Assistant Director, both of the Dept. of Development and Planning, and Stephen Dragos, President, the Greater Camden Partnership.

July 14, 2005. Meeting with NJ TRANSIT staff: Alan Maiman, Bus Service Director; South Jersey.

July 29, 2005. Meeting with DVRPC staff: Richard Bickel, Deputy Director, Regional Planning; Karen Cilurso, Regional Planner; and Stacy Bartels, Marketing Manager, Commuter Services.

February, 2006. Phone call and e-mails with Steve Moy, Manager, District 4, NJDOT Division of Local Aid and Economic Development, and Harish Bhandari, Project Engineer.



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