



New Jersey's Long-Range Transportation Plan

For Public Discussion

October 2008

Jon S. Corzine
GOVERNOR, STATE OF NEW JERSEY

Kris Kolluri
COMMISSIONER, NEW JERSEY DEPARTMENT OF TRANSPORTATION





New Jersey's Long-Range Transportation Plan

For Public Discussion

October 2008

Jon S. Corzine
GOVERNOR, STATE OF NEW JERSEY

Kris Kolluri
COMMISSIONER, NEW JERSEY DEPARTMENT OF TRANSPORTATION



The preparation of this report has been financed in part by the US Department of Transportation, Federal Highway Administration and Federal Transit Administration. This document is disseminated under the sponsorship of the US Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof.

TABLE OF CONTENTS

I. Why You Should Read This Plan	1
The Challenge	1
The Plan	3
This Document	5
II. Where We Are Today	6
Condition Of The System	6
The Highway System	6
Public Transit	8
The System	9
III. What We Can Expect	11
Changes And Their Implications	11
Population And Employment Growth	11
Income	11
Diversity	11
Automobile Ownership	11
Age	11
Travel To Work	12
Implications	12
Critical Issues That Must Be Addressed	13
Congestion	13
Growth And Development	13
Freight Movement	14
Efficient Operations	15
Security	15
Mobility For The Aging And The Disabled	16
Pedestrian And Bicycle Travel	17
Aviation	17
Engaging And Educating The Public	17
Environmental Justice	18
Energy And The Environment	18
IV. Where We Would Like To Be (And How To Get There)	19
2030 - The Vision	19
The 2030 Plan	20
Maintain And Renew The Infrastructure	20
Expand Public Transit	20
Apply Advanced Technologies	20
Further Reduce Auto Trips	21
Adopt Smart Growth	21
Optimize Freight Distribution	21
Other Elements	21
What If?	23
Example Corridors	23
Financial Implications	28
V. What We Need To Do	30
1. Maintain And Renew Transportation Infrastructure	31
2. Integrate Transportation And Land Use Planning	32
3. Increase Safety And Security	33
4. Improve Mobility, Accessibility, Reliability	34
5. Operate Efficiently	35
6. Respect The Environment	36
7. Optimize Freight Movement	37
8. Continue To Improve Agency Effectiveness	38
VI. How We Will Measure Progress	39
VII. How To Learn More And Comment On This Plan	40



SECTION I

Why You Should Read This Plan



You should read this plan because economic forces and positive growth are challenging New Jersey's transportation system in unprecedented ways, and the New Jersey Department of Transportation (NJDOT) and NJ TRANSIT lack the resources and the authority to meet those challenges without your help. You should read this plan because your personal mobility, future prosperity and quality of life, as well as those of your children and your grandchildren can be positively affected if you help in meeting these challenges.

THE CHALLENGE

- By the year 2030, New Jersey's population, already at 8.5 million, is projected to increase by another 1.7 million residents. Everyone must be able to get to work and satisfy his or her daily needs.
 - By 2030, New Jersey is expected to add about one million more people to its labor force as the state continues to grow and prosper. Not all of these workers will live here, but they will all use our roadways and public transportation.
 - By 2030, the amount of freight moving to, from, and within New Jersey will increase by about 65%, and most of that freight will move by truck on already congested highways.
 - Approximately 49% of the pavement on our state highways is unacceptable. Continued deterioration will increase congestion and delay.
- Within the next several years, the backlog of bridges that must be repaired, rehabilitated or replaced on the state system will reach nearly \$8 billion. Delaying this work will only cost more in the long term, and bridges could eventually be closed if they are not fixed or replaced.
 - The tunnels that carry commuter rail passengers between New Jersey and New York City cannot accommodate more trains during the peak rush hours. Although downtown and midtown Manhattan are projected to generate an additional 400,000 jobs by 2020, many residents of New Jersey may not have access to them.
 - Dedicated, long-term, and stable funding for transportation must be identified. The state's Transportation Trust Fund (TTF), which has underwritten transportation projects for a quarter-century, will run dry in 2011 and a new financing plan will be needed to fund any capital program starting in FY 2012.
 - High gas prices, a projected worldwide shortage of oil and the pressing need to reduce greenhouse gas emissions are forcing New Jerseyans to examine how they travel. To ensure our future growth, we must reduce the amount of energy we consume for transportation and lessen our dependence on fossil fuels.

We must also recognize the growing reliance on transit as low and middle income families feel squeezed by increasing gas prices.

- Travel security continues to demand resources and commitment in these times of heightened risks to infrastructure.

The overall picture today reveals a state transportation system that has served its residents, businesses and visitors well in the past. The state’s highway system is mature and well-developed, and its public transportation system is the largest statewide network in the nation.

New Jersey’s transportation system is experiencing a tremendous increase in demand, however, as the state’s population grows and its needs and expectations rise. Congestion is increasing, and the need for public transit is intensifying. By 2030, the situation will be very serious if corrective action is not taken now.

Part of the problem is geographic. About 8.5 million people are generating the vital economy of this relatively small state. New Jersey has the 10th largest population in the country but is 46th in size. As a result, the state has the most people per square mile of all 50 states, 14 times more than the national average. New Jersey has more lane miles of highway per square mile (11.4) than any other state except Rhode Island; the national average is 2.4.

An average of 2.6 million vehicles travel each lane mile per year, compared to a national average of only 1.5 million vehicles. There are two vehicles for every household in New Jersey and 1.5 vehicles for every job.

Between 1998 and 2003, the number of cars and trucks registered increased 6% and 45%, respectively. These high numbers significantly affect the cost of operating, maintaining and repairing the state’s highways, bridges and other related infrastructure.

Despite these increases in demand, actual state route mileage grew by less than 2% during that period, and very little capacity increases are planned in terms of new state highways. This is largely because of the high cost of land, environmental constraints, the demonstrated tendency of new roadways to encourage sprawl, and the public’s growing recognition that new highways are not the solution to congestion and delay.

The percentage of people who use public transportation has increased at a much

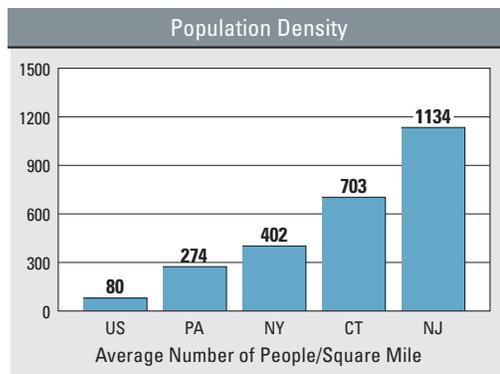


FIGURE 1-1

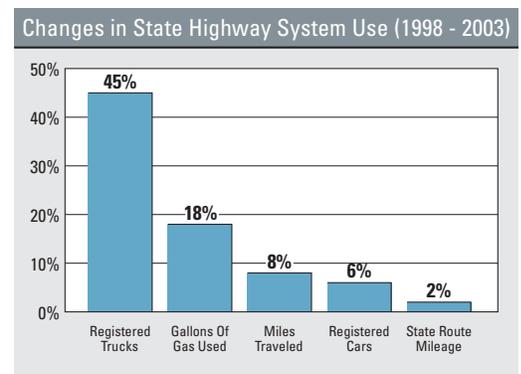


FIGURE 1-2

faster rate than population growth. Almost 10% of the state’s workers commute by train, light rail or bus, a much higher rate than the national average of less than 5%.

NJ TRANSIT is under growing pressure to increase its capacity and expand service. At the same time, its existing facilities demand attention. Record ridership on the agency’s busiest line, the Northeast Corridor, has almost reached its limits. Additional trains cannot be run on this line without significant and costly improvements. More than half of NJ TRANSIT’s rail passengers already



Rush hour at Newark Penn Station demonstrates heavy travel demand on the Northeast Corridor.

use the rail tunnels under the Hudson River between New Jersey and New York City, and the demand for travel into Newark and New York is expected to continue to increase. Without new rail tunnel capacity, the commuter rail system cannot expand enough to serve current and future riders.

To realize the potential of transit to serve more New Jersey residents with extensions to Monmouth, Ocean, Passaic, Bergen, and Somerset counties, the Access to the Region's Core (ARC)/THE Tunnel must be built with substantial investment required for additional operations. In addition, NJ TRANSIT's ability to serve New Jersey requires total multimodal integration for the statewide transit network. This means Bus Rapid Transit (BRT), transit hubs that offer more connectivity, better utilizing and adding capacity for exclusive lanes and transit friendly design and development. This multimodal network is essential to reduce the number of vehicles on our roads, improve the state's air quality and conserve energy.

In view of the projected increase in travel demand, New Jersey's residents also need to consider how land is developed and redeveloped. Without fundamental changes in how we grow, and unless the transportation improvements proposed consider transit

oriented design wherever feasible, this plan will have only limited success.

In addition, as New Jersey's transportation system has matured, it has also aged. Its maintenance, rehabilitation and replacement needs alone are greater than the funding available for all purposes – including new roads, bus and rail lines, safety and traffic improvement projects, security enhancements, and planning to meet the needs of tomorrow and beyond. Current funding levels are unlikely to keep the system functioning at an acceptable level in 2030. Total funding needs identified in this plan approximate \$200 billion through 2030. Perhaps the greatest challenge will be identifying stable, long-term sources of transportation funds.

THE PLAN

While recognizing the challenges the state faces, Transportation Choices 2030 looks into the future and describes a vision for New Jersey's transportation system. The plan anticipates future conditions and outlines the issues that must be addressed.

Most importantly, the plan identifies goals, policies, strategies and actions to improve the movement of people and freight and support economic growth. NJDOT and NJ TRANSIT believe the approaches set forth in this document will achieve results that pavement alone cannot provide, particularly in terms of enhancing the quality of life of New Jersey's residents.

As a statewide transportation policy document, Transportation Choices 2030 sets the direction for future investments. New Jersey's Capital Investment Strategy (CIS) serves as the link between the long-range plan and the state's ten-year Transportation Capital Program and Statewide Transportation Improvement Program.

The CIS is used to develop investment options for major program categories, provide strategic direction in the formulation of the capital program and guide project prioritization and selection decisions.

The Regional Transportation Plans prepared by the state's three metropolitan planning organizations (MPOs) discuss how the goals, policies and strategies of the long-range plan will be implemented in each region through specific studies and projects. This plan also satisfies federal and state legal mandates.

The 2030 Plan builds upon and enhances the findings of Transportation Choices 2025, the state's previous long-range transportation plan. It uses improved modeling tools and updated data from Census 2000 to more clearly define the state's transportation issues and identify strategies to address them.

These include the importance of expanding the transit system, beginning with new trans-Hudson passenger rail tunnels, and implementing other improvements to both the bus and rail networks. The plan also describes how specific strategies can benefit typical kinds of corridors.

The integration of transportation and land use planning, commonly referred to as smart growth, serves as the foundation for this plan. Focusing development and redevelopment in centers that support public transit, walking and bicycling, and that shorten trips that must be made by car, is essential to achieving a sustainable transportation system. Continued investment in the following is also crucial to ensure New Jersey's continued prosperity:

- Intelligent transportation systems to improve operations.
 - Facilities to move more freight by rail and policies that support moving freight during non-rush hours.
 - Measures that shift travel out of cars, move trips to other times of the day and eliminate some car trips altogether.
 - Strategic improvements to address bottlenecks on the highway system to relieve congestion.
- Transportation Choices 2030 is more than just this plan. This document, which is shorter and less technical than previous plans, is only one product of an innovative process designed to educate and inform the residents of New Jersey. The following are also part of NJDOT's and NJ TRANSIT's long-range planning process:
- Transportation Education Program – This effort prepared a series of interactive exercises for use in New Jersey's public schools. These exercises, which can be modified for different ages and skill levels, encourage students to think about transportation and its challenges, while also satisfying cross-curricular requirements. They were previewed as a pilot program at the Garrett Morgan Academy in Paterson.
 - Local Street Connectivity – This effort provided an analysis of the role of local street connectivity as it applies to the long-range plan, with emphasis on smart growth and improving mobility, accessibility and reliability.
 - Performance Indicators for Long-Range Planning – This is an ongoing review of state-of-the-practice performance indicators and extensive discussions with other transportation-related agencies and internal staff to identify those performance indicators that should be used to determine how well the plan's goals are being met.
 - Coordinated Planning – This effort developed an approach to improve director-level coordination of the various

transportation agencies in New Jersey through annual or bi-annual Transportation Coordinating Committee meetings. It also included the identification of a Corridor Management approach to efficiently manage the multimodal transportation facilities within a given geographical area or corridor. Both approaches grew out of an investigation into the possible benefits of a strategic transportation system for New Jersey.

- Visualizations – Interactive modules were developed to demonstrate the effects of deferred maintenance on infrastructure, tripmaking with smart growth versus suburban sprawl and travel time differences (current vs. 2030 Plan). These visualizations are included with the 2030 Plan on a CD-ROM.
- Statewide Public Opinion Survey – A random telephone survey of New Jersey residents was conducted to determine general attitudes toward transportation, land use and other related issues and customer satisfaction with NJDOT and NJ TRANSIT.
- Demographic Analysis – This effort provided a comparison of key changes in population and employment as they relate to transportation between the 1990 and 2000 US Censuses.
- System Inventory and Assessment – This effort developed a description of the general condition and operation of the state’s transportation infrastructure.
- Urban Transportation Issues – These reports, referred to as Urban Transportation Supplements, were developed for New Jersey’s eight urban centers: Atlantic City, Camden, Elizabeth, Jersey City, Newark, New Brunswick, Paterson and Trenton.

Technical material that forms the basis for

this document is included by reference and is available on NJDOT’s long-range plan web site, www.nj.gov/transportation/works/njchoices/.

THIS DOCUMENT

The next section of this plan describes New Jersey’s overall transportation system today. The condition of the various elements of the system and how well they currently function provide important baselines as we look toward the future.

Section III discusses the characteristics of New Jersey’s citizens and how their transportation needs have changed since the last long-range plan. It also identifies the issues considered most critical to future decisions about transportation.

Section IV presents the plan’s vision for 2030 and describes a future that reflects the benefits to be gained by growing in the right places, investing in public transportation, reducing trips on our roads, relieving congestion, and adequately maintaining our highways and rail lines.

Section IV also demonstrates the gains that can be achieved on a corridor basis. It describes the effects of applying various transportation measures to a typical or example multimodal corridor with heavy freight, suburban commuting corridor, recreational corridor leading to the Jersey Shore and an urban core.

Section V features the goals, policies, strategies and near-term actions needed to ensure New Jersey’s transportation system meets the needs of its citizens and businesses in 2030, and supports the quality of life they have come to expect.

Section VI indicates NJDOT’s and NJ TRANSIT’s commitment to measure their progress in achieving these goals, and Section VII identifies where more information is available.

SECTION II

Where We Are Today



Condition of the System

New Jersey has already invested billions of dollars in its transportation infrastructure; protecting this investment remains the state’s highest transportation priority. Heavy traffic on the state’s highways and bridges and extensive use and frequent service on its rail and bus systems, combined with weather, aging and deferred maintenance, have taken a toll on the conditions of the transportation infrastructure. Based on the FY 2009-2018 Statewide Capital Investment Strategy, about 75% of NJDOT’s and 75% of NJ TRANSIT’s projected annual investments are allocated to system maintenance and preservation.

THE HIGHWAY SYSTEM

Although NJDOT and toll road authority jurisdiction represents only about 7% of the total statewide mileage, they carry about 66% of the traffic. Similarly, the bridges under state jurisdiction include some of the largest in the state and are crucial links in the state, regional and national system.

PAVEMENT

Maintaining the state’s highways is a constant effort. Whether the work involves pothole repair, resurfacing or complete reconstruction, it is never finished. Even so, 49% of the pavement on state highways is unacceptable. Over the past several years,

NJDOT has had to double the average annual funding for roadway preservation to address this need.

BRIDGES

Despite a small decrease from 2006 to 2007, a significant number of bridges on the state system are considered deficient. These bridges may be “structurally deficient,” which means they should be considered for rehabilitation or replacement primarily because of deteriorating decks and corrosion. They may also be “functionally obsolete,” meaning they are not able to accommodate the traffic or speeds that the roadways they carry are designed to handle (they may be too narrow, for example). Neither term means the bridges are unsafe.

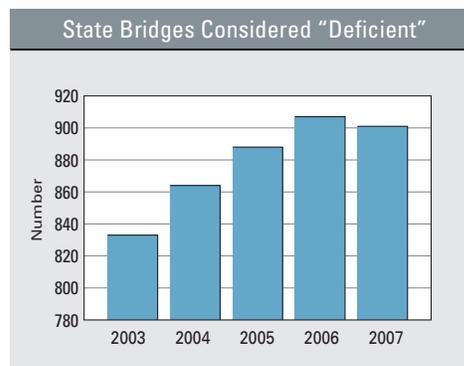
The future outlook is grim. The average bridge in this state is now 49 years old, and 20% of all bridges are over 75 years old, which is the average design life expectancy of a new bridge.

Eight major high cost bridges (defined as those requiring more than \$50 million in construction costs) are currently awaiting funding for rehabilitation or replacement,

A backlog of major bridges needs repair or replacement soon.

FIGURE 2-1

Includes all NJDOT, I-676, Orphan, State Park and D&R Canal bridges



including the Route 7 Wittpenn Bridge, estimated at \$425 million. This project would use more than half the entire annual budget for bridge construction, which has been increased to about \$780 million annually.

The total bill for all eight could reach \$3 billion, and that does not include the routine costs for painting and repairing bridge decking on other structures. The annual cost for bridge painting alone is \$18 million. And when those eight bridges are done, another eight will be in critical need of repair, for another \$1.13 million. As some bridges are rehabilitated and replaced, others continue to age and require attention.

The effects of inadequately funding maintenance and rehabilitation are illustrated visually in the “Interactive Demonstrations” section of the CD-ROM included with this plan.



Highways require continuous maintenance to keep traffic flowing.

SAFETY

Safety on New Jersey’s highways continues to improve. The state’s Safety First strategy, initiated in 2003, is successfully applying the four “E’s” – engineering, education, enforcement and emergency medical services – as a coordinated approach to reducing fatalities, injuries and property damage.

Through its Local Aid program, NJDOT supports Safe Routes to Schools programs, which focus on pedestrian safety, and it has designated nearly 130 miles of state highway as Safe Corridors, which doubles fines and mandates stricter enforcement to reduce high accident rates. Other initiatives include projects to prevent median cross-over crashes and improve safety at intersections.

NJDOT and NJ TRANSIT recently worked with more than 20 other agencies to implement a Comprehensive Strategic Highway

Safety Plan to further the state’s safety goals. This plan addresses the following eight emphasis areas:

- Curb aggressive driving,
- Improve design/operation of intersections,
- Increase driver safety awareness,
- Minimize roadway departure crashes,
- Reduce crashes with young drivers,
- Reduce impaired driving,
- Reduce pedestrian, bicycle, rail and vehicular conflicts, and,
- Sustain proficiency in older drivers.

CONGESTION

Congestion continues to worsen in New Jersey. Some 14% of the state’s roads are considered congested (at capacity), and another 28% are almost at capacity, leaving only 58% able to accommodate more

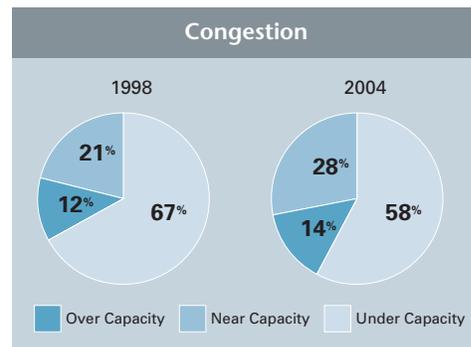


FIGURE 2-2

traffic, a 9% decrease between 1998 and 2004.

Not only are more roadways more crowded, they are congested for longer periods of time. The concept of a single rush hour when highway traffic is greatest is fast disappearing. The percentage of roadways that experience daily congestion for more than one hour has increased from 15% to 27%.

PUBLIC TRANSIT

NJ TRANSIT, the largest statewide public transportation system in the nation, plays a crucial role in supporting New Jersey’s economy and quality of life. The agency’s commuter rail, light rail and bus systems take more than 800,000 trips off the highway system each weekday. Almost one in every ten workers in New Jersey uses public transit to get to work, twice the national average. NJ TRANSIT’s network is complemented by a number of other rail lines and bus and ferry services.

In addition to being affordable and convenient, the transit system provides mobility for the many people who cannot drive or choose not to drive, including the almost 400,000 New Jersey households that do not have access to a car. The state has also invested heavily in making rail and buses accessible for disabled and elderly riders. In addition, Access Link paratransit, which provides curb-to-curb service on an appointment basis, is available for those who cannot use the NJ TRANSIT local fixed route bus system. In addition, community paratransit services are offered in each county that provide more flexible transportation options.

NJ TRANSIT spends millions of dollars in a continuing effort to bring its transit infrastructure to a state of good repair and modernize its overall fleet. Major investments in light rail in the recent past have resulted in an increase in ridership of more than 125%. Regularly scheduled maintenance, upgrading and replacement have brought much of the system into a state of good repair. The one area with a significant backlog is bridge replacement.

NJ TRANSIT’s long-term goals are to greatly increase its geographical reach, to expand its frequency and hours of service and to increase the speed and reliability

of public transportation. In particular, NJ TRANSIT has proposed construction of the ARC rail tunnels under the Hudson River to provide convenient and direct service for more customers into New York City, at a cost of about \$8 billion (in year of expenditure dollars).

More than half the agency’s rail customers now cross into New York. Demand for rail service to midtown Manhattan has tripled during the busiest periods since 1983, and the number of trains using the existing rail tunnels during peak travel periods is at

Growth in NJ TRANSIT Annual Ridership (2006-2007)			
	2006	2007	Change
Rail	71,000,400	74,854,500	4.8%
Bus	158,665,400	159,736,200	0.7%
Light Rail	17,232,200	19,710,800	14.4%
Total	246,898,000	254,301,500	3.0%

FIGURE 2-3

the capacity of the tunnels.

New trans-Hudson passenger rail tunnel capacity is essential to increase the number of trains into Manhattan and to relieve some of the congestion between Newark and Secaucus, where trains converge at the existing tunnels during rush hours. The ARC project must be built if NJ TRANSIT is to provide a one-seat ride on existing lines that do not offer one now and pursue its other major expansion projects.

Transit service in southern New Jersey will be greatly improved by the PATCO extension into Gloucester and Cumberland counties proposed by the Delaware River Port Authority. By 2030, NJ TRANSIT also proposes enhancements to both the River LINE light rail service and the Atlantic City Line, as well as a station to enable transfers between them.

In addition, NJ TRANSIT and NJDOT will work together to improve bus service through 2030 and beyond using the following strategies:

Rail overpasses must also be maintained.





Park-and-ride lots make transit more accessible.

- Implement a Bus Rapid Transit (BRT) system in the US Route 1 corridor.
- Work with state and local traffic engineers to enable buses to compete with autos by traveling at posted speed limits at all times. Provide preferential treatments for buses on state and local roads to permit them to bypass congestion. Begin work early on short pieces of roads in urban areas where buses now get stuck in local traffic.
- Focus on improving bus service initially on four major corridors: Route 9/ Garden State Parkway/NJ Turnpike, NJ Turnpike to Exit 8A, Route 3/495 and Route 76/295/42 near Camden.
- Study restructuring bus service in major urban areas, beginning with Newark and Elizabeth, the largest markets for urban riders on NJ TRANSIT's local bus routes. This area is served by almost 25% of the agency's bus routes.
- Work with counties and municipalities to seek other opportunities to provide improved bus services, including possible implementation of BRT systems.
- Create additional multimodal park-and-ride lots, and expand capacity at existing lots. Improve pedestrian and bicycle access to stations.
- Expand NJ TRANSIT's bus fleet and increase service levels to permit route extensions and more frequent service on existing routes.
- Work closely with the state's Transportation Management Associations to complement NJ TRANSIT's bus and rail services with locally supported and managed services. Provide small buses to permit expansion of local shuttles and community bus services. Implement station car programs to make energy-efficient vehicles available for

short periods of time to reach destinations that are too far to walk.

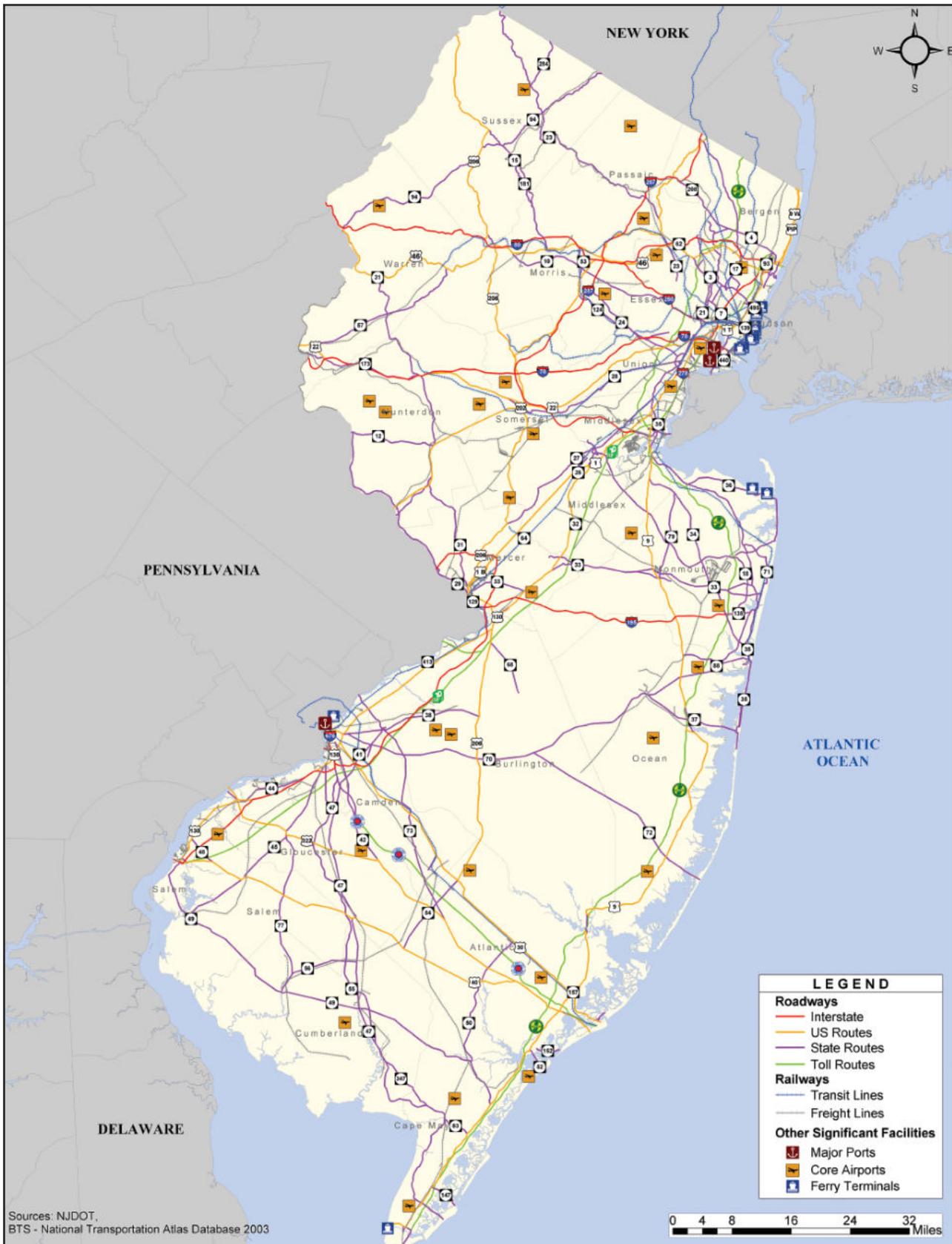
THE SYSTEM

The transportation system shown on the following page includes these major infrastructure elements:

Miles of Roadway	38,000
Miles State-Owned	2,300
State Bridges	2,579
Miles of Passenger Rail	628
Rail Bridges	742
Locomotives & Railcars	972
NJ TRANSIT Buses	2,027
Maintenance Facilities & Yards	50+
Miles of Commercial Navigation Channels	225
Ports	
Largest Port on East Coast	
Major Bulk, Breakbulk & Container Port on Delaware River	
Park-and-Ride Lots	350+
Commercial Airports	3
General Aviation Airports	46
Class I Rail Freight Carriers	2
Regional & Shortline Railroads	14

The CD-ROM accompanying this plan includes an 11"x17" copy of the map of New Jersey's transportation system on page 10, as well as additional maps individually depicting the statewide roadway system, transit network, airport infrastructure and core freight network.

New Jersey's Transportation System





SECTION III

What We Can Expect

Changes and Their Implications

Identifying changes in the population and employment characteristics of New Jersey's citizens is essential to enable NJDOT and NJ TRANSIT to focus transportation resources where they are needed. Shifts in demographics also indicate possible trends and help planners to anticipate longer-term needs. Decisions made and actions taken today could profoundly affect the future system and its users.

POPULATION AND EMPLOYMENT GROWTH

New Jersey's population continues to grow. Between 1990 and 2000, the number of people who live in the state grew by 8.9%, faster than neighboring states but at a slower rate than the US as a whole. This increase in population was accompanied by a slower growth in employment opportunities (6.3%). The number of new workers who moved to the state was almost double the number of new net jobs created between 1990 and 2000. More than half the work force who made New Jersey their home between 1990 and 2000 traveled outside the state to work, but only 20% of new employees in the state came from outside New Jersey.

INCOME

New Jersey's strategic position in the national and global marketplace resulted in one of the highest median incomes per household in the nation in 2000, \$55,000.

The percentage of New Jersey households with incomes of \$150,000 and above tripled in the past decade. At the same time, however, the number of households considered to be below the poverty level increased slightly (from 7.7% to 8.3%).

DIVERSITY

New Jersey's population also became even more diverse, primarily as the result of a major influx of Asian and Hispanic immigrants. Between 1990 and 2000, the state's Asian population increased by 77%, and the number of Hispanic residents grew by 51%. In 2000, 25.5% of New Jersey's residents spoke a language other than English at home, and 11.1%, or 873,000 residents, spoke English "less than very well," according to the US Census.

AUTOMOBILE OWNERSHIP

In New Jersey, 87.4% of households had one or more cars in 2000. Compared to the nation as a whole, however, a higher percentage of households in New Jersey do not own automobiles and must rely on public transportation.

AGE

Although the age distribution of the state's population changed only slightly in the past decade, a very important trend can be seen as the population as a whole gets older. The first of the Baby Boomers are already beginning to retire, and one in every five New Jersey adults will be age 65 or older by 2030, a jump of 76% from today.

TRAVEL TO WORK

Although the number of people using public transportation to get to work grew, and continues to be much higher than the national average, some 73% of workers drive alone to work, despite the heavy rush hour congestion this generates.

New Jersey's commuters are spending more time on the road and driving farther to their jobs than ever before. Largely because of suburban sprawl, workers now spend an average of 30 minutes, 4.7 minutes more than in 1990, traveling to work. This is 4.5 minutes more than the national average. More than 100,000 additional people now take 90 minutes or more just to get to work. People are leaving their homes earlier to travel the same distance, and the roads are congested for longer periods.

IMPLICATIONS

By 2030, the state's metropolitan planning organizations forecast that New Jersey's population could increase by more than 20%, to 10 million, and the number of jobs could grow almost 26%, to more than 5 million. Even if these expectations fall short, the implications for the system are clear:

- Continued growth will rapidly consume the capacity of New Jersey's highways. In view of significant constraints that limit new highway construction, the state must promote alternative ways to move people and goods, increase the efficiency of its existing roadway network and reduce demand. We must also reduce sprawl to create a sustainable system.
- Public transportation will be even more important as the state's highways become saturated. Expanding its capacity and increasing its service will be crucial to New Jersey's economic vitality. Public transit will also play a vital role in conserving energy and reducing greenhouse gas emissions.

- Many of the state's residents will not be able to afford automobiles. In addition to providing a way to get to work, public transportation will continue to be essential to their quality of life.
- The aging of our population will require some changes to our transportation system to accommodate more older drivers and to provide travel options for a greater number of people who no longer drive. In addition to continuing to make public transit more accessible, greater attention must go toward ensuring that paratransit is available where it is needed and that new developments for seniors support public transportation and walking.
- Education about transportation will be crucial. New Jersey's citizens need to better understand the implications of how they travel. They must recognize the value of reducing the number of trips made by individuals driving alone. They must also support clustering new development and redevelopment to make better use of the entire transportation network, including transit, sidewalks and bicycle routes.
- Public informational materials and outreach must be tailored to address the increasing number of immigrants who are not proficient in English.

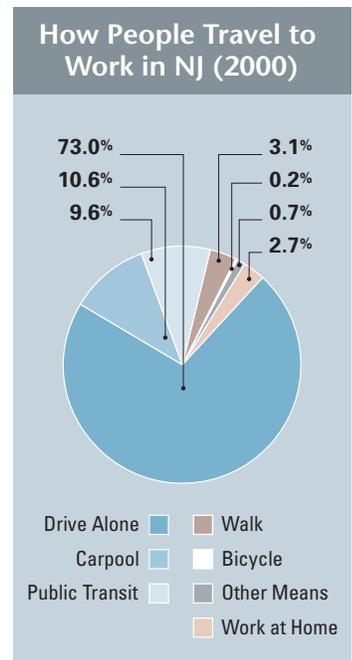


FIGURE 3-1

Critical Issues That Must Be Addressed

CONGESTION

Congestion is unavoidable in New Jersey. More than 8 million people and 4 million jobs signal a vibrant economy. People need to get to work and school, to shop and to socialize, and goods need to move. An overall development pattern that requires people to drive longer and longer distances to meet their daily needs exacerbates the problem.

Every county in New Jersey has seen an increase in the number of workers who travel outside the county where they live to work, and all but two counties have seen an increase in the number of workers traveling to New York City. With continued growth in population, employment and number of households during the life of this plan, congestion is also expected to increase through 2030.

It is unreasonable to think that conges-



This rendering shows a concept of smart growth with development and a boulevard replacing the freeway and parking in the photo.



tion can be eliminated; at most, it can be managed. However, many people are willing to tolerate congestion if they can reliably predict the amount of time a trip will take.

Many of the policies and strategies in Section V of this plan are designed to counter congestion by encouraging changes in land use patterns over time to make cost-effective alternatives to auto travel pos-

sible. The plan also stresses using technology to improve traffic flow and provide more information about travel conditions and choices, strategically mitigating bottlenecks, expanding and improving transit service, and shifting when and how freight moves as much as possible.

GROWTH AND DEVELOPMENT

Transportation improvements alone can slow the growth of congestion only slightly. Changes in land use that focus development in areas that can support it are essential to our future. Unless there is a fundamental change in the way New Jersey develops, and redevelops, its cities, towns and suburbs, increasing congestion and delay could erode our quality of life and economic vitality. Managing growth is at the very heart of this plan.

Planners and the public have increasingly recognized the need to plan jointly for future land development and transportation to avoid sprawl, lessen reliance on the automobile, and create more satisfying, healthy and attractive communities. Ideally, development should be dense enough to support transit and should mix housing with appropriate businesses so residents can walk or bicycle for some of their basic needs. Congestion on major roads should be partly offset by the creation of local street networks that allow some trips to avoid the main highways.

At the local level, managing growth generally means providing greater connectivity between developed areas, encouraging denser development around transit stops and designing streets and paths, buildings and their public plazas and open spaces in ways that encourage walking and bicycling.

NJDOT and NJ TRANSIT are committed to implementing the State Development and Redevelopment Plan (SDRP), which sets forth the principles of smart growth for New Jersey. Both agencies are pursuing

a number of very important initiatives to encourage sustainable growth. Their transit village and transit-oriented development programs focus growth near public transportation to reduce the need for auto travel.

NJDOT's NJFIT (Future in Transportation) Program presents the state's changed approach to addressing transportation problems. It describes a comprehensive and cooperative approach to transportation and land use planning. NJDOT's numerous Integrated Land Use and Transportation Studies also seek to engage local communities in partnerships to develop joint plans that limit sprawl and use the overall transportation system most efficiently.

Changes in land use can be made only by the municipalities themselves, and they will be made when the citizens of this state understand the crucial benefits these changes provide. An interactive visualization that demonstrates the benefits of smart growth vs. sprawl is on the "Interactive Demonstrations" section of the CD-ROM that accompanies this plan.

Many of the strategies and actions to integrate transportation and land use planning proposed in Section V are recommendations from a smart growth advisory panel convened for this plan's development.

FREIGHT MOVEMENT

Each year, some 621 million tons of freight, valued at \$860 billion, move to, from and within New Jersey by truck, van, ship, plane, and train. That is nearly 400 pounds per day for every person who lives here.

New Jersey is part of an enormous market of millions of people who now receive more goods than they ship. The state's ports, rail lines and highways must meet regional needs as well as serve as a gateway connecting North America to the world. New Jersey's quality of life and its economic vitality are closely linked to its

ability to move these goods efficiently and cost effectively.

The amount of goods that must be moved is expected to increase more than 65% by 2030, placing an enormous demand on a transportation infrastructure that is already approaching capacity. In addition, most of this freight movement is now dominated by truck, including almost 97% of the movements that remain within New Jersey, and trucks are expected to continue to carry the vast majority of goods. More heavy trucks on the roads increase the demands on NJDOT's maintenance budget.

The state's highways are congested, and its rail infrastructure is incomplete and in many cases outdated. To remain competitive, New Jersey's ports must also change to accommodate the mega-ships needed to carry the immense amount of cargo that moves across the docks each day, and sufficient land must be available to support freight-related activities, especially near these ports.

NJDOT, in partnership with the private sector, is beginning to pursue actions that will shift as much goods movement as possible to rail and expand the hours of freight operations to take advantage of times of the day when the roadways are less congested. NJDOT also supports advancing certain rail initiatives, deepening key waterways, and creating a Logistics Economic Development Program to attract and retain warehouses and distribution centers that provide thousands of jobs for New Jersey's citizens.

On a systemwide level, NJDOT is calling for the establishment of a senior-level logistics body, extensive outreach and education about the role of freight in New Jersey and its importance to the state's economy, improved data collection and analytic tools, and additional safety and security measures.

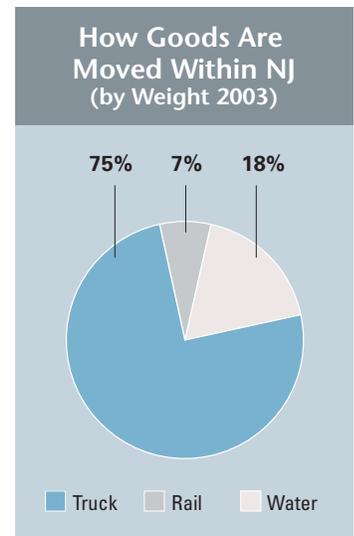


FIGURE 3-2



Demand for goods movement could increase by 65% at Port Newark/Elizabeth.

EFFICIENT OPERATIONS

Making New Jersey's existing transportation system as efficient and effective as possible is crucial. Technological advances in the past decade offer new opportunities to identify and respond to problems. Referred to as intelligent transportation systems (ITS), they may be as basic as closed-circuit television cameras or as extensive as E-ZPass, the electronic toll collection system in service throughout the state.

NJDOT currently operates two traffic operations centers that monitor traffic flow on state-owned highways; approximately 7,000 incidents are reported to these centers each year. The New Jersey Turnpike Authority and NJDOT recently constructed a state-of-the-art statewide operations center to provide traffic information and management capabilities from one location. This new center, opened in 2008, is the primary continuous operations facility for the New Jersey Turnpike, the Garden State Parkway and NJDOT.

Using ITS, operators can detect problems causing delay, like heavy congestion or an incident, and report them immediately. Real-time images of traffic conditions are transmitted directly to NJDOT's web site, where they are available to the public. This information is also communicated to motorists using electronic message signs and highway advisory radio to recommend alternative routes. Because incidents cause about half the total traffic delay on highways, NJDOT's Emergency Service Patrols are dispatched to provide assistance. These roving patrols helped more than 86,000 motorists in 2007.

Continued implementation of NJDOT's ITS Master Plan calls for significantly expanding the number of closed-circuit television cameras, electronic message signs on the state's highways, and continually improving the NJ511 free phone and web service for traffic and transportation infor-

mation for commuters and motorists. It will also increase the use of computerized traffic signal control systems in selected major corridors.

In addition to enhancing its ability to provide real-time information, NJ TRANSIT is applying ITS to improve safety on its rail lines. The Automatic Train Control (ATC) system provides real-time signaling information to the operator in the cab so he does not have to depend on the wayside signaling. ATC also monitors speed and applies the brakes automatically if necessary. ATC has been installed on 92% of NJ TRANSIT's rail system.

SECURITY

The security of the transportation system and its users is a primary concern. NJDOT and NJ TRANSIT are working to integrate transportation security into all aspects of their work as a means of safeguarding New Jersey's citizens and strategic business interests. The State of New Jersey has created an Office of Transportation Security (OTS), which is responsible for coordinating all state efforts for transportation security among all public, private and quasi-public transportation entities.

NJDOT is the lead agency for transportation issues related to both man-made and natural emergencies under the State Emergency Management Plan. It is working with other state and bi-state transportation agencies, including NJ TRANSIT, the Port Authority of NY/NJ, toll authorities, commissions, academic institutions and the private sector (general aviation airports, ferry companies, port operators, railroads and bus companies) to develop and apply best management practices.

This includes performing risk-based vulnerability assessments to identify and prioritize gaps in security and improving the state's ability to maintain and operate the entire transportation system. Current OTS

activities also include developing response plans for different modes and coordinating regional transportation security planning efforts.

Both NJDOT and NJ TRANSIT actively support evacuation plans developed by state and local agencies responsible for emergency management. In the event of a man-made or weather-related disaster, the state highway system must function with local roads and those operated by independent authorities to safely and rapidly evacuate residents and visitors. In addition, NJ TRANSIT's buses and trains may be used for individuals without access to cars.

NJDOT and NJ TRANSIT also routinely train their personnel in security awareness and to respond to emergencies and incidents. Both agencies are completing vulnerability and risk assessments and developing programs to protect high-risk transportation facilities.

MOBILITY FOR THE AGING AND THE DISABLED

By 2030, one in every five New Jersey residents will be over 65, and one in ten will be 75 or older. Ensuring mobility for these senior citizens is crucial. This means both enhancing roadway design and providing attractive alternatives to driving for those who are no longer safe or comfortable behind the wheel. As an increasing number of disabled residents enter the labor force, they also need accessible, convenient and reliable transportation to work.

While conventional public transit can be made more user-friendly for seniors and people with disabilities, alternatives are necessary for those who cannot use it. NJ TRANSIT's Access Link paratransit service accommodates more than 500,000 trips annually, serving the state where there is local bus service. In addition, all 21 counties provide county-based paratransit services for older adults and people with dis-

abilities, with grant assistance administered through NJ TRANSIT.

In addition, two of New Jersey's Transportation Management Associations (TMAs), Greater Mercer TMA and TransOptions, supplement paratransit services by offering their own transportation services for seniors. This service, called Ride Provide, provides service on nights and weekends in addition to week-day daytime service, and provides rides, for a fee, for any trip purpose. Each TMA also provides rides to certain groups of disabled persons as well. These services enable seniors and persons with disabilities to age in place and maintain a sense of independence.

To further work in this regard, Governor Corzine created the New Jersey Council on Access and Mobility. This council will work to make the most efficient and effective use of state resources to ensure that the elderly, disabled and transportation disadvantaged have access to community-based transportation services.

These agencies are currently focusing on how best to serve the increasing number of customers who do not drive, now and in the future. An advisory panel convened as part of the development of Transportation Choices 2030 agreed on the following:

- Seniors also benefit from development patterns that combine housing and neighborhood businesses within walking distance; this form of development must be encouraged.
- NJDOT's current efforts to identify and address driving issues, such as larger lettering on signs, brighter edgelines and reflective pavement markings, should continue.
- Integrating all providers of transportation services to the disabled and elderly into a centralized system could streamline operations and decrease costs.

The greatest need at this time is for a centralized clearinghouse, or "concierge," to



Access Link provides mobility for those who cannot use public transit.

disseminate information on all travel services and options for seniors and people with disabilities, including all modes and forms of transportation available statewide. This “concierge” service could eventually be expanded to serve the entire traveling public.

PEDESTRIAN AND BICYCLE TRAVEL

Creating new pedestrian and bicycle facilities and improving existing accommodations are fundamental to providing more transportation choices. Good sidewalks, bike lanes and pathways, pedestrian and bicycle shortcuts, attractive streetscapes, relatively narrow streets and fairly slow traffic encourage people to walk or bike to their daily destinations.

NJDOT recently updated the state’s Bicycle and Pedestrian Master Plan in 2005, which is available on NJDOT’s web site at www.state.nj.us/transportation/commuter/bike/resources.shtm. Developed with extensive public outreach, this master plan presents a future vision in which more New

Jersey residents choose to walk and bicycle, and can do so with convenience and confidence, leading not only to reduced auto reliance but also to more active, healthy lifestyles.

The plan presents recommendations for improving the safety of bicycling

and walking and integrating these modes into the travel routines of New Jersey’s residents. It identifies priority locations for facility improvements as well as educational programs to help reduce conflicts between cars, pedestrians and bicycles.

AVIATION

New Jersey is nationally unique in that 60% of its public use airports are privately owned. Public use airports in other states are usually publicly owned and funded.

New Jersey’s privately owned, public use airports are being steadily closed and converted to non-aviation uses which devastates New Jersey’s airport system and disrupts industries served by aviation. The result is fewer bases for small planes, which cannot be accommodated at the major commercial airports.

It is essential to permanently preserve remaining key privately owned public use airports and prevent their sale for conversion to development. NJDOT is committed to both arresting the decline of its existing general aviation airport infrastructure and to preserving and rehabilitating its core airport system, consistent with the principles of “fix-it-first” and “smart-growth”.

Relieving congestion in airport ground-side aircraft storage areas is critical. Many New Jersey airports are operating at 100% of their groundside aircraft storage capacity (especially in northeastern New Jersey). This situation caps the capacity of the overall airport system and denies aircraft users the ability to base aircraft at their airport of first or even second choice.

ENGAGING AND EDUCATING THE PUBLIC

This issue cross-cuts almost every key activity NJDOT and NJ TRANSIT are pursuing. Public support is needed to establish a clear vision and strong direction for the state’s transportation programs. It is also essential to build consensus for the specific policies and projects that support the state’s goals and to ensure that sufficient financial resources continue to be available. Achieving this level of support depends, in turn, on having an informed public – one that is aware of the issues at stake, familiar with the range of options available and engaged in the transportation decision-making process.

An advisory panel convened for Transportation Choices 2030 examined numerous ways to engage the public in the



A Safety Impact Team, including local residents, discusses possible improvements to a nearby intersection.

long-range planning process. This plan embodies many of their suggestions.

ENVIRONMENTAL JUSTICE

The term “environmental justice” refers to the need to prevent “disproportionately high adverse human health or environmental effects” on minority and low-income citizens. It is one result of a Presidential Executive Order in 1994 that extended Title VI of the 1964 Civil Rights Act to low-income populations. In practical use it also refers to ensuring that these communities enjoy benefits similar to those of other communities.

NJDOT and NJ TRANSIT expand the mandate further by working to identify opportunities to serve environmental justice populations better by responding to their particular needs, such as ensuring that local bus service is accessible for transit-dependent residents, many of whom are low-income and minorities. These agencies strongly support communities that embrace diversity and choice.

The advisory panel convened on the topic for Transportation Choices 2030 recognized NJDOT’s and NJ TRANSIT’s expanded efforts to assess the impacts of transportation projects on all communities. The panel’s recommendations are wide ranging. They include:

- Exploring partnerships with Transportation Management Associations, counties and other organizations to provide mobility options for persons who have moved off welfare.
- Implementing a statewide bicycle safety initiative focusing on adult bicycle commuters, including lower-income service workers and non-English speaking riders.
- Ensuring that affordable housing is provided near job opportunities and that low-income and minority residents are not displaced in discussions about development and redevelopment options.
- Analyzing needs and preparing emergency evacuation plans for the state’s transit-dependent populations.
- Ensuring that lower-income communities are included in NJDOT’s discretionary grant programs.
- Investigating measures to promote the inclusion of projects in the capital programming process that are beneficial to these communities.

ENERGY AND THE ENVIRONMENT

Many of the goals of this plan, as well as the policies, strategies and actions that support them, are geared toward reducing dependence on the automobile. Smart growth, major investments in public transit, efficient operations and improving freight movement will all reduce greenhouse and other emissions, conserve energy and improve air quality. As important, they will enhance the quality of life of New Jersey’s residents.

NJDOT and NJ TRANSIT are committed to environmental stewardship and environmental mitigation activities. They also believe that preserving open space, attractive landscaping and context sensitive approaches to project development are essential in New Jersey.

Both NJDOT and NJ TRANSIT are working to make their own facilities and vehicles “greener” by exploring and adopting alternative materials and technologies, including diesel retrofit, seeking opportunities to recycle waste and by-products from projects, and continuing to strive to enhance, not just protect, environmental resources.

The agencies have participated in the development of a state Energy Master Plan (EMP). The EMP seeks to reduce energy use by 20% by 2020. Creating a long-term strategy for reliable, competitively priced energy is part of Governor Corzine’s plan for economic growth.



SECTION IV

Where We Would Like To Be (And How To Get There)

2030 – THE VISION

In 2030 advanced technology and changes in land use have made transportation in New Jersey more convenient and efficient than ever before, sustaining the state's strong economy and high quality of life. Public transportation is available to most destinations for those who don't have cars or choose not to drive. While congestion has not been completely eliminated from the state's roadways, highway travel is less frustrating and more reliable. Energy consumption and greenhouse gas emissions have been significantly reduced since 2008.

In response to the enormous increase in the amount of freight moving through and within the state, the use of rail has been optimized, non-rush hour movements have increased, capacity along key truck corridors has been maintained and land use supports efficient freight distribution.

Highways in New Jersey are now "smart highways" that use ultra wideband radar transponders built into the highway that communicate with sensors, receivers, and processors installed in cars and trucks. The resulting cooperation between the highway and vehicle is now controlling many driving functions like steering, spacing between vehicles and speed. This technology is ensuring safety through measures like collision avoidance and is adding to highway capacity because more vehicles can be accommodated per lane.

Public transportation has become an even more welcome alternative to driving. The multimodal, integrated network is seamless and borderless to the people who use it; travelers can move from one system to another at convenient transportation hubs where rail, bus, ferry and local community service options are available. Using a regional smart fare card for all travel needs, including parking, transit, transfers and tolls, makes all travel easier for everyone.

Taking public transit to work and school, to shop, to attend to daily needs and to visit with friends and family takes less time than it did in 2008. New passenger rail tunnels under the Hudson River have made travel between New Jersey and New York City faster and more direct and have enabled new services and increases in service throughout the rail system. Buses can move at the speed limit on heavily traveled corridors at all times, and light rail is available to many in areas where growth policies have led to concentrated, transit-friendly developments.

Given a wealth of travel options and changes in land development patterns, New Jersey's citizens make fewer and shorter trips by car. A greater awareness of the implications of how they travel has led many to eliminate some trips through measures like compressed work weeks and teleconferencing, and to replace some car trips by walking and bicycling.

Travel is particularly improved for people who have chosen to live in the numerous locations throughout the state where housing, schools and businesses are clustered together. These centers, created by local ordinances, make providing and maintaining infrastructure more cost effective. They also support transit, shorten or eliminate many auto trips and preserve precious open space. Neighborhood stores like cleaners, delis, and pharmacies are nearby, within a short and safe walk or bicycle trip.

New technologies and dependable, adequate funding sources for capital, operating and maintenance needs ensure the transportation system remains safe and in a state of good repair.

The 2030 Plan

As noted, by 2030, the state's MPOs forecast that the number of residents in New Jersey will grow by more than 20%, to 10 million. Similarly, the number of jobs could increase by almost 26%, to more than 5 million. This rise in demand, together with the critical issues already identified, will require new approaches to ensure mobility and safety. Just maintaining current travel conditions will challenge NJDOT's and NJ TRANSIT's resources.

In view of these challenges and opportunities, NJDOT and NJ TRANSIT identified the types of investment they believe will best serve the citizens of this state. They established that New Jersey will be able to accommodate a significant increase in travel demand only if the state:

- Brings the transportation infrastructure to a state of good repair and keeps it there.
- Makes major investments in public transportation to persuade more travelers to shift from car to bus, rail or ferry for at least some of their trips.
- Uses advanced technologies to improve operations and applies a strategic corridor approach to mitigate bottlenecks and relieve congestion.
- Encourages travelers to reduce the number of auto trips they make.
- Applies the principles of smart growth to new development and redevelopment.
- Makes targeted improvements to optimize among freight modes.

These approaches, referred to as the 2030 Plan, are discussed in greater detail below.

MAINTAIN AND RENEW THE INFRASTRUCTURE

The 2030 Plan assumes that adequate funds would be provided through 2030 and beyond to reduce the backlog of pavement and bridge projects, in particular;

update all of NJ TRANSIT's fleet; and perform routine maintenance and renewal on all transportation infrastructure to underline the state's adherence to a "Fix It First" policy. This would require major increases in the state's transportation budget.

EXPAND PUBLIC TRANSIT

As New Jersey's population and work force continue to increase, public transportation will become ever more necessary and feasible. It provides mobility for those who do not drive, improves air quality by taking cars off the highway and reducing fossil fuel consumption, helps to relieve congestion for those who must drive, conserves energy and is less expensive than owning a car. NJ TRANSIT and Governor Corzine have committed to increasing both the availability and convenience of public transit.

APPLY ADVANCED TECHNOLOGIES

As noted earlier, making the best use of the state's existing transportation infrastructure is a top priority. Now and in the future, improving the flow of vehicles on the roadways and on rail will be a crucial element in making the system work. New Jersey's new statewide Traffic Management Center will use state-of-the-art intelligent transportation systems to manage traffic flow, respond to incidents and provide real-time travel information to both motorists and operations personnel. In addition to advanced technologies, advancing a strategic corridor approach to mitigate bottlenecks and relieve congestion will improve mobility, reliability and accessibility.

NJ TRANSIT will apply similar technologies to keep customers informed about buses and trains and to improve safety on its rail lines.

FURTHER REDUCE AUTO TRIPS

Reducing the number of trips individuals make driving alone helps to alleviate congestion and conserve energy. Diverting as many trips as possible to public transportation, walking and bicycling; moving some trips to other times of the day; and eliminating some trips entirely eases congestion for those people who must be on the roadways, especially during rush hours.

NJDOT and NJ TRANSIT work closely with the eight Transportation Management Associations (TMAs) in the state to reduce travel demand on the roadways. The TMAs are non-profit public/private partnerships established to improve travel by commuters. Working with employers and the public, they advance the following measures through a Smart Moves program that also provides tax credits to participating businesses:

- Carpools and vanpools, including ride-matching and preferential parking for those who share rides,
- Employer-sponsored connector shuttles between public transit and park-and-ride lots and workplaces,
- Compressed work weeks and telecommuting (which eliminate some work trips) and flextime (which moves work trips to less congested times),
- Facilities and services to support walking and bicycling,
- Incentives and disincentives for not driving alone, such as parking cash-out for those who do not need parking spaces and parking fees for those who do, and,
- Support strategies such as a “guaranteed ride home” for those who take transit to work and have to leave early to respond to an emergency.

These measures typically target trips from suburb to suburb that are not served cost

effectively by transit. The 2030 Plan assumes a more aggressive program than exists today to reduce travel demand on the highway system.

ADOPT SMART GROWTH

Smart growth supports public transit, shortens or eliminates some auto trips, and encourages people to walk and bicycle for some of their needs. In New Jersey, smart growth means guiding future growth into compact, mixed-use development and redevelopment in centers as outlined in the State Development and Redevelopment Plan (SDRP), with existing infrastructure that serves the economy, the community and the environment. It means making sustainable transportation investments that are consistent with the policies of the SDRP and prioritizing improvement projects that are developed through integrated transportation and land use planning.

OPTIMIZE FREIGHT DISTRIBUTION

Trucks currently dominate goods movement, and the number of truck trips can be expected to increase as the amount of freight moving within and through the state rises. Efforts will be made to shift as much freight as possible to rail and to move more goods during non-rush hours. This will require negotiating changes in operating hours throughout the logistics supply chain and at the ports. In addition, attention will be given to improving logistics at and around freight facilities.

OTHER ELEMENTS

Other elements of the 2030 Plan are described below.

HIGHWAY

- Limit capacity improvements on high-

ways owned by NJDOT to a total of about 300 lane miles, or about 12 lane miles a year; improve approximately 100 interchanges on state roadways and 100 local intersections to alleviate congestion.

- Widen the NJ Turnpike, the Garden State Parkway and the Atlantic City Expressway.
- Implement ITS on about 1,400 miles of roadway.
- Complete Phase I of Portway, providing roadway network enhancements to increase safety and improve connections by separating heavy truck traffic from other traffic.
- Give full consideration to safety.
- Construct approximately 1,340 miles of sidewalk, 600 miles of shared-use paths and 35 pedestrian and/or bicycle bridges.

PUBLIC TRANSIT

- Construct Access to the Region's Core (ARC).
- Implement a PATCO Rail Extension.
- Make River LINE signal improvements.
- Implement the Northern Branch passenger rail restoration.
- Implement the Hawthorne-Hackensack diesel multiple unit service.
- Extend the Hudson-Bergen Light Rail Line.
- Provide a central New Jersey regional rail station/park-and-ride on the Northeast Corridor.
- Implement a Lackawanna Cutoff commuter rail extension.
- Implement a central New Jersey rail extension.
- Provide new passenger rail service to the Meadowlands.
- Implement Bus Rapid Transit on the US

Route 1 corridor.

- Initiate bus lanes on the Route 9 corridor in Monmouth and Ocean counties.
- Provide new and expanded parking at rail stations and on bus corridors.
- Implement additional local bus service and increase frequency in selected areas to support smart growth initiatives.
- Construct a transfer station linking the River LINE and Atlantic City Rail Line.
- Expand BRT and similar bus priority treatments in major bus corridors in New Jersey.

It should be noted that for the past 25 years New Jersey has provided considerable capital funding to expand the transit system. Further expansion will require an increased operating budget and more public subsidy to keep transit fares affordable.



Applying new technologies will be key to efficient operations.

What If?

To determine how well the improvements described above would satisfy the state’s transportation needs, NJDOT and NJ TRANSIT developed a forecast of travel under the 2030 Plan. Its purpose is to demonstrate how current travel conditions (the 2005 baseline) might change under the 2030 Plan with the potential for almost 2.5 million trips added to the system.

As the chart illustrates, the 2030 Plan would more than accommodate the projected 20% increase in population and 26% rise in employment. In 2005, 33% of the total number of person hours traveled during the evening rush hours were spent in congestion (at or near capacity). Even with a major increase in trips, this number would rise only 7% under the 2030 Plan, to about 40%.

The benefits would be even greater in terms of public transportation. The increased availability and convenience of transit would be reflected in a 50% rise in ridership during the evening rush hours between 2005 and 2030.

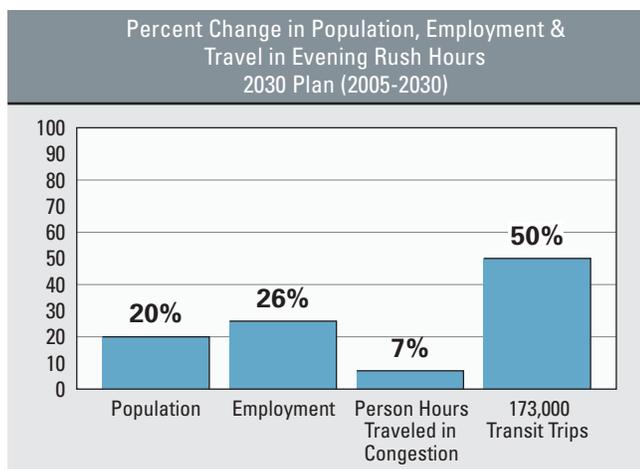


FIGURE 4-1

EXAMPLE CORRIDORS

Statewide statistics are valuable because they present a general overview of the effectiveness of a strategy or group of strategies. However, most people are more interested in what can be done to improve travel in their areas or regions.

For that reason, and because some of the more subtle effects of strategies can be lost at a statewide-level analysis, NJDOT and NJ TRANSIT chose to look at four very different kinds of travel corridors to determine the additional effects various approaches could have on travel.

Although these travel “corridors” are real, they have been selected only as examples to illustrate the measures that could be applied to the following, and their effectiveness:

- Multimodal corridor with heavy freight,
- Suburban commuting corridor,
- Recreational corridor to the Jersey Shore, and,
- Urban core.

The following discussions illustrate general strategies; they are not specific to the facilities within a travel corridor, and they are definitely not corridor plans. For example, in the US Route 1 travel corridor, the analysis assumes that more ITS would be added to improve traffic flow. The ITS could be applied to any or all of the facilities (Routes 1, 27, 130, the NJ Turnpike, etc., within the corridor) in any variety of configurations. The measures examined are for illustrative purposes only; they are not a recommended plan or part of a plan for the corridor. They demonstrate the benefits of using a strategic, corridor approach.

MULTIMODAL/FREIGHT CORRIDOR

The I-78 travel corridor between Newark and Easton, PA, is one of the most heavily traveled truck corridors in the state. This analysis included all the measures in the 2030 Plan, as follows:

- Invest in transit,
- Improve maintenance,
- Apply smart growth strategies, and,
- Increase the efficiency of the roadway system.

In addition, in this corridor 50% of the projected truck trips were shifted to rail or were moved to less congested times of the day.

The results show that the 2030 Plan would improve travel in this corridor during the evening rush hours. This approach

would take trips off the highway and ease congestion for the vehicles that must use it, including a large number of trucks.

- Travel in congestion (at or near capacity) in a corridor like this one would actually decrease, from 28% in 2005 to 27% in 2030.
- Transit ridership would increase by 8,850 trips (89%) over the 2005 baseline, largely because of the new rail lines in the corridor.

Overall, the measures included in the 2030 Plan show dramatic effects in a corridor like the I-78 travel corridor. Reducing truck traffic growth by shifting some of it to rail and other times of the day enhances these results.

The corridor would be able to accommodate the projected growth in population and especially employment while maintaining the level of travel experienced today and providing new transit options.

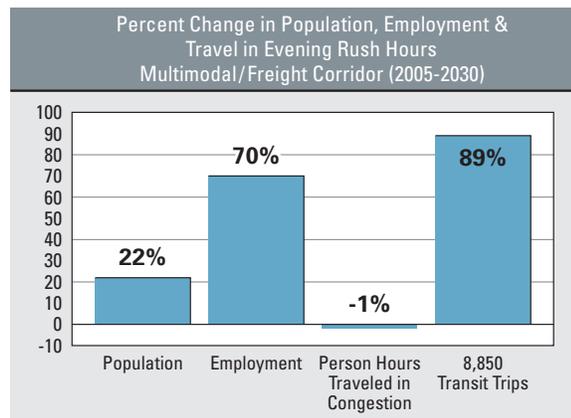
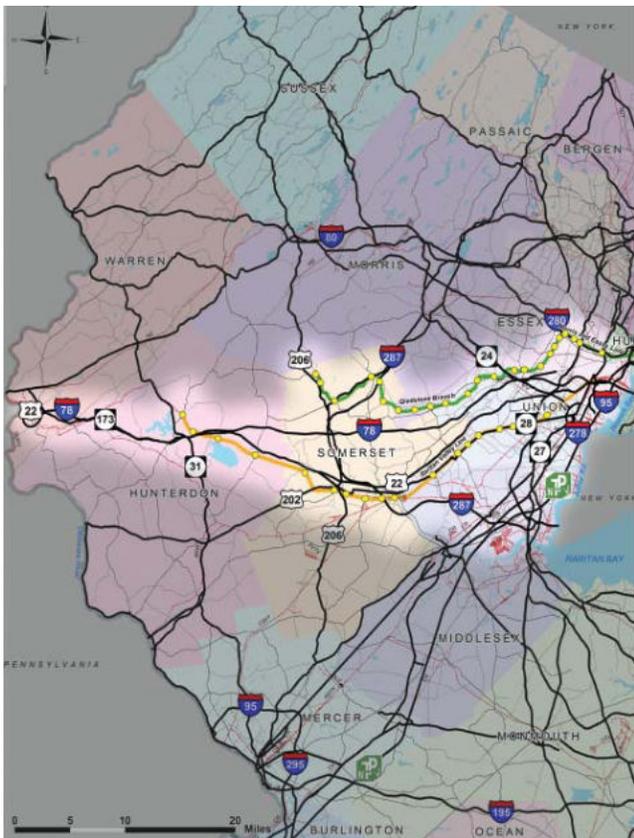


FIGURE 4-2

SUBURBAN COMMUTING CORRIDOR

The US Route 1 travel corridor was chosen as an example of a suburban commuting corridor. Among other improvements anticipated by 2030, NJ TRANSIT and NJDOT plan to construct a Bus Rapid Transit system to improve mobility within the corridor.

Because this system will also connect to the Northeast Corridor rail line and the River LINE light rail system, opportunities for smart growth development near transit abound. This corridor has tremendous potential for smart growth and has already begun to work toward a regional strategy to achieve it. As NJ TRANSIT expands its reach and increases its services, other corridors in the state are expected to enjoy similar opportunities.

This analysis included all the measures in the 2030 Plan:

- Invest in transit,
- Improve maintenance,
- Apply smart growth strategies, and,
- Increase the efficiency of the roadway system.

In addition, a more aggressive smart growth program was used to focus new development near transit.

- In this corridor today, 55% of person hours traveled during evening rush hours are in congestion and by 2030 this number would rise to 66%.
- While population and employment would increase by 24% and 22%, respectively, the amount of travel in congestion would rise only 11% during the evening rush hours.
- Transit ridership would increase by about 21,000 trips (88%) over today's numbers during the evening rush hours.

The aggressive smart growth program, as well as the increased investment in ITS and the Bus Rapid Transit system called for in the 2030 Plan, would not bring the corridor back to today's conditions. However, total person hours traveled in congestion during the evening rush hours would increase at a much slower rate than population and employment.

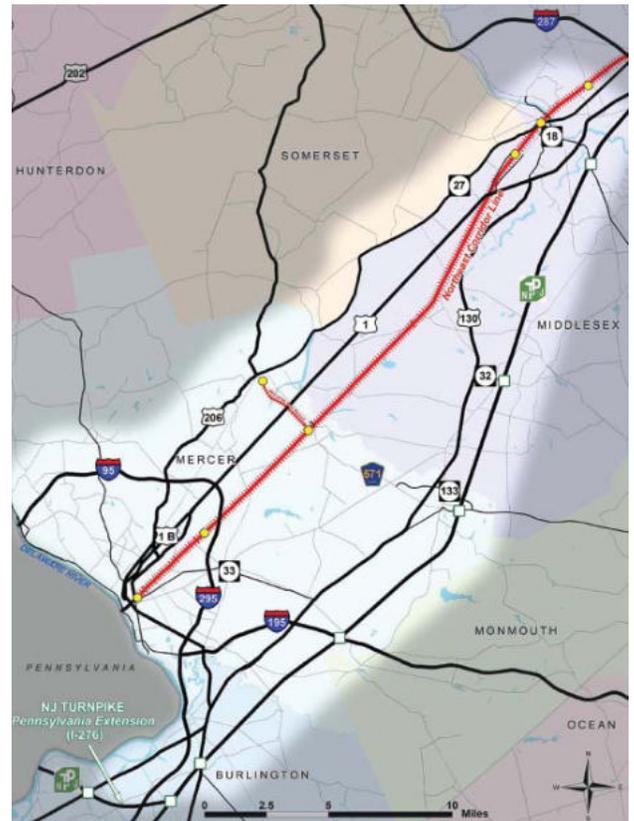
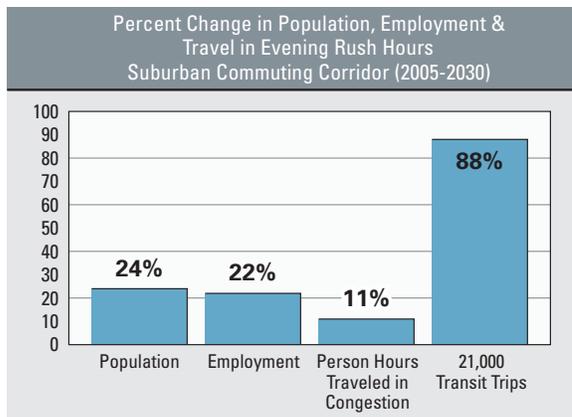


FIGURE 4-3

RECREATIONAL CORRIDOR

One of southern New Jersey’s greatest transportation issues is the large number of recreational travelers going to the Jersey Shore on day trips or for longer vacations. The heaviest demand is on Friday and Sunday summer evenings; capacity at other times is adequate.

This analysis included all the measures in the 2030 Plan:

- Invest in transit,
- Improve maintenance,
- Apply smart growth strategies, and,
- Increase the efficiency of the roadway system.

In addition, the Route 47/347 travel corridor in southern New Jersey has been selected to demonstrate the benefits of changing the direction of some traffic flow during the heaviest travel periods.

During the summer, reversing a northbound lane so it can carry southbound traffic on Friday evening, and changing a southbound lane to northbound on Sun-

day evening, is a low-cost approach to this problem. ITS would improve traffic flow and responses to incidents that cause disruptions.

The results show that this approach would actually improve travel in the corridor, not simply maintain 2005 levels. Despite increases in population and employment of 22% and 23%, respectively, in the summer during Friday evening rush hours:

- The total number of person hours traveled in congestion would decrease from 50% in 2005 to only 39% in 2030, an 11% improvement.
- Transit ridership would increase by about 300 trips (16%) because buses would be able to move more freely in traffic.

In addition to improving mobility on a routine basis, this approach could help if an emergency required residents and visitors to evacuate the area.

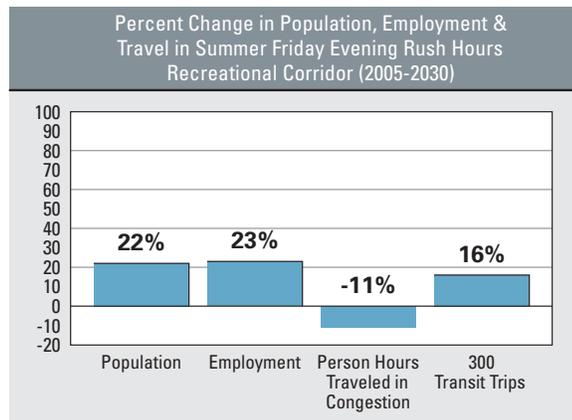
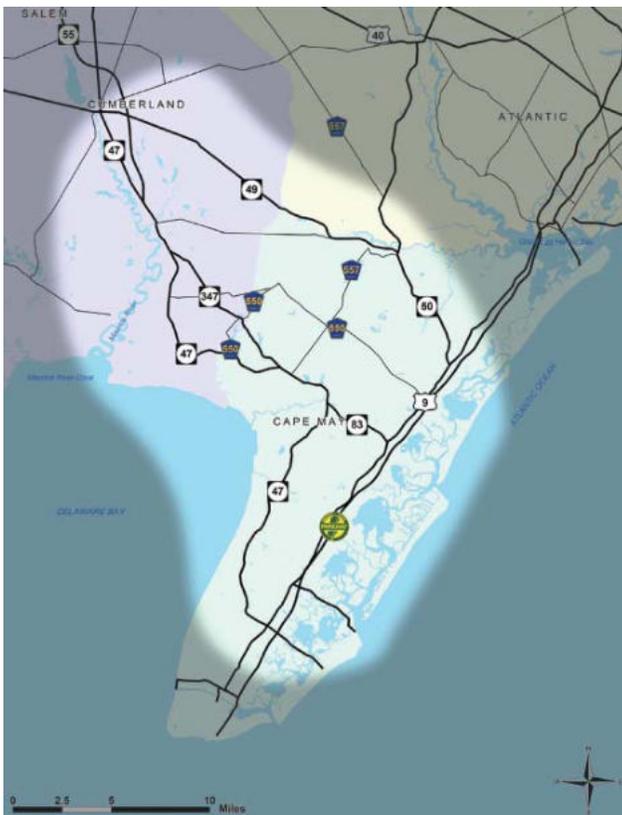


FIGURE 4-4

URBAN CORE

The Urban Core is not really a corridor because it does not serve a linear travel market. However, it represents several major corridors in the northern New Jersey metropolitan region and can be used to demonstrate approaches that can affect even the most densely developed part of the state. For the plan’s purposes, the Urban Core focuses on the areas around Port Newark/Elizabeth and the trans-Hudson crossings, and includes portions of Bergen, Essex, Hudson, Passaic and Union counties.

As in the other corridors, strategies would include:

- Invest in transit,
- Improve maintenance,
- Apply smart growth strategies, and,
- Increase the efficiency of the roadway system.

Additional techniques would involve an aggressive program to reduce the num-

ber of auto trips, shifting some truck trips to rail and to less congested times of the day and creating high-occupancy vehicle/high-occupancy toll (HOV/HOT) lanes. Cars and trucks would be required to have two or more occupants to use the HOV/HOT lane, where traffic is expected to flow more freely than in the other lanes. In addition, cars with only a driver would be able to use the lane if they pay a toll.

- Even with a 24% increase in population and a 65% increase in employment, travel in congestion during the evening rush hours in the Urban Core would decrease by 10%.
- Transit ridership would increase by about 58,450 trips (36%) during the evening rush hours.

Overall, implementing these techniques would accommodate the projected growth while improving travel conditions.

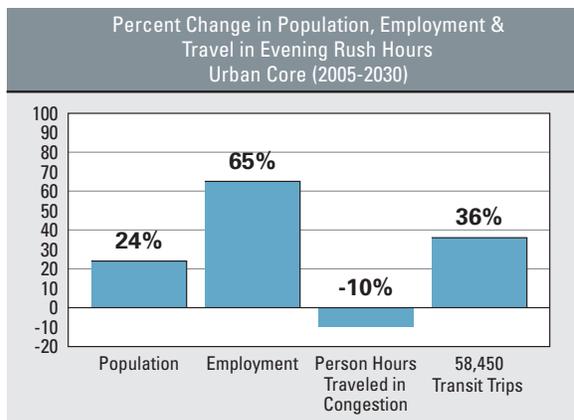


FIGURE 4-5



Financial Implications

The cumulative cost of implementing the 2030 Plan would be \$200 billion through the plan's horizon year. In particular, New Jersey must increase the amount it invests to purchase buses and rail cars and to maintain, operate and renew existing roadways and bridges, bus routes and rail lines, sidewalks and shelters, and all the other facilities necessary to support them. Because public transit is key to accommodating growth, the state must also increase the capacity and attractiveness of its transit system and expand transit services.

The 2030 Plan assumes highway improvements that are consistent with

tal funding would need to double by 2011, and then increase 50% by 2030.

Expanding its transit system, increasing its services and maintaining its infrastructure would cost NJ TRANSIT \$52 billion (YOE) in capital costs through 2030. Operating and maintaining this larger system, including ARC, could cost almost \$37 billion (YOE), after operating revenue has been applied.

NJ TRANSIT's annual capital funding would need to double by 2030, as well as fund major improvements related to ARC in the near term. In addition, NJ TRANSIT's annual net operating funding would need to more than double by 2030.

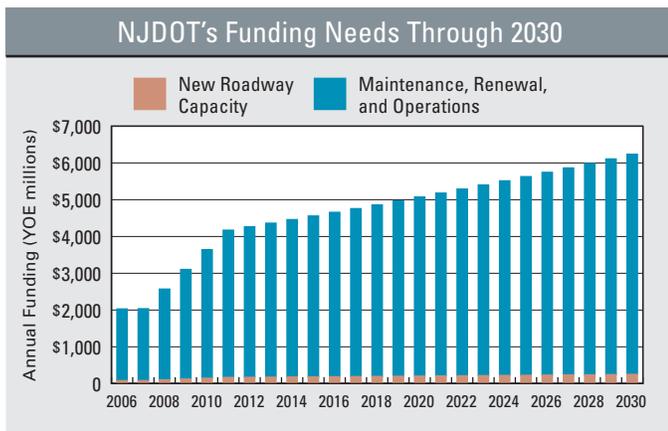


FIGURE 4-6

NJDOT's current policies. Maintenance and renewal are particularly important for NJDOT, given the age of its bridges and deteriorating condition of its highway pavement. A relatively small share of the agency's capital budget would go toward increasing roadway capacity.

NJDOT estimates the cumulative capital costs of this plan to be \$118 billion (in year-of-expenditure [YOE] dollars), and the cumulative operating and maintenance costs to be about \$4 billion (YOE) through 2030. NJDOT's annual operating and capi-

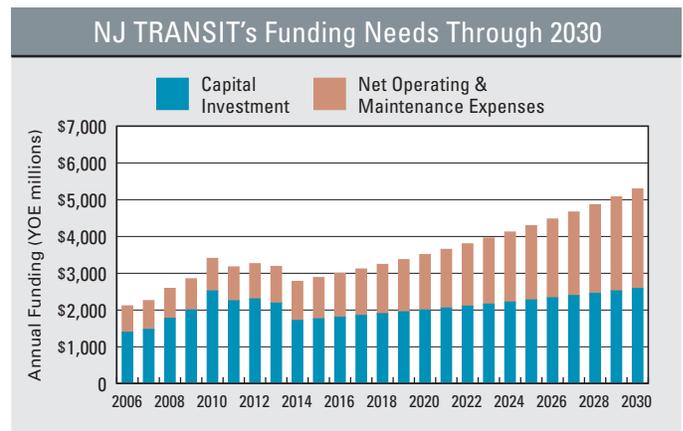


FIGURE 4-7

Investments must also be made in crucial programs that will benefit future generations. Smart growth is a long-term approach to easing congestion and improving mobility, as well as quality of life. Funds must be made available to pursue public/private-sector partnerships and implement change. Programs to reduce highway travel must also be supported.

WHAT COULD HAPPEN WITHOUT ADEQUATE FUNDING?

As described in earlier sections, the New Jersey Transportation Trust Fund will run dry in 2011 and a new financing plan will be needed to fund any capital program starting in FY 2012.

If New Jersey does not identify and implement stable sources of long-term financing, our transportation system will be in trouble.

- Deteriorating pavement and bridges that have not received adequate maintenance can be expected to cause congestion and delay.
 - Improvements cannot be made to provide preferential treatment for buses so buses will be caught in the same congestion as automobiles.
 - Potholes cannot be filled, existing roads and highways cannot be improved or expanded, and new roads cannot be built.
 - NJ TRANSIT's ability to deliver services will be constrained by a lack of maintenance on rail lines and an inability to purchase new buses and rail cars as these fleets age.
 - NJ TRANSIT will not be able make investments to expand passenger rail services to areas of the state not now served.
 - NJ TRANSIT will not be able to improve the frequency of service on existing bus and train lines.
- NJ TRANSIT will not be able to make investments to expand bus services to areas of the state not now served.
 - New Jersey will lose billions in federal transportation dollars because of our inability to provide our required matching funds.
 - The state's roadways and its transit system will not be able to accommodate the increase in demand. New Jersey's citizens will have to spend unacceptable amounts of time in congestion, and freight movement will slow significantly.

As noted, the effects of failing to adequately fund the state's transportation system are illustrated visually on the "Interactive Demonstrations" section of the CD-ROM included with this plan. This includes the results of deferred maintenance and the benefits of smart growth compared to suburban sprawl.



SECTION V

What We Need To Do

In developing this plan, NJDOT and NJ TRANSIT crafted a set of goals and policies to respond to the changes and challenges discussed in Sections II and III. The purpose of these goals and policies is to guide future investments. They lay the groundwork for a future of continued growth and prosperity in which the transportation system plays a crucial role.

Based on the results, NJDOT and NJ TRANSIT determined that the 2030 Plan would both accommodate the projected growth in population and employment and improve travel for individuals and goods.

The agencies then continued to work with other organizations to develop strategies and actions to implement the plan's recommendations. This included discussions with the state's MPOs and the other state and bi-state transportation agencies that participated on the Study Advisory Committee. The proposals were also reviewed and refined by the departments within NJDOT and NJ TRANSIT that will be charged with implementing them.

The goals on the following pages represent conditions to strive for, the policies present general statements of principle and the strategies are more specific approaches. The bulleted actions are particular activities NJDOT and NJ TRANSIT will pursue in the near term to implement the strategies and help to achieve the overall goals.

What follows is the basis for a short-

term action plan. When the 2030 Plan is updated, as required by federal and state law, additional actions will be identified.

Many of the actions set forth require partnerships with the state's municipalities, elected officials, citizens and the private sector to be successful. As noted in the first sentence of this plan, NJDOT and NJ TRANSIT lack the resources and the authority to meet the state's transportation challenges without your help.

While it is NJDOT's and NJ TRANSIT's job to provide convenient and efficient travel options, it is the job of every resident to choose them wisely. Your contribution to the solution is to think seriously about how you travel and how land in your community is developed, and to make choices that will advance the goals on the following pages.

This means supporting efforts to overcome sprawl through smart growth and sustainable investments. It also means recognizing that the transportation system is not adequately funded to meet tomorrow's needs. The public must encourage elected officials to create long-term, stable sources of funding that allocate sufficient money for maintenance, operation and preservation of the existing system and for expanding public transit. It also means making choices today to use public transit when you can and making fewer trips driving alone.

NJDOT and NJ TRANSIT have begun

the process of educating our younger citizens about these issues and their ability to influence future travel conditions and choices. The agencies conducted a pilot program at the Garrett Morgan Academy, an alternative high school in Paterson. Plans are to work with the New Jersey Department of Education and others to promote the use of specially designed cross-curricular exercises about transportation in New Jersey's public school system.

The policies, strategies and actions that follow are grouped under eight goals that reflect different areas of emphasis. They are numbered for ease of reference only; all these goals are essential to support economic growth and continue the high quality of life enjoyed by the citizens of New Jersey. The goals are:

- 1 Maintain and Renew the Transportation Infrastructure
- 2 Integrate Transportation and Land Use Planning
- 3 Increase Safety and Security
- 4 Improve Mobility, Accessibility, Reliability
- 5 Operate Efficiently
- 6 Respect the Environment
- 7 Optimize Freight Movement
- 8 Continue To Improve Agency Effectiveness

The "Critical Issues" tables highlight the major concerns addressed by each goal and its associated policies, strategies and actions.

1 Maintain and Renew Transportation Infrastructure

Critical Issues	
▶	Safety
▶	Aging Infrastructure
▶	Security
▶	Congestion
▶	Bicycle & Pedestrian Travel
▶	Smart Growth
▶	Mobility for Aging & Disabled
▶	Efficient Operations
	Energy & Environment
	Transit Capacity Expansion
	Environmental Justice
▶	Engaging and Educating the Public
▶	Aviation
▶	Freight Movement
▶	Financial Needs

Policies

- Fix It First
- Fix It Efficiently
- Back To Basics

Strategies

Seek adequate funding for maintenance, preservation and security

- Evaluate, through the Capital Investment Strategy and other methods available, the budget required to bring the state’s transportation facilities and transit vehicles to a state of good repair, with increased surveillance and critical infrastructure protection, and keep them there

Apply cost-effective approaches to maintain the quality and serviceability of the transportation infrastructure

- Continue to use value engineering

Seek lower-cost solutions to maintain bridges in good working order and highways in acceptable condition

- Pursue “Smart Solutions” approach whenever possible

Apply new technologies, techniques and materials to save time and money

- Partner with universities and the design and construction industries
- Develop ways to improve the flow of ideas from research and testing to implementation

Prioritize funding to perform the maintenance and preservation segments of projects first

- Modify NJDOT’s Procedures Manual

Prioritize investments in the existing public transit system

- Place greater emphasis on safety, security and a state of good repair



This bridge in Teaneck was constructed in 1931 and continues to serve local residents.

2 Integrate Transportation and Land Use Planning

Policies

- Champion Smart Growth
- Create Better "Tools"

Strategies

Establish partnerships at all levels of government and with the private sector to develop action plans and implement them

- Emphasize NJFIT (Future in Transportation)

Promote transit-oriented development and redevelopment at rail stations and bus stops with significant levels of transit service

- Advance the Transit Village Initiative and Transit Friendly Land Use Initiative; stress the need for affordable housing and job opportunities in these locations

Adopt multimodal corridor management approach with state, regional, county and local partners

- Working with the MPOs, identify and prioritize corridors

Ensure that transportation investments are consistent with the growth management policies of the State Development and Redevelopment Plan (SDRP)

- Give priority to highway and transit system expansion and operational projects that promote integrated land use/transportation planning
- Revise the Roadway Design Manual to recognize community context
- Incorporate enhanced pedestrian facilities in roadway and community design
- Use transportation strategies to support the redevelopment of brownfields and greyfields

Encourage redevelopment for freight uses around ports and intermodal terminals and yards

- Give priority to transportation projects that support redevelopment of brownfields for freight use

Recommend changes to statutes for consistency with the smart growth principles of the SDRP and the State Planning Commission’s Plan Endorsement process

- Municipal Land Use Law: Require circulation elements in municipal master plans; establish smart growth criteria for these elements
- State Highway Access Management Act: Revise Code to be multimodal and support the SDRP

Critical Issues	
Safety	◀
Aging Infrastructure	
Security	
Congestion	◀
Bicycle & Pedestrian Travel	◀
Smart Growth	◀
Mobility for Aging & Disabled	◀
Efficient Operations	◀
Energy & Environment	◀
Transit Capacity Expansion	
Environmental Justice	◀
Engaging and Educating the Public	◀
Aviation	
Freight Movement	◀
Financial Needs	◀



3 Increase Safety and Security

Critical Issues	
▶	Safety
	Aging Infrastructure
▶	Security
	Congestion
▶	Bicycle & Pedestrian Travel
	Smart Growth
▶	Mobility for Aging & Disabled
▶	Efficient Operations
	Energy & Environment
	Transit Capacity Expansion
	Environmental Justice
▶	Engaging and Educating the Public
▶	Aviation
▶	Freight Movement
	Financial Needs



Special attention continues to be given to safety at highway-rail grade crossings.

Policies

- Make Travel Safer
- Reduce Risk

Strategies

Support programs to reduce injuries and fatalities and minimize property damage

- Maintain support of municipal projects to provide Safe Routes to Schools
- Continue program to prevent median crossover crashes
- Advance Senior Safety Pilot as a program area

Support implementation of multi-agency Comprehensive Strategic Highway Safety Plan

- Increase pedestrian safety; apply traffic calming techniques and devices
- Implement engineering programs to keep motorists on the road and in their lanes, minimize crashes and discourage aggressive driving
- Evaluate current methodologies to identify and select intersections for improvement
- Promote the Older Driver Design Guidelines and educate others in their use

Identify and establish priorities for operational and safety improvements at key rail and highway at-grade crossings

- Develop a supplement to the Manual of Uniform Traffic Control Devices and Roadway Design Manual for highway-rail grade crossings

Promote increasing truck parking capacity, whether public or private

Ensure communication and coordination with all applicable agencies and the private sector to maintain security

- Implement mutual aid agreements with other public and private agencies, in both New Jersey and neighboring states, to ensure adequate resources
- Work with other transportation agencies and the private sector to develop and apply Best Management Practices as part of NJDOT's and NJ TRANSIT's Emergency Operations Plan
- Support evacuation plans for New Jersey, especially across the Hudson River and from shore areas
- Complete response plans to address all types of emergencies
- Clarify procedures and roles for emergency response, evacuation and recovery
- Support investment in advanced communications systems for security

Address the special security needs related to motor vehicles, goods movement (trucks and rail), hazardous materials, transit operations, bridges, tunnels, aviation (including cargo), ferries, and port operations

Improve security on the state's transportation systems

- Complete vulnerability and risk assessments and develop programs to protect high-risk transportation facilities
- Increase surveillance of NJ TRANSIT's stations and other strategic transportation facilities

Support training to improve security awareness, emergency response and preparedness to meet national directives on homeland security

4 Improve Mobility, Accessibility, Reliability

Policies

- Counter Congestion with Multimodal Solutions
- Improve Connections

Strategies

Limit highway capacity projects; eliminate bottlenecks and missing links

Accommodate growth in travel by expanding transit capacity

- Construct Access to the Region's Core (ARC)

Make public transit more competitive

- Evolve NJ TRANSIT's services into an integrated multimodal statewide network by offering more frequent service, coordinated schedules, and timed transfer locations at key transportation hubs throughout New Jersey
- Improve the speed and reliability of bus service by establishing bus priority corridors and implementing preferential treatments for buses to reduce delays due to congestion
- Increase the frequency and hours of bus and rail service where the marketplace supports the increase and funds exist to fully cover the operating costs not covered by fares
- Enhance access to transit (park-and-ride lots, sidewalks) and passenger amenities
- Sustain efforts to improve the on-time performance and reliability of all public transit services

Aggressively pursue transportation demand management

- Give greater emphasis to the work of the Transportation Management Associations to increase transit use; encourage flextime, telecommuting, car- and vanpooling; develop and advance parking strategies
- Continue to create and advertise park-and-ride facilities for rail and express bus, car- and vanpooling

Establish an information clearinghouse for aging and disabled transit and paratransit users

- Create a web portal for traveler information that is served by a single, user-updatable database of human services and public transportation providers, accessible via a web browser on the internet

Support walking and bicycling as alternative ways to travel

- Develop pedestrian and bicycle plans to ensure integrated, safe and continuous networks of accessible facilities

Reform land use planning policies, ordinances and procedures to maximize opportunities for walking and bicycling

- Foster a pro-walking and pro-cycling ethic

Improve connectivity on local roadway networks

- Review State Highway Access Management Act
- Create partnerships with local municipalities and developers to ensure local connections are part of the planning process

Develop a strategically located and diversified system of general aviation airports

- Preserve and protect the state's core airport system
- Make safety, operational and capacity improvements at all public use airports to support increased corporate and personal use
- Provide an airport system that can support current and future demand in conjunction with the National Plan for Integrated Airport Systems and the State Aviation System Plan

Critical Issues	
Safety	
Aging Infrastructure	
Security	◀
Congestion	◀
Bicycle & Pedestrian Travel	◀
Smart Growth	◀
Mobility for Aging & Disabled	◀
Efficient Operations	◀
Energy & Environment	◀
Transit Capacity Expansion	◀
Environmental Justice	◀
Engaging and Educating the Public	◀
Aviation	◀
Freight Movement	◀
Financial Needs	



Buses provide easy connections for rail passengers in Camden.

5 Operate Efficiently

Critical Issues	
▶	Safety
	Aging Infrastructure
	Security
▶	Congestion
▶	Bicycle & Pedestrian Travel
	Smart Growth
▶	Mobility for Aging & Disabled
▶	Efficient Operations
▶	Energy & Environment
	Transit Capacity Expansion
▶	Environmental Justice
▶	Engaging and Educating the Public
	Aviation
▶	Freight Movement
	Financial Needs

Policies

- Reduce Delay
- Give Customers Choices

Strategies

Operate New Jersey’s transportation system as a network

- Integrate the statewide traffic management system into one seamless operational platform

Provide customers with real-time travel information about current conditions and the availability of alternative choices, both before and during their trips

- Continue to enhance the NJ511 free phone and web traveler information program
- Build on Google™ Transit on-line trip planning capabilities to incorporate local paratransit services
- Provide information about public transit options and available parking at transit stations and park-and-ride facilities at crucial highway junctions and corridors
- Expand the use of sensors, probes and closed-circuit television cameras on the highways to determine travel times and conditions

Reduce the duration of incidents

- Increase coverage area of Emergency Service Patrols
- Increase coordination with local emergency responders
- Integrate communication systems of emergency responders with NJDOT’s system to permit two-way sharing of information
- Complete development of automated system to reroute police, fire and emergency medical service vehicles on missions not related to incidents

Improve roadway signage

- Investigate the number and placement of signs
- Improve the quality of information
- Enhance readability

Improve traffic signal operations

- Continue traffic signal optimization program
- Upgrade traffic signal equipment to current standards

Provide preferential treatment for bus operations on major corridors

- Select and implement key corridors for express and BRT services
- Develop the partnerships necessary to implement preferential treatment

Make transit fare payment easier and more seamless

- Continue to work with other regional transit operators to develop new technologies and implement demonstrations to advance seamless regional fare payment and ticketing

6 Respect the Environment

Policies

- Promote Environmental Stewardship
- Enhance Quality of Life

Strategies

Incorporate context sensitive solutions and community impact assessment in the development of transportation projects

- Revise the Roadway Design Manual to enable flexible design standards that respect local contexts
- Work with municipalities and affected neighborhoods to properly size projects and minimize environmental and social impacts

Lower transportation-related emissions and encourage greater energy efficiency

- Encourage the use of hybrid vehicles and alternative fuels to reduce greenhouse gas emissions
- Continue clean diesel and other technological initiatives to reduce emissions for buses as well as NJDOT fleet vehicles and equipment
- Pursue development and procurement of low-emission rail vehicles, including electric propulsion and dual-mode (electric and diesel) locomotives and rail cars
- Promote and support all alternatives to driving alone (transit, walking, bicycling, car- and vanpooling, etc.)

Seek opportunities to go beyond mitigation and provide benefits to the physical and human environment

- Encourage smart growth
- Designate more scenic byways
- Protect open space along highway and transit corridors

Evaluate impacts and benefits of transportation projects on all affected populations and provide mitigation commensurate to the impacts

- Develop the technical capability to assess benefits and adverse effects
- Work in partnerships to create and enhance intermodal systems and support projects and services that can improve the environment for low-income and minority communities

Strengthen implementation and monitoring practices at NJDOT and NJ TRANSIT facilities to ensure principles of environmental stewardship are followed

- Improve procedures to monitor construction activities to ensure adherence to environmental commitments made during design and principles of stewardship

Establish an environmental management system to comprehensively address environmental issues in transportation activities (from inception through the life of a project), including policies, procedures, management programs, tools, training and monitoring elements

Critical Issues	
Safety	◀
Aging Infrastructure	
Security	
Congestion	
Bicycle & Pedestrian Travel	◀
Smart Growth	◀
Mobility for Aging & Disabled	
Efficient Operations	
Energy & Environment	◀
Transit Capacity Expansion	
Environmental Justice	◀
Engaging and Educating the Public	◀
Aviation	
Freight Movement	
Financial Needs	

7 Optimize Freight Movement

Critical Issues	
	Safety
	Aging Infrastructure
▶	Security
▶	Congestion
	Bicycle & Pedestrian Travel
▶	Smart Growth
	Mobility for Aging & Disabled
▶	Efficient Operations
▶	Energy & Environment
	Transit Capacity Expansion
	Environmental Justice
▶	Engaging and Educating the Public
	Aviation
▶	Freight Movement
	Financial Needs

Policies

- Increase Freight System Capacity and Efficiency
- Integrate Freight into Transportation and Land Use Planning
- Target Investments in Key Freight Hubs and Corridors

Strategies

Develop and advance actions to increase the share of freight shipped during off-peak periods

- Promote the adoption of extended hours of operation or appoint systems throughout the logistics supply chain and at New Jersey’s ports

Maintain and enhance waterway corridors

- Coordinate selected channel deepening projects
- Support maintenance dredging

Increase share of freight moved by modes other than truck

- Explore the development of port inland distribution networks
- Foster the development of rail shuttles

Improve primary freight corridors and hubs

- Advance Portway Extension recommendations to improve New Jersey's port access in the north
- Conduct highway corridor assessments on priority freight corridors
- Advance the vision, mission and goals of the Liberty Corridor
- Advance priority rail projects, including the Class I Rail Improvement projects defined by the North Jersey Development Plan and the Mid-Atlantic Rail Operations Program
- Explore freight movements in southern New Jersey and develop initiatives to enhance port access

Seek investment opportunities that will benefit both passenger and freight rail operations and security

Advance integration and adoption of intelligent transportation systems for freight and other technologies

- Support CVISN (Commercial Vehicle Information System Network)

Implement education, outreach and programs for local technical assistance related to freight movement

- Explore ways to better integrate freight into local planning
- Work with county and local officials on the review, monitoring, and enforcement of large truck regulations
- Advance large truck monitoring program to gauge the effectiveness of new large truck regulations on a state and corridor level



Trucks need better access to ports.

8 Continue To Improve Agency Effectiveness

Policies

- Enhance Interagency Coordination
- Improve Customer Satisfaction
- Deliver Projects and Services On Time and Within Budget

Strategies

Improve coordination

- Create a senior-level Transportation Coordinating Committee to coordinate development of capital programs
- Adopt Corridor Management Plan approach to involve all interested parties in corridor planning, operations, maintenance and security

Inform decision-making for public transportation

- Develop a transit project prioritization process for new fixed guideway transit projects

Monitor customer satisfaction

- Survey transportation users periodically

Involve customers in decision-making process by providing clear information and forums for discussion

- Educate elected officials and the general public about freight, smart growth, travel security issues and travel behavior and its impacts
- Enhance public involvement activities to ensure the meaningful participation of minority and low-income populations

Update procedures to estimate the costs and durations of projects

Create an integrated management system for all data NJDOT currently gathers and compiles using independent management systems

Seek alternative sources for funds

- Investigate potential for congestion pricing, high-occupancy toll lanes, revised toll policies
- Review mechanisms for public/private partnerships

Measure progress in attaining the goals of Transportation Choices 2030

- Develop tools necessary to track performance indicators
- Report results to agencies and the public

Critical Issues	
Safety	◀
Aging Infrastructure	◀
Security	◀
Congestion	◀
Bicycle & Pedestrian Travel	◀
Smart Growth	◀
Mobility for Aging & Disabled	◀
Efficient Operations	◀
Energy & Environment	◀
Transit Capacity Expansion	◀
Environmental Justice	◀
Engaging and Educating the Public	◀
Aviation	◀
Freight Movement	◀
Financial Needs	◀



SECTION VI

How We Will Measure Progress

Identifying goals, policies, strategies and actions to improve New Jersey's transportation system and services is the easy task. Implementing them and measuring success in achieving the goals is much more complex and requires commitment.

This plan is not finished, even though a document has been published. In addition to pursuing the strategies and actions set forth in Section V, NJDOT and NJ TRANSIT will now focus on two very important activities:

- Developing an implementation plan that will establish specific responsibilities for the appropriate departments in the agencies to accomplish the five-year action agenda.
- Finalizing a set of performance indicators that will clearly identify the progress being made to achieve the goals of this plan.

NJDOT and NJ TRANSIT have been conducting in-depth discussions of potential goals, policies and performance indicators with other state and bi-state transportation agencies, the MPOs, and other interested entities as part of the 2030 long-range transportation planning process.

Although these elements are traditionally part of every long-range planning effort, they are being given greater attention now than ever before. Tightened transportation budgets and constantly increasing demands are forcing agencies to focus even more on programs that will demon-

strate responsiveness to their customers.

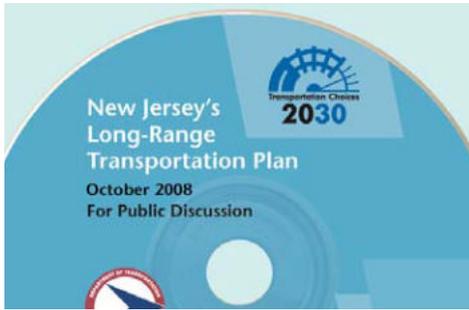
While these indicators will be used to measure progress from one long-range plan to another, they will also serve very important and immediate uses. They will:

- Help to focus the priorities and programs for NJDOT and NJ TRANSIT in both the near and long terms.
- Provide feedback about areas that require more attention and resources.
- Demonstrate trends, both positive and negative.
- Indicate whether programs and projects are successful in satisfying the needs they were developed to meet.

At this point, NJDOT and NJ TRANSIT want to hear from you. Potential performance indicators are included on the CD-ROM that accompanies this plan, along with a comment form that is linked to NJDOT, and they are posted on NJDOT's long-range transportation plan web site, www.nj.gov/transportation/works/njchoices/.

Please review these indicators and let us know the following:

- Do these goals and policies match what you want from the state's transportation system? If not, what would you add, delete or change?
- Is this a good indicator of success? What else could be used that would also be objective, measurable and understandable to the general public?
- What else would you like to tell NJDOT and NJ TRANSIT?



SECTION VII

How To Learn More and Comment on This Plan

As noted, more information about Transportation Choices 2030 is included on the CD-ROM that accompanies this plan and on NJDOT's long-range transportation plan web site, www.nj.gov/transportation/works/njchoices/.

In addition to an electronic copy of the plan and its executive summary, the CD-ROM includes the following:

- Copies of the Urban Transportation Supplements prepared for Atlantic City, Camden, Elizabeth, Jersey City, New Brunswick, Newark, Paterson and Trenton,
- A list of the many people and organizations that have contributed to this plan,
- A list of potential performance indicators,
- Identification of the planning factors called for in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and how this plan addresses them, as required by the Federal Highway Administration and Federal Transit Administration,
- An electronic comment form linked to njchoices.com for your use,
- A map of the overall transportation system and individual maps showing the statewide roadway system, transit network, airport infrastructure and core freight network, and,
- Three interactive visualizations that demonstrate:
 - The effects of inadequately funding maintenance and renewal, using a bridge as an example,
 - The benefits of smart growth vs. sprawl, and,
 - Travel time differences between the 2005 baseline and the 2030 Plan.

If you have further questions, comments or suggestions, please e-mail NJDOT and NJ TRANSIT at:

Transportation.Choices@dot.state.nj.us

The following photographs are reprinted by permission. Permission to reproduce these photographs should be obtained from the owners listed below:

COVER AND COVER PAGE. Photograph by Michael Rosenthal; permission granted by NJ TRANSIT (UL). Permission granted by NJDOT (UML). Permission granted by NJDOT (LML). Permission granted by DMJM Harris (LL). Permission granted by The RBA Group (UR). Permission granted by DMJM Harris (UMR). Photograph by Michael Rosenthal; permission granted by NJ TRANSIT (LMR). Permission granted by DMJM Harris (LR).

TABLE OF CONTENTS. Permission granted by NJDOT.

SECTION I. Permission granted by Texas Transportation Institute (page 1). Photograph by Michael Rosenthal; permission granted by NJ TRANSIT (page 3).

SECTION II. Permission granted by DMJM Harris (page 6). Permission granted by DMJM Harris (page 7). Permission granted by PB Americas (page 8). Photograph by Michael Rosenthal; permission granted by NJ TRANSIT (page 9).

SECTION III. Permission granted by DMJM Harris (page 11). Courtesy of Glatting Jackson (page 13R). Permission granted by NJDOT (page 13L). Courtesy of Glatting Jackson (page 15). Photograph by Michael Rosenthal; permission granted by NJ TRANSIT (page 16). Permission granted by PB Americas (page 17).

SECTION IV. Photograph by Michael Rosenthal; permission granted by NJ TRANSIT (page 19). Permission granted by NJDOT (page 22).

SECTION V. Photograph by Michael Rosenthal; permission granted by NJ TRANSIT (page 30). Permission granted by DMJM Harris (page 31). Permission granted by PB Americas (page 33). Photograph by Michael Rosenthal; permission granted by NJ TRANSIT (page 34). Permission granted by NJDOT (page 37).

SECTION VI. Photograph by Michael Rosenthal; permission granted by NJ TRANSIT (page 39).

Prepared by:

DMJM Harris, Inc.

PB Americas, Inc.

AECOM Consult, Inc.

Howard/Stein-Hudson Associates, Inc.

Clarke Caton Hintz

Cambridge Systematics, Inc.

Urbitran Associates

**New Jersey Department
of Transportation**

P.O. Box 600

Trenton, NJ 08625-0600

NJ TRANSIT

One Penn Plaza East

Newark, NJ 07105-2246