

Strategic Planning Model

*New Jersey
Department of Transportation*

**Statewide
Bicycle and Pedestrian
Master Plan**

June 1995

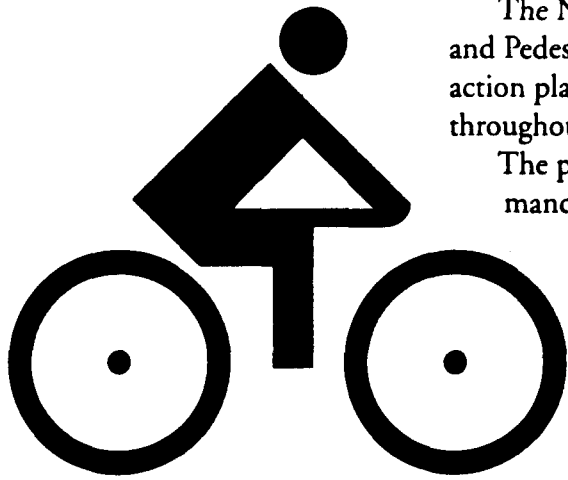
New Jersey Department of Transportation



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Preface



The New Jersey Department of Transportation's Statewide Bicycle and Pedestrian Master Plan presents a collective vision, policy and action plan for improving the bicycling and walking environment throughout the state.

The plan is part of a comprehensive planning process that was mandated in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and is in accordance with the fulfillment of NJDOT's long standing policy to address bicycle and pedestrian concerns. It serves as a Strategic Planning Model for bicycling and walking modes and will be incorporated into the NJDOT Long Range Transportation Plan.

The plan was created by NJDOT, other agencies, organizations and citizens who worked together to develop strategies that will promote and improve mobility by providing people with viable choices of transportation modes.

This document is just one of a series of products which are part of the overall planning effort to address bicyclist and pedestrian needs. Other products developed in conjunction with this plan are tools for implementation of the plan's proposed strategies. These products include:

- *Bicycle Guidelines*
- *Pedestrian Guidelines*
- *Community Resource Manual*
- *GIS Mapping and Analysis of Bicycle Compatible State Highways*
- *Professional Development Training Workshops, Curriculum and Video*

New Jersey is committed to improving our quality of life by making bicycling and walking an important part of our comprehensive transportation system. Communities and individuals are invited and encouraged to work towards implementation of this plan.

Frank J. Wilson
Commissioner of Transportation

Christine Todd Whitman
Governor, State of New Jersey

Acknowledgements

This plan was prepared for the New Jersey Department of Transportation, Bureau of Suburban Mobility. It was developed through a collaborative effort by The RBA Group's consultant team, NJDOT and others.

Overall guidance and direction was provided by a Technical Advisory Committee. The Committee was appointed at the start of the project and met regularly to review draft products, provide support and contribute ideas for the plan. Members included an interdisciplinary mix of representatives from NJDOT, other state agencies, counties, MPOs, transportation specialists and special interest groups.

A number of individuals, agencies and organizations also contributed significantly through their participation at public workshops and meetings, response to surveys and questionnaires and written review comments.

Thanks, appreciation and recognition are expressed to all those who contributed to the development of the plan.

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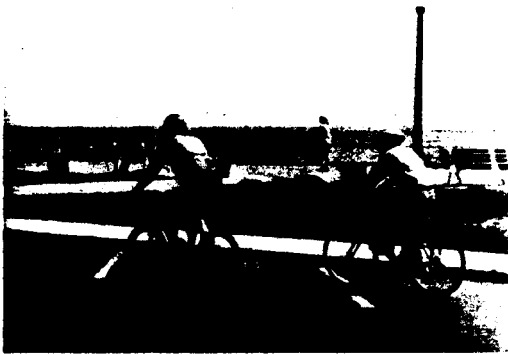
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Workshop and Public Meeting Participants

Special thanks to all those who attended and participated in two series of public workshops and meetings which were held throughout the planning process.

Executive Summary



People in New Jersey want to be able to walk and bicycle for fun, fitness and everyday travel.

People in New Jersey want to be able to walk and bicycle for fun, fitness and everyday travel. The two activities are already in the top four most popular outdoor recreation activities, and almost as many people bicycle and walk to work as take transit. Thousands more people live close enough

to work, school or shops to travel by foot or bike — and would likely do so if it were more convenient and safer.

The benefits of bicycle and walking are clear and compelling:

- Bicycling and walking are inexpensive travel and recreation choices
- Congestion, air pollution, and the de-

mand for parking can be reduced

- Bicycling and walking are the only independent means of travel for children
- Individuals can become healthier and more productive with regular exercise

The bottom line is that bicycling and walking have a lot to offer New Jersey. The State-wide Bicycle and Pedestrian Master Plan shows how these potential benefits can be realized in the years ahead. The goals, objectives, strategies and actions that follow are all based on a common vision for the future of bicycling and walking in the state which was expressed in community meetings throughout New Jersey. The collective statewide vision for New Jersey is:

"New Jersey is a place where people choose to bicycle and walk. Residents and visitors are able to conveniently walk and bicycle with confidence and a sense of security in every community. Both activities are a routine part of the transportation and recreation systems."

Targets

The best way to measure progress towards achieving this vision is to track levels of bicycling and walking in the state. The plan has set four targets.

1. Increase the number of people bicycling or walking to work by 50 percent by the year 2000.

Currently, 166,000 people walk or bicycle to work every day in New Jersey. Another 350,000 people live within five miles of their work and drive to their jobs every day. If one quarter of these people walked or bicycled to work instead — through employer promotions, better roadway conditions, etc. — the first target can be met.

2. Increasing the percentage of bicycle and pedestrian trips that are five miles or less from 12.5 percent to 20 percent of all trips.

Most journeys (63 percent) are less than five miles long and less than one quarter of all trips are for commuting. This means there are a lot of short trips — errands, social visits, church and school trips, shopping, etc. — that could be made by foot or bicycle. More than 80 percent of these trips are currently made by car, even though the distances are quite short. If one quarter of these car journeys were made by foot or bicycle the second target can be met.

3. Increase the number of commuters bicycling to transit stations so that 2.5 percent of train passengers arrive by bicycle at least once a week.

Very few people bicycle to transit stations regularly, even though the combination of bikes and transit can be fast, cheap and efficient. A local survey of transit riders found that almost five percent of people said they would bicycle to the transit station if there were better parking facilities. If half of these respondents actually did bicycle to the transit station, the third target can be met.

4. Bicycle and walking will be two of the top three most popular outdoor recreation activities by 1998.

According to a survey in the State's Comprehensive Outdoor Recreation Plan, walking is currently the second and bicycling the fourth most popular outdoor recreation activity in the state. With promotions, better conditions for walking and bicycling, education and information about bicycling and walking opportunities, the fourth target can be met.

Current Conditions and Needs

In 1995, few New Jersey communities could be described as bicycle-friendly or walkable. For the past fifty years, the transportation system has been developed with the automobile as the primary focus. Bicycling and walking have been overlooked as the highway system has grown and suburban development has spread across the state.

Times are changing. We are now realizing, as a nation, that there are limits to automobile use. We cannot go on building bigger and wider highways without destroying our communities, the environment or state and local

transportation budgets. We are looking for alternatives to driving alone for every trip because we can't afford to accommodate increasing car ownership and use forever.

Bicycling and walking are practical and efficient alternatives with a great potential for helping solve some of our transportation problems. Unfortunately, few people think bicycling and walking are viable options for them — including the hundreds of thousands of New Jersey residents and visitors who already walk and bike for pleasure every year.

In meetings across the state, frustrated bicyclists and walkers described why the transportation system doesn't work for them. Everything from potholes to regional land use patterns came under scrutiny.

- There are no sidewalks, bike lanes, shoulders or trails to use
- People are scared by the threat of traffic
- Parents won't let their children ride or walk alone to school
- There are no safe places to park a bicycle
- Motorists, bicyclists and pedestrians do not respect each other
- Major highways cut neighborhoods off from schools and shops
- Government agencies and employers do little to promote bicycling and walking



Increase the number of commuters bicycling to transit stations...

Improvements were suggested in key areas:

Facilities

Facilities issues reflect concerns that are primarily related to mobility and access. People expressed the need for safe, convenient, efficient, compact, accessible and inviting environments for walking and bicycling. They need facilities for different purposes: transportation, recreation and fitness. Specific facility-related needs that were identified for these purposes include: better accommodation for bicyclists and pedestrians on existing roadways; separate facilities such as trails, greenways and connector paths; and off-route amenities such as bicycle lockers, showers, benches, shelters, etc. at destinations.

Community Design

Community Design issues relate to land use and linkages between origins and destinations. Land use patterns impact bicycling and walking trips significantly since such trips are characterized by short distances and direct linkages. People identified the need for land use planning and design standards that encourage bicycling and walking by providing connections between land uses and providing better access to transit.

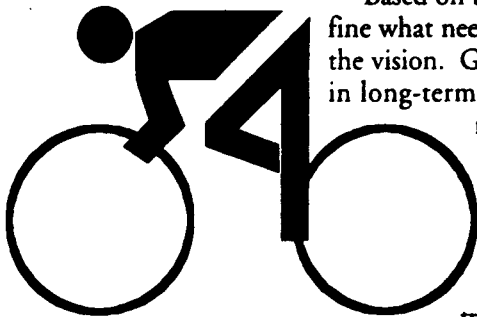
Acceptance

Acceptance or legitimacy issues relate to the public's perception and image of bicycling and walking. Typically, bicycle and pedestrian modes have not been viewed as legitimate means of transportation or recognized by the public, drivers of motor vehicles or local, state and regional officials. There is a need for supportive government and policies that provide for routine inclusion of bicycling and walking in planning, design, budgeting and funding efforts for state and local projects and programs.

Confidence and Security

Confidence and security issues relate to training and education of bicyclists, pedestrians and motorists. The need for education, increased enforcement, safety information and elimination of hazardous facilities varies for different user types. Children, older adults, recreational bicyclists and walkers, commuters, etc. each have different skill levels, experience and perceptions of risk and need varying types of programs and resources.

Goals and Objectives



A lot has to change in New Jersey before bicycling and walking become everyday activities. The Statewide Bicycle and Pedestrian Master Plan has identified a significant gap between the vision of a bicycle-friendly and walkable state and the current conditions for bicycling and walking.

Based on the public outreach process, goals and objectives were established to define what needs to happen and what results need to be achieved in order to produce the vision. Goals are policy-oriented and propose fundamental actions which result in long-term impacts and benefits. Objectives are process-oriented and focus on routine procedures or tasks. Five key goals are proposed. They relate to facilities and community design, education, enforcement and public support and promotion of a pro-bicycling and pro-walking ethic.

Goal 1 — Create a bicycle and pedestrian friendly transportation infrastructure by planning, designing, constructing and managing transportation and recreation facilities which will accommodate and encourage use by bicyclists and pedestrians and be responsive to their needs.

Goal 2 — Make community destinations, transit facilities and recreation facilities accessible and convenient for use by all types and skill levels of bicyclists and pedestrians.

Goal 3 — Reform land use planning policies, ordinances and procedures to maximize opportunities for walking and bicycling.

Goal 4 — Develop education and enforcement programs that will result in reduction of accidents and a greater sense of security and confidence for bicyclists and pedestrians.

Goal 5 — Increase bicycling and walking by fostering a pro-bicycling and pro-walking ethic in individuals, private-sector organizations, and all levels of government.

For each of the goals, performance measures are provided to assess how well we are doing in achieving success and moving toward the vision. These measures are monitoring mechanisms which help to establish program priorities and allocate resources.

Implementation Plan

The Implementation Plan provides specific and detailed strategies and actions that are necessary to make things change. Strategies and actions address programmatic, funding, staffing, policy, legislative and procedural roles and responsibilities for NJDOT, other state agencies, counties,

municipalities, developers, individuals, etc. which will implement change. It is the combined effort and participation on the part of all levels of government, the private sector and NJDOT which will be necessary to fully realize the benefits of bicycling and walking.

Conclusion

The changes that are necessary to achieve the vision will not just happen and cannot be accomplished by NJDOT alone.

NJDOT will provide the leadership to achieve the vision for bicycling and walking in New Jersey. This plan defines the actions and targets agencies and others who are responsible for working with NJDOT to implement change.

Through these actions, the plan provides a systematic planning approach to integrate bicycle and pedestrian concepts into the existing transportation and design process and other land use, environmental and recreational programs. Bicycling and walking will become a routine part of the transportation and recreation systems and New Jersey will become a place where people choose to bicycle and walk.

The Vision

Where We Want To Be

The New Jersey Department of Transportation Statewide Bicycle and Pedestrian Master Plan is based on an interactive public involvement process which established a relationship and dialogue between representatives from all levels of government, special interest groups, design professionals, educators, enforcement personnel and individual citizens.

Many needs/goals/objectives were expressed by these groups and individuals at public workshops and through interviews and surveys which were conducted as part of the project's outreach process. Those issues most frequently identified or emphasized were related to four general areas:

- **Facilities**
- **Community Design**
- **Acceptance/Legitimacy**
- **Confidence/Security**

The composite of these ideas forms the framework for a collective, statewide "vision" of bicycling and walking for all communities in New Jersey:

"New Jersey is a place where people choose to bicycle and walk. Residents and visitors are able to conveniently walk and bicycle with confidence and a sense of security in every community. Both activities are a routine part of the transportation and recreation systems."

The Strategic Planning Model

A Framework for Actions in New Jersey

The following planning model identifies global issues, goals and objectives, implementation strategies and performance measures related to walking and bicycling in New Jersey. It is the framework for a comprehensive statewide strategic bi-

cycle and pedestrian plan and should be the basis for all subsequent actions. It is intended to serve as a model for action plans for all levels of government, special interest groups and private companies, as well as NJDOT.

Introduction

Achieving the vision for bicycling and walking in New Jersey cannot be accomplished by NJDOT alone. NJDOT can directly impact the vision by implementing elements of this plan that are within its jurisdictions. In addition, NJDOT can provide technical expertise and leadership for other government entities. By virtue of the short trips that bicycling and walking represent in the transportation modal

mix, the greatest impact on the success of achieving the vision will be accomplished at the local level.

In order to define further the roles of various levels of government and others which are necessary to implement the vision, it is important to examine the present situation for walking and bicycling in New Jersey and the reasons for the development of this plan.

Background

What has led to the present situation

The popularity of the automobile combined with post-war prosperity in America changed the way people live and travel. In New Jersey, growth occurred around the communities that developed along the transportation corridors between the major metropolitan areas of New York City, Philadelphia and Washington, DC. The automobile allowed new lifestyles to evolve. A vast highway network and inexpensive fuel allowed people to settle away from the densely populated areas in suburban communities. Zoning philosophies isolated and separated land uses. Soon, trips to local neighborhood schools and shopping areas grew beyond walking distance. Today, residents of New Jersey are highly dependent on automobiles for commuting to work and routine travel.

The ever-increasing usage of automobiles resulted in transportation planning that narrowly focused on highway plan-

ning and the movement of people and goods by motor vehicle. Existing highways were expanded, widened and changed so that motor vehicles could operate more efficiently, usually at the expense of other highway users. The response of transportation professionals to the dominance of the automobile has been the creation of transportation systems that often do not accommodate the needs associated with bicycling and walking as legitimate modes of transportation. Today, we have a transportation infrastructure that often fails to accommodate the needs of bicyclists and pedestrians. This is due, in part, to the fact that transportation professionals have not been taught or sensitized to understand the needs and capabilities of bicycle and pedestrian travel; also, in part, to concerns or uncertainties related to liability issues associated with the provision of facilities to accommodate these modes.

Why we want change

The vision statement represents a revolutionary change in attitudes about bicycling and walking. For the last four or five decades most Americans have become dependent on the reliability and convenience of the automobile to the degree that other forms of transportation are often considered less socially acceptable.

There has been ample discussion and documentation of the problems related to our reliance on the automobile. Many motorists have experienced, sometimes on a daily basis, the congestion that is prevalent on our major highways during the journey to work. Less visible on a daily basis, but of more significance, are the problems associated with air quality, energy consumption and the general quality of life.

Before we can expect the vision statement for bicycling and walking to be globally accepted, we must first have an understanding of the potential role of bicycling and walking in future transportation and recreation systems. Two questions immediately surface:

- Why is it so important to encourage people to bicycle and walk?
- Why do we need a plan to achieve this vision?

Before these questions can be answered, it would be helpful to have an idea how walking and bicycling might affect our daily lives if this vision were achieved. Consider the following scenario of a typical day in the lives of a typical central New Jersey family, the Joneses:

The sun rises early on the Jones home in central New Jersey as the family prepares for another busy day. Dad, the first to leave home for his commute to work in Trenton, tucks his brief case into the pannier on his bicycle and straps on his helmet. The local New Jersey Transit railroad station is two miles away. But he knows it will take him less than 15 minutes to bicycle through town and secure his bicycle, helmet and light set that he uses on late evenings in the locker that he has rented. Traffic will be heavy today, but Dad will feel safe on the streets with extra wide shoulders that lead to the train station.

Mom is in a quandary. She is president of a small marketing company located in the office park about five miles on the other side of town. On nice days, she usually commutes by bicycle on the Main Street bicycle lane. However, today is a beautiful spring day and she welcomes the pleasant 10 minute walk along the tree lined sidewalk to the bus stop where she can board the local bus that stops every half hour. It might be a little warm for the bicycle trip today, and she might have to use the shower at work. She could save 15 minutes by driving the family car, but why lose a chance for some exercise and fresh air. Besides, it can be so irritating to sit in traffic on such a nice morning. All of these choices! It surely starts her thinking early in the morning.

Johnny's choices are simple. He will meet his friends at the end of the block and walk to school along the sidewalks that lead directly to school. It will take him twenty minutes, but they will have plenty of time to talk about last night's game on the way.

Mary has a tougher choice today. She got her driver's license a few weeks ago and could drive the family car to high school. But, all her friends realize how polluting the automobile can be and there is lots of peer pressure at school to be environmentally conscious. She decides to walk with the rest of her friends. Besides, student parking is limited and she may have trouble finding a space.

The Jones family all return safely to home at the end of the school and work day. It is Dad's turn to cook dinner and he realizes he is missing some ingredients. It is a long trip to the supermarket. The little neighborhood shopping district that was built in conjunction with their new subdivision is only about five blocks away and Mary can walk there and back in about 10 minutes.

Johnny will be returning shortly from his new friend's house. It is in another neighborhood and he will use the new bike path that was built to connect the neighborhoods instead of traveling on the main road.

Dinner is finished and Johnny and Mary retreat to their rooms to complete homework. Once again, Mr. Jones has eaten too much of his own cooking and a pleasant evening stroll to the park will allow Mr. and Mrs. Jones to discuss the events of the day. Maybe they will decide who will use the car tomorrow. It has been sitting in the garage for so long, now. Evidently, none of the Joneses wants to spend the time and money to fill the gas tank.



This scenario illustrates the importance of bicycling and walking in future transportation and recreation systems. Following are a few of the more important roles of these modes:

- Viable alternative to commuting to work by automobile.
- When combined with other transit modes, a viable alternative to commuting to work by automobile.
- Transportation to school for children.
- Serves local destination or utilitarian trips such as shopping.
- Important form of recreation for fitness and exercise.
- An environmentally sensitive and energy efficient form of transportation and recreation.

How we can affect change

The changes that are necessary to achieve the vision will not just happen. The high cost of transportation infrastructure and energy combined with the need to relieve congestion and ameliorate pollution will force some change. Real

changes will require radical thinking, a new ethic and a social responsibility on the part of the public and transportation and community planners, engineers and others.

Today, New Jersey is in an excellent position to

change the course of planning for bicycle and pedestrian transportation. The basis for change started in 1980 when NJDOT appointed the first Bicycle Advocate. In 1982, NJDOT published Bicycle Compatible Roadways, one of the first and still widely accepted studies, to provide planning and design guidelines for accommodating bicycle traffic in the state's transportation system. In August 1984, NJDOT promulgated a policy and procedure for considering bicycling in transportation improvement projects. In May 1985, Governor Thomas Kean created the New Jersey Bicycle Advisory Council by Executive Order to "examine the status of bicycling in New Jersey and make rec-

ommendations regarding the promotion of the uses of the bicycle as a safe and viable mode of transportation." A report was issued in July 1987 that contained 12 recommendations setting the stage for a state program. The interest in bicycling and walking in the past decade has prompted a number of New Jersey counties and municipalities to develop bicycle and pedestrian plans. One purpose of this plan is to provide direction for development and implementation of such plans in future community efforts.

The New Jersey State Development and Redevelopment Plan offers further support for bicycle and pedestrian travel. The plan contains statewide transportation policies that address the integration of transportation systems and personal mobility. Through promotion of "centers" which are compact, cohesive, dynamic and diverse environs, state planning policies propose changes to present land use patterns that improve mobility and promote bicycle and pedestrian-friendly communities. The mandates established by Clean Air Act Amendments will help to implement such change and set the standards that can be met through changes in transportation patterns.

The full potential of walking and bicycling can be achieved with a comprehensive bicycle and pedestrian plan. The plan provides the mechanism for statewide implementation of bicycle and pedestrian transportation measures and targets agencies and others who play key roles in creating change.

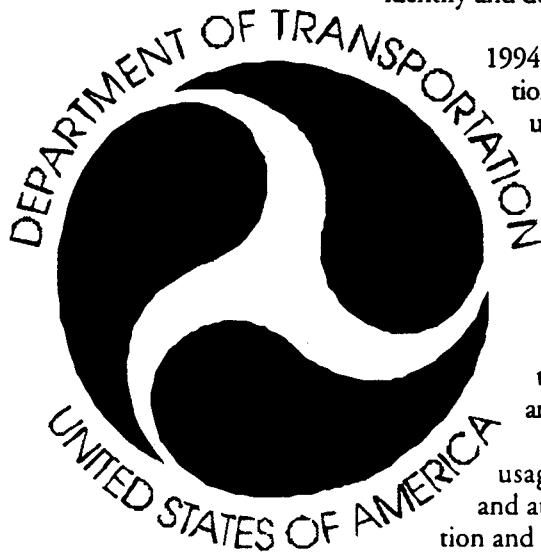


...provide planning and design guidelines for accommodating bicycle traffic in the state's transportation system.

Target Usage Goals **What Could Happen if Vision Were Achieved**

The successful implementation of this plan and achievement of the vision for bicycling and walking in New Jersey should result in more bicycling and walking for transportation and recreation. Existing patterns of walking and bicycling in New Jersey are difficult to identify and define because of a general lack of accurate survey information.

The National Bicycling and Walking Study, published by USDOT in 1994, presents a national policy on bicycling and walking. It is a plan of action for activities at the federal, state and local levels for promoting greater use and safety of bicycling and walking. It includes the specific goals:



- to double the current percentage (from 7.9% to 15.8%) of total trips made by bicycling and walking; and
- to simultaneously reduce by ten percent the number of bicyclists and pedestrians killed or injured in traffic crashes.

With this plan, New Jersey adopts these national goals. In addition, target usage goals have been set for specific trip purposes, focusing on areas where change is measurable and can be implemented in the short term.

The following usage goals are targets based on the limited usage information available. These targets illustrate existing patterns and attitudes and the potential for bicycling and walking for transportation and recreation purposes.

Target Usage Goal #1:

Increase the number of people bicycling or walking to work as the primary mode of transportation by 50 percent, from 4.35 percent of all workers to 6.85 percent, by year 2000.

Rationale: According to the 1990 Census (Transportation to Work), a total of 3,812,684 workers, 16 years and over, reside in New Jersey. Of those workers, 9,183 (.24%) bicycle to work and 156,523 (4.11%) walk to work. A total of 514,465 workers travel to work in 9 minutes or less. Assuming an average speed of 35 mph, these workers would live 5 miles or less from their work place and could be considered either existing or potential bicycle and pedestrian trips. Assuming that all existing bicycle and pedestrian trips are included in the group of workers with short trips, the potential exists for approximately 350,000 bicycle and pedestrian trips. If one out of every four of these workers converted to bicycling or walking to work, approximately 90,000 additional bicycle and pedestrian trips would occur.¹ This number would represent an approximate increase of 50 percent in the number of people bicycling or walking to work.

Critical Success Factors:

- Employer encouragement and support programs
- Access to work sites by bicyclists and pedestrians
- Employee Commute Option (ECO) programs promoting walking and bicycling

Means of Measurement:

- Transportation To and Place of Work, 1990 Census
- Average Vehicle Occupancy Survey, 1992, NJDOT

¹The assumption of "one out of every four" is a conservative estimate based on a globally accepted principle used by charities called "the rule of thirds." Of the people that agree to volunteer time or services, one-third will respond as requested, one-third will respond if continually prompted, and one-third will not respond at all.

Target Usage Goal #2:

Increase the percentage of bicycle and pedestrian trips that are 5 miles or less from 12.5 percent to 20 percent of all trips by year 2000.

Rationale: According to the 1990 Nationwide Personal Transportation Study², approximately one of every eight trips that are 5 miles in length or less are walking or bicycling trips. Approximately 83 percent of these short trips are made by private vehicle. Assuming half of the private vehicle trips are the type of trips that cannot be converted (trips in inclement weather, trips requiring heavy loads, etc.), the potential exists for approximately 40 percent of all trips 5 miles or less to be converted to bicycling and walking. If only one out of every four of the potential private vehicle trips were converted to walking or bicycling, the number of walking and bicycling trips would increase by 75 percent and one of every five trips of 5 miles or less would be made by walking or bicycling.



The potential exists for approximately 40 percent of all trips 5 miles or less to be converted to bicycling and walking

Critical Success Factors:

- Bicycle and pedestrian accessible destinations
- Bicycle and pedestrian compatible transportation facilities

Means of Measurement:

- Nationwide Personal Transportation Study
- NJDOT Travel Survey³

Target Usage Goal #3:

Increase the number of commuters bicycling to transit stations at least once a week to 2.5 percent of total ridership by 2000.

Rationale: This projection is based primarily on a survey completed by Biking is Kind to the Environment (BIKE). Other past surveys were also examined. These included a 1980 study of selected rail stations published in the Transportation Research Board Record #808 and Case Study No. 9 of The National Bicycling and Walking Study.



Of 800 survey questionnaires distributed, 4.6 percent (37) said they would ride weekly if there was secure bicycle parking.

Although the BIKE survey was not administered randomly and is not representative of the general population, it does give an indication of the potential demand for bicycle parking facilities at transit stations. Of 800 survey questionnaires distributed, 4.6 percent (37) said they would ride weekly if there was secure bicycle parking. If approximately half of these respondents did commute by bicycle, the target could be achieved. The TRB study examined the potential of the bicycle as a collector mode for commuter rail trips. Surveys at targeted stations in New Jersey indicated that almost half (47.5 percent) of the 223 respondents would consider at least part-time commuting to rail stations by bicycle.

The current percentage of ridership commuting by bicycle is not known. However, based on observation, the percentage can be assumed to be very low.

Critical Success Factors:

- Installation of bicycle lockers and secure bicycle racks at transit stations
- Promotional campaign
- Adequate transit station access

² Although the NPTS information represents the national population, it is considered appropriate because New Jersey is the most densely populated state. Therefore, the number of trips of 5 miles or less is considered a conservative figure.

³ Proposed survey to be conducted by NJDOT on a biannual basis to determine modal splits for all travel for all trip purposes.

Means of Measurement:

- BIKE Transit Survey
- Transportation Research Board Record #808
- National Bicycling and Walking Case Study No. 9
- NJDOT Travel Survey

Target Usage Goal #4:

Place bicycling and walking for pleasure in the top three most popular outdoor recreation activities by 2000.

Rationale: Currently, walking for pleasure ranks second and bicycling ranks fourth in an attitude survey conducted by NJDEP. Bicycling and walking are inexpensive forms of recreation and excellent forms of exercise that require very little investment on the part of the user.

Critical Success Factors:

- A greater understanding of the benefits of walking and bicycling
- A social responsibility to exercise for health and fitness

Means of Measurement:

- The 1994 New Jersey Open Space and Outdoor Recreation Plan (Regional Plan Association - Recreation Preference and Needs Study)
- NJDOT Travel Survey



Currently, walking for pleasure ranks second and bicycling ranks fourth in an attitude survey conducted by NJDEP.

Purpose

Reason For This Plan

The purpose of the New Jersey State-wide Bicycle and Pedestrian Transportation Master Plan is to provide a blueprint or guide which, when implemented, will make bicycle and pedestrian transportation viable options for people in New Jersey.

The plan serves as a model and provides an "action plan" for the NJDOT which defines departmental roles in the planning process and identifies specific opportunities for bicycle and pedestrian programs and facilities. It is intended to assist other state agencies, regional and local governments, private interests and the public in formulating their own plans and policies to enhance the bicycle and pedestrian environment.

The Statewide Bicycle and Pedestrian Transportation Master Plan also serves as a means of addressing and implementing long-standing NJDOT policies and recommendations which promote support for increased use of these modes. Current policies

of NJDOT promote bicycling as a means of personal transportation by accommodating the needs of bicyclists in state-funded transportation projects and programs. Though there are no formal pedestrian policies, procedures and guidelines, safety issues are routinely addressed. NJDOT recognizes that it is necessary to address both bicycle and pedestrian transportation issues in a more systematic manner.

The mandates of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), and other recent transportation-related and legislative measures such as the 1992 NJ State Development and Redevelopment Plan (SDRP) and Clean Air Act Amendments of 1990, provide NJDOT with both flexibility and funding to implement a more comprehensive approach which will result in transportation infrastructure that is capable of accommodating the transportation and recreation needs of both bicyclists and pedestrians.

The plan recognizes that it is important that bicycling and walking become a routine part of the transportation system rather than being treated as modes separate from other transportation systems. As the policies of this plan become institutionalized, and the goals and objectives are achieved, the need for a separate plan will diminish. For example, administrative strategies recommended by this plan, which propose special bicycle and pedestrian specific projects and facilities, in the short term, may be help-

ful in advancing bicycle and pedestrian needs. However, in the long term it would be preferable for bicycle and pedestrian facilities to be incorporated directly, based on their own merits, in all transportation plans, projects and programs. Similarly, separate, dedicated funding for bicycle and pedestrian facilities, which may currently be needed to assure that improvements will be constructed, should over time cease to be needed as the merit of funding these improvements becomes generally accepted.

Approach How This Plan Works

The plan is a "course of actions" by which NJDOT and others can establish a comprehensive approach to providing facilities and programs to meet the needs of bicyclists and pedestrians. NJDOT,

by itself, cannot take all actions needed to achieve the vision of an enhanced bicycling and walking environment. Actions by others are necessary and are recommended in this plan. NJDOT will provide leadership and guidance to other agencies at the

state, regional and local levels.

It is not a traditional "lines on a map" plan. Instead, it identifies real problems confronting pedestrians and bicyclists in New Jersey and proposes real solutions. It recommends policies, programs and fund-

ing mechanisms that will help local communities provide a safer and more accessible environment for walking and bicycling. The overall planning effort includes tasks which identify specific infrastructure deficiencies and propose projects to address needs and fulfill opportunities.

This approach is responsive to NJDOT's current philosophy, which is to manage the transportation system and provide services through interactive public participation with its customers.

The most important feature of the plan is that it proposes a systematic planning approach which integrates bicycle and pedestrian concepts into the existing transportation planning and design process as well as into related areas such as land use, environmental and recreational programs. As a result, bicycling and walking will become a routine part of the transportation system rather than creating a separate process for accommodating these modes. Bicycling and walking become legitimate modes of transportation.



The plan identifies real problems confronting pedestrians and bicyclists in New Jersey and proposes real solutions.

Organization and Structure of the Planning Effort

The overall planning effort includes four major elements:

- **Executive Summary**
The Executive Summary is "customer" oriented and summarizes the important aspects of the plan. It is a separate, promotional, stand-alone document that can be used to advocate the plan.
- **Strategic Planning Model**
The Strategic Planning Model, this document, consists of a number of sections. It identifies bicycle and pedestrian issues, users and needs; provides a collective vision of a bicycle and pedestrian compatible environment in New Jersey; establishes goals and objectives; presents implementation strategies; and outlines performance measures and target usage goals. The major objective of this section is to focus on and present planning processes, policies, strategies and programs for NJDOT which will serve as a model strategy for implementing the vision at all levels of government. The strategic plan will be integrated into the state's long-range transportation plan.
- **NJDOT Action Plan**
The Action Plan is targeted to specific bureaus or units within NJDOT. It is a separate document that defines the roles of each unit in developing bicycle and pedestrian programs and facilities and outlines initiatives, opportunities, task specific operational characteristics and implementation strategies for all. Specific tasks assigned to each unit represent actions that are necessary to achieve the vision, goals and objectives of the plan.
- **Community Resource Manual**
The Community Resource Manual is a separate, stand-alone document targeted towards communities. It will guide them in the preparation of community plans and contains useful programs, policies and technical information for local level bicycle and pedestrian planning.

In addition to the elements which constitute the actual master plan, the overall planning project includes related tasks and studies that support and complement the master plan. These serve as tools and provide technical data. They include:

- **Evaluation Criteria, GIS Suitability Mapping, List of Priority Improvement Projects and Individual Needs Statements**
These will be used to prepare an evolving capital improvement program of bicycle and pedestrian projects. Projects will ultimately be included in state or regional Transportation Improvement Plans (TIPS).
- **Pedestrian Policy, Procedures, Guidelines**
Establishes recommendations for NJDOT departmental policy and procedures and guidelines.
- **Bicycle Transportation Policy, Procedures and Guidelines**
Revises existing NJDOT departmental bicycle policies and procedures to include descriptions of roles for specific divisions and bureaus in the department.
- **Bicycle and Pedestrian Design Criteria for the NJDOT Roadway and Bridge Design Manuals**
Recommends bicycle and pedestrian design criteria such as typical sections, paving recommendations, traffic engineering details, striping, signing, etc., for incorporation in existing design manuals.
- **Training Workshops, Curriculum, and Video**
Training sessions for state, county and regional transportation planning and engineering staff.

Methodology

The plan was developed for NJDOT in response to bicycle and pedestrian provisions of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. NJDOT, its consultant management firm, bicycle and pedestrian consultant team, Technical Advisory Committee and the general public all contributed to the plan and played active roles in the process.

Activities or tasks undertaken as part of the overall planning process include a review and compilation of current literature, an extensive outreach and public participation process (workshops, interviews, surveys and public meetings), review of existing bicycle and pedestrian programs and facilities, assessment and evaluation of potential demonstration projects, mapping of existing infrastructure and training programs.

The participatory process was a key element of this project. Establishment of a continuing communication process and integrated network of representatives from professional, civic, public and private sectors was considered cru-

cial in order to develop and obtain consensus for the plan. To ensure that strategies and approaches presented in the plan are reasonable, acceptable and practical to implement, significant emphasis was placed on an interactive outreach/participation process that involved participants from a wide spectrum of public, private and institutional organizations. Representatives from within NJDOT, other state agencies, MPOs, counties, municipalities, private businesses, special interest groups and individuals played pro-active roles in developing plan elements. Each task included review sessions with the Technical Advisory Committee. Opportunities for public input, comment and review were provided at critical stages of the project during workshops, public meetings and interviews.

Technical memoranda were also prepared for each task of the project and provided detailed descriptions of the methodology for each activity. These are included as an Appendix.

Current Conditions and Needs

Issues

Where we are now

One of the first tasks in the planning process was to identify and assess the needs of New Jersey's bicyclists and pedestrians. These needs and issues form the basis for the master plan's vision statement, goals and recommendations. They reflect the concerns of a diverse cross-section of citizens from both the public and private sectors who

represent both providers and users of the transportation system.

The outreach effort was undertaken early in the process to identify these needs and to develop a consensus regarding desirable and appropriate requirements of bicyclists

and pedestrians. A combination of interviews, questionnaires and public "brainstorming" workshops were used to involve a wide range of individuals and interest groups. Participants in the process included public officials/administrators from all levels of government, planners, engineers, police officers, educators, bicyclists, concerned citizens and representatives of special interest groups such as senior citizen organizations, environmental organizations, trail organizations and transit authorities.

Workshops and interviews were constructed in a manner to identify a comprehensive list of needs. Based on input from workshops and interviews, needs fell into several categories. These included mobility/access, safety/security, information/education/enforcement,

supportive government/policy and community design. Workshops were predominantly focused on user needs while interviews identified more programmatic and procedural issues. Needs were identified, consolidated and then prioritized by workshop participants. Concerns emphasized most were the need for educational programs, land use linkages and pro-active government to assure increased, stable funding for bicycle and pedestrian programs and facilities. Interest in bicycle issues tended to dominate, but safety and access concerns of pedestrians were also expressed, especially in regard to the needs of children and the elderly and in relation to community design.

Areas of common concern emphasized most frequently in the interview process included the need for leadership from the state, adequate funding, better integration of bicycle/pedestrian concerns into the transportation planning and design process, public education for everyone (drivers, bicyclists, pedestrians, transportation professionals) and coordinated planning efforts at the state level.

The overall picture of bicyclist and pedestrian needs that emerged from both the workshops and interviews balances programs, policies and infrastructure, as well as a call for local and state responsibility.

Based on the categorized lists of needs expressed during this outreach process, a further synthesis and consolidation of prioritized issues was developed for use in formulating goals, objectives and strategies of the master plan. The resulting areas of concern represent the most critical bicycle and pedestrian issues for New Jersey.



Identified needs included pedestrian-activated traffic signals, adequate timing for slower pedestrians and marked crosswalks.

- 1. Facilities** issues reflect concerns that are primarily related to mobility and access. Safe, convenient, efficient, compact, accessible and inviting environments for walking and bicycling were identified as needs during the project outreach process. Pedestrian trips, and, to an even greater extent, bicycle trips for transportation purposes require support facilities and amenities as well as planned routes and linkages between origins and destinations. Increasing numbers of people are also walking and bicycling for recreational and fitness purposes. Facilities which support these purposes include trails, greenways, open space and off-route amenities.



Facility-related needs include separate facilities and rights-of-way for bicyclists and pedestrians, such as rail-trails or connector paths.

- Reduction of automobile impacts through traffic calming and other speed reduction techniques and parking restrictions.
- Encouragement of social interaction through pedestrian friendly design and interesting streetscapes.
- Independent mobility for children.

Specific facility related needs identified by outreach participants include:

- Better accommodation for non-motorized users on existing and planned roadways: wider lanes, paved shoulders, safe storm grates, bike lanes, bridge access, bicycle sensitive loop detectors.
- Pedestrian activated traffic signals, adequate timing for slower pedestrians and marked crosswalks.
- Separate facilities and rights-of-way for bicyclists and pedestrians such as rail-trails or connector paths.
- Facilities to separate pedestrians from motor vehicle traffic that assure parity between uses and separation of incompatible uses.
- Generally applicable design standards for bicycle and pedestrian facilities and accommodations.
- Facilities at destinations including employment centers and public buildings: bicycle racks and lockers, showers, restrooms, benches, shelters.

- 2. Community Design** issues reflect concerns that are primarily related to land use and linkages. Bicycle and pedestrian trips for transportation purposes are characterized by shorter trip distances and direct routes or linkages between origins and destinations.

Land use patterns have a critical impact on bicycle and pedestrian circulation. Current development trends in New Jersey such as suburban sprawl and decentralization result in inconvenient linkages between residential areas and shopping and employment centers and create disincentives for bicycling and walking.

Opportunities to provide accessible, safe, convenient and inviting environments for walking and bicycling should include adoption of effective land use planning and design standards. The New Jersey State Development and Redevelopment Plan (SDRP) and other recent legislative measures such as the Clean Air Act Amendments, Employer Trip Reduction policy, etc., presently promote such practices.



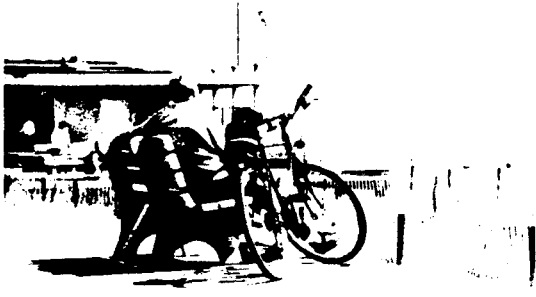
Opportunities to provide accessible, safe, convenient and inviting environments for walking and bicycling should include adoption of effective land use planning and design standards.

Specific community related needs identified by outreach participants include:

- Land use design standards to encourage bicycling and walking.
- Linkages (delineated by appropriate rights-of-way and infrastructure), connecting: land uses; origin/destinations; transit, commercial, schools, work places; providing short cuts for non-motorized mobility.

- *Better access and integration of bicyclists, pedestrians and handicapped with transit.*
- *Continuous and accessible trail systems, grade separated where needed; preservation and make use of railroad corridors, where available.*

3. Acceptance/Legitimacy issues relate specifically to the public's perception and/or image of bicycling and walking. Typically, bicycle and pedestrian modes have not been viewed as legitimate means of transportation and have not been adequately recognized by either the public, including drivers of motor vehicles, or local, state and regional officials. Bicyclists and pedestrians need supportive government and policies which will provide for routine inclusion of bicycling and walking in planning, design, budgeting and funding efforts for state and local projects and programs. Both recreational and transportation needs should be recognized and integrated into the existing system.



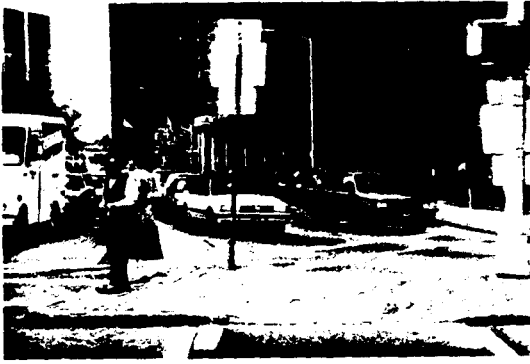
...create more favorable conditions for bicyclists and pedestrians.

Specific needs identified by outreach participants include the following:

- *Pro-active roles for state and local government and development of community consensus to create more favorable conditions for bicyclists and pedestrians.*
- *Resolution of perceived liability issues, arising from attempts to accommodate bicyclists and pedestrians, including possible legislative measures.*
- *State and regional initiatives, including: a flexible statewide plan that mandates accommodation of bicyclists and pedestrians in transportation planning; technical assistance and full time bicycle/pedestrian coordinators; recognition of local efforts; e.g., a "Bike Town of the Year."*
- *Intergovernmental cooperation and planning to assure contiguous and continuous bicycle routes and connected sidewalks, through cost effective, realistic means.*
- *Zoning that encourages appropriate density of development and mixed use, in combination with preservation of open space.*
- *Model ordinances that encourage bicycling and walking by providing adequate facilities and requiring access to adjacent development.*
- *Incorporation of bicycle and pedestrian accommodations into a circulation needs analysis as part of community master planning efforts.*
- *Adequate funding and standards for maintenance of bicycle and pedestrian facilities.*
- *Roadway maintenance, especially of edges, shoulders, bike lanes.*

4. Confidence/Security issues relate to training and education of bicyclists, pedestrians and motorists and enforcement of existing laws and regulations. Different types of users need different kinds of facilities, training and programs in order to bicycle and walk safely and efficiently, with confidence. Needs vary for each user type. For example, children, older adults, recreational bicyclists and walkers, commuters, etc., each have different skill levels, experience, and perceptions of risks. An understanding of these varying types of users and their needs is necessary in order to provide resources, programs, and facilities to accommodate everyone.

Education, safety and security needs were frequently identified by outreach participants. Bicycle and pedestrian accidents and injuries, hazardous traffic conditions, lack of enforcement of traffic laws, poor maintenance of walkways and bicycle routes, insufficient lighting and security along facilities and lack of bicycle/pedestrian training programs were all cited as problems which contribute to confidence and security related needs.



Increased enforcement of traffic laws to regulate bicyclists, pedestrians and motor vehicles, and to increase the legitimacy of non-motorized traffic.

- *Information: useful, visible signage; safety brochures; public service announcements; public education; maps; rules of the road.*
- *Safety from crime and traffic conflicts.*
- *Lighting of facilities for safety.*

Needs relating to confidence and security include the following:

- *Educational programs for motorists, bicyclists and pedestrians; adults and children.*
- *Greater awareness of the legitimacy and importance of pedestrians and bicyclists by transportation agencies and the public.*
- *Education of planning and engineering professionals, planning boards, school boards, educators and police.*
- *Inclusion of more information and questions about bicyclists and pedestrians in drivers' education and testing.*
- *Increased enforcement of traffic laws to regulate bicyclists, pedestrians and motor vehicles, and to increase the legitimacy of non-motorized traffic.*

Goals and Objectives

What needs to happen and what result needs to be achieved to produce the vision

Goals

Goal statements define what needs to happen and what result needs to be achieved in order to produce the vision. Goals are policy-related and propose fundamental actions which will result in long-term impacts and benefits.

Objectives

Objectives identify what specific things need to change or be accomplished in order for the goal to be achieved. Objectives are process oriented and focus on routine procedures, events or tasks.

These goals and objectives are based on problems and needs identified during the public outreach process. They are presented in a generalized manner in order to be applicable to various levels of government and other organizations. The strategies, performance measures and actions which follow are based on these goal statements and objectives.

GOAL 1

Create a bicycle and pedestrian friendly transportation infrastructure by planning, designing, constructing and managing transportation and recreation facilities which will accommodate and encourage use by bicyclists and pedestrians and be responsive to their needs.

- A. *Design all new and improved state highways under the assumption that they will be used by bicyclists and pedestrians and that bicyclists and pedestrians will have the opportunity to share the road with motorists.*
- B. *Develop or revise policy statements that recognize the importance of bicycling and walking and the need to integrate these modes into the transportation and recreation systems.*



- C. *Establish capital program funding for improvements to existing facilities and to implement new facilities.*
- D. *Develop a planning and scoping procedure that will ensure full consideration of bicycling and walking modes for all projects in the planning and project development process.*
- E. *Develop bicycle and pedestrian plans to ensure integrated and continuous networks of accessible facilities and to maximize bicycle and pedestrian mobility within the transportation system.*

Develop or revise policy statements that recognize the importance of bicycling and walking and the need to integrate these modes into the transportation and recreation systems.

- F. *Involve the bicycling and walking community at the earliest stages of planning and implementation of improvements to transportation and recreation facilities in order to ensure full consideration of the needs of bicyclists and pedestrians.*
- G. *Adopt standard guidelines developed by NJDOT to ensure consistent application of design throughout the state.*
- H. *Design and manage bicycle and pedestrian facilities to maximize personal security of the users.*
- I. *Adopt maintenance and management procedures to ensure continuous and efficient use by bicyclists and pedestrians.*
- J. *Train key design and transportation professionals in the proper application of planning and design guidelines and standards.*

GOAL 2

Make community destinations, transit facilities and recreation facilities accessible and convenient for use by all types and skill levels of bicyclists and pedestrians.

- A. *Provide a support system of ancillary facilities such as bicycling parking, changing room and showers, maps, etc., that will serve the needs of bicyclists and pedestrians at destinations.*
- B. *Integrate bicycle and pedestrian facility planning, design and maintenance skills into the training and education of all practicing transportation and design professionals.*
- C. *Promote "traffic calming" on appropriate roads to reduce traffic speeds and increase the use of streets by bicyclists and pedestrians.*
- D. *Enhance opportunities for land use linkages that increase the efficiency of the transportation system.*
- E. *Develop a planning process and implement a program of identifying and designating facilities to encourage use by bicyclists and pedestrians.*



Provide a support system of ancillary facilities such as bicycling parking, changing room and showers, maps, etc., that will serve the needs of bicyclists and pedestrians at destinations.

GOAL 3

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

- A. *Adopt policies and ordinances that promote mixed use development at densities that allow and encourage bicycling and walking as the preferred choice of transportation mode to destinations or to transit facilities.*
- B. *Adopt and/or amend site review procedures and design guidelines to assure convenient pedestrian and bicyclist access to public and private buildings.*
- C. *Adopt policies and ordinances that minimize automobile parking and provide for secure bicycle parking facilities.*
- D. *Incorporate programs and procedures that encourage bicycling and walking in accordance with Employee Commute Options plans.*
- E. *Develop policies for use of state-owned abandoned rail corridors as trails or interim trails.*



Develop policies for use of state-owned abandoned rail corridors as trails or interim trails.

GOAL 4

Develop education and enforcement programs that will result in reduction of accidents and a greater sense of security and confidence for bicyclists and pedestrians.

- A. *Conduct a pedestrian and bicycling universal skill training and certified education program for children.*
- B. *Develop and conduct a public information and awareness campaign targeted towards all roadway users with the intent of modifying behavior and attitudes to create a sense of compatibility among all users.*
- C. *Provide training for law enforcement officials in the conduct of safety education and enforcement programs for bicyclists and pedestrians.*
- D. *Provide education programs to companies promoting walking and bicycling to work.*
- E. *Promote and provide support for Police on Bike programs.*
- F. *Educate planning and enforcement officials in the importance of traffic calming as a safety countermeasure.*
- G. *Educate planning and enforcement officials to increase their awareness of bicycling and walking issues.*



Conduct a pedestrian and bicycling universal skill training and certified education program for children.

GOAL 5

Increase bicycling and walking by fostering a pro-bicycling and pro-walking ethic in individuals, private sector organizations, and all levels of government.

- A. *Establish local citizen's advisory groups to advocate policies, programs and facility improvements that will enhance and promote bicycling and walking.*
- B. *Develop Employee Commute Option plans that contain elements that encourage bicycling and walking.*
- C. *Develop a means of ensuring public participation in the development and implementation of plans and policies that impact pedestrians and bicyclists.*
- D. *Depict bicycling and walking as everyday activities in all state publications, public activities and media campaigns related to transportation and recreation issues.*
- E. *Develop and conduct a public awareness campaign promoting bicycling and walking and emphasizing the virtues of bicycling and walking as a means of solving community problems, improving personal health and wellness, and enhancing the quality of life.*
- F. *Support bicycling and walking by providing support facilities and programs in the work place.*



...emphasize the virtues of bicycling and walking as a means of solving community problems, improving personal health and wellness, and enhancing the quality of life.

Implementation Plan

What Will Make Things Change

Implementation strategies represent programs and actions that are necessary to make things change in order for the vision, goals and objectives to be achieved. They address programmatic, funding, staffing, policy, legislative and procedural issues which will implement change. They outline and suggest appropriate roles and responsibilities, participation, involvement and direction of state agencies, counties, municipalities, developers, individuals, etc., and their relation to the leadership role of NJDOT.

Roles and Responsibilities

Creating a supportive environment for bicycling and walking in New Jersey cannot be accomplished by NJDOT alone. A comprehensive effort on the part of all levels of government, private sector organizations and individuals will be necessary to realize fully the benefits of walking and bicycling. The level of participation and/or level of effort for each agency varies. Some are principal or primary participants who provide facilities and resources directly.

Others have supporting roles and are involved and cooperate through more indirect participation. Effective implementation of the master plan requires participation by both principal and supporting entities.

The attached matrix lists agencies and organizations that are recommended as principal and supporting participants for implementation of the plan and suggests roles and responsibilities for each. Roles and responsibilities generally relate to management and provision of facilities, funding, implementation of programs/policy and technical planning, design and engineering expertise. Specific implementation strategies and recommended actions

are also presented in sections that follow. As shown in the matrix, principal participants include the New Jersey Department of Transportation, New Jersey Transit, regional and local government agencies and authorities and commissions responsible for transportation facilities throughout the state. Generally, these entities provide

and manage transportation facilities or play significant roles in determining how resources are allocated.

The type of involvement and participation of these organizations is determined by jurisdictional and location-related factors. For example, it is within the jurisdiction of NJDOT to construct, manage, maintain and operate bicycle and pedestrian facilities, either as independent projects or as incidental features of roadway and bridge improvement projects. Since the majority of roadways (and many recreational trails) in New Jersey are under local or county jurisdictions, NJDOT is limited in its authority to implement bicycle and pedestrian improvements. However, NJDOT's state-wide perspective, technical resources, funding authority and programs provide the Department with the ability to provide leadership and assistance to others. County and local road departments, parking authorities, parks and recreation commissions, maintenance departments, planners, engineers, enforcement officers and others would be guided by the policies, programs and procedures of NJDOT.

Similarly, for program-related issues, NJDOT is limited in its authority to administer safety, educational, enforcement, recreational and promotional bicycle and pedestrian projects. NJDOT would provide guidance to the appropriate agencies responsible for such activities. Other state agencies such as the New Jersey Department of Law and Public Safety, New Jersey Department of Community Affairs, New Jersey Department of Environmental Protection and others listed in the matrix would, in turn, advise others at county and local levels and serve in supporting roles.

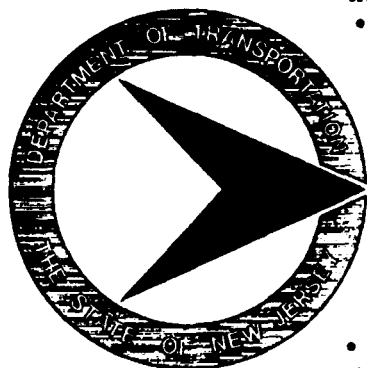


The major roles and responsibilities are as follows:

A. Primary Participants and Providers of Facilities:

New Jersey Department of Transportation

- Provide leadership for all levels of government in bicycle and pedestrian planning.
 - Coordinate efforts of other state agencies.
 - Manage bicycle and pedestrian facility programs for state highways.
 - Administer state and federal funding for bicycle and pedestrian projects.
 - Provide technical expertise and training to regional, county and local governments.
 - Coordinate the involvement of the bicycle and pedestrian community representatives in the fulfillment of the goals and objectives of this plan.



NJ Transit

- Develop bicycle and pedestrian plans for transit station areas.
- Provide policies for bicycle carriage programs on trains and buses.
 - Provide facilities for bicycle and pedestrian transit access at station areas.
 - Encourage municipalities and developers to construct pedestrian and bicycle linkages to transit facilities.
- Promote walking and bicycling as access modes to transit.

Metropolitan Planning Organizations

North Jersey Transportation Planning Authority (NJTPA), Delaware Valley Regional Planning Commission (DVRPC), South Jersey Transportation Planning Organization (SJTPO).

- Develop regional long range bicycle and pedestrian plans, and incorporate bicycling and walking considerations into regional long range transportation plans.
- Incorporate bicycling and walking projects in Transportation Improve-

ment Programs (TIP).

- Develop TIP project selection criteria which favor bicycle and pedestrian projects.

Counties

- Adopt/amend comprehensive plans which address walking and bicycling issues.
- Include bicycle and pedestrian related issues in proposed county planning statute.
- Accommodate bicyclists and pedestrians in all public, school, recreation and transportation facilities.

Authorities and Commissions

(NJ Turnpike Authority, NJ Highway Authority, NJ Expressway Authority, Port Authorities, Bridge Commissions, Palisades Interstate Park Commission, Hackensack Meadowlands Development Commission, Pinelands Commission and others).

- Accommodate bicyclists and pedestrians in all transportation facilities.
- Adopt/amend comprehensive plans/ programs to address walking and bicycling issues.
- Adopt bicycle and pedestrian friendly land use regulations.

Local Municipalities

- Develop local programs to address walking and bicycling.
- Adopt bicycle and pedestrian friendly land use regulations.
- Adopt/amend comprehensive plans to address walking and bicycling issues.
- Accommodate bicyclists and pedestrians in all public, school, recreation and transportation facilities.

B. Other Responsible Supporting Entities:

The Executive Office and Legislature of the State of New Jersey

- Provide leadership and vision for implementation of the bicycle and pedestrian plan.

NJ TRANSIT
The Way To Go.



New Jersey Department of Law and Public Safety

- Promote and undertake bicycle and pedestrian safety and enforcement programs.
- Administer Federal Highway safety funds.

New Jersey Department of Community Affairs

- Incorporate bicycle and pedestrian guidelines in model site plan and subdivision regulations.

New Jersey Department of Commerce and Economic Development

(Division of Travel and Tourism)

- Promote bicycling and walking events and activities.

New Jersey Department of the Treasury

(Office of State Planning)

- Promote bicycle and pedestrian-friendly land use and development patterns.

New Jersey Department of Environmental Protection

- Promote state trails program and use of abandoned rail corridors.
- Develop bicycle and pedestrian access plans to state parks and forests.

New Jersey Department of Education

- Incorporate walking and bicycling issues in school curriculum.
- Include bicycle and pedestrian issues in school facility planning and regulations.

Transportation Management Associations

(TMA's)

- Accommodate bicyclists and pedestrians in related programs and activities.

Professional Organizations

(ASCE, ITE, APA, ASLA, AIA, etc.)

- Foster education and professional development in the field of bicycle and pedestrian facility planning and design.

Special Interest Groups

- Advocate walking and bicycling as part of mission statements.

Employers

- Sponsor bicycling and walking programs and events.
- Provide funding to non-profit bicycle and pedestrian groups.
- Advocate health and fitness benefits of walking and bicycling for employees.
- Provide bicycle parking facilities for employees.
- Include bicycling and walking in ECO plans.
- Provide bicycle and pedestrian linkages to surrounding neighborhoods.

Builders and Developers

- Participate in implementation of local and regional bicycle and pedestrian plans.

Shopping Centers, Retail Facilities and other Commercial Providers

- Provide bicycle and pedestrian linkages to surrounding neighborhoods.
- Provide bicycle parking and other ancillary facilities for bicyclists and pedestrians.

Individuals

- Make walking and bicycling a routine part of life.

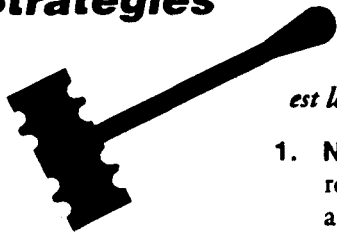


NEW JERSEY STATEWIDE BICYCLE AND PEDESTRIAN PLAN

RECOMMENDED ROLES AND RESPONSIBILITIES FOR IMPLEMENTATION OF BICYCLE/PEDESTRIAN PROGRAMS AND FACILITIES

	Operations and Maintenance	Construction	Planning	Funding	Regulatory/Legislative	Land Use/Policy	Design/Engineering	Leadership	Advisory	Enforcement/Safety	Education/Training	Promotion/Advocacy	Management
PRINCIPAL PARTICIPANTS													
NJ DEPT. OF TRANSPORTATION	•	•	•	•	•	•	•	•	•	•	•	•	•
NJ TRANSIT	•	•	•	•			•		•			•	•
MPOs			•	•		•		•	•			•	•
COUNTIES	•	•	•	•	•	•	•	•	•	•	•	•	•
AUTHORITIES AND COMMISSIONS	•	•	•	•	•	•	•	•	•		•	•	•
MUNICIPALITIES	•	•	•	•	•	•	•	•	•	•	•	•	•
SUPPORTING ENTITIES													
GOVERNOR AND LEGISLATURE				•	•	•		•	•				
NJ DEPT. LAW AND PUBLIC SAFETY				•	•			•	•	•	•	•	•
NJ DEPT. COMMUNITY AFFAIRS				•	•	•	•	•	•		•	•	
NJ DEPT. COMMERCE AND ECONOMIC DEVELOPMENT			•	•		•		•	•				
NJ DEPT. TREASURY			•			•		•	•				
NJ DEPT. ENVIRON. PROTECTION	•	•	•	•		•	•	•	•	•		•	•
NJ DEPT. EDUCATION			•	•	•		•	•	•	•	•	•	
PROFESSIONAL ORGANIZATIONS			•				•	•	•		•		
TRANSPORTATION ORGANIZATIONS	•	•	•	•				•	•		•	•	•
SPECIAL INTEREST GROUPS									•			•	
EMPLOYERS	•	•		•							•	•	•
BUILDERS/DEVELOPERS	•	•	•	•			•		•				•
COMMERCIAL PROVIDERS	•	•	•	•									•
INDIVIDUALS			•					•	•			•	

Strategies



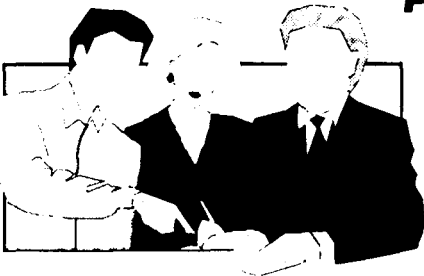
Legislative Strategies

Leadership for the implementation of this plan should be provided by the highest levels of government.

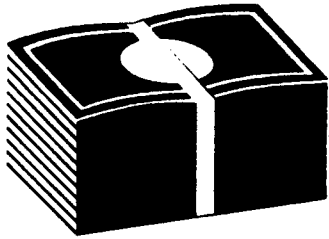
1. **NJ State Legislature:** Adopt a resolution in support of the vision, and encourage all state agencies and other entities to participate, to promulgate policy, etc.
2. **NJ State Legislature:** Amend the Municipal Land Use Law to support bicycling and walking by requiring master plans to include a circulation element with specific reference to bicycle and pedestrian modes, and by requiring that site plans for new developments incorporate adequate bicycle and pedestrian facilities.
3. **NJ State Legislature:** Amend Title 39 (Motor Vehicles Statutes) to clarify operating requirements for bicyclists, pedestrians and motorists.
4. **NJ State Legislature:** Amend the State Trails System Act, (NJSA 13:8-30) to include a class of trails for transportation purposes and qualify them for funding.
5. **Counties and Local Municipalities:** Adopt ordinances or resolutions that support bicycling and walking (zoning and land use, design standards, parking, maintenance).

Policy Strategies

Policies and procedures should be established which will result in changes that are necessary to achieve goals.



1. **NJDOT:** Revise bicycle policy, procedures and guidelines to reflect the vision, and develop and promulgate pedestrian policy, procedures and guidelines.
2. **NJDOT:** Include bicycle and pedestrian modes in its mission statement.
3. **NJDOT:** Revise, update and assess progress in implementing this plan on a regular schedule to coincide with the updating of the Department's Long Range Transportation Plan and Business Plan.
4. **NJDOT:** Convene an advisory council consisting of citizen and agency representatives to provide guidance and input on matters related to the implementation of this plan.
5. **NJDOT:** Adopt policies that allow for acquisition, development and operation (by others) of abandoned rail corridors for interim and permanent trail use. Develop procedures for considering trail and abandoned railroad crossings in the highway design process.
6. **NJ Office of State Planning:** Promote bicycle and pedestrian-friendly land use and development patterns advanced in the State Development and Redevelopment Plan.
7. **NJ Transit:** Adopt policies that provide for bicycle and pedestrian-friendly transit service and facilities.
8. **NJDEP:** Provide continued support for designation and development of multi-use trails and other recreational opportunities and facilities for bicyclists and pedestrians; include policy recommendations in the State Comprehensive Outdoor Recreation Plan (SCORP).
9. **Counties and Local Municipalities:** Adopt policies, procedures and guidelines requiring that roadway projects be designed to accommodate shared use and to ensure safety for pedestrians, bicyclists and motorists. NJDOT policies, procedures and guidelines can serve as a model.
10. **Authorities and Commissions:** Adopt policies, procedures and guidelines requiring that roadway projects be designed to accommodate shared use and to ensure safety for pedestrians, bicyclists and motorists. NJDOT policies, procedures and guidelines can serve as a model.
11. **Local Municipalities:** Promote bicycling and walking policies in all elements of the municipal Master Plan (circulation, land use, recreation, etc.).



Funding Strategies

Because the success of the implementation of the master plan relies heavily on efforts by regional and local governments, funding sources must be available.

1. **NJDOT:** Establish a State Bicycle and Pedestrian Facility program to fund local independent bicycle and pedestrian facility projects. The program will provide incentive for local communities to enact proactive policies and incorporate procedures for the incorporation of bicycle and pedestrian accommodations in transportation related projects. Funding should be considered to support program activities, incidental and independent bicycle and pedestrian projects and capital projects to eliminate hazards or barriers to bicyclists and pedestrians.
2. **NJDOT:** Utilize the entire range of available transportation funds for bicycle and pedestrian projects and programs. Other possible fund sources should be investigated such as percentage of gas tax, etc. Create a dedicated fund for bicycle and pedestrian projects and programs. Bicycle and pedestrian projects identified in local planning documents would be eligible for such funds.
3. **NJDLPS:** Make use of NHTSA (Section 402) funds for bicycle and pedestrian program activities dealing with safety and enforcement.
4. **NJDEP:** Pursue additional funding sources for trails to augment existing Green Acres funding.
5. **NJ Department of Commerce and Economic Development (Division of Travel and Tourism):** Provide grants in support of bicycle and walking tours and racing events.
6. **MPOs:** Revise TIP project selection criteria to promote bicycle and pedestrian projects.
7. **MPOs:** Dedicate a percentage of transportation funding for bicycle and pedestrian transportation facilities.
8. **Counties:** Routinely fund bicycle and pedestrian improvements and incorporate incidental bicycle and pedestrian improvements into roadway projects.
9. **Municipalities:** Dedicate funds for independent bicycle and pedestrian projects and establish funding sources for bicycle/pedestrian improvements related to roadway projects (land use/recreation fees, general fund, etc.).



Administrative Strategies

Organizations should institute staffing and procedural changes in order to assure a continuing process.

1. **NJDOT:** Provide continued support for the State Bicycle and Pedestrian Coordinator. The Coordinator will promote bicycling and walking, arrange for implementation of the Bicycle and Pedestrian Master Plan and provide follow-up advocacy.
2. **NJDOT:** Expand the responsibilities of existing staff to carry out increased bicycle and pedestrian activities. Responsibilities will include review of transportation projects; development of bicycle and pedestrian facility databases; review of studies and proposals by other agencies to assure consideration of bicycle and pedestrian concerns; initiation of independent projects; coordination, contact and provision of technical assistance to other agencies and entities (citizens, government, media, etc.) as the principal NJDOT contact for bicycling and walking and other activities associated with advancing the needs of bicyclists and pedestrians.
3. **NJDOT:** Reconvene the New Jersey Bicycle Advisory Council and include pedestrian issues.
4. **NJDOT:** Undertake studies to deter-

mine the amount of travel by bicycling and walking for all trip purposes. This will enable the department to refine target usage goals and track progress towards their achievement.

5. **NJDOT:** Establish a multi-agency task force to study the issues associated with developing trails within active railroad rights of way.
6. **NJDOT:** Establish a procedure for the consideration of bicycling and walking in all projects and review procedures.
7. **NJDOT:** Develop a New Jersey Bicycle and Pedestrian Facility program for the planning, design and construction of independent projects. Counties should coordinate the development of facility plans for bicycling. NJDOT and MPOs should develop selection criteria for the funding of bicycle and pedestrian projects.
8. **NJDOT:** Establish flexible design guidelines that can be easily adopted by communities. Use of the guidelines should be a condition of qualification for all available funding.
9. **NJDOT:** Work with corporations to establish Employee Commute Options which include provisions for bicycling and walking to work.
10. **NJDLPS:** Designate a representative to work full-time on the development of bicycling and walking safety, education, registration and enforcement programs.
11. **NJDEP:** Identify bicycle and pedestrian representatives to coordinate trail and recreation programs with other state, regional and local recreation coordinators.
12. **NJDEP:** Develop streamlined procedures for stream encroachments and wetland permits for bicycle and pedestrian trails and facilities including sidewalks and shoulders adjacent to existing roadways.
13. **NJ Transit:** Develop bicycle and pedestrian access plans and demonstration programs for rail stations and bus lines.
14. **MPOs:** Assign a staff person to administer all bicycle and pedestrian related issues.
15. **MPOs:** Develop a regional bicycle and pedestrian plan.
16. **Counties:** Identify a bicycle and pedestrian representative who would coordinate and develop walking and bicycling programs and projects.
17. **Local municipalities:** Establish bicycle and pedestrian advisory groups, appoint bicycle and pedestrian coordinators and/or include bicycle and pedestrian representatives on local commissions and boards as part of requirement for state funding of projects.



Professional Development Strategies

Accommodating bicycling and walking in the transportation and recreation systems requires a new discipline of thought and application of standards and guidelines.

1. **NJDOT:** Prepare an ongoing professional development series for its professional staff and other transportation professionals such as municipal planners, engineers, highway superintendents, park and recreation planners, other state agency staff, etc., which provides a thorough understanding of state-of-the-art bicycle and pedestrian transportation planning and design.
2. **Professional Organizations:** Encourage institutions offering degrees in engineering and transportation planning to address the needs and capabilities of bicyclists and pedestrians in instruction programs.
3. **Professional Organizations:** Provide continuing education programs to members in the area of bicycle and pedestrian planning and design.

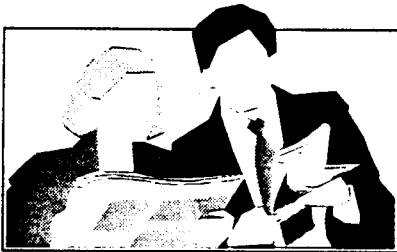
4. **NJDLPS:** Provide training and bicycle/pedestrian oriented enforcement program information to municipal law enforcement personnel (Police on Bikes, etc.).
5. **Counties:** Require county engineers, planners, enforcement officers, maintenance personnel, and other employ-

ees to complete training programs related to bicycling and walking.

6. **Local municipalities:** Encourage planning and zoning board members, police officers, administrators and other municipal decision-makers to attend training seminars, etc., on bicycling and walking.

Communication Strategies

Acceptance of bicycling and walking as legitimate modes in the transportation and recreation systems requires knowledge and understanding on the part of all users. A comprehensive approach to achieving the vision will require extensive communication between the various agencies and levels of government and the users of the transportation and recreation systems.



1. **NJDOT:** Develop a communication network and communication plan that will inform and advise NJDOT personnel, transportation professionals, MPOs, counties and municipalities to increase the awareness of NJDOT bicycle and pedestrian policies, procedures and guidelines.
2. **NJDOT:** Develop bicycle and pedestrian educational and training materials and curricula in cooperation with NJLPS and the NJ Department of Education for all types of bicyclists and pedestrians and motorists.
3. **NJDOT:** Develop a statewide bicycle

map and continue to update and distribute bicycle tour and information literature.

4. **NJ Department of Commerce and Economic Development (Division of Travel and Tourism):** Prepare and distribute promotional and informational materials on bicycling events and activities.
5. **NJLPS:** Encourage accurate descriptions and depictions of correct bicycling and walking behaviors.
6. **Special Interest Groups:** Establish organizational networks for distribution of bicycle and pedestrian information.

Performance Measures

How Do You Measure Success

Introduction

A means of measuring the success of the achievement of a goal is necessary to establish program priorities and allocate resources. Performance can be measured in terms of quantity, quality, timeliness and cost.

The following is an outline of recommended performance measures for government entities preparing comprehensive bicycle and pedestrian plans. Performance measures will vary depending on the size of the government entities' resources and the entities' involvement in an overall statewide plan. Performance levels should be developed based on program priorities and available resources.

Critical success factors represent elements of a comprehensive plan that should be in place so that performance success can be achieved.

The performance measures are listed in conjunction with the appropriate goal.

Goal # 1

Create a bicycle and pedestrian friendly transportation infrastructure by planning, designing, constructing and managing transportation and recreation facilities which will accommodate and encourage use by bicyclists and pedestrians and be responsive to their needs.



Performance Measures:

- A.** Percent of transportation improvement projects that have been reviewed for consideration of bicycle and pedestrian facilities.
- B.** Percent of highways that are bicycle and pedestrian compatible.
- C.** Percent of or total amounts of capital and/or resources devoted to managing the accommodation of bicycling and walking.
- D.** Percent of built projects which have incorporated appropriate pedestrian and bicycle accommodations.

Critical Success Factors:

- Presence of a supportive policy and a procedure for the consideration of bicycling and walking in all transportation improvement projects.
- Presence of staff or assignment of accountability to manage review procedure.
- Presence of standard guidelines for bicycle and pedestrian facilities.
- Presence of a plan to encourage bicycling and walking.

Goal #2

Make community destinations, transit facilities and recreation facilities accessible and convenient for use by all types and skill levels of bicyclists and pedestrians.



Performance Measures:

- A.** Percent of transit and recreation facilities that are bicycle and pedestrian accessible.
- B.** Percent of government buildings that are bicycle and pedestrian accessible.
- C.** Total number or linear miles of designated bicycle/pedestrian facilities.

Critical Success Factors:

- Presence of a plan or procedure for developing land use linkages for bicycling and walking.
- Presence of guidelines for developing bicycle and pedestrian accessible facilities.
- Presence of review procedures for considering bicycling and walking in site plans and land use planning.

Goal #3

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



Performance Measures:

- A.** Percent of site plans that are reviewed for bicycle and pedestrian accessibility.
- B.** Percent of major destinations that are bicycle and pedestrian accessible.

Critical Success Factors:

- Presence of a supportive policy for bicycling and walking in the community.
- Presence of ordinances that promote mixed use development at densities that will result in shorter trips and encourage bicycling and walking.

Goal #4

Develop education and enforcement programs that will result in reduction of accidents and a greater sense of security and confidence for bicyclists and pedestrians.



Performance Measures:

- A.** Percent of population that has received bicycle skill training or education.
- B.** Safety program expenditures devoted to bicycle and pedestrian safety education and awareness.
- C.** Percent of law enforcement officials that have received training in bicycle and pedestrian safety education and enforcement training.

Critical Success Factors:

- Access to bicycle and pedestrian education programs.
- Presence of training programs for law enforcement officials and safety program managers.
- Staff assigned for implementing safety education and training activities.

Goal #5

Increase bicycling and walking by fostering a pro-bicycling and pro-walking ethic in individuals, private sector organizations, and all levels of government.



Performance Measures:

- A.** Total number of bicycle and pedestrian programs that advocate bicycling and walking.
- B.** Total number of projects that are designed specifically to promote bicycling and walking.
- C.** Percent of Employee Commute Options plans that contain elements that encourage bicycling and walking.
- D.** Level of funding spent on media or advertising which promotes bicycling and walking.

Critical Success Factors:

- Presence of a supportive policy for bicycling and walking in the community.
- Presence of an active advocacy organization.
- Level of funding spent on media or advertising which promotes bicycling and walking.

Appendix

- **List of Technical Memoranda and Support Documents**
- **List of Acronyms**
- **Glossary of Terms**

List of Technical Memoranda and Support Documents

- Technical Memo - Annotated Literature Review
- Technical Memo - Outreach Process
- Technical Memo - Analysis of Existing Infrastructure/State Highway System, GIS Mapping of State System
- Bicycle Compatible Roadway Guidelines
- Pedestrian Compatible Guidelines
- Contact List - Technical Resource Agencies and Reference Sources
- Community Resource Manual

List of Acronyms

AASHTO:	American Association of State Highway and Transportation Officials
ADA:	Americans with Disabilities Act
AIA:	American Institute of Architects
APA:	American Planning Association
ASLA:	American Society of Landscape Architects
BAC:	Bicycle Advisory Committee
BFA:	Bicycle Federation of America
BIKE:	Biking Is Kind to the Environment
CAAA:	Clean Air Act Amendments
CMAQ:	Congestion Mitigation and Air Quality Program (ISTEA)
DOT:	Department of Transportation
DVRPC:	Delaware Valley Regional Planning Commission
ECO:	Employee Commute Options
FHWA:	Federal Highway Administration (part of DOT)
FTA:	Federal Transit Administration (formerly UMTA, part of DOT)
ISTEA:	Intermodal Surface Transportation Efficiency Act of 1991
ITE:	Institute of Transportation Engineers
MPO:	Metropolitan Planning Organization
NHTSA:	National Highway Traffic Safety Administration (part of DOT)
NJDEP:	New Jersey Department of Environmental Protection
NJDLPs:	New Jersey Department of Law and Public Safety
NJDOT:	New Jersey Department of Transportation
NJHA:	New Jersey Highway Authority
NJTA:	New Jersey Turnpike Authority
NJTPA:	North Jersey Transportation Planning Authority
NPTS:	Nationwide Personal Transportation Study
SCORP:	State Comprehensive Outdoor Recreation Plan
SDRP:	State Development and Redevelopment Plan
SIP:	State Implementation Plan (under CAAA)
SJTPO:	South Jersey Transportation Planning Organization
STIP:	State Transportation Improvement Program
STP:	Surface Transportation Program (part of ISTEA)
STPP:	Surface Transportation Policy Project
TAC:	Technical Advisory Committee
TIPS:	Transportation Improvement Plans
TMA:	Transportation Management Association
TRB:	Transportation Research Board

Glossary of Terms

ADA — The Americans with Disabilities Act of 1990 mandates sweeping changes in building codes, transportation and hiring practices to prevent discrimination against persons with disabilities, not just in projects involving federal dollars, but all new public places, conveyances and employers. The significance of ADA in transportation is mainly felt in terms of transit operations, capital improvements and hiring.

CAAA — The Clean Air Act Amendments of 1990 identify "mobile sources" (vehicles) as primary sources of pollution and call for stringent new requirements in metropolitan areas and states where attainment of National Ambient Air Quality Standards (NAAQS) is or could be a problem.

CMAQ — The Congestion Mitigation and Air Quality Program, a \$6 billion funding program contained in Title I of ISTEA which provides funds for projects and activities which reduce congestion and improve air quality. To be eligible for CMAQ, projects and activities must contribute to the National Ambient Air Quality Standards and must be included in a transportation improvement program (TIP).

CMS — Congestion Management System requires large metropolitan areas (200,000 population or more) and states to develop management plans which make new and existing transportation facilities more effective through the use of travel demand management and operational management strategies. The CMS requirement strengthens the link between the Clean Air Act Amendments and ISTEA.

DOT — Department of Transportation can refer to U.S. DOT or to a State DOT.

FHWA — Federal Highway Administration is the agency of U.S. DOT with jurisdiction over highways.

FTA — Federal Transit Administration is the agency of U.S. DOT administration with jurisdiction over transit. Formerly the Urban Mass Transit Administration.

HOV — High Occupancy Vehicle, a vehicle that is transporting several people or a group of people, such as a bus or a carpool.

ISTEA — Intermodal Surface Transportation Efficiency Act of 1991, ISTEA proposes broad changes to the way transportation decisions are made by emphasizing diversity and balance of modes and preservation of existing systems over construction of new facilities, especially roads, and by proposing a series of social, environmental and energy factors which must be considered in transportation planning, programming and project selection.

LRP — Long Range Plan is a 20-year forecast plan, now required at both the metropolitan and state levels, which must consider a wide range of social, environmental, energy and economic factors in determining overall regional goals and how transportation can best meet these goals.

MPO — Metropolitan Planning Organization is the agency designated by the Governor (or Governors in multi-state areas) to administer the federally required transportation planning process in a metropolitan area. An MPO must be in place in every urbanized area over 50,000 population. The MPO is responsible for the 20-year long range plan and the transportation improvement program.

Performance Measures — are means of measuring the success of the achievement of a goal, and can be measured in terms of quantity, quality, timeliness and cost.

SIP — State Implementation Plan for attainment of NAAQS.

STP — Surface Transportation Program is one of the key capital programs in Title I of the Intermodal Surface Transportation Efficiency Act. It provides flexibility in expenditure of "road" funds for non-motorized and transit modes and for a category of activities known as transportation enhancements, which broaden the definition of eligible transportation activities to in-

clude pedestrian and bicycle facilities and enhance community and environmental quality through ten categories of activity.

Target Usage Goals — illustrate existing patterns and attitudes and the potential for bicycling and walking for transportation and recreation. They focus on areas where change is measurable and can be implemented in the short term.

TIP — **Transportation Improvement Program** is a three-year transportation investment strategy, required at the metropolitan level, and a two-year program at the state level, which addresses the goals of the long range plans and lists priority projects and activities for the region.

TMA — **Transportation Management Areas** are subject to special requirements under ISTEA and in some cases benefit from preferential treatment with regard to air quality needs, and local authority to select transportation projects. Any area over 200,000 population is automatically a Transportation Management Area, which subjects it to additional planning requirements but also entitles it to earmarked funds for large urbanized areas under the Surface Transportation Program. Additional areas may be designated TMAs if

the Governor and the MPO or affected local officials request designation. Such a designation would entitle them to greater local project selection authority through their MPOs but would not, according to interim guidance issued by U.S. DOT, entitle them to the earmarked STP funds for large urban areas. Also **Transportation Management Associations**, voluntary groups set up to manage and reduce the number of trips taken in an area. TMAs are often begun and managed by employers.

3C — “continuing, comprehensive, cooperative” refers to the requirement set forth in the Federal Highway Act of 1962 that transportation projects in urbanized areas be based on a “continuing, comprehensive transportation planning process carried out cooperatively by states and local communities.” ISTEA’s planning requirements broaden the framework for such a process to include consideration of important social, environmental and energy goals and to invoke the public in the process at several key decision making points.

TDM — **Transportation Demand Management**, a method to reduce traffic congestion by means other than roadway improvements, such as transit, staggered work hours, telecommuting, etc.

Source: Surface Transportation Policy Project (STPP)