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‘Informed Intuition’

Discussion Paper for Newark’s Transit Future

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and

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INFORMED INTUITION

Discussion Paper for Newark's Transit Future

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PURPOSE

In July 2006, a new municipal administration led by Mayor Cory Booker took office in the City of Newark. Eager to gain a swift understanding and to initiate positive change, the administration immediately began developing a set of goals and objectives for improvement of New Jersey's largest city and expansion of its employment, especially for city residents.

Assisted by the Regional Plan Association, the Booker Administration conducted a series of workshops involving scores of experts in multiple disciplines. The product of this effort, *A Newark Vision Plan*, documents goals, principles, strategies and actions that it believes would make Newark an "Equitable, Green, Smart, Prosperous and Accessible" city. It highlights the health of neighborhoods and the impact that efficient (or inefficient) movement of people into, out of and through the city has on the viability of commerce, and citizens' access to employment.

As a follow-up to this Vision Plan, the Mayor and Stefan Pryor, the Deputy Mayor for Economic Development, Housing & City Planning, recognized the City's inconsistent interest in transit planning and the absence of a comprehensive and coherent plan for future transit improvements. Consequently, they sought further informed guidance from industry experts on long-range transit concepts, projects and policies that could improve Newark's transit services, enrich economic and community development and improve employment opportunities.

NJ TRANSIT agreed to fund the \$15,000 effort, informally entitled the "Newark Informed Intuition" study. The Alan M. Voorhees Transportation Center (VTC) of Rutgers University undertook this project which has been jointly guided by NJ TRANSIT and the City of Newark.

STUDY APPROACH

The principal approach of the study consisted of conducting a number of interviews with knowledgeable transit and land use experts from industry, government, academia and planning and research organizations. (*See acknowledgments.*) The organizations included:

- NJ TRANSIT
- City of Newark
- Regional Plan Association
- North Jersey Transportation Planning Authority
- New Jersey Institute of Technology
- Hudson County Improvement Authority
- Essex County
- Meadowlink

In addition, several illuminating studies were collected and reviewed, including:

- Newark Transportation and Growth, 1974 – Parsons, Brinckerhoff, Quade & Douglas
- Newark Master Plan/Land Use Element, 2004 – City of Newark; Philip, Pruess, Shapiro Associates & Schoor de Palma
- Newark Economic Development, Land Use and Transportation Plan, 2005 - Parsons, Brinckerhoff, Quade & Douglas
- Newark Vision Plan, 2006 – Regional Plan Association

A field trip was conducted to investigate city sites where recommended transit enhancement projects could be located.

EXISTING CONDITIONS

TRANSIT SYSTEM

The City of Newark is quite well served by transit today, although the speed, reliability and connectivity of operations are largely superior for travel to the downtown from outside the city as opposed to within its boundaries. According to the 2005 Newark Economic Development, Land Use and Transportation Plan prepared by Parsons, Brinckerhoff, Quade & Douglas, Inc., bus service within Newark is widespread; 800 bus stops place the entire city within one-quarter mile of a bus line. According to NJ TRANSIT, the principal transit operator in the city, the agency runs 51 bus routes on 5,000 daily trips and carries 250,000 daily passenger trips per weekday. Many of the bus lines are oriented to terminate or pass through Newark Penn Station or the downtown intersection of Broad and Market streets. Service to the University Heights, airport/port areas and other social institutions outside of downtown is mostly adequate but less robust. Transit service to the Newark Liberty International Airport and Port Newark area is less than adequate.



Newark Light Rail (formerly the Newark City Subway), with its new light rail extension, effectively serves a swath of Newark stretching from its northern boundary with Belleville and Bloomfield through the University Heights area to downtown; the new light rail extension now connects the city's two commuter rail stations passing by the New Jersey Performing Arts Center site to the vicinity of the Broad Street Station. [See Map 1]. Currently these combined light rail services carry 9,800 riders each weekday. The current subway alignment does not serve one key cluster of downtown activity – the Prudential Center Arena, City Hall complex, the federal offices and court complex, and the Lincoln Park cultural district.

The city is also served by approximately two dozen bus lines, mostly operated by NJ TRANSIT, that originate from points outside the greater Newark area. These external points of origin include west Essex, suburban Union, Bergen, Morris, Passaic, Somerset, Monmouth and Ocean counties.

Map 2. Newark Bus Routes



The city's principal link to the suburbs is the commuter rail system. Operated by NJ TRANSIT, that system's service to downtown Newark from the suburbs and New York City is extensive. [See Map 3.] As of 2006, about 27,000 passengers daily use Newark Penn and Broad Street stations for commuter rail trips. Rail connectivity to Newark has improved measurably in the past decade by NJ TRANSIT's introduction of the MidTOWN DIRECT services on the Morris & Essex and Montclair-Boonton lines (to the Broad Street station) and completion of the Secaucus Junction station. These projects have given transit riders new and additional access to Newark from western New Jersey corridors, New York Penn Station, Bergen and Passaic counties, and the New York counties of Rockland and Orange.

Excellent direct rail service to Newark Penn Station is provided on the Northeast Corridor, Raritan Valley and North Jersey Coast lines. Moreover, Newark Penn Station is a key station on Amtrak's intercity rail system, connecting Newark to other major cities on the Northeast Corridor from Washington to Boston as well as points in the South and Midwest.



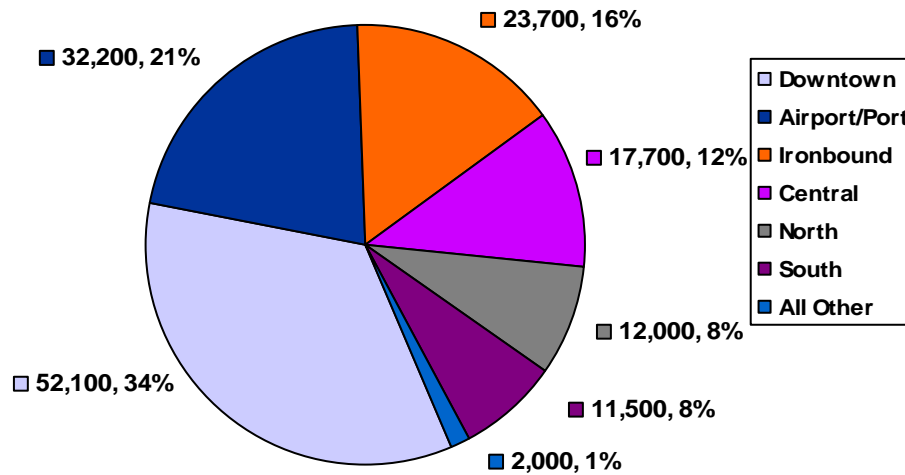
The Broad Street station is the other gateway for commuter rail service into the city. The Morris & Essex Lines (Morristown and Gladstone Branch) and the recently reconstituted Montclair-Boonton Line pass through the northern end of Newark's downtown on routes to either Penn Station New York or Hoboken. The newest rail access is via transfers at the Secaucus Junction station from the Main, Bergen and Pascack Valley lines. These lines serve communities such as Hackensack, Ridgewood, and Paterson, as well as Suffern, NY.

Another transit asset for Newark is PATH which averages 30,000 trips each weekday from Newark Penn Station and connects to Harrison, Jersey City, and two Manhattan termini, the World Trade Center site in lower Manhattan and 33rd Street in midtown Manhattan with stops at Christopher, 9th, 14th, and 23rd Streets.

Demographics and Transit Usage

Newark, the state's largest city in population (280,700 in 2005) and jobs (151,000 in 2000), needs effective transit service to thrive. As of the 2000 Census, much of Newark's population had low incomes (median \$26,913), less than half of the state's median income. Consequently, a high proportion of its residents, 44 percent in the 2000 Census, did not have access to an automobile. Despite the substantial number of bus routes and trips internal to Newark, NJ TRANSIT reports that 61 percent of the city's residents drive to work alone. Part of the reason for this auto reliance is that the city's job base has spread among a number of areas both inside and outside Newark, while downtown employment has plummeted from 70,000 in 1970 to 52,000 in 2000.

Table 1. Job Distribution in Newark (2000)



Source: NJ TRANSIT, 2007

Residential concentrations in Newark do not match the job concentrations, creating travel needs to the clusters of jobs downtown and in the Airport/Port areas. As of the 2000 Census, 30 percent of Newarkers reside in the North Ward, 21 percent reside in the Ironbound, 18 percent in the South Ward and 14 percent in the Central Ward. The City's population has increased since the 2000 Census, with some 8000 new housing units constructed, the largest amount of growth occurring in the Ironbound (NJT 2007)

An income mismatch between downtown jobs and city residents results in city workers amounting to only 20percent of downtown workers. Downtown jobs have a median income triple that of city residents -- \$81,000 vs \$28,000. (NJT 2007) Surprisingly, of the 20 percent of downtown workers who do live in Newark, 54 percent drive to their jobs. Of the Newark transit users, most ride buses (37 percent) to their downtown jobs. (For a perspective based upon 2000 Census data, the transportation mode for the entire Newark work force is shown in Appendix A.)

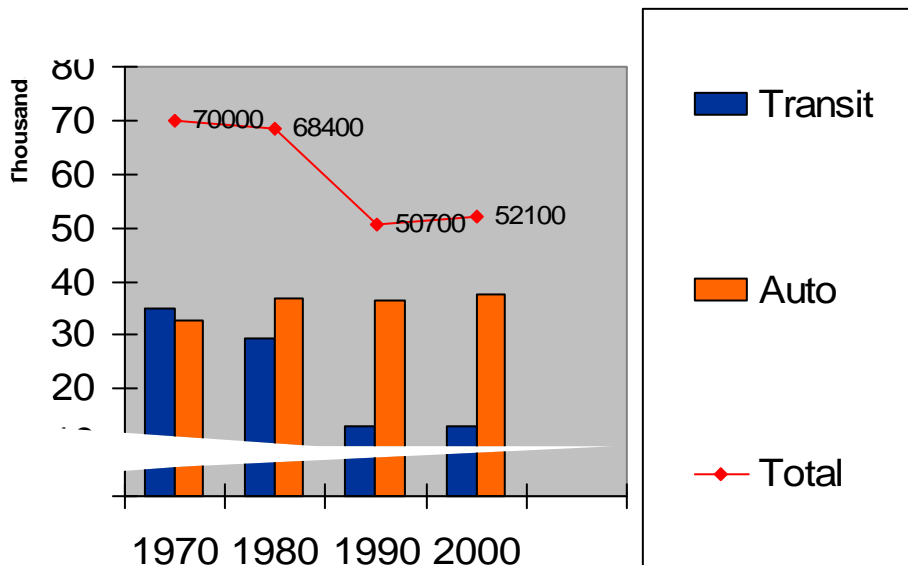
Table 2. Downtown Newark Workers: Change in Travel to Work 1980 vs. 2000

Method of Travel to Work	Census Journey to Work	
	1980	2000
Drive Alone	39%	61%
Carpool	15%	11%
Bus/Trolley	29%	15%
Rail/Subway	14%	11%
Other (Mostly Walk)	3%	3%

Source: NJ TRANSIT

Downtown Newark’s transit reliance has shrunk over the past four decades and now falls short of expectations for such a transit-rich environment. Even in this concentrated employment area, by 2000, 72 percent of downtown employees drove to work, and only 26 percent of all downtown workers used transit [see above], a 50 percent decline in mode share since 1970. [see below]

Table 3. Downtown Newark Workers: Change in Travel to Work 1980 vs. 2000

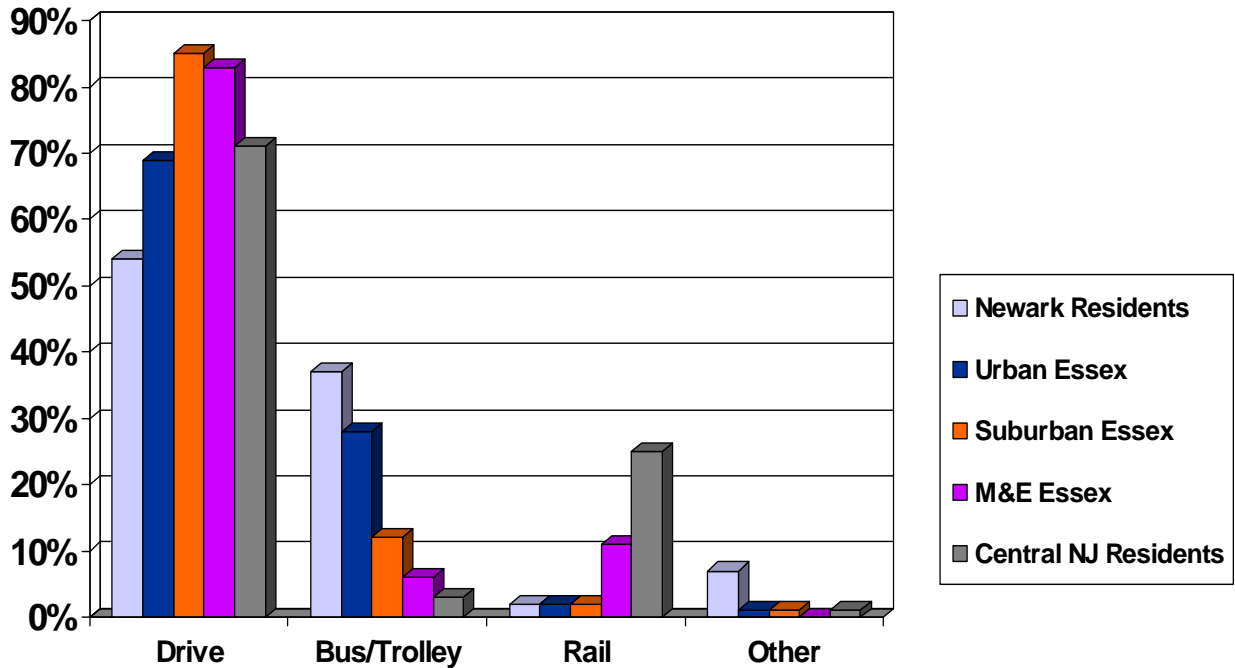


Source: NJ TRANSIT

Most of this decline can be traced to bus ridership from close-in Essex County communities, such as East

Orange, Irvington, and Bloomfield (PQ&D, 2005) and to population shifts of workers' residences further west in Essex County from where transit service to downtown is less attractive.

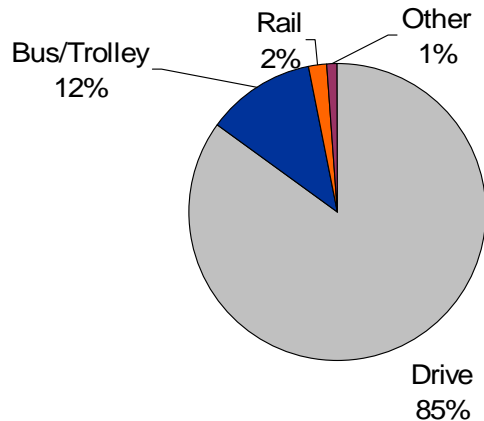
Table 4: Downtown Newark Workers: Comparative Mode of Transportation



Source: NJ TRANSIT

The share of bus transit from the declining market of close-in towns is still at 28 percent while from suburban Essex the bus share varies from 6 to 12 percent. (NJT, 2007). Similarly, Passaic River communities such as Belleville, Nutley, Kearny, North Arlington and Clifton, which rely on local buses and whose drivers encounter congestion on Route 21, fall into this category. [See below.]

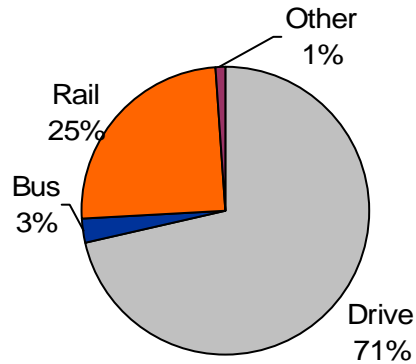
Table 5. Mode share of Downtown Newark Workers 2000 among Suburban Essex (non-M&E)



Source: NJ TRANSIT

Conversely, commuter rail transit captures a more significant share of employees who live further distances from downtown Newark. This applies principally in those areas, such as central New Jersey, where the rail service is the most robust, offers the shortest travel times and terminates at the most convenient location -- Newark Penn Station. Among downtown workers who reside in central New Jersey, 25 percent travel to Newark by rail. [See below.]

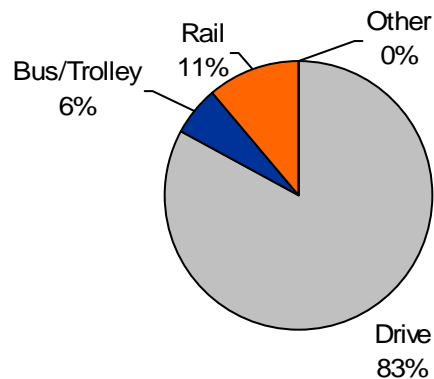
Table 6. Mode share of Downtown Newark Workers 2000, Central NJ Residents (Middlesex, Monmouth, Somerset counties)



Source: NJ TRANSIT

The rail share from other outlying suburban points declines to a range of 11 percent from the South Orange-Millburn area and key stations on the Morris & Essex Lines, to 2 percent from suburban Essex towns outside the Morris & Essex lines. Nevertheless, new transit services and high gasoline prices are likely to increase the importance of transit from rail suburbs to the city. [See below.]

Table 7. Mode share of Downtown Newark Workers 2000 among M & E Essex (South Orange-Millburn)



Source: NJ TRANSIT

Another factor in the downtown's high auto reliance is employer subsidies for parking. According to NJ TRANSIT, a parking survey conducted in the early 1990s as part of the Newark-Elizabeth Rail Line planning study showed that between 40 to 50 percent of downtown-destined drivers had their parking costs subsidized by their employers. The perception, driven by security concerns, that parking must be ample for downtown Newark to survive economically was underscored in the PBQ&D 2005 report which stated:

“The supply of existing on-street and off-street parking in the Newark CBD is about equal to demand. It has been demonstrated that business patrons and office workers are not willing to walk any significant distance on Newark streets, and, as a result, they demand parking very close to their destinations. Not responding to this situation could potentially place a constraint on economic activity. Many merchants believe that their businesses are affected because patrons frequently cannot park near their establishments. New or redeveloped office space in the CBD may also be affected. Developers or tenants of office space require parking for employees and visitors within a very short distance, and they insist that these conditions be met.”

These assertions must be re-examined in light of today's volatile gasoline costs, environmental concerns and transit's underperformance in downtown Newark. The opening of the Montclair Connection, the Secaucus Transfer, the new Newark Light Rail connection between Newark Penn Station and the Broad Street station, and the anticipated sprucing up of Newark streets are factors that could alter this mindset.

UNIVERSITY HEIGHTS

Adjacent to the downtown is another activity area where transit underperforms. In addition to approximately 12,000 faculty and staff, some 31,000 students take classes in the University Heights area, which includes the following institutions of higher learning: Rutgers-Newark, New Jersey Institute of Technology, Essex County College and the University of Medicine & Dentistry. This is the highest concentration of college students outside the New Brunswick area. This area is served by transit to some degree by the Broad Street station and several stations on Newark Light Rail (with transfers from commuter rail and PATH at Newark Penn Station), but it offers ample parking and little has been accomplished to encourage transit usage. As the building of parking decks becomes more expensive and resources shrink, these universities, like others in urban settings, could become promising allies in achieving significantly increased transit usage from these markets.

AIRPORTS/ PORTS

Access to the airport/port areas, particularly for Newark residents, is a matter of high concern to the Newark city administration and workers. The transportation sector, represented largely by the airport, port, rail yards, ground and support services, and nearby trucking and warehousing activities, was the city's major growth industry from 1980 to 1998, adding 10,700 jobs. (PBQ&D, 2005). These combined geographic areas are now the city's second largest concentration of employment.

The projections for increased international trade and air travel make it likely this sector will continue as an engine of economic growth for the foreseeable future. Recent research at the airport supports this expectation. Yet, only 6 percent, or 2,000, of the jobs at the airport and port are held by Newark residents. (In comparison, 20 percent of downtown Newark's workers reside in the city.) The city anticipates that many more Newark residents could be employed in the growing transportation sector, as many of the jobs – now and in the future – are semi-skilled. The city administration and the Port Authority of NY & NJ are jointly pursuing these objectives. As pointed out below in the Greater Newark Bus Study, NJ TRANSIT is actively examining several ways to improve transit connectivity for Newark residents and workers from other origins to the airport/port area.

SPATIAL MISMATCH

Another area of mobility concern arises from the spatial mismatch of increased jobs being created outside Newark's borders, some considerable distance away, and the need of Newark's residents for employment. According to the 2000 Census, almost 60 percent of Newark's residents worked outside the city, mostly in New Jersey communities surrounding Newark (only 6 percent work in New York City). The most significant locations are in suburban Essex, close-in towns such as Hillside, Union, and Elizabeth, and in western Hudson County and the Meadowlands.

The PBQ&D study reported that 94 percent of the Essex County jobs outside Newark held by city residents are within one-quarter mile of a bus route. However, these services may not be convenient in other aspects of trip-making (e.g., odd shifts, worker residence inconvenient to bus route, disembarking locations too distant from job sites, etc.) For those Newark residents working elsewhere, 2000 Census data shows 77 percent drove to work. By comparison, a significantly lower share (46 percent) of city residents employed in Newark drove to work. [See below.]

TABLE 8. MODES OF TRAVEL TO WORK (2000)

	Newark to Newark		Elsewhere to Newark	
	Trips	% of Total	Trips	% of Total
Drive Alone*	11,135	31%	28,633	56%
Carpool	4,950	14%	10,518	21%
Taxi	359	1%	194	0%
Total Auto	16,444	46%	39,345	77%
Railroad	167	0%	1459	3%
Subway/Trolley	279	1%	1115	2%
Bus	11,790	33%	7,860	15%
Total Transit**	12,236	34%	10,434	21%
Walk	6,540	18%	487	1%
Bike***				
Other	736	2%	539	1%
Total	35,956	100%	50,805	100%

Source: U.S. Bureau of the Census, Census 2000

* Includes trips by motorcycle

** Includes trips by ferry

*** Data not available

Essex County government and Meadowlink Commuter Services, a Transportation Management Association serving Essex and other adjacent counties, work together to provide special transportation services to connect Newark residents to reverse commute and off-peak jobs in Newark and those located elsewhere in New Jersey. These services include an early morning shuttle serving Newark and adjacent Essex County communities that brings riders to Newark Penn Station between the hours of 1 a.m. and 5 a.m. seven days per week. Most patrons catch the # 62 bus to commute to jobs at the airport and port area. Additionally, shuttle services are operated for workers destined to retail jobs along Route 46 in Passaic County. The vans pick up the riders at the end of bus routes #29 and #71 and distribute them to their job sites. This service operates from 6 a.m. to 9 a.m., and from 3 p.m. to 7 p.m., Monday through Friday.

Half of Meadowlink's funding for these programs comes from the federal Jobs Access – Reverse Commute program – which is administered by NJ TRANSIT -- and the other half comes from Essex County resources. While federal funds for this type of service have been cut elsewhere, Essex County does not expect its allocation will be reduced; however, there are no funds available for expanding the service.

NEWARK TRANSIT PLANS

In addition to expert interviews and a field trip, the VTC study team reviewed several previous studies conducted for the city that either concentrated or touched significantly on transportation planning.

Newark Transportation and Growth (March 1974)

Prime Consultants – Parsons, Brinckerhoff, Quade & Douglas, Inc.

This report, generated using 1970 Census data, was written when downtown Newark had 85,000 jobs and was considered the financial, insurance and educational capital of New Jersey.

The report discusses how there had been a heavier emphasis on the regional transportation network, oriented towards Manhattan, rather than local transportation needs. It attributed this emphasis as contributing to the city's decline, along with rising fares, declining service and frequent delays due to congestion.

This study sought to identify priority areas where transportation improvements were most needed and divided the city into five corridors, beginning in the CBD and extending outward. It evaluated each corridor according to the following criteria:

1. socioeconomic characteristics
2. transportation facts
3. transportation planning opportunities and constraints

The study concluded that the Southwestern Corridor exhibited the most urgent need for transportation improvements. This area was defined as much of central Newark (centering on Clinton, Springfield and South Orange avenues), Vailsburg, and beyond Newark into the Essex County communities of Irvington, Maplewood, South Orange and Millburn, as well as adjoining areas of Union County.

The Springfield Avenue subcorridor was selected for further study based upon the development of the university complex and governmental center west of the CBD and the "unique opportunities for restructuring and rebuilding the Springfield Avenue Corridor that had been created by the existence of large amounts of land cleared for urban renewal and abandoned properties."

Of the various transit modes studied for this corridor, the recommended improvement was a 3.6-mile extension of the Newark City Subway along the corridor. The proposed alignment would utilize the existing subway tunnel between Penn Station and the Washington Street Station. Beyond that point, a new tunnel would be built west to University Avenue and southwesterly under Springfield Avenue. The new tunnel would continue west to the Irvington Bus Terminal. Seven new stations were recommended at half-mile intervals.

Newark Master Plan/Land Use Plan (2004)

City of Newark/Phillip, Pruess & Shapiro/Schoor de Palma

The Newark Master Plan/Land Use Plan identifies the types of densities and development patterns that the City should pursue and or maintain. Many of these suggestions are guiding the types of growth and the development nodes being pursued today by the new administration and the private sector. The Master Plan thus provides a reasonable basis for helping determine the transportation needs in the city; however, there is no updated Transportation Element included in the 2004 Master Plan.

The Plan identifies areas for residential uses of various densities including single family, two-family and apartment. It also highlights proposed mixed-use sectors and commercial zones that include neighborhood centers, community and regional commercial centers and shopping center/big box development areas. The Plan addresses two types of industrial development zones – heavy and light industrial and Special Purpose Districts.

While the Plan identifies land uses by area that should be maintained and enhanced, it also suggests that in certain locales land uses should change to fit more appropriate development for the conditions. For example, the Plan states, “Modern light industrial, flex-space should be encouraged in former residential sites with good highway access.... The city should pursue conversion of isolated marginal industrial sites to residential uses where the housing market is strong.”

The Master Plan specifically defines commercial land use categories based upon existing land development and densities. This includes:

- **Neighborhood Centers**, which meet day-to-day shopping, are proposed for commercial or mixed use development at key intersections
- **Community Commercial** designation is for convenience-oriented shopping along corridors that radiate from the central business district, such as sections of Bloomfield Avenue where Enhanced Bus Service is being planned. (Auto-related businesses are not allowed.) The Plan proposes new retail nodes at intersections or strong existing retail strips and the replacement of intervening marginal stretches by housing, community services and facilities
- **Regional Commercial** zones would have the same development guidance as Community Commercial, but allow auto-related businesses. There are proposed corridors for Springfield Avenue and the balance of Bloomfield Avenue, both of which have proposed Enhanced Bus Service in the planning stage.

The Master Plan is less specific about industrial and Special Purpose Districts but, according to the report, “The area around the airport is to be regulated to capture high value-added, employment generating airport-related development.... Appropriate industrial development can provide excellent employment opportunities with good wages for Newark residents.... Flat, heavy industrial locations should be retained and reinforced....”

Newark Economic Development, Land Use and Transportation Plan (2005)

Parsons, Brinckerhoff, Quade & Douglas, Inc.

According to the Preface of The Newark Economic Development, Land Use and Transportation Plan, the report evolved over a seven year time period while responding to various changes based on evolving development conditions, potentials and the realities of Newark's "Renaissance." The principal focus of the Newark Economic Development, Land Use and Transportation Plan was the linkage of land use by transportation resources to create economic development, i.e., jobs and tax ratables.

The means of achieving this focus was based on two plan components: first, the identification of engines of growth and associated development nodes where specific projects would be able to take advantage of transportation linkages and locational opportunities; second, the preparation of a Citywide Transportation Plan, that could become part of an updated Circulation Element of the City Master Plan. The Citywide Transportation Plan covers a range of modes and systems, recognizes strengths and weaknesses and advances short-range and long-range proposals.

A variety of transportation-related recommendations were included in this comprehensive analysis:

- Extend the Newark City Subway south to serve Lincoln Park, City Hall/courts and the Arena
- Continue the NCS extension south on Broad Street to the airport to also serve the Service Cluster and the South Ward Industrial District development nodes
- Construct a park and ride lot at the NCS Orange Street Station leading from the First Street ramps of I-280
- Modify existing zoning to allow higher density mixed use or commercial development at the First and Orange Street/Orange Street Station development node; the James Street Redevelopment District at the NCS terminus, and at the Norfolk Street subway station proximate to University Heights and Science Park
- Work with NJ TRANSIT to enhance public awareness of the bus and subway system. Install recognizable exterior signage and pathfinder signs for the NCS and provide schedule and route map signs at bus stops
- Provide a north/south bus transit corridor outside of the CBD along Bergen/First streets, and Irvine Turner Boulevard/Jones Street/Norfolk Street
- Provide paratransit and jitney service in the Ironbound to better negotiate the crowded, narrow streets
- Transportation Demand Management and Transportation System Management programs should be pursued including: coordination with NJ TRANSIT to add park and ride facilities at outlying train stations; implementation of strategic parking pricing that encourages carpools and vanpools; marketing greater employer subsidies of transit use and ridesharing

Newark Vision Plan (2006)

Regional Plan Association

The goal of this planning effort, which involved experts in transit and urban mobility needs, was to identify a mobility strategy that could “improve the connectivity of Newark’s neighborhoods, promote the use of public transportation and accommodate additional, sustainable development.”

The study recommendations include:

- Establish Bus Rapid Transit service in the Springfield and Bloomfield avenue corridors. Build a system that has signal pre-emption, stops every half mile at stations with platforms, shelters and fare-vending machines, and provides low floor vehicles
- Consider expanding BRT to an additional corridor along Broad Street that would connect to the first two operating lines
- Focus attention in the short term on improving access to jobs in the Newark Liberty International Airport and Port Newark area
- Encourage development at transit nodes and corridors. Start with Newark Penn, Broad Street and Orange Street stations
- Implement simple, short-term measures to improve the usability and safety of existing local bus service (while the comprehensive Newark/Elizabeth bus study is underway), such as improving and maintaining signage with routes, schedules and maps, installing more shelters
- Overhaul and modernize the bus system
- Install electronic signage with real-time schedule information (long-term recommendation)
- Modernize traffic signaling to address local congestion problems, including the impact on bus transit on-time operations and signal coordination/prioritization for future bus improvements
- Exert control over the amount of parking available downtown. Replace minimum parking requirements with maximum standards, particularly for non-residential development. Adopt a standard of 1 space per 1,000 square feet versus the current 4 spaces.
- Exert control over the large volume of truck traffic that flow through Newark. Identify, clearly mark and publicize truck routes and enforce their use
- Allow transit, pedestrians and bicycles to share the road

GOALS AND OBJECTIVES

Based in part on the 2005 PBQ&D study and discussions with NJ TRANSIT staff, Newark officials and other interviewees, the following represents a framework of transportation goals and objectives for the City of Newark.

GOALS

1: Support Downtown and University Heights Development

Objectives

1. Identify opportunities with NJ TRANSIT to maximize provision of quality multi-modal transit services to these areas
2. Identify opportunities with NJ TRANSIT to develop appropriate transit marketing methods and materials
3. Identify opportunities with NJ TRANSIT to explore transit-oriented development opportunities at rail and light rail transit stations
4. Identify opportunities with the universities and medical centers to encourage use of existing transit by faculty, staff and students
5. develop opportunities for intercept park and rides to reduce auto traffic downtown and in University Heights
6. Develop strategies consistent with investor needs to reduce reliance on the auto among downtown workers by lowering zoning requirements for parking, encouraging employer adoption of transit benefits and discouraging driver subsidies

2: Support Improved Access to Newark Liberty International Airport and Port Newark

Objectives

1. Support conclusions of the Greater Newark Bus Study and the Newark Airport Task Force and timely implementation of route changes to address needs
2. Coordinate with agencies, organizations and businesses providing multi-shift, off-peak shuttle services to ensure sufficient coverage

3: Support Neighborhood and Community Development

Objectives

1. Identify opportunities with NJ TRANSIT to enhance transit access from neighborhoods in need (high unemployment, low-income, low motor vehicle ownership) to job-concentration destinations within the city

4: Get People to Jobs

Objectives

- 1: Identify means and methods of providing access to jobs in New Jersey communities surrounding Newark, particularly through specialized off-peak or reverse commute operations

TRANSIT PROJECT PIPELINE

NJ TRANSIT has a significant amount of capital construction and operations planning underway that profoundly affects the city of Newark. These initiatives require close attention by city government staff – in some cases to help secure capital funding, in others to understand the consequences to neighborhoods and residents, and in other cases to relate these projects to longer range transit improvement possibilities for the city.

RAIL

Newark Penn Station

Newark Penn Station is the city's primary intermodal transit hub, serving NJ TRANSIT commuter rail (Northeast Corridor, North Jersey Coast Line and Raritan Valley Line), Amtrak intercity rail passenger service, PATH, Newark Light Rail Transit, local and commuter buses, Greyhound long distance buses and taxis. Based upon 2006 NJ TRANSIT counts, 24,637 riders use the station each day boarding and departing the commuter rail trains.

As part of a periodic program of modernizing and improving Newark Penn Station to facilitate continued downtown redevelopment, NJ TRANSIT has planned investments needed to maintain the 70-year-old facility and adapt its functioning to meet changing needs. At this writing, portions of this circulation improvement program are unfunded; the cost is projected to be between \$10 million and \$14 million.

The improvement plans include upgrading existing and constructing new stairways to accommodate, efficiently and safely, increased pedestrian circulation demands. The plan also proposes to reorganize external roadways and pedestrian paths, and to expand the security perimeter around the station.

To date, the only funded traffic congestion improvement, which will begin an eight-month construction schedule in the summer of 2007, is the creation of a p.m. peak period bus-only lane on Raymond Boulevard between Raymond Plaza East and McCarter Highway. This queue jump will allow outbound bus traffic from Newark Penn Station to enter a special lane marked by overhead lights to travel several blocks to McCarter Highway. This notoriously congested location stalls bus traffic and affects schedule adherence.

Also funded and underway is an improvement to the stairs and elevators on the south side of Market Street to and from the station platforms. This project has been advanced to accommodate the fall opening of the Prudential Center arena. Many arena patrons are expected to depart from and arrive at Newark Penn Station on the south side of Market Street.

Broad Street Station

This railroad station, located on the north end of Newark's downtown, is playing an increasing role in the city's economy. It long served as the gateway to the city from the Morris & Essex Lines. Numerous Broad Street buses have always served the station. With the introduction of MidTOWN DIRECT in 1996, the station gained access to midtown Manhattan via Penn Station New York with increased number of trains stopping there. As of 2003, trains from the Montclair-Boonton Line (some destined for Penn Station New York and others for the PATH connection to lower Manhattan in Hoboken) created an expanded market for the station. In 2006, NJ TRANSIT completed construction of a light rail spur of the Newark City Subway (now known as Newark Light Rail) from Newark Penn Station to the foot of the Broad Street station. This spur introduced a rail connection from the northern portion of downtown to the New Jersey Performing Arts Center and Newark Penn Station.

NJ TRANSIT has underway a major \$76.2 million upgrade of the station facilities that includes platform reconstruction, construction of a new center island platform, installation of elevators, new stairs and building

rehabilitation. A final set of improvements that are not funded involve integrating the intermodal station area, including the North Broad Street pedestrian plaza, area roadways and traffic flows (including buses), into a more efficient, attractive and pedestrian-friendly transit hub. This \$5 million plaza and intermodal improvement could be pursued within the context of a redevelopment plan for the properties surrounding this transit hub station.

BUS

Greater Newark Bus Service Study

NJ TRANSIT has kicked off a comprehensive study of bus operations serving both Newark and Elizabeth. Bus service is the dominant element in the region's transit network. On a typical weekday, 5,000 bus trips cover 51 bus routes, serving a quarter of a million passengers, across the study area.

The goal of the three-year study is to better serve existing customers and increase the ridership base by expanding system capacity and function, and enhancing system integration and intermodal connectivity. The study will be conducted in four phases, each lasting 12-15 months, and include:

- Downtown/Ironbound
- Newark Liberty International Airport, Port Newark/Elizabeth
- Main Street Corridor
- Elizabeth - Irvington Corridor

Each phase will run consecutively and include data collection, rider opinion and operational assessments, development of proposed short-term (under 1 year), mid-term (1-3 years) and long-term (3+ years) service recommendations, associated passenger and financial impacts and an implementation schedule to meet new travel demands.

Besides adjusting service schedules and capacities where necessary, various improvement strategies will be evaluated, such as:

- preferential treatment for buses in key corridors
- revising the current hub-and-spoke concept, if warranted
- introducing crosstown and radial corridors and exclusive bus lanes
- developing Bus Rapid Transit operations on particular corridors
- studying future BRT options
- identifying new transit hubs
- providing downtown circulators
- improving transit accessibility to the airport and Port Newark/Elizabeth

The study started by focusing on the downtown and Ironbound as the first phase; however, the Airport and Port phase has been advanced to run concurrently, based upon its importance to the City leadership.

Study consultants have learned from discussions with major employers and stakeholders that major expansions of airport ground services and other support companies, as well as freight and packaging operations, are expected in the near future. Many jobs will be created and efficient transportation will be needed to fill these positions – many of which are available during the airport freight peak period of 10 p.m. – 1 a.m. Transit service also needs to be expanded in the 4 a.m. - 6 a.m. window, seven days a week, and in the 12 p.m. - 2 p.m. period outbound in this area. Extra service was added in mid-2007 on the #62 bus route to help meet the airport and port needs.

Complementary to the study, NJ TRANSIT has convened a short-term Airport/Port Area Task Force to examine restructuring transit services, both rail and bus, to get employees to and around the airport and port. Participating as the core group are several public agencies, landowners and businesses, including the City of Newark, the Port Authority of New York & New Jersey and the Metropolitan Transportation Agency (MTA). Major stakeholders, such as Continental Airlines, ground services operators and Federal Express, will also be invited to share their perspectives about employee transportation needs and to make recommendations. The Task Force expects to deliver its conclusions by the end of 2007. It will recommend short-term changes that can be completed within one year and medium-term modifications that could take two to three years to implement.

Enhanced Bus Service

NJ TRANSIT recently completed a comprehensive planning study for Enhanced Bus Service along the Springfield and Bloomfield avenue corridors. Springfield Avenue will serve as the pilot project for implementing and testing this dedicated service. NJ TRANSIT Bus Operations, in cooperation with the City of Newark and other NJ TRANSIT units, is working towards implementing the enhanced service by the end of 2007. The Springfield Avenue experience will be evaluated to guide Bloomfield Avenue service to be implemented as a next phase.

The Enhanced Bus Service concept is modeled in part on the Bus Rapid Transit (BRT) mode. BRT has been successful in a number of national settings, such as Los Angeles and Boston. BRT is typified by half-mile spacing between bus stops/stations, ease of access through low-floor vehicle design, a proof-of-payment fare collection similar to NJ TRANSIT light rail transit operations, and exclusive bus treatment through signal prioritization.

The Springfield Avenue Enhanced Bus Service will add to the existing #25 bus service along the corridor. It will operate two hours each during both the a.m. and p.m. peak periods. The service will start at Newark Penn Station and travel to the Irvington Bus Terminal, making all local stops in the downtown area. At MLK Boulevard, the service will take on the characteristics of BRT with roughly half-mile station spacing to the west. Stops have been identified for nodes with significant ridership, commercial uses, community facilities and transit-oriented development potential, such as Irvine Turner Boulevard and Bergen Street. Well-lit shelters with a distinctive design will be built and include transit schedules, system maps and intermodal information. NJ TRANSIT has been working with the City of Newark to discuss further station area improvements for pedestrian safety, such as signage, crosswalk re-striping and signal changes.

For the Enhanced Bus Service project, NJ TRANSIT will utilize its standard 40-foot vehicles. The buses will be rehabilitated and wrapped with a system-branding logo and identity. There will be no special fare collection methods, low floor vehicles or signal prioritization as are common with other BRT projects nationally.

NJ TRANSIT is seeking special funding to advance the future Bloomfield Avenue Enhanced Bus Service Corridor. This service is proposed to run from the Airport to Lincoln Park, then north on Broad Street to Broad Street Station/Bloomfield Avenue where it would continue to downtown Montclair.

LIGHT RAIL

Newark Light Rail System

NJ TRANSIT is soon to embark on a multi-year capital program to improve four system stations. Non-ADA improvements are slated for three original mainline stations at Norfolk Street, Park Avenue, and Davenport Street. Their rehabilitation program will include painting, stair repairs, replacement of platform shelters and platform edges, installation of new signage, lighting and electrical services. The Davenport Station rehabilitation will also include a new pedestrian bridge.

The Bloomfield Avenue station will also undergo major capital improvements under a planned rehabilitation project that provides complete ADA improvements, including an elevator.

As part of NJ TRANSIT's State of Good Repair program, the agency will conduct a comprehensive assessment of the light rail system's right-of-way by checking the condition of rail, ties, ballast, drains, etc. Improvements will contribute to a faster ride.

NJ TRANSIT staff has been working with the Newark Engineering Department on traffic signalization improvements, soon to be implemented, that will improve travel times for certain street-running segments of the light rail line. NJ TRANSIT will soon begin discussions with the City about full signal pre-emption for light rail vehicles across Broad Street on the new extension between Newark Penn Station and the Broad Street Station.

Orange Street Station Development

NJ TRANSIT, in cooperation with the City of Newark, is currently developing the Orange Street Station Vision Planning Study. This study will evaluate possible transit-friendly development options for the five-square block station area, including commercial and mixed use projects and intercept parking for I-280 drivers head downtown or to the four academic and medical institutions located in University Heights. The concept includes shuttle services run by the universities.

NJ TRANSIT and the City will collaborate on community outreach forums to gather public input. They also plan to engage broader stakeholders, such as high level representatives from the universities (Council for Higher Education in Newark - CHEN), to discuss a shared parking concept and the educational community's development thinking for the area.

The Orange Street Station locale is also being considered by the City as part of a larger corridor redevelopment strategy that would include the Broad Street Station area.

RECOMMENDATIONS

The VTC expert interviews produced relatively consistent recommendations regarding transit priority projects and policies that would benefit the City of Newark. Many of these recommendations were also expressed in various plans reviewed, such as the recent RPA Newark Vision Plan in which many of the same individuals participated.

First and foremost, we recommend that the City of Newark should cement an on-going working relationship with NJ TRANSIT. As the statewide transit service provider with a special concentration of facilities and operations in Newark, NJ TRANSIT can provide significant assistance to the City in meeting short-, medium- and long-term transit goals. Many of NJ TRANSIT's priorities currently dovetail with those that should be Newark's as well. Working with the agency in the needs identification, capital programming, planning and design stages, and joining forces to lobby for capital implementation funding from state and federal sources will help Newark move forward on many fronts. Since many of the projects recommended below would require a redefinition of how the city's streets are to be used and regulated, special attention will be required to assure consensus is achieved between NJ TRANSIT and the City's engineering staff.

Working with other agencies, such as the North Jersey Transportation Planning Authority (NJTPA), which can provide planning and design grant assistance to the City, will also help Newark shape its own destiny. To make these collaborations easier, the offices of both NJ TRANSIT and NJTPA are conveniently located in downtown Newark. While the full list of transit-related improvements recommended by interviewees are included in the report appendix, the following material highlights top priorities for each time frame – short, medium and long term.

SHORT-TERM RECOMMENDATIONS (Years 1 – 5)

Collaborate with NJ TRANSIT on the following projects:

Newark Bus Study - Define system needs and implement the final outcome of the Newark Bus Study. The results will likely include appropriate bus route and schedule restructuring and traffic operations changes to help the system better meet current demand; special early attention is being paid to the transit needs in the rapidly growing airport area and of possible responses and findings of the Airport/Port Area Task Force. In addition, Newark could benefit from adding new routes such as crosstown and radial corridors to service commercial and job nodes outside of the downtown, including suburban Essex and Morris counties and the Meadowlands region. As noted above, the City government should take organizational steps to assure that consensus is reached with NJ TRANSIT on both planning and engineering issues that will arise from this study's recommendations.

Enhanced Bus Service – Plan, design and implement the service on the Springfield Avenue and Bloomfield Avenue/Broad Street Enhanced Bus Service corridors. This includes close collaboration with Newark City Planning in the scoping of potential economic development initiatives surrounding the system stops and with the Engineering Department on traffic engineering matters. On no project is it more imperative than this that the city government organize itself to assure that consensus is reached with NJ TRANSIT on planning, engineering and traffic regulation issues that have arisen or will arise. These initiatives should serve as a prelude to later phases where project elements could be added to convert these corridors to bona fide Bus Rapid Transit operations.

Improvement of Newark Light Rail Performance - Address service, operations (particularly for street-running segments), station conditions and security improvements for the overall Newark Light Rail system, with special attention to faster operations between NJPAC and Broad Street Station (here City engineering and planning appear to have reached consensus with NJ TRANSIT on traffic regulation changes); promote better usage of the Newark Light Rail system, particularly the new link between Broad and Penn stations; join with the city's university community to encourage higher public transit usage, with special attention to the Newark Light Rail and commuter rail systems; evaluate other Newark Light rail stations for transit-oriented development opportunities.

Orange Street Station TOD - Create a Newark Light Rail Orange Street Station park and ride and, in concert with Newark City Planning, identify opportunities for adjacent transit oriented development.

Transit-Hub Funding and Economic Development – Led by the Deputy Mayor for Economic Development, Housing and Planning, obtain funding for Newark Penn Station internal circulation and area mobility improvements, particularly restructuring traffic and bus flow; organize through State designation as a Transit Hub with technical and financial assistance, scope an economic development initiative, including circulation and amenity improvements, surrounding Broad Street Station linking to the northern Downtown and University Heights; a by-product would be improving safety perceptions on the route from the universities to the station.

Job Access- Work with Essex County and Meadowlink to expand and finance job access services to meet the reverse commute needs of Newark residents to jobs outside the city where NJ TRANSIT does not have the capacity to deliver.

Parking Policy; Transit Incentives – Re-examine municipal parking policy to set a maximum number of spaces for new development applications; work with NJ TRANSIT and others to encourage city employers to offer transit commuter tax benefits to their employees.

Traffic Signalization Upgrades - Investigate with Essex County and the New Jersey Department of Transportation the funding of traffic signalization upgrades to prepare the city for a sophisticated integration of swifter bus operations with general traffic.

Multi-Year Transportation Planning Grant Request - Prepare a multi-year planning grant request for submittal to NJTPA to include sketch planning for future transit capital initiatives outlined in the Medium- and Long-Term recommendations. This sketch planning would include feasibility analyses of the physical, market demand and land use/economic development potential of expansion elements of Newark Light Rail and of further development of bus corridors. (See below.)

Collaboration with Hudson County – Coordinate on cross-jurisdictional transit services and improvement projects that impact both entities and access to employment sites.

The themes behind future transit planning are to:

- extend on a measured basis the high-quality Newark Light Rail system to priority locations, where feasible, on a separate right-of-way and to the extent capacity and physical layout at the Newark Penn Station terminus permits
- improve transit trips from Newark's neighborhoods to downtown and around the downtown area by upgrading Enhanced Bus Service to Bus Rapid Transit with possible upgrading beyond
- encourage land use development that takes advantage of the increased accessibility of locations served by the improved transit system
- create new intercept parking opportunities for the Newark Light Rail

Studies supporting these objectives should be included in the multi-year grant requests made to NJTPA.

MEDIUM-TERM RECOMMENDATIONS (Years 3-10)

Establish a long-range BRT network plan for Newark using Broad Street as a focal point

- Advance Springfield Avenue and portions of the Bloomfield Avenue/Broad Street Enhanced Bus Service to full-fledged Bus Rapid Transit corridors
- Consider new branches of Enhanced Bus Service and then BRT on:
 - Elizabeth Avenue
 - Clinton Avenue
 - South Orange Avenue
 - West Market/Main Street
 - Broadway
 - Lafayette Street-Wilson Avenue
- In designing any BRT routes identified above, consider possibilities for conversion of the corridor to LRT, circulating streetcar or infeasibility of conversion

Extend Newark Light Rail in stages

- Preliminarily, study physical feasibility of extensions from the Newark Light Rail system's terminus underneath Penn Station to the south; capacity of the Light Rail loop, and; feasibility of connecting the subway to the Cedar Street tunnel outlet onto the surface of Washington Street
- Study the engineering options, market demand and land use/economic development potential related to a Newark Light Rail extension south, on or near Broad Street from Market Street to serve the Prudential Center arena, City Hall, courts complex, and the Lincoln Park neighborhood; advance that project toward construction
- After similarly studying the physical feasibility, market demand and land use/economic development, build an extension of the Newark Light Rail Line east onto the Orange Branch and Boonton Line to a new North Newark Station (Forest Hill) and a Route 21 park and ride intercept on old McCarter Highway inside Newark's border with Belleville with accompanying creation of a redevelopment zone (note possible conflict of land use with proposed site of prisoner re-entry facility)

Additional Recommendations

- Investigate, as long-range alternatives, conversion of either the Springfield Avenue or Broad Street BRT into LRT in a median or, alternatively, investigate the potential for a downtown streetcar distribution system
- Investigate a Newark Light Rail extension into the heavily populated Ironbound neighborhood under Ferry Street or a parallel right-of-way, including analyses of physical feasibility, market demand and land use/economic development potential
- Investigate extension of Newark Light Rail main stem at existing, abandoned ramps for revived surface operations

LONG-TERM RECOMMENDATIONS (*Years 7 -15*)

- Build Newark Light Rail extension southward on or near Broad Street to serve the Prudential Center arena, City Hall, Federal Court and Lincoln Park neighborhood
- Continue engineering and related work on a Newark Light Rail extension to the Ironbound if feasible
- Examine conversion of BRT into LRT or streetcar for other corridors
- Investigate a Newark Light rail extension west along the Orange Branch to Watsessing Station in Bloomfield

APPENDICES

EXPERT RECOMMENDATIONS

Rail

- Improve Newark Penn Station and Broad Street Station interior passenger circulation and exterior traffic circulation patterns. This was considered especially critical for Newark Penn Station which also houses the downtown bus terminal. All city bus routes pass through the Penn Station Bus Terminal based upon the existing “hub and spoke” service concept. This decades-old service concept should be analyzed for current efficiencies
- Prioritize transit-oriented development opportunities around Broad Street Station extending into northern downtown, i.e. University Avenue/James Street area, and linking to University Heights. Make area more attractive for people walking from Rutgers-Newark to Broad Street Station
- Pursue State of New Jersey interest in designating Broad Street Station as a Transit Hub or Village and the technical assistance and focus this will bring
- Improve Newark Liberty International Airport employee access to on-site jobs via the NEC Airport Station and monorail link. Currently this usage is discouraged by high ridership fares. NJ TRANSIT is now studying this subject
- Make NEC Airport Station multi-modal
- Reopen a station at South Street along the Northeast Corridor in Newark to serve the Ironbound, Lincoln Park and governmental complex neighborhoods

Light Rail

- Pursue expansion of the Newark Light Rail System to unserved or underserved city neighborhoods
 - Along the abandoned Boonton Line to a new Route 21/McCarter Avenue Station and park and ride intercept lot, and connecting to the NCS main line through use of the unused Orange Branch; open one or two additional stations (Forest Hills) along the expansion between Branch Brook Park and the new McCarter Avenue /North Newark Station
 - Investigate future use of abandoned Public Service tunnels and turnouts for NCS expansion including Cedar Street and abandoned ramps to the street network
 - Determine if there is excess capacity below Penn Station for additional NCS expansion into the Ironbound
 - Extend the NCS from Grove Street Station to Watsessing on the Morris & Essex Line [low priority]
 - Extend the NCS past Watsessing to West Orange on existing Orange Branch right-of-way [low priority]

- Rehabilitate the existing system, particularly station interiors and security systems. Recent focus groups conducted with Rutgers-Newark staff and students indicate that the deteriorated conditions and sense of security risk discourages usage, particularly off peak and at night
- Install signal prioritization for street running operations, particularly the newest leg between Broad Street Station and Newark Penn Station
- Improve system marketing and communications to current and potential users. “The Newark City Subway is the city’s best kept secret” is a common theme. The system needs more publicity and outreach to the universe of potential riders in the form of branding, operations information, fare specials, etc.
- Prioritize transit-oriented development at stations to create hubs of commercial and mixed use activities to service and attract more riders

Bus

- Implement BRT on Springfield and Bloomfield avenues (near term)
- Study future BRT routes
 - South Broad Street/ Frelinghuysen Avenue
 - Clinton Avenue
 - Main Street
- Design the BRT system to be convertible to LRT
- Provide downtown circulators
- Institute crosstown and radial corridors to the airport and Port Newark, suburban Essex and Morris counties, the Meadowlands and the Xanadu development, etc.
- Build new downtown transfer hubs
 - Broad Street/Raymond to Newark Penn Station
 - Lincoln Park North/South bus lines
 - Clinton Avenue & Elizabeth Avenue
- Change the hub-and-spoke service concept which funnels all service through the Newark Penn Station Bus Terminal. This decades-old service concept should be analyzed for current efficiencies
- Expand Penn Station Bus Terminal
 - Extend the terminal across Penn Plaza East into the adjacent parking lot
 - Extend the terminal south into the Aspen House lot
- Create and enforce bus lanes
- Provide pedestrian infrastructure improvements in the Port Newark area

Reverse Commute - 24/7 Operations

- Expand reverse commute opportunities
- Enhance Meadowlink off-hour shuttle service to the airport-bound bus route and reverse commute shuttles servicing suburban bus lines
- Coordinate transit/shuttle services provided by individual businesses and institutions into an efficient service serving major destinations such as the airport and Port Newark area and University Heights

Parking

- Create peripheral intercept lots
 - Route 21
 - Orange Street Station
 - Frelinghuysen Avenue/I-78 & Route 22
 - I-280
 - Bears Stadium
- Institute changes to parking policy, particularly for downtown development/redevelopment. Set a maximum number of parking spaces and set lower or no minimum requirements for projects in areas with good transit access
- Create a pricing structure that discourages downtown parking
- Seek redevelopment on downtown surface lots

Congestion

- Upgrade the signal system on Essex County- and City-maintained roads, particularly downtown
- Conduct a traffic circulation study
- Provide better enforcement

Partnering by the City of Newark with:

- NJ TRANSIT (rail, bus and light rail/city subway services, development options)
- The universities and hospitals (major users of transit, alignment of major trip generators for cost efficient service expansion or enhancement)
- NJTPA (comprehensive, multi-year study grant request)
- Essex County (roads, signals, alternate transit programs)
- Hudson County (cross-jurisdictional transit services and improvement projects)

City Policies

- Reconsider use of the unused Orange Line/Boonton Line for a pedestrian walkway and bike path. Maintain the line for Newark Light Rail expansion
- Reconsider McCarter Highway and Route 21 as an option for City's proposed convict re-entry program. Use this site for light rail expansion station and Route 21 intercept lot
- Reconsider boulevard creation on Broad Street. This may take up capacity needed for a BRT/LRT system
- Pursue commercial redevelopment accessible from the airport station