

# Town of Morristown Bicycle Plan



**Morristown, Morris County, NJ**

**Developed by  
Morristown Environmental Commission, February 2009**

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**Addendum Prepared by Michael Baker Jr., Inc. for New Jersey  
Department of Transportation, August 2010**

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**Final Report by Morristown Planning Division, February 2013**

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# Morristown Bicycle Plan

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## Executive Summary

This Bicycle Plan has been developed to support the growing number of bicyclists in Morristown, reduce congestion and create a road map for improving bicycle facilities throughout the town.

Bicycles are an important element of the transportation system in Morristown. On any given day, there are numerous people riding their bikes along the main roadways. Many of the low-income population groups use bicycles as their primary source of transportation and ride their bikes on the sidewalks because of their perception that the streets are not safe for bicycles and their lack of education about where to ride bicycles. You can also see people riding to and from one of the three large grocery stores or the Summer Farmers Market in Morristown, their baskets full of groceries. As the County seat for Morris County, there are many large employment centers within a 5-mile radius of Morristown. Further, the central location of the Morristown train station and various regional bus stops in the downtown area provide alternative commuting options for people coming from the surrounding towns and counties. As a result, commuting by bike is a common practice in Morristown, especially on the warm dry days of the year. On the weekends and holidays, groups of recreational cyclists, usually traveling in mass, traverse down the main streets to the County or State roads that take them into the countryside, riding past historic farms, national parks, wilderness areas and beyond. In addition to on-street cycling, Morristown has an excellent trail system that links up to numerous other trails and parks in the adjacent communities.

The vision of this plan is to develop an easily accessible bicycle transportation system that will enhance mobility for residents and visitors, connecting them to a rich array of area resources. The goals are to integrate the consideration of bicycle travel into Town planning activities and capital improvement projects; develop a safe, convenient, and continuous network of bikeways that serves the needs of all types of bicyclists, and provides bicycle-parking facilities to promote cycling; improve the safety of bicyclists through education and enforcement; and increase bicycle mode share by increasing public awareness of the benefits of bicycling and of the available bike facilities and programs.

The Bicycle Plan has undergone three primary iterations. The majority of the Plan's elements were developed through the Morristown Environmental Commission's efforts, producing a Draft Bicycle Plan in February 2009. The Commission subsequently reached out to the New Jersey Department of Transportation (NJDOT) Bicycle Planning Assistance Program, and was awarded the services of Michael Baker Jr. Inc, a bicycle consultant for the NJDOT, to develop an Addendum to supplement the existing draft Bicycle Plan through a bicycle compatibility assessment of roadways and intersections using NJDOT guidelines, an analysis of reported bicycle crashes, and the identification of regional and local bicycle facilities and trip generators. From this analysis, recommended on-road bicycle facility improvements, with preliminary cost estimates, and an implementation plan were developed. The NJDOT's Plan Addendum was completed in August 2010. In anticipation of Morristown's 2013 Master

# Morristown Bicycle Plan

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Plan, the Morristown Planning Division combined the 2009 Draft Plan and the NJDOT's Plan Addendum for adoption by the Planning Board and subsequent use in the Master Plan's Circulation Element.

The Bicycle Plan has been developed within the framework of a comprehensive public involvement process. In the primary stage of development by the Morristown Environmental Commission, a Bicycle Planning Steering Committee, composed of Morristown staff, representatives of the Mayor's office and City Council, Planning Board, representatives of the Fire and Police departments, and members of the public and business community, held a series of meetings throughout the development of the Bicycle Plan to develop a vision statement, goals and objectives, an origins and destination analysis, identify a network of bicycle routes for further study, and identify short and long term implementation plans. In addition, two public meetings were held to obtain input into the process, review and approve the plan's elements, and identify priority projects. The NJDOT's Bicycle Plan Addendum included one Bicycle Planning Workshop to present the initial recommendations and receive public and administration comments. Finally, as part of the Master Plan's public participation plan, the elements of the Bicycle Plan were presented to the public for consideration and comment.

The Plan includes a Bicycle Compatibility Analysis, which shows that over 50% of the defined bicycle network of roadways in Morristown is bicycle compatible. Moreover, much of the remaining roadways could be modified so as to become bicycle compatible, either through simple solutions such as restriping of roadway lanes or through more complex approaches such as removing on-street parking, reducing the number of motor vehicle lanes or widening roadways.

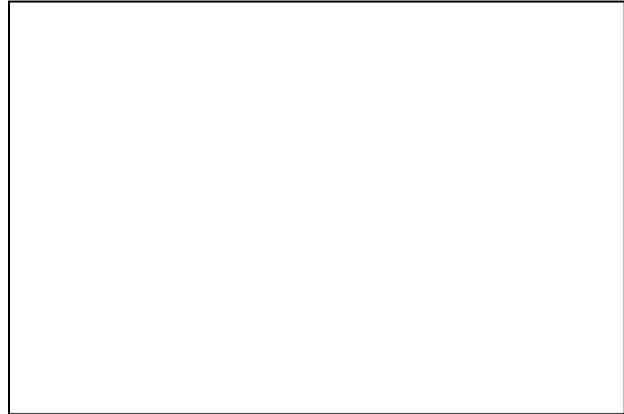
One of the main objectives of this bicycle plan is to develop a continuous system of bicycle facilities to promote increased cycling in Morristown. To accomplish this, the Plan's short term (3-5 years) implementation plan recommends: the installation of bicycle lanes and/or Share the Road signs and Shared Lane markings on 10 lane miles (5 miles in each direction) of roadways in Morristown, an increase in bicycle use by students to Morristown schools by 100%, and an increase in bicycle parking facilities to a total of 40 bicycle racks that serve area destinations, especially transit and employment. Further, the short-term implementation plan includes the development of a bicycle education program that teaches cyclists the rules of the road and makes automobile and pedestrians more aware of the bicycling environment.

# Chapter I: Introduction



## 1.0 INTRODUCTION

The Town of Morristown is committed to following a comprehensive approach to increasing sustainability through every facet of the town. To that end, Morristown is committed to having a viable transportation system that supports alternative transportation modes including bicycles, pedestrians and transit. In 2012, the Town adopted a comprehensive Complete Streets Policy to integrate the needs of all roadway users into the planning, design and construction processes of the Town's capital and maintenance programs. Over the years, the Town has developed a bicycle parking program that worked with the business community to install decorative bicycle racks in the central business district and other community destinations, and has incorporated bicycle parking facilities into its public redevelopment projects.



The Town's Environmental Commission took the initial lead on the development of the Bicycle Plan and has coordinated these efforts through the Town's Planning Division and Mayor's office, a Steering Committee and public input. The town has supported the development of the Bicycle Plan through the commitment of local staff, and participation on the project Steering Committee, and has applied for grants to support bicycle improvement efforts, including the NDOT Bicycle Planning Assistance Program grant to hire a consultant to assist with the Plan's development, and a TransOptions TMA grant to install additional bicycle racks in lower income sections of town.

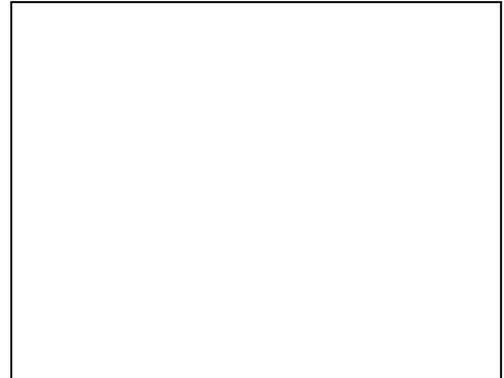
The Morristown Bicycle Plan Steering Committee developed a vision statement, goals and objectives, identified and mapped Town destinations and assets, and prepared a bicycle level of service map of existing roadways in Morristown that provide connections to destinations and generators, serves as the designated bike network.

The Bicycle Plan has been conducted in association with the bicycle plans of Morris Township, which surrounds Morristown, and Morris County. The respective bicycle plans and proposed routes have been incorporated into Morristown's bicycle network.

The input and involvement of the general public has been an integral part of the bicycle planning process. An initial public meeting was held in January 2007 to identify priority needs of the bicycling community in Morristown, and identify roadways where cyclists ride. A survey of approximately 300 people was conducted between March 2007 and November 2007, to identify goals and objectives, impediments to cycling in Morristown, hazard locations and priority roadways and bicycle parking areas. A second public meeting was held in May 2009 to present the findings of the Steering Committee, and prioritize the bicycle plan recommendations into short term and long-term improvements. A final public meeting was held in April 2010 to present the recommendations of the NJDOT's Bicycle Plan Addendum.

This Plan evaluates the existing conditions of the bicycle community in Morristown, presents a detailed assessment of the bicycle facilities that are currently being developed in cities around the country, and provides a series of recommendations and implementation strategies. The following chapters include:

2. The Bicycle Planning Process
3. Compatibility with Existing Plans
4. Vision Statement, Goals and Objectives
5. Existing Conditions
6. Bicycle Crash Review
7. Bicycle Assessment at Intersections and Bridges
8. Bicycle Design Recommendations and Operational Issues
9. Proposed Bike Network and Implementation Plan
10. Maintenance, Education, Enforcement and Funding Opportunities



## 1.2 History of Morristown Bicycle Plan

The Bicycle Plan has undergone three primary iterations. The majority of the Plan's elements were developed through the Morristown Environmental Commission's efforts, producing a Draft Bicycle Plan in February 2009. The Commission subsequently reached out to the New Jersey Department of Transportation (NJDOT) Bicycle Planning Assistance grant, and was awarded the services of Michael Baker Jr. Inc, a bicycle consultant for the NJDOT, to develop an Addendum to supplement the existing draft Bicycle Plan through a bicycle compatibility assessment of roadways and intersections using NJDOT guidelines, an analysis of reported bicycle crashes, and the identification of regional and local bicycle facilities and trip generators. From this analysis, recommended on-road bicycle facility improvements, with preliminary cost estimates, and an implementation plan were developed. The NJDOT's Plan Addendum was completed in August 2010. In anticipation of Morristown's 2013 Master Plan, the Morristown Planning Division combined the Draft Plan and the NJDOT's Plan Addendum for adoption by the Planning Board and subsequent use in the Master Plan's Circulation Element.

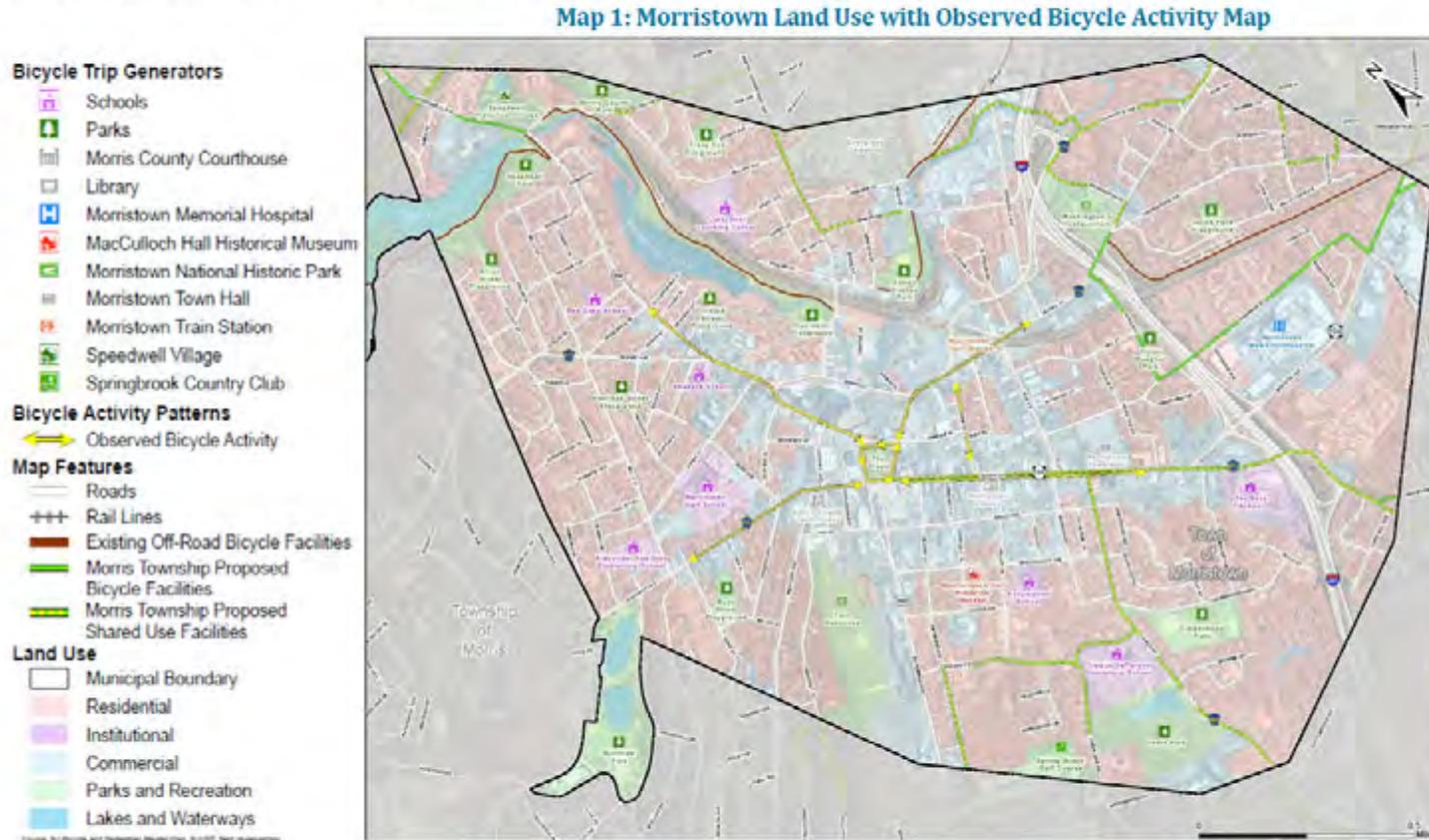
## 1.3 Study Area

The Study Area was limited to primary corridors and roadways within Morristown, which would provide bicycle connections to major trip generators, attractors, and destinations, including schools, commercial/retail centers, and parks. Highlighted on **Map 1** below are land uses, trip generators, and observed bicycle activity found in Morristown.

## Map 1: Morristown Land Use with Observed Bicycle Activity Map

### 2. STUDY AREA

The Study Area was limited to key corridors and roadways within the Morristown which would provide bicycle connections to major trip generators, attractors, and destinations, including schools, commercial/retail centers, and parks. Highlighted on **Map 1** below are land uses, trip generators, and observed bicycle activity found in Morristown.



# Chapter 2: Bicycle Planning Process

III.



## 2.0 THE BICYCLE PLANNING PROCESS

### 2.1 Planning Process

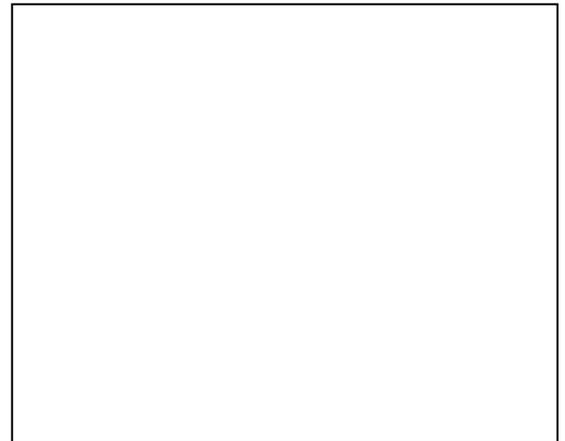
A comprehensive planning process was undertaken for the development of Morristown Bicycle Plan. The Bicycle Plan represents the outcome of the following process:

1. Coordination of a Bicycle Planning Steering Committee, which worked for two years to identify desirable routes and secure outside funding for planning efforts and implementation. The Steering Committee was composed of Town officials in the Mayor's office, the City Council, Engineering and Public Works, Department of Recreation, Planning Board, as well as the Police and Fire Departments, the Morris County Parks Department, Morris County Division of Transportation, and area businesses, and citizen representatives of each Ward. The Committee worked in conjunction with the Morristown Environmental Commission to develop this Plan.
2. Develop and conduct a survey of approximately 300 citizens on bicycle usage, impediments to cycling in Morristown, hazard locations and priority roadways and bicycle parking areas (Survey Results included in Appendix C).
3. Develop a vision statement for bicycling in Morristown. Determine goals for the bicycle plan and derive objectives to achieve each goal.
4. Inventory existing bicycle usage and existing bicycle facilities in Town and surrounding areas.
5. Identify current and potential bicycle traffic generators and destinations.
6. Identify on-street roadways that connect to all destinations.
7. Evaluate roadway characteristics (width, traffic volumes and speed, presents of trucks, parking, etc.) to determine bicycle friendly roadway index. Develop bicycle system map based on bicycle compatibility index, bike rack locations, destinations, and generators.
8. Select the most appropriate corridors to recommend for bicycle facilities and make recommendations for chosen corridors, including short and long-term suggestions, based on the compatibility analysis, land use and density, the presence of generators, and roadway characteristics.
9. Identify gaps in bicycle network for use in prioritization of improvements.
10. Evaluate existing policies to encourage and promote bicycling and reduce conflicts.
11. Review national and New Jersey design standards for all new bicycle facilities and make recommendations regarding operational issues such as signage, pavement markings, maintenance, and intersection treatments.
12. Prioritize and implement bikeway plan.

## 2.2 Public Involvement process

The purpose of the Bicycle Plan is to improve bicycle facilities for the citizens of Morristown. Therefore, every effort was made to include the public in the planning and decision-making process. The public involvement process included two phases of development. The Morristown Environmental Commission's original Plan included a Bicycle Planning Steering Committee, two public meetings and a comprehensive survey of bicycle and pedestrian usage. The NJDOT's Bicycle Plan Addendum included a presentation to Town officials and staff and a public meeting/workshop.

In January 2007, a Kick-off meeting / Workshop was held to introduce the concept of improvements to bicycle and pedestrian facilities in Morristown and to educate the public about the benefits of increased bicycling and walking. After a PowerPoint slide presentation, the attendants, about 24 people, split up into groups and marked up aerial photos of Morristown with their vision for bicycle and pedestrian facilities in Morristown. The maps that they developed identified existing walking and bicycle trails/paths, new trails/paths, new bicycle lanes, bike-parking areas, hazardous roadways and intersections needing special attention, extensions of sidewalks where non exist, and numerous destinations in Morristown. Finally, the group identified a list of Plan elements and then they prioritized the top ten items. This formed the basis for the development of the Vision Statement, Goals and Objectives that was refined in the first set of Steering Committee meetings.



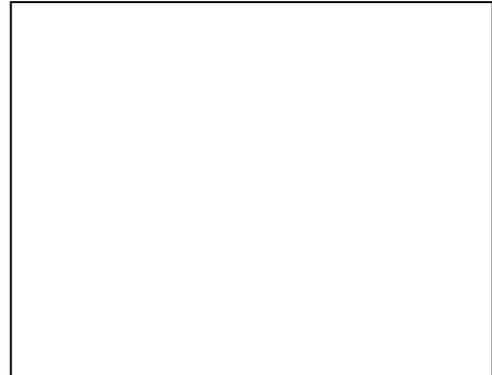
Between March and November 2007, a Bicycle and Pedestrian survey was conducted of over 300 residents, seniors and high school children, on bicycle and pedestrian usage characteristics, reasons for and against cycling, etc. Results reiterated the framework of the Goals and Objectives, the identification of origins and destinations, and the development of the bicycle network.

Throughout the development of the Bicycle Plan, elements were presented at public gatherings including the Morristown Farmers Market, the Fall Festival, the Critical Mass rides, and the Town Council meetings.

After completion of the draft Bicycle Plan and review by the Steering Committee, a second public meeting was held to present the elements of the plan, the proposed Bikeway Network, and the goals of the implementation plan. The

public was then asked to prioritize the elements for implementing in the short term and long term periods.

The NJDOT's Bicycle Plan Addendum included one Bicycle Planning Workshop to present the initial recommendations and receive public and administration comments. Finally, as part of the Master Plan's public participation plan, the elements of the Bicycle Plan were presented to the public for consideration and comment.



The results of each public involvement element are included in Appendix C.

# Chapter 3: Compatibility with Existing Plans

III.



## 3.0 COMPATIBILITY WITH EXISTING PLANS

### 3.1 Morristown Master Plan, 2007 – Transportation Element

Morristown adopted a re-examination of its Master Plan in 2007, which included bicycle and pedestrian elements. While the Transportation element notes that most of the roadways comprising Morristown's travel corridors are not bicycle compatible, its implementation plan includes various bicycle facility improvements around the Central Business District (CBD). The Master Plan proposes to include bicycle racks on sidewalks around the CBD and will consider the feasibility of installing dedicated bicycle lanes throughout the ongoing redevelopment areas. Transportation Goals in the Master Plan that relate to bicycling improvements include:

- Relieve congestion in the CDB by providing improved access and alternative means of transportation.
- Encourage the use of mass transit facilities or other transportation alternatives.
- Provide a transportation infrastructure to support the community.

### 3.2. Morris Township Bikeway Plan, 2008

The Morris Township Trails and Pathways Plan, March 2008, provides a plan for trail development throughout the Township, and connecting to many of Morristown's roads. The Plan identifies a number of important destinations accessible to Morristown residents, but located just outside of Morristown's city limits. The Bicycle Maps included in Morristown's Bicycle Plan reference the Township plan routes and set a priority of providing on-street connections to Township parks, trails, and other destinations.



Morris County Master Plan, Bicycle and Pedestrian Element – In 1998, Morris County launched the Bicycle and Pedestrian Element of the Morris County Master Plan to improve conditions for bicyclists and pedestrians. The plan, advanced by the Bicycle and Pedestrian Public Advisory Committee and other community representatives, has the following objectives:

- To develop an integrated system/network of bicycle and pedestrian facilities for both recreation and commuting purposes.
- To increase the safety of bicycling and walking
- To encourage bicycling and walking through community planning and encourage local facility investment.
- To promote bicycling and walking as alternatives to driving.

### **3.3 Morris County Master Plan, Bicycle and Pedestrian Element**

In 1998, Morris County launched the Bicycle and Pedestrian Element of the Morris County Master Plan to improve conditions for bicyclists and pedestrians. The plan, advanced by the Bicycle and Pedestrian Public Advisory Committee and other community representatives, has the following objectives:

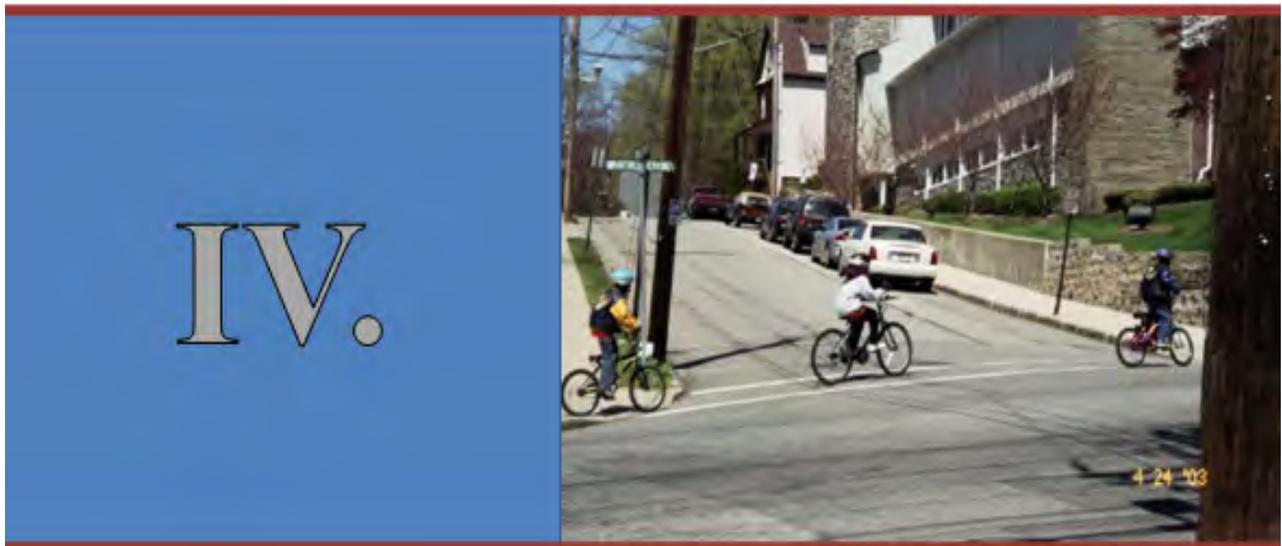
- To develop an integrated system/network of bicycle and pedestrian facilities for both recreation and commuting purposes.
- To increase the safety of bicycling and walking
- To encourage bicycling and walking through community planning and encourage local facility investment.
- To promote bicycling and walking as alternatives to driving.

### **3.4 New Jersey Bicycle Master Plan, 2006**

The New Jersey Bicycle Master Plan promotes the development of bicycle facilities for all communities. It provides guidance on the development of bicycle facility planning; funding sources and sets a strong overall vision for walking and bicycling in New Jersey:

- New Jersey is a state where people choose to walk and bicycle.
- 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 and support active, healthy life styles.

# Chapter 4: Vision Statement, Goals & Objectives



## 4.0 VISION STATEMENT, GOALS & OBJECTIVES

### 4.1 Vision Statement

*As Morristown grows into an ever more vibrant and sustainable town, it will have a balanced and efficient transportation system that will enhance mobility and quality of life for people and goods, connecting them to the area's diverse resources.*

### 4.2 Goals and Objectives

**Goal 1:** Integrate the consideration of bicycle facilities and amenities into Town planning activities and capital improvement projects.

- Encourage Planning Board to adopt Bicycle Plan and include Bicycle Plan in the Transportation Element of the Morristown Master Plan.
- Revise development codes to include requirements for bicycle facilities and amenities for all appropriate projects, with special considerations for transit oriented development projects (within half mile of Morristown train station)
- Ensure that bicycle facility planning, design and maintenance is an integral part of Town engineering and public works activities.
- Count bicycles as part of traffic count programs

**Goal 2:** Develop a safe, convenient, and continuous network of bikeways that serves the needs of all types of bicyclists, and provides bicycle-parking facilities to promote cycling.

- Reduce traffic speeds, through enforcement and traffic calming throughout the bike network.
- Develop a town wide system of designated bikeways that serves both experienced and casual bicyclists, and provides connections to neighboring bicycle facilities. The network should serve all bicyclists' needs, especially for travel to employment centers, schools, the commercial district, the train station, and recreational destinations.
- Design the street system to provide a safe network for bicyclists and pedestrians, that reduces the need to drive and in turn, reduces congestion.

- Develop a bicycle parking program that places a variety of bicycle parking facilities on sidewalks throughout the commercial district, in parking garages and lots, at the train station, and at Morristown's recreational and tourism sites.
- Maintain all streets in good condition, roadways, and designated bike routes to be free of bicycling deterrents (such as pot holes, debris, and overgrown landscaping) to the greatest extent possible.
- Encourage the development of Bikes-On-Transit programs with Morris County, State, and private transit services.
- Conduct bicycle safety programs

**Goal 3:** Improve the safety of bicyclists through education and enforcement.

- Develop a safety education program for adult bicyclists, child bicyclists, and motorists, which increases knowledge of cyclist rights and responsibilities, awareness of other transportation users, and encourages individual behavior change.
- Reward good behavior for using helmets, lights, etc.
- Educate police as to bicycle laws.
- Enforce motorist and bicyclist violations that are most likely to cause injury such as running red lights, speeding, wrong-way riding, night-riding without lights and riding on sidewalks, where illegal.

**Goal 4:** Increase bicycle mode share by increasing public awareness of the benefits of bicycling and of the available bike facilities and programs.

- Provide a Bicycle User Guide with current and easily accessible information about the bicycle network, bicycle laws, and the location of bicycle parking.
- Encourage the Town of Morristown and other major employers to develop Bike to work programs for their employees, consistent with TransOptions programs.
- Encourage the development of Bike to School programs within the Morris School District, reviewing the existing policies, safety of

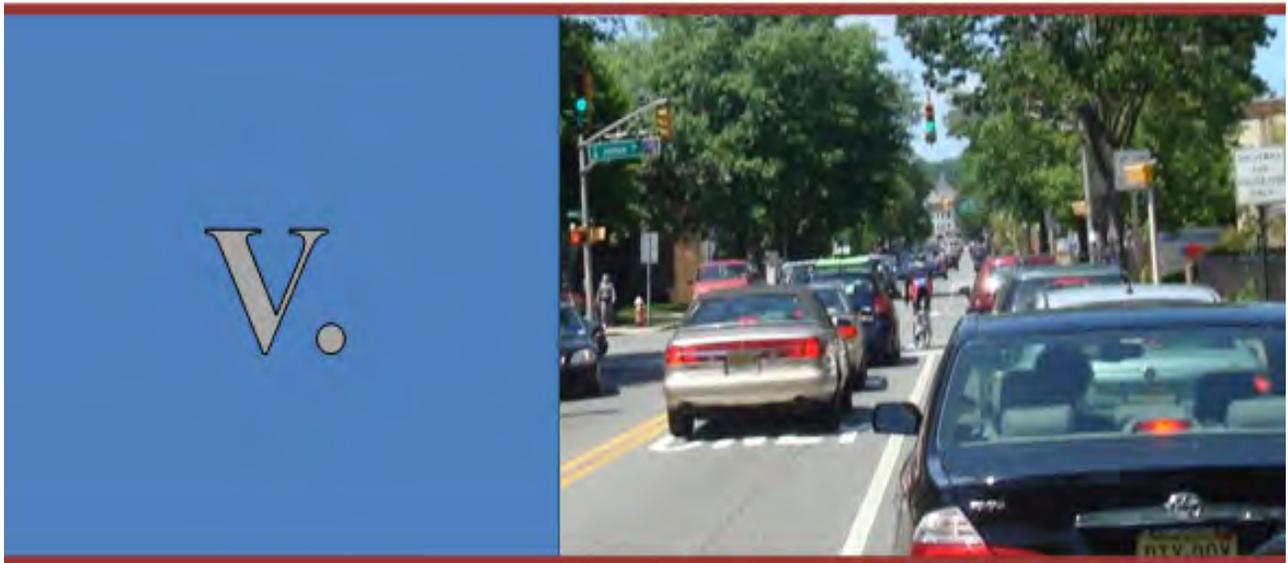


common bike routes to school, and the availability of bicycle parking at schools.

**Goal 5:** Improve air quality conditions and the public health of Morristown's citizens.

- Improve roadway congestion by increasing the use of bicycles as an alternative to the automobile for short, in town trips.
- Increase the number of bicycle commuters originating from Morristown.
- Develop summer camp and school-based bicycle education programs that teach children how to ride bicycles and encourages increased riding in their communities.

# Chapter 5: Existing Conditions



## 5.0 EXISTING CONDITIONS

Bicycles are an important element of the transportation system in Morristown. On any given day, there are numerous people riding their bikes along the main roadways. Many of the low-income population groups use bicycles as their primary source of transportation, riding their bikes on the sidewalks, and creating hazardous conditions between pedestrian and the cyclists. You can also see people riding to and from one of the three large grocery stores or the Summer Farmers Market in Morristown, their baskets full of groceries. As the County seat for Morris County, there are many large employment centers within a 5-mile radius of Morristown, and so commuting by bike is a common practice, especially on the warm dry days of the year. On the weekends and holidays, groups of recreational cyclists, usually traveling in mass, traverse down the main streets to the County or State roads that take them into the countryside, riding past historic farms, national parks, wilderness areas and beyond. In addition to on-street cycling, Morristown has an excellent trail system that links up to numerous other trails and parks in the adjacent communities. The Patriots Path, which runs across the northern side of Morristown, extends more than 20 miles east and west. The Traction Line Trail runs north to south along the NJ Transit railroad tracks in the southern part of Morristown, and provides bicycle and pedestrian access to Madison.

Morristown is a historic town, built before the Revolutionary War, and has numerous tourist and recreational assets that can attract bicyclists from all over the region, serving as a bike-touring destination. Morristown is the County seat and the business and social center of Morris County, providing all kinds of retail destinations; restaurants, bars, coffee shops, cinemas, and a theater. While many of its roadways are narrow, there is still ample space to share the roads with bicycles and automobiles.

### 5.1 Existing Roadway System

Morristown is a moderate sized city with a living population of approximately 19,000 people, though it expands to support a working population of over 50,000. Morristown lies at the crossroads of several key highways and arterials in Morris County that serve both local and longer-distance through travel. Interstate 287, U.S. Route 202, and State Route 124 all pass through Morristown and provide feeder access to the adjacent communities. Commuters from western Morris County travel through Morristown via Route 202, Sussex Avenue or Route 124 to access SR-24, I-287 or I-80.



The predominant regional travel patterns in Morristown are east-west. Large numbers of travelers pass through Morristown in the morning to reach I-287 for employment destinations in Essex, Hudson, and Bergen counties and New York City, and returning in the evening. The Town itself is also a large employment destination. Morristown now has two major east-west travel corridors namely, the Speedwell Avenue/Spring Street/Morris Street corridor and the Washington Street/South Street corridor. Speedwell Avenue (U.S. 202) forms the western segment of this corridor, accommodating both east-west and north-south traffic though

Morristown. Near the town Green, Speedwell Avenue meets Spring Street at Headquarters Plaza. Spring Street is used as a bypass around the town Green, for commuters passing through Morristown. Spring Street terminates at its junction with Morris Street. Morris Street serves as the main roadway connector for neighborhoods northeast of Morristown, as well as a connector to northbound I-287. Its eastern section is designated one-way in the eastbound direction and is used to access I-287 northbound. Drivers who want to go south on I-287 must turn from Morris Street to Ridgedale Avenue, where the I-287 southbound on-ramp is provided. Lafayette Street parallels Morris Street, and serves as its westbound one-way pair. Traffic from both northbound and southbound I-287 have off-ramps onto Lafayette Street. Thus, Lafayette Street is a significant thoroughfare for commuters from I-287 to the center of Morristown. The other east-west corridor runs along Washington Street and South Street. South Street is designated as SR-124 and Washington Street is the “old” SR-24, now CR 510. Commuters from communities to the west and south of Morristown use this corridor to get to I-287. Madison Avenue, which intersects with South Street, is the continuation of SR-124. The two principal travel corridors for Morristown come together at the Green, in the heart of the Central Business District (CBD). The Green functions as a traffic circle with traffic moving in a counterclockwise direction. The Green is bounded by N. Park Place, W. Park Place, S. Park Place, and E. Park Place, with traffic signals at every junction. The Green itself is a park containing walking paths and typical park features including benches. Commercial businesses, such as banks, restaurants, and retail activities, line its perimeter.

## 5.2 Public Transit Facilities

### Train Service

NJ Transit provides eastbound service to Newark, Hoboken and New York City (Penn Station) via the *Morristown Line* with peak headways at approximately 15 minutes and midday headways at approximately 60 minutes. Westbound service extends to the City of Dover and Hackettstown. Service is available on the *Morristown Line* seven days a week. Morristown Station provides monthly permit parking, daily parking, access to local bus transit routes, bike racks, and lockers.



### Bus Service

**Morris County Metro (MCM)** operates six bus routes through Morristown: MCM 1, 2, 3, 4, 8, and 10. All six routes are regional bus routes that connect Morristown to outlying communities and commercial centers in the Morris County and Essex County region. Transit facilities include stops at Headquarters Plaza, Morris Street at the railroad station, on South Park Place at the Post Office, on Route 124 at the County Courthouse, and Morristown Memorial Hospital. The stop at Headquarters Plaza provides a long bus inlet so passengers may board and alight safely with a minimal impact on traffic.

**Colonial Coach** operates two bus routes sponsored by the Town of Morristown and Morris Township. Routes 76 and 77 provide local service and service to the Morris County Mall,

Washington Office Center in Hanover Township, and the West Hanover County Complex in Morris Twp.

**Coach USA**, otherwise known as **Community Coach**, offers weekday and weekend service between Morristown and Manhattan (Community Coach 77). The bus route stops at Headquarters Plaza and Governor Morris Inn. After leaving Morristown, the route continues through Florham Park, Livingston, and the Oranges before terminating in Manhattan.

**Lakeland Bus Lines** offers weekday service between Morristown (near the Train station) and Manhattan (Lakeland 24), with stops in Madison, Chatham, Summit, and Short Hills before terminating in Manhattan.

### 5.3 Existing Bicycle Facilities

There are currently two multi-use paths in the Town -- Patriot's Path, and the Traction Line Recreational Trail. Patriot's Path begins near Speedwell Lake, at Speedwell Avenue, and terminates near Foster Fields in Morris Township. Recently, Morris County developed an extension of the Patriot's Path through Morristown's street network and into East Hanover, referred to as the Morristown Greenway. This section is complete, except for a small section behind Lake Pocahontas that is owned by New Jersey Transit. The Traction Line Recreation Trail begins near the Morristown National Historic Park and parallels the NJ Transit Morristown railroad corridor to the Town of Madison. Future Morris County projects include a connection from the Traction Line Recreational Trail to the Morristown Rail Station, a connection from the Traction Line Recreational Trail to the Loantaka Brook Reservation in eastern Morris Township, and a connection to the railroad station from Patriot's Path.

Morristown has recently installed more than thirty bicycle racks within its Central Business District and in the surrounding commercial areas. Two-thirds of those racks were appropriated and installed through a public private partnership with various business establishments purchasing one or two racks through the Morristown Partnership, and the Town installing the racks on public property, generally in front of the business locations. A decorative plaque was installed on the rack that advertises the store. The other racks were obtained through a grant from TransOptions (the TMA), and installed by the Town department of public works. Most of the public parking garages in Morristown have bicycle racks. Other bicycle racks are located at the Morristown public library and the train station, which also provides bicycle lockers.



## 5.4 Public Health

### Air Quality

Air quality in Morristown is directly related to the amount of motor vehicle traffic. Localized air quality gets worse in areas where there is more traffic congestion and improves in areas where there are less cars and they move faster. According to the latest town-wide traffic analysis, conducted for the 2003 Master Plan,

*“Significant numbers of peak period local and long distance traffic contribute to recurring congestion in Morristown. The hours of peak period travel are 7:45 AM to 8:45 AM and 5:00 PM to 6:00 PM. Much of this traffic uses the three principal travel corridors. Long delays are common for the Speedwell Avenue/Spring Street/Morris Street corridor during both AM and PM peak periods, with traffic queues extending from one traffic signal to the next. Off peak hour traffic frequently mimics peak hour traffic especially in the noon hour.”*

As traffic conditions along the main roadway corridors have deteriorated, there has been an increased trend in commuting motor vehicles driving through residential neighborhoods in an effort to bypass the main congested corridors. While no air quality monitoring or modeling has been conducted in Morristown, the significant rates of traffic congestion along the main roads and within the residential neighborhoods suggest that the air quality levels have deteriorated and, if congestion deteriorates further, air quality may pose potential risks to public health.

### Health and Community Design

There is a growing body of evidence that demonstrates the close relationship between community design and health. In addition, the evidence is clear that our communities and population are becoming less healthy and more obese. Designing communities with health in mind can improve the health of the population. A principal component of Health and Community Design is the development of Complete Streets, which are designed and operated to enable safe access for all users – pedestrians, bicyclists, motorists and transit riders of all ages and abilities. The New Jersey Association of County and City Health Officials, the New Jersey Chapter of the American Society of Landscape Architects, and the New Jersey Department of Health have joined over a dozen organizations to improve health.

## 5.5 Bicycle Origins & Destinations Analysis

During the first public meeting in January 2007 and a series of Steering Committee meetings, Morristown’s destinations were identified as well as the main residential areas and transportation corridors that access those destinations. Table 1 shows major bicycle origins and destinations within Morristown, including the Central Business District, recreational facilities, existing bicycle trails and paths, parks, schools, major employment centers, transit locations, and proposed bicycle routes from County and other municipal bicycle





# Morristown Bicycle Plan

plans. This information was used to recommend a bicycle network.

**Table 1**  
**Morristown Origins and Destinations**

<b>Destination</b>	<b>Closest Access Roadway</b>
<b>Parks &amp; Playgrounds</b>	
Speedwell Park	Speedwell Ave
Jersey Ave. Park	Martin Luther King Ave. & Cory Road
Harrison St. Playground	Harrison Street
Evergreen Cemetery	Martin Luther King Ave.
Garfield St. Playground	Abbett Ave a& Martin Luther King Ave.
Cauldwell Playground	Flagler St. & Martin Luther King Ave.
Budd Street Playground	Budd St. & Washington St.
Burnham Park	Washington St.& Burnham Park Way
Fort Nonsense	Western Ave. & Chestnut St.
The Green	Park Place
King Place Playground	Pine St. & King Place
Valley View Playground	Valley View Drive & Washington Ave.
Ford Ave. Playground	Ford Ave
Lidgerwood Playground	Lidgerwood Parkway
Foote's Pond	James Street
Loantanka	South St. & Woodland Ave.
<b>Schools</b>	
Sussex Ave. School	Sussex Ave.
Alexander Hamilton School	Mills Street
Morristown High School	Early Street & Atno Ave.
Lafayette School	Martin Luther King Ave. & Hazel St.
St. Margaret's Church School	Speedwell Ave. & Sussex St.
Assumption School	MacCulloch Ave.
George Washington School	Morris Ave & Ford Ave.
Woodland School	Turtle Road & Johnston Dr.
Peck School	South St. & Headley Rd.
Thomas Jefferson School	Ogden Pl. & James St.
<b>Churches</b>	
Trinity Assembly of God	Speedwell Ave. & Cutler St.
St. Margaret's Church	Speedwell Ave. & Sussex St.
First Baptist Church	Washington St. & Cattano Ave.
Presbyterian Church	E. Park Pl. & Morris St.
United Methodist Church	S. Park Place & Dumont Pl.
Jewish Community Center	Speedwell Ave & Sussex Ave
Congregation Ahavath Yisrael	Cuter St, Speedwell Ave.
Union Baptist Church	Martin Luther King Ave. & Spring St.



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<b>Destination</b>	<b>Closest Access Roadway</b>
Bethel A.M. E. Church	Spring St. & Center St.
Calvary Baptist Church	Martin Luther King Ave. & Willow St
Church of God in Christ	George St.
N.J.I Baptist Church	Abbett Ave. & Olyphant Dr.
Church of the Redeemer	South St. & DeHart St.
Presbyterian Parish Hs.	South St.
St. Peter's Church	South St. & Miller Rd.
Church of the Assumption (Catholic)	Maple Ave. & Madison St.
1 <sup>st</sup> Church of Christian Scientists	Morris Ave & Washington Ave.
Temple B'nai Or	Overlook Rd., Ogden Pl.
<b>Employment and Other Destinations</b>	
Morristown Memorial Hospital	Franklin St.
Springbrook Country Club	Overlook Rd. & Ogden Pl.
Morristown Municipal Building	South Street & Franklin St.
Marty's Reliable Cycle	Speedwell Ave. & Sussex Ave
Schuyler Hamilton House	Morris St.
Washington's Headquarters	Morris Ave. & Lafayette Ave.
Community Theater	South Street & Pine St.
Morristown Library	South St. & Miller Rd.
Morris County Library	Hanover Ave
MacCulloch Hall	MacCulloch Ave
Acorn Hall	Whippany Rd.
Morris County Courthouse	Washington St. & Western Ave
Municipal Garage	Speedwell Ave. & Early St.
Morristown Rehabilitation Center	Spring St. Spring Place
Headquarters Plaza	Speedwell Ave.
Neighborhood House	Flagler St. Speedwell Ave
Morristown Memorial Hosp. (Mt Kemble Div.)	Mt. Kemble Ave.
Mennen Arena	Hanover Ave
Frelinghuysen Arboretum	Hanover Ave
<b>Transit Locations</b>	
Morristown Train Station	Morris St. & Lafayette Ave.
Lakeland Bus Line (Morristown)	Pine St & Morris St.
Community Coach (Morristown)	Headquarters Plaza

Source: Town of Morristown Map, April 1996

## 5.6 Bicycle Compatibility Analysis

The bicycle compatibility analysis was conducted in accordance with the NJDOT guidelines. The analysis included a comprehensive data collection program for the streets identified in the origins and destination analysis, and an evaluation of bicycle compatibility.

## A. Data Collection

Preliminary field collection was conducted in October 2008 and January 2009. Roadway data was taken for all roads identified by the Steering Committee in their origins and destinations analysis. In addition, potential routes that connect to the Morris Township and Morris County facilities were also evaluated. Data collection included roadway width and direction, status of on-street parking, travel speeds, traffic volumes, the frequency of heavy trucks, and comments on hazard areas.



Field observations indicated that roadway conditions within the Town vary widely, with varying widths of roadways changing every few blocks. Traffic speeds are generally in excess of the posted speed limits, and significant percentages of peak hour traffic travels through residential neighborhoods to avoid other congested roadways.

The draft Morristown Bicycle Plan included a bicycle compatibility assessment of town roadways based on a qualitative analysis. The Bicycle Plan Addendum, completed by NJDOT, included a quantitative assessment for roadways in Morristown with available traffic volumes to determine bicycle compatibility based on NJDOT guidelines. Available traffic volume data was collected from NJDOT's Traffic Monitoring System, Morris County, and Morristown. Site visits were also performed to collect roadway attributes, including posted speed limits, pavement widths (lane and shoulder width), pavement condition, on-street parking locations and widths, bicycle compatibility of drainage grates, existing bicycle facilities, bridge locations, and traffic control devices.

## B. Bicycle Compatibility Assessment

The criteria used to perform the bicycle compatibility analysis of Morristown roadways was based on NJDOT's Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines, April, 1996. NJDOT policy is to promote bicycling as a "legitimate choice of personal transportation for short trips." To accomplish this, the state has issued design guidelines for accommodating and encouraging shared use of roadways by motor vehicles, bicycles, and pedestrians. The NJDOT guidelines specify the minimum recommended pavement width for shared roadway use by bicycle and motor vehicle traffic. The criteria that are used to determine compatibility are lane width, traffic volume, speed limit, the character of the area (urban or rural), and the presence or absence of on-street parking and heavy truck use.

All required information except traffic volume was collected in the field. During field data collection, total roadway widths were collected in place of lane widths, as the majority of lanes are not separated from parking areas. In the Central Business District, the parking areas are delineated at seven feet from the curb. This assumption for parking was used for all roadways. So, for example, a 42-foot roadway that is split evenly into two directions, each with a 21 foot lane was assumed to have 7-feet of parking and 14-foot lane width, which would be bicycle compatible under the NJDOT standards. While some of the average annual daily traffic (AADT) information used to represent traffic volume was provided by



## Morristown Bicycle Plan

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Morristown Department of Engineering, traffic counts for a majority of the roadways were not available. As a result, an estimate was made that best fits within one of three broad ranges:

1,200-2,000 vehicles;  
2,000-10,000 vehicles; and  
Over 10,000 vehicles or truck traffic over 5% of AADT.

The estimates for average daily traffic were selected to best reflect the actual conditions. All roadways that provide access to major generators and destinations within the Town were analyzed, except for duplicate or parallel roadways. In this case, the Steering Committee selected the preferred roadway for bicycle travel. To conduct the compatibility analysis on roadways within Morristown, the statistics of each road were cross-referenced with the information found in Table 2.

**Table 2**  
**NJDOT Bicycle Compatibility Guidelines**

Speed Limit	Urban w/Parking	Urban w/o Parking
<b>Condition I: AADT 1200*-2000</b>		
< 30 mph Shared lane	12 ft.	11 ft.
31-40 mph Shared lane	14 ft.	14 ft.
<b>Condition II: AADT 2000-10,000</b>		
< 30 mph Shared lane	14 ft.	12 ft.
31-40 mph Shared lane	14 ft.	14 ft.
<b>Condition III: AADT over 10,000 or Trucks over 5%</b>		
< 30 mph Shared lane	14 ft.	14 ft.
31-40 mph Shared lane	14 ft.	14 ft.

*Source: NJ DOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines*

Appendix B provides the results of the NJDOT Bicycle Compatibility Analysis. The results of the Bicycle Compatibility Analysis show that approximately 55% of the roadways selected for analysis, those that provide connections to Morristown’s major destinations, were deemed to be compatible under NJDOT guidelines. While this number appears to be significant, the analysis evaluated roadways on a segment by segment basis, depending upon changes in conditions, and that numerous segments are presently not compatible due to decreased roadways width, the addition of on street parking or a change in the number of travel lanes.

Nevertheless, these results should also not be seen as limiting the potential for a town-wide bikeway system. Many of the incompatible roadways could be brought up to standard through implementation of some simple solutions, such as restriping roadways to provide wider outside lanes, striping bike lanes and prohibiting on-street parking. Some roadways are incompatible for on-street bicycle use, but bicyclists may have access to off-street facilities, as is the case of the heavily traveled Madison Avenue and the alternate bicycle friendly path on the Traction Line Trail. In addition, the NJDOT bicycle compatibility criteria, while very specific, do not consider other variables that may affect a particular roadway’s compatibility, including peak hour traffic volumes, pavement conditions, debris collection, and other hazards such as utilities and drainage grates.

While not all of the Town roads were evaluated as part of this study, these methods could be applied to any other roadway for evaluating its potential as a compatible bicycle facility. It should also be stressed that all roadways are open to use by bicyclists whether or not the roadway meets the bicycle compatibility criteria. “Bicycle compatibility” simply refers to specific conditions that, taken together, create an environment that is acceptable to a fairly wide range of cyclists. If a roadway fails to meet the specific compatibility criteria, bicyclists are still free to use it. Various techniques to establish or improve the bicycle compatibility of roadways are included in Chapter 8.



*Bicyclist on South Street preparing to make a left turn onto James Street.*



*Morris Street, looking east towards Lafayette Avenue*

Additional roadways and roadway segments without available traffic volumes were inventoried based on the input from Morristown officials and stakeholders. Since volumes were not available for these roadways, they were assessed under Condition III (AADT over 10,000) under NJDOT guidelines for bicycle compatible roadways. When volumes are obtained for these locations, it is recommended that these roadways be assessed for compatibility based on NJDOT guidelines.

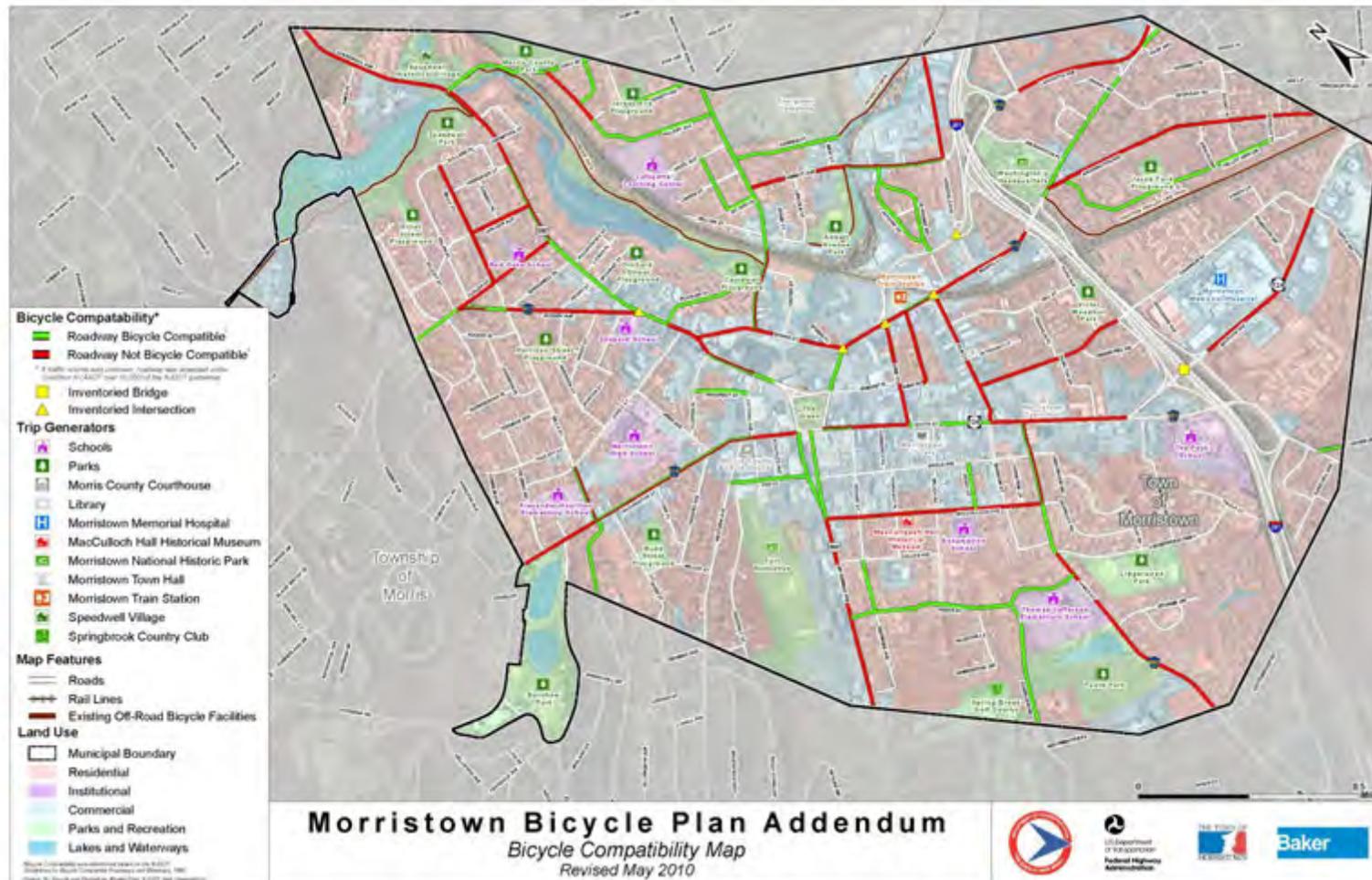
A matrix was developed to assist in assessing the compatibility of roadways in Morristown. The complete matrix has been included in **Appendix B**.

The following list identifies roadways where compatible segments were identified, and are illustrated in **Map 2**:

Speedwell Avenue (US 202)  
 Bank Street (US 202)  
 South Street (NJ 124)  
 Morris Avenue (CR 510)  
 Morris Street (CR 510)  
 Washington Street (CR 510)  
 Sussex Avenue (CR 617)  
 Abbett Avenue  
 Ann Street  
 Cory Road  
 Doughty Street  
 Flagler Street  
 Garden Street  
 Gregory Terrace  
 Hillairy Avenue  
 Hillcrest Avenue

James Street  
 Jardine Road  
 Jersey Avenue  
 Market Street  
 Martin Luther King Avenue  
 Mills Street  
 Mt. Airy Place  
 Ogden Place  
 Olyphant Drive  
 Overlook Road  
 Perry Street  
 Prospect Street  
 Valley View Drive  
 Wetmore Avenue  
 Woodland Avenue

## Map 2: Morristown Bicycle Compatibility Map



# Chapter 6: Bicycle Crash Review



## 6.0 BICYCLE CRASH REVIEW

Bicycle crash reports were requested from the Morristown Police Department (MPD) to assist in identifying the locations and circumstances, and to expand on crash observations included the draft Bicycle Plan (e.g., crashes resulting from a prevalence of sidewalk bicycle riding). Reports were provided by MPD for the most recent eight (8) years available (October 2001- October 2009).

During the eight year period, twenty-three (23) crashes involving bicyclists were reported. Among the crashes, the following common circumstances were noted:

- Sixteen (16) of the crashes occurred at intersections.
- Twelve (12) crashes involved bicyclists who had been riding on the sidewalk. Of these crashes, seven (7) occurred after the cyclists traveled from the sidewalk into the crosswalk and five (5) occurred at driveway locations crossing the sidewalk.
- Nine (9) crashes occurred as a result of the bicyclist riding into a moving or stopped vehicle.
- Four (4) of the bicyclists fled the scene after the crash occurred

In addition to the crash reports, three (3) dispatch notices were included with the information from the MPD. These notices describe bicycle crashes that were reported to the police but could not be independently verified at the crash location.

Reported crashes are summarized in the **Table 3** and illustrated in **Map 3**.



*Martin Luther King Avenue, looking north. Five (5) crashes involving bicyclists occurred along this stretch of roadway.*

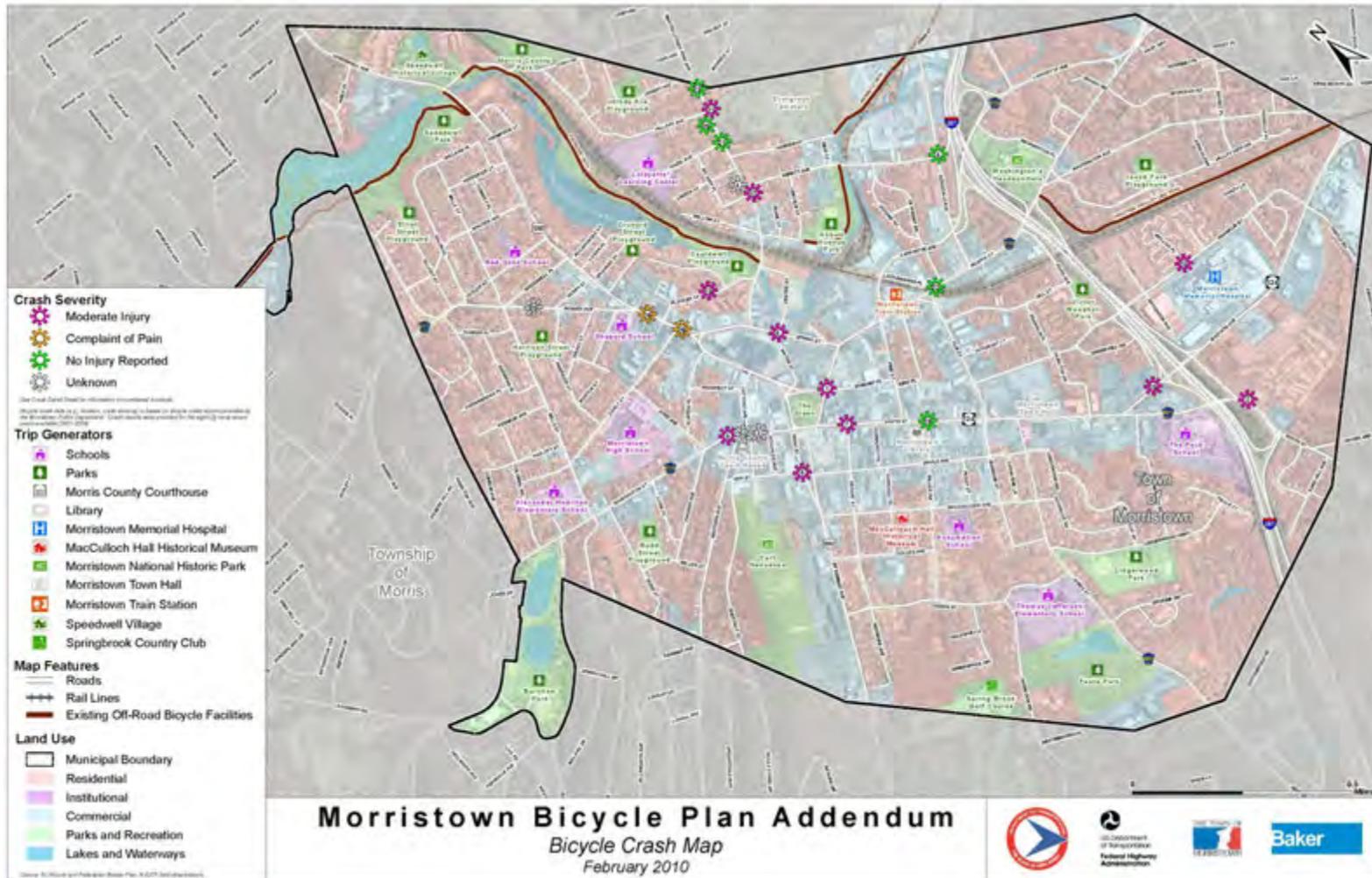


*Intersection of Washington Street and Western Avenue, where two crashes involving bicyclists have occurred.*

**Table 3 - Bicycle Crash Review – Study Area Roadways**

	Date	Time	Location	Severity	Lighting	Conditions	Crash Description
<b>1</b>	10/3/2009	11:00 AM	Intersection of South Park Place and Dumont Place	Bicyclist Suffered Moderate Injury	Daylight	Overcast	A motorist traveling east on South Park Place struck a bicyclist in the crosswalk at the intersection of Dumont Place. The bicyclist was traveling east on the sidewalk before entering the crosswalk.
<b>2</b>	4/27/2009	7:13 AM	Driveway from 310 South Street	Bicyclist Suffered Moderate Injury	Daylight	Clear	A motorist stopped in the driveway of 310 South Street was struck by a bicyclist traveling east on the sidewalk.
<b>3</b>	2/22/2009	9:11 AM	Intersection of Court Street and Washington Street	Unknown	Daylight	Snow	A motorist traveling north on Court Street struck a bicyclist in the crosswalk at the intersection of Washington Street. The bicyclist was traveling west on the sidewalk before entering the crosswalk. The bicyclist fled the scene.
<b>4</b>	10/20/2008	6:58 AM	Intersection of Martin Luther King Avenue and Abbett Avenue	Unknown	Dawn	Clear	A motorist traveling north on Martin Luther King Avenue turned left onto Abbett Avenue and heard a slight bump as they passed a bicyclist waiting to turn onto Martin Luther King Avenue. The motorist was unsure if they had hit the bicyclist or if the bicyclist had kicked the vehicle. The bicyclist fled the scene.
<b>5</b>	9/16/2008	5:37 PM	Intersection of Water Street and Spring Street	Bicyclist Suffered Moderate Injury	Daylight	Clear	A motorist traveling east on Water Street was crossing through the intersection of South Street when they were struck by a bicyclist traveling south on Spring Street. The bicyclist crossed the intersection against a red signal.
<b>6</b>	9/8/2008	1:47 PM	Intersection of Ann Street and Bank Street	Bicyclist Suffered Moderate Injury	Daylight	Clear	A bicyclist traveling south on Ann Street struck a vehicle that was stopped at the corner of Bank Street. While traveling downhill, the bicyclist was unable to negotiate the turn from Ann Street to Bank Street.
<b>7</b>	7/31/2008	7:31 AM	Intersection of South Street and Dehart Street	Bicyclist Suffered Moderate Injury	N/A	N/A	A bicyclist traveling east on South Street was struck by a car door opened by a motorist exiting a vehicle.

Map 3: Morristown Bicycle Crash Map



# Chapter 7: Bicycle Assessment at Intersections and Bridges



## 7.0 BICYCLE ASSESSMENT AT INTERSECTIONS AND BRIDGES

An important consideration for on-road bicycle travel is accommodations at intersections and on bridges. Use of design treatments at intersections alert bicyclists and motorists to changes in roadway delineation, especially at turning locations, and can enhance mobility at intersections, while reducing the potential for conflicts.

The application of bicycle signage in advance of intersections is intended to alert motorists to the presence of bicyclists. Applicable signs include the MUTCD bicycle warning sign combined with the 'Share the Road' placard (W11-1, W16-1P). The 'Bicycle may use full lane' sign (R4-11) may also be used if shared lanes (where the bicyclist would occupy the travel lane) are proposed. Striping at intersections should be clearly marked so lane edges are defined. In general, it is recommended that treatments guide merging movements to occur in advance of, rather than at, intersections.

Bridges can present bicyclists with mobility and accessibility issues when they lack compatible roadway widths due to the narrowing of travel lanes, lack of shoulders, and expansion joints along the surface of the bridge deck. In New Jersey, sidewalks on bridges may be used by bicyclists, but signing and curb ramp accommodations should be provided to assist and direct cyclists in using these facilities.

### 7.1 Existing Conditions at the Inventoried Intersections and Bridges

Five (5) signalized intersections and one (1) bridge identified by Morristown were inventoried to expand the bicycle compatibility assessment of town roadways. The intersections, which are also illustrated in **Map 2**, are:

#### **Signalized Intersections**

- Lafayette Avenue (CR 510) and Ridgedale Avenue
- Elm Street and Morris Street (CR 510)
- Pine Street and Morris Street (CR 510)
- Spring Street and Morris Street (CR 510)
- Sussex Avenue (CR 617) and Speedwell Avenue (US 202)

#### **Bridge Location**

- Madison Avenue (NJ 124) Bridge over I-287

The intersection and bridge inventory included shoulder widths, number of lanes, lane widths, traffic control devices, pavement markings, and lane configuration. Information obtained during the intersection inventory is illustrated in **Tables 4 – 9** on the following pages.

# Morristown Bicycle Plan

**Table 4: Existing conditions at the intersection of Lafayette Avenue and Ridgedale Avenue**



INTERSECTION INVENTORY	
<b>Intersection Control:</b>	<ul style="list-style-type: none"> <li>• Signalized</li> </ul>
<b>Westbound Travel</b>	
<b>Receiving Lanes:</b>	<ul style="list-style-type: none"> <li>• 13' Through Lane</li> <li>• 13' Through Lane</li> <li>• 13' Through Lane</li> </ul>
<b>Northbound Travel</b>	
<b>Approach Lanes:</b>	<ul style="list-style-type: none"> <li>• 11' Through and Left Turn Lane</li> <li>• 11' Right Turn Lane</li> </ul>
<b>Receiving Lanes:</b>	<ul style="list-style-type: none"> <li>• 24' Through Lane</li> </ul>
<b>Southbound Travel</b>	
<b>Approach Lanes:</b>	<ul style="list-style-type: none"> <li>• 11' Through and Left Turn Lane</li> <li>• 11' Right Turn Lane</li> </ul>
<b>Receiving Lanes:</b>	<ul style="list-style-type: none"> <li>• 24' Through Lane</li> </ul>

**Table 5: Existing conditions at the intersection of Morris Street and Elm Street**



INTERSECTION INVENTORY	
<b>Intersection Control:</b>	• Signalized
<b>Eastbound Travel</b>	
<b>Approach Lanes:</b>	<ul style="list-style-type: none"> <li>• 12' Through Lane</li> <li>• 16' Through and Right Turn Lane</li> </ul>
<b>Receiving Lanes:</b>	<ul style="list-style-type: none"> <li>• 12.5' Through Lane</li> <li>• 12.5' Through Lane</li> </ul>
<b>Westbound Travel</b>	
<b>Approach Lanes:</b>	• 21' Through, Right, and Left Turn Lane
<b>Receiving Lanes:</b>	• 19' Through Lane
<b>Northbound Travel</b>	
<b>Approach Lanes:</b>	<ul style="list-style-type: none"> <li>• 10' Left Turn Lane</li> <li>• 15' Through and Right Turn Lane</li> </ul>
<b>Receiving Lanes:</b>	• 9' Through Lane
<b>Southbound Travel:</b>	
<b>Approach Lanes:</b>	• 9' Through, Right, and Left Turn Lane
<b>Receiving Lanes:</b>	• 20' Through Lane

# Morristown Bicycle Plan

**Table 6: Existing conditions at the intersection of Pine Street and Morris Street**



INTERSECTION INVENTORY	
<b>Intersection Control:</b>	• Signalized
<b>Eastbound Travel</b>	
<b>Approach Lanes:</b>	<ul style="list-style-type: none"> <li>• 12' Through Lane</li> <li>• 20' Through and Right Turn Lane</li> </ul>
<b>Receiving Lanes:</b>	<ul style="list-style-type: none"> <li>• 12' Through Lane</li> <li>• 12' Through Lane</li> </ul>
<b>Westbound Travel</b>	
<b>Approach Lanes:</b>	<ul style="list-style-type: none"> <li>• 14' Through Lane</li> <li>• 12' Through and Left Turn Lane</li> </ul>
<b>Receiving Lanes:</b>	<ul style="list-style-type: none"> <li>• 10' Through Lane</li> <li>• 10' Through Lane</li> </ul>
<b>Northbound Travel</b>	
<b>Approach Lanes:</b>	<ul style="list-style-type: none"> <li>• 15' Right and Left Turn Lane</li> </ul>
<b>Southbound Travel:</b>	
<b>Approach Lanes:</b>	<ul style="list-style-type: none"> <li>• 13' Through Lane</li> <li>• 13' Right Turn Lane</li> </ul>
<b>Channelized Lanes:</b>	<ul style="list-style-type: none"> <li>• 13' Channelized Right Merge Lane</li> <li>• 15' Channelized Right Merge Lane</li> </ul>
<b>Receiving Lanes:</b>	<ul style="list-style-type: none"> <li>• 15' Through Lane</li> </ul>

# Morristown Bicycle Plan

**Table 7: Existing conditions at the intersection of Morris Street and Spring Street**



INTERSECTION INVENTORY	
<b>Intersection Control:</b>	• Signalized
<b>Eastbound Travel</b>	
<b>Approach Lanes:</b>	• 15' -> 25' Through, Right, and Left Turn Lane
<b>Receiving Lanes:</b>	• 10' Through Lane • 10' Through Lane
<b>Westbound Travel</b>	
<b>Approach Lanes:</b>	• 12' -> 17' Channelized Right Merge Lane • 12' -> 15' Through and Left Turn Lane
<b>Receiving Lanes:</b>	• 22' -> 14' through Lane
<b>Northbound Travel</b>	
<b>Approach Lanes:</b>	• UNKNOWN
<b>Receiving Lanes:</b>	• UNKNOWN
<b>Southbound Travel:</b>	
<b>Approach Lanes:</b>	• 11' Right Turn Lane • 11' Right Turn Lane • 12' Through and Left Turn Lane
<b>Receiving Lanes:</b>	• UNKNOWN

# Morristown Bicycle Plan

**Table 8: Existing conditions at the intersection of Sussex Avenue and Speedwell Avenue**



INTERSECTION INVENTORY	
<b>Intersection Control:</b>	<ul style="list-style-type: none"> <li>• Signalized</li> </ul>
<b>Eastbound Travel</b>	
<b>Approach Lanes:</b>	<ul style="list-style-type: none"> <li>• 20' Through, Right, and Left Turn Lane</li> </ul>
<b>Westbound Travel</b>	
<b>Receiving Lanes:</b>	<ul style="list-style-type: none"> <li>• 21' Through Lane</li> </ul>
<b>Northbound Travel</b>	
<b>Approach Lanes:</b>	<ul style="list-style-type: none"> <li>• 11' Left Turn Lane</li> <li>• 12' Through Lane</li> </ul>
<b>Receiving Lanes:</b>	<ul style="list-style-type: none"> <li>• 20' Through Lane</li> </ul>
<b>Southbound Travel:</b>	
<b>Approach Lanes:</b>	<ul style="list-style-type: none"> <li>• 20' Through, Right, and Left Turn Lane</li> </ul>
<b>Receiving Lanes:</b>	<ul style="list-style-type: none"> <li>• 24' Through Lane</li> </ul>

# Morristown Bicycle Plan

**Table 9: Existing conditions at the Madison Avenue bridge over I-287**



BRIDGE INVENTORY	
<b>Intersection</b>	<ul style="list-style-type: none"> <li>• Signalized (west side)</li> </ul>
<b>Controls:</b>	<ul style="list-style-type: none"> <li>• Stop controlled (east side)</li> </ul>
<b>Eastbound Travel</b>	
	<ul style="list-style-type: none"> <li>• 13' Outside Travel Lane</li> <li>• 12' Inside Travel Lane</li> </ul>
<b>Westbound Travel</b>	
	<ul style="list-style-type: none"> <li>• 13' Outside Travel Lane</li> <li>• 12' Inside Travel Lane</li> </ul>
<b>Sidewalks</b>	
<b>Eastbound Side</b>	<ul style="list-style-type: none"> <li>• 5.5' Sidewalk</li> </ul>
<b>Westbound Side</b>	<ul style="list-style-type: none"> <li>• 5.5' Sidewalk</li> </ul>

## 7.2 Intersection and Bridge Summary

The following summarizes existing conditions at the inventoried intersections and bridge:

- There are no existing bicycle facility signage, striping, or pavement markings at the intersections and the bridge.
- Striping inconsistencies are present at each intersection. These include:
  - *Lane markings are faded or non existent*
  - *The number and width of travel lanes vary on either side of intersections.*
- Two (2) intersections have channelized right-turn lanes:
  - *Lafayette Avenue and Morris Street (Southbound approach)*
  - *Morris Street and Spring Street (Westbound approach)*
- Wide outside travel lanes exist on individual approaching and receiving lanes at each intersection.
- Lane widths on the Madison Avenue (Route 124) Bridge are not compatible for bicyclists based on NJDOT guidelines.

# Chapter 8: Bikeway Design Recommendations & Operational Issues

VIII.





# Morristown Bicycle Plan

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## 8.0 BIKEWAY DESIGN RECOMMENDATIONS AND OPERATIONAL ISSUES

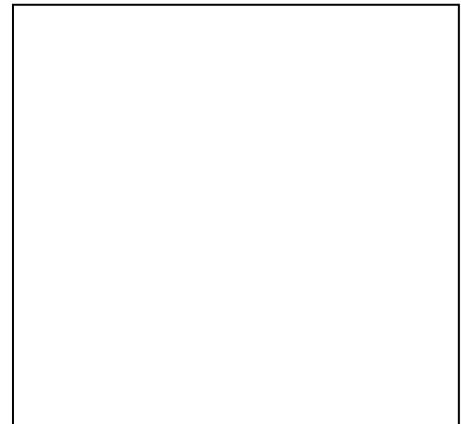
### 8.1 On-Road Bicycle Facilities

NJDOT's *Planning and Design Guidelines for Bicycle Compatible Roadways and Bikeways* outline the three (3) types of on-road bicycle facilities that were considered for Morristown's roadway network. These facilities are intended to enhance on-road conditions and accommodate bicycle traffic. Advancements in the provision of on-road bicycle accommodations through the use of shared lane markings or contra-flow bicycle lanes have also been considered. These enhancements have been applied on urban roadway networks in an attempt to address current increases in bicycle travel. These new facilities, although not yet supported by the Federal Highway Administration (FHWA) or the American Association of State Highway and Transportation Officials (AASHTO) have proven to be successful when applied throughout Europe and in several major American cities.

The three (3) types of on-road bicycle facilities according to NJDOT guidelines are: Shared Lane, Paved Shoulder, and Bicycle Lane. Specific roadway attributes (e.g., parking provisions, traffic volumes, posted speed limit, etc.) are inventoried and assessed to determine the feasibility of each facility. Each on-road facility can serve as a designated bicycle route. Following is a description of each facility.

#### Shared Lane

A shared lane accommodates bicyclists and motorists in the same travel lane. Shared lanes can be located on urban or rural roadways with low vehicular traffic volumes and low posted speeds, and are occasionally supplemented with 'Share the Road' warning signs. Wide (12' – 15') outside travel lanes are often desired for shared lane facilities. A new pavement marking used to guide bicyclists with lateral positioning in a shared travel lane, especially in locations with on-street parking, is the shared lane marking (informally referred to as 'Sharrows'), which is included in the 2009 Manual on Uniform Traffic Control Devices (MUTCD).



#### Paved Shoulder

A paved shoulder accommodates bicyclists on the roadway shoulder adjacent to vehicular travel lanes. Paved shoulders can be located on urban or rural roadways with moderate to high vehicular traffic volumes and moderate to high posted speeds. Paved shoulders for bicyclists, range in width from 4' – 6'+ depending on available width, and are occasionally supplemented with 'Share the Road' warning signs.

#### Bicycle Lane

Bike lanes are designated for exclusive or preferential use by bicycles through pavement striping and markings, as well as appropriate signage. Bike lanes should be designed to accommodate bicycle traffic in only one direction. Each street should have a one-way lane in each direction, to discourage wrong-way riding.

- Bike lanes should always be located to the right of the travel lane to reduce confusion for bicyclists and drivers. Where there is on-street parking, the bike lane should be located between the travel lane and the parking lane.
- A 5-foot or wider lane is preferable in all cases. The width of any curb gutter pan should not be included in this measurement. For roadways with high traffic volume or high speed limits, a 6-foot bike lane is recommended.
- Drainage grates should be designed so that bicycle tires are not trapped in them and utility covers should be flush with the pavement.
- Bike lanes should be marked by a stripe at least 6 inches wide. A wider stripe can be used to further emphasize the presence of the lane. A line separating bike lanes from parking lanes can encourage drivers to park closer to the curb, creating more space for bicycles.
- Bike lanes should be adequately drained, swept, and cleared of snow.
- AASHTO's *Guide for the Development of Bicycle Facilities* and the *Manual on Uniform Traffic Control Devices* (MUTCD) guidelines should be followed in the design of all intersections involving bike lanes. Signal detection should be provided, where practical, on all approaches to a signalized intersection where bike lanes are provided.



## 8.2 Bike Paths

While the scope of this Bicycle Plan did not include evaluation of new off road multi-modal facilities, there may be opportunities in the future to implement bike paths along new greenways. Bike paths, also referred to as sidepaths and multi-use trails, should have a minimum width of 8' to 10' if they are designed to allow other uses such as walking or inline skating. A width of 12' to 14' is recommended for even greater capacity and safety.

- A graded area of at least 2' on either side of the paved surface should be left to provide clearance of path-side obstacles.
- The path should ideally be separated from the roadway by at least 5'. If this is not possible, a suitable physical barrier should be provided to protect cyclists from traffic.

## 8.3 Other Innovative Bicycle Facilities

In certain situations, traditional bicycle facilities (e.g. bicycle lanes) may not achieve desired results due to the nature of the existing roadway network. For this reason, the application of innovative facilities can be utilized to make important connections that would otherwise be unavailable through traditional means. Four examples of innovative facilities are presented below since they may be applicable in the future to bicycle compatibility improvements in Morristown. These facilities have been evaluated by the Institute

of Transportation Engineers (ITE) and have successfully been implemented in many cities throughout the United States.

## **Cycle Track**

A cycle track is a bicycle facility that is adjacent to the roadway but separated by a physical barrier. Physical barriers can include the addition of concrete islands or the movement of the parking lane away from the curb, where space permits. Cycle tracks often require right of way of up to fourteen (14) feet but can be constructed in situations with a much as nine (9) feet of additional right of way. Cycle tracks would be applied where significant demand for cycling exists, and often permit bi-directional travel, eliminating the need for accommodations on both sides of the roadway.



## **Contraflow Bicycle Lanes**

Contraflow bicycle lanes are similar to traditional bicycle lanes, with the exception that they provide for travel down a one way street against the flow of traffic. This application is best utilized in extraordinary circumstances when vital connections are excluded from a bicycle route network. Prior to application, significant study should be performed to attempt to identify alternate routes which follow existing travel lane directions. In many cases, alternate routing through the use of shared use paths and parallel roadways will exist. Applications of contra-flow bicycle lanes often include the use of bollards or permanent physical barriers as a means of physical separation from oncoming vehicular traffic.



## **High Visibility Bicycle Lanes**

High visibility bicycle lanes are similar to traditional bicycle lanes with the exception that the entire lane is painted to differentiate it from vehicular travel lanes. This application provides an additional layer of visibility which will alert motorists to the presence of cyclists. Prominent examples include New York City's Class 1 and 2 bicycle lanes which utilize the color green, while Portland, Oregon has utilized blue as their color of choice. Despite this difference, the application of the high visibility bicycle lanes have produced favorable results by way of bringing attention to the presence of cyclists and additional traffic calming effects to the roadway.



## Advance Stop Line “Bicycle Box”

The Advance Stop Line or “Bicycle Box” is a roadway treatment developed to provide cyclist with the space to position themselves for turning movements at signalized intersections. This treatment marks an area for bicyclists in front of stopped vehicles at signalized intersections. Similar High Visibility Bicycle Lanes, current applications use a contrasting surface color to mark the entire area occupied by the bicycle box and to enhance visibility. A prominent example of this treatment currently in use and under evaluation is Portland, Oregon.



## 8.4 Signage Guidelines

This section provides general descriptions of signage and pavement markings for bicycle traffic. It is not meant to include all bicycle facility signs or specifications available for use, but rather to provide an introduction to those signs that are most commonly used. For a complete listing and official use criteria, refer to the MUTCD, 2009.

Bikeways on roadways necessarily must utilize existing traffic control signage. Bicyclists, as with other traffic, benefit from and must abide by regulatory signs such as ‘Stop’, ‘Yield’, and ‘Right Lane Must Turn Right’ signs. New to the MUTCD, 2009 edition is the use of the R4-11 Bikes May Use Full Lane signs, which has been used recently around the country in support of Shared Roadways where outside lane widths do not provide sufficient space for bicycles to ride next to automobiles.



### Shared Roadway Signs

A “Share the Road” sign assembly (W11-1 + W16-1P) is intended to alert motorists that bicyclists may be encountered and that they should be mindful and respectful of them. Another sign that may be used in shared lane conditions is the BICYCLES MAY USE FULL LANE sign (R4-31 11). This sign may be used on roadways without bike lanes or usable shoulders where 32 travel lanes are too narrow for cyclists and motorists to operate side by side within a lane.



Share the Road Sign Assembly



R4-11

## 8.5 Pavement Marking Guidelines

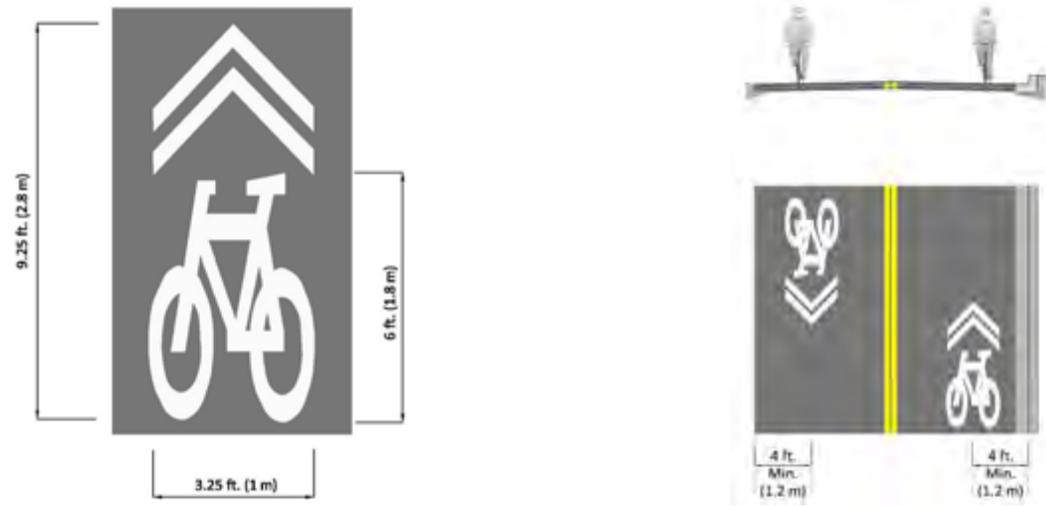
Pavement markings require significantly greater planning and engineering design efforts than simply signing a road. For example, a striped bike lane should begin and end with a direct and immediate connection with a road or other facility, which adequately accommodates bicycle traffic to the same or similar level as the bike lane. A bike lane should not “dead end” into a roadway without some sort of bikeway. This may encourage less experienced cyclists to venture onto the bike lane and find themselves in a traffic situation that they are ill-prepared to handle. The following pavement markings from MUTCD are examples of pavement markings that might be used in Morristown where appropriate. AASHTO guidelines should be followed in designing any pavement markings for bike lanes.

Bike lane symbols on the pavement should be installed at the same frequency as the ‘Share the Road’ sign. Signs and markings could be staggered for greater coverage except at the beginning of a road and where side roads enter the road with the bike lane, in which case both signs and markings should be used. Defined (paint striped) bike lanes as a designated portion of the roadway tend to impart a greater sense of security for bicyclists and serve as a continuous reminder for motorists that cyclists may be present. The presence of bike lanes in some parts of the Town could lead, however, to some motorists incorrectly concluding that cyclists do not have the right to use a roadway where a bike lane does not exist. This incorrect assumption may also apply to ‘Share the Road’ signs. Education efforts are especially important to prevent this misconception.

### Shared Lane Markings

Shared lane markings should be placed immediately after an intersection and spaced at intervals not greater than 250 feet (76 m) thereafter. Shared lane markings should be marked on an alignment that represents a practical path of bicycle travel under typical conditions. For some streets, this may be the center of a shared travel lane. The following provides guidance on shared lane marking placement:

- On streets with on-street parallel parking, shared lane markings should be placed at least 11 feet (3.4 m) from the face of curb (inclusive of gutter), or edge of pavement where there is no curb.
- On streets without on-street parallel parking, shared lane markings should be placed at least 4 feet (1.2 m) from the face of curb (inclusive of gutter), or edge of pavement where there is no curb.



## 8.1.6 Bicycle Parking

The addition of safe, convenient bicycle parking facilities has been linked to increased bicycle ridership in many communities. As a result, additional bicycle parking facilities are recommended throughout the Town. Bicycle parking should be provided at all public facilities, such as public schools, parks and other community facilities. In addition, the Town should continue to work with employment and retail centers to provide additional bicycle parking to satisfy the demands of both customers and employees. Bicycle parking is generally separated into two types of facilities; long-term, such as bicycle lockers, and short-term, such as bike racks. Long-term parking facilities are intended to provide safe protection, for both bicycles and accessories, from weather, theft, and vandalism for long periods of time. Long-term facilities should be installed at employment centers, multifamily residential developments, and at transit stops or park-and-ride lots. Short term parking facilities provide bicycle parking for shorter periods of time where the bicycle is visible and convenient to entrances of buildings, commercial/retail centers, and public spaces. Typically, a bike rack should be no more than a 30-second walk from a building entrance, and at the very minimum, should be as close as or closer than the nearest car parking space. Protection from the weather is usually not provided, but is desirable. Locations of parking facilities should also be coordinated with bicycle compatible routes.

Morristown has been using a decorative bicycle racks for all of its business district applications. This rack style should continue to be used to promote the character of Morristown. In the public parks and schools, a larger style of rack should be selected that can accommodate more cyclists in one location. The amount of spaces provided at particular locations should be determined by land use intensity, similar to the method used for calculating vehicular parking spaces. The Town should consider adopting off-street bicycle parking requirements for new developments.



## 8.2 Recommended Bicycle Facility Improvements

Recommended bicycle facility improvements to enhance bicycle mobility and accessibility in Morristown are based on findings from the bicycle compatibility assessment and bicycle crash review, and input from local officials and stakeholders through a Study Coordinating Committee and a Public Information Center (**Appendix C**). The recommended improvements address existing conditions on inventoried roadways, intersections, and bridges in Morristown, and provide suggestions for consideration by Morristown officials for incorporating future roadway modifications to accommodate bicycles.

The recommendations, which are presented as concept templates, were developed for installation within the existing pavement widths and in response to conditions such as speed, volume, and the presence of on-street parking. The concept templates are listed below and illustrated in **Map 4**:

1. **Concept Template #1 – Paved Shoulders “Share the Road”**
2. **Concept Template #2 – Shared Lane with Shared Lane Markings**
3. **Concept Template #3 – Centerline Restriping**
4. **Concept Template #4 – Bicycle Route Designation**

Details pertaining to the concept templates are included on the following pages and accompanied by the identification of specific roadways for application of the improvements (**Appendix D**), order-of-magnitude costs (preliminary cost estimating spreadsheets are included in **Appendix E**, and potential constraints associated with the installation of the improvements. The recommended improvements were developed in accordance with NJDOT guidelines for bicycle and pedestrian facilities (*Bicycle Compatible Roadways and Bikeways, Planning and Design Guidelines* and *Pedestrian Compatible Planning and Design Guidelines*), American Association of State Highway and Transportation Officials (AASHTO) guidelines (*Guide for the Planning, Design, and Operations of Pedestrian Facilities* and *Guide for the Development of Bicycle Facilities*), and the Federal Highway Administration (FHWA) 2009 edition of the Manual on Uniform Traffic Control Devices (MUTCD).

### 8.2.1 Concept Template #1 – Paved Shoulders “Share the Road”

Concept Template #1 proposes striped, paved shoulders for roadways which currently have a 32' cross-section and where on-street parking is not permitted. The proposed cross-section would include two 11' travel lanes and 5' shoulders in each direction to provide space for a bicyclist to ride adjacent to motor vehicles. “Share the Road” signs (W11-1, W16-1P) would be installed in conjunction with the striping to alert motorists to the presence of bicyclists in the roadway. As the bicycle network is developed in Morristown, these shoulders could be re-striped and signed to become designated bicycle lanes. Concept #1 is illustrated in **Figure 1**.

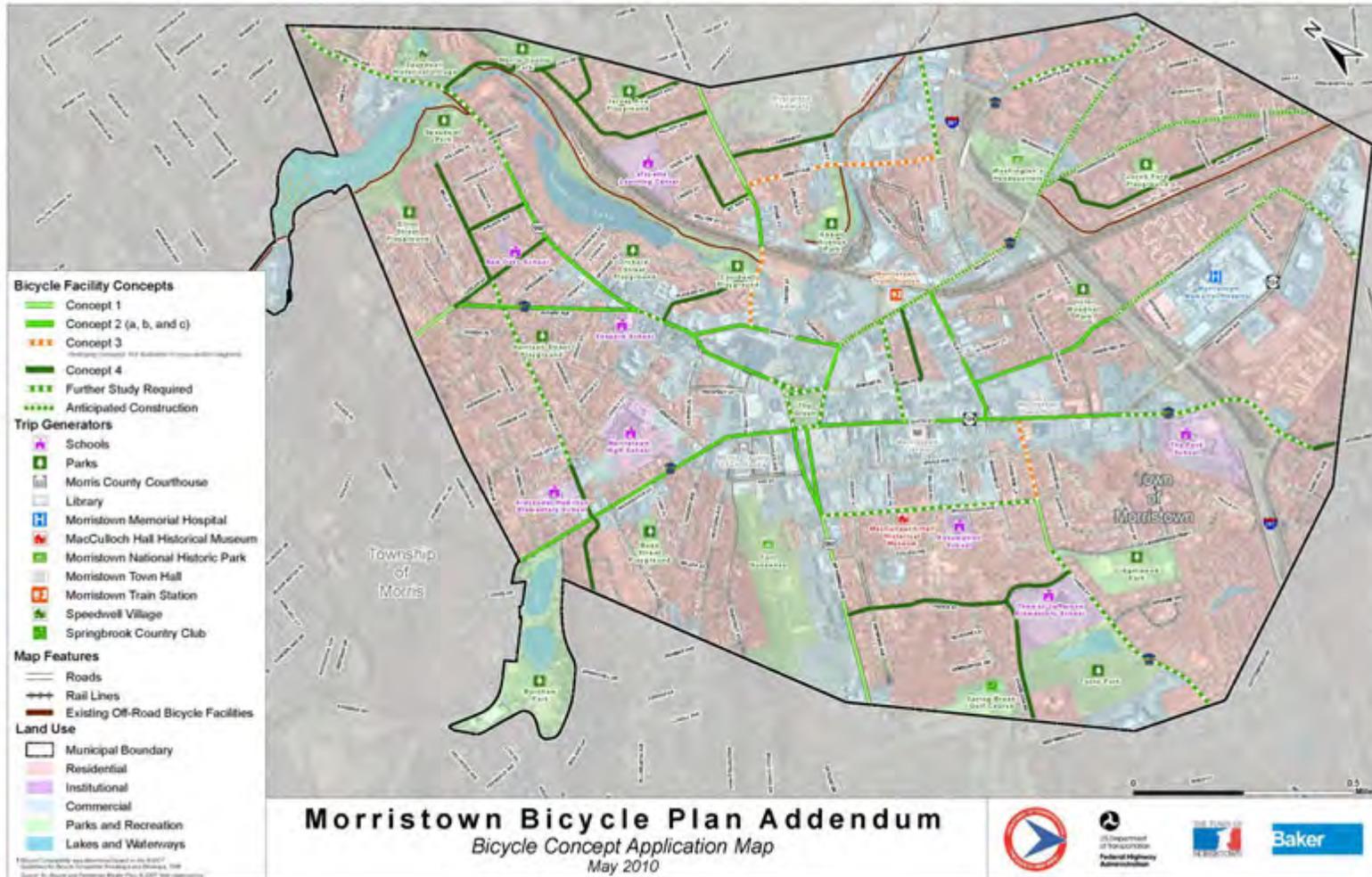
This template could be applied to Martin Luther King Avenue, (north of Abbett Avenue) and Mt. Kemble Avenue (US 202), (south of MacCulloch Avenue). For Martin Luther King Avenue, striped shoulders would be installed from the intersection of Abbett Avenue to the Morristown boundary. To supplement the striping, share the road signage at regular intervals. It is estimated that the restriping and installation of signs would cost \$26,000.



# Morristown Bicycle Plan

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## Map 4: Morristown Bicycle Concept Application Map





# Morristown Bicycle Plan

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## Morristown Bicycle Plan

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A 4-foot wide striped shoulder currently exists on Mt. Kemble Avenue (US 202) between the Morristown boundary and MacCulloch Avenue. Restriping along this corridor would widen each shoulder by 1-foot and include the installation of shared road signage should be installed at regular intervals. It is estimated that the restriping and installation of signs would cost \$39,000.

No potential constraints are anticipated for this concept.



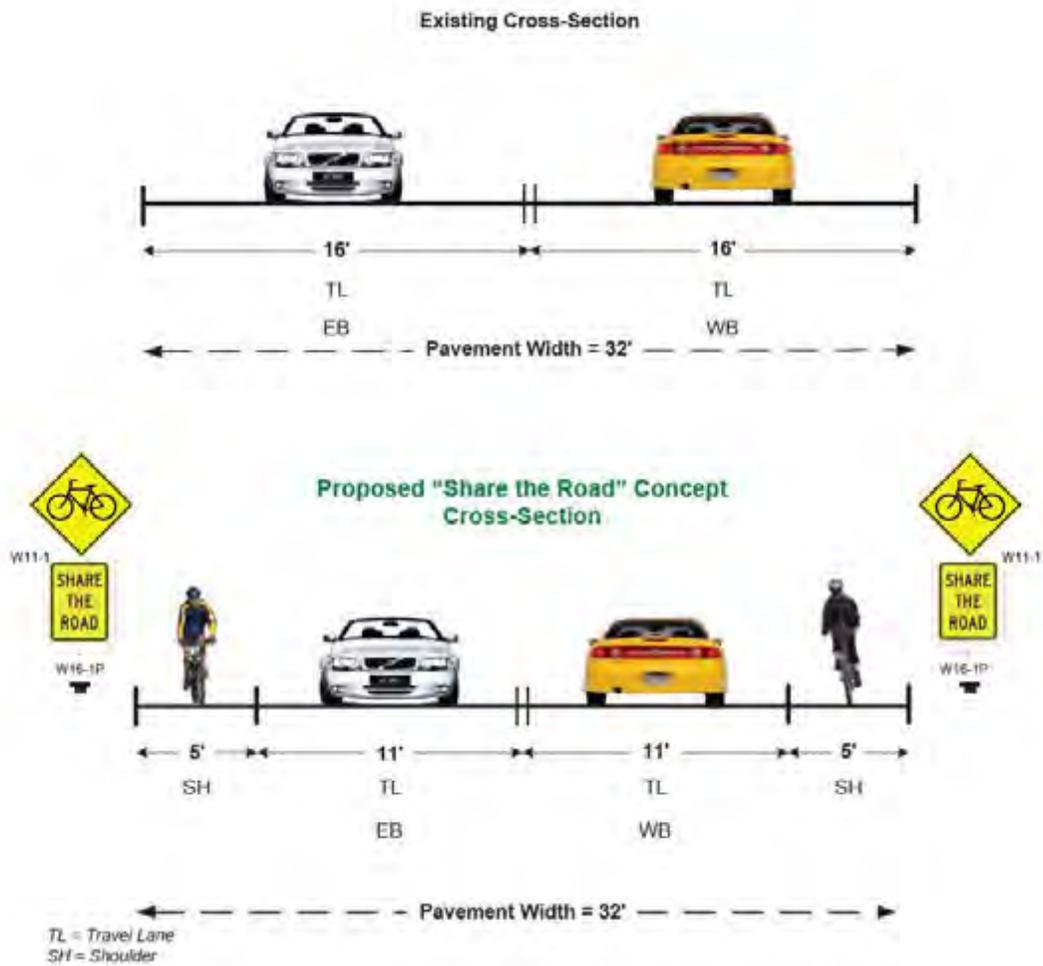
*Mt. Kemble Avenue, looking north*



*Martin Luther King Avenue, looking north*

Figure 1: Concept Template #1 Paved Shoulders

“Share the Road”



## 8.2.2 Concept Template #2 – Shared Lane with Shared Lane Markings

Concept Template #2 proposes the development of shared lanes through the installation of Shared Lane Markings, or “Sharrows” symbols on roadways that have widths between 40’ – 44’ and permitted on-street parking. Shared lane markings are recommended to provide guidance to bicyclists regarding positioning in the travel lane. Shared lane markings can also reduce the incidence of riding against traffic and sidewalk riding by bicyclists.

Three (3) variations (a, b, c) for Concept Template #2 were developed based on varying cross-section widths in Morristown. Recommended signage to supplement the shared lane markings varies based on the proposed cross-section.

### A. Concept Template 2a

Concept Template #2a proposes re-striping of roadways with a 40’ cross-section. The proposed cross-section would include two 13’ travel lanes 7’ striped parking in each direction, and shared lanes with full travel lane utilization for the bicyclist. Since on-street parking is permitted, Shared Lane Markings should be installed a minimum of 11’ from the face of the curb and ‘Bicycles May Use Full Lane’ signs (R4-11) would be installed along the roadway. Concept #2a is illustrated in Figure 2.

This template could be applied to Sussex Avenue, (from Cutler Street to Speedwell Avenue), and South Street, (from Dehart Street to Madison Street). On Sussex Avenue, the shared lane markings are recommended for installation at regular intervals (approx. every 150’ – 200’) along the roadway. “Bicycles may use Full Lane” signs are recommended for installation at wider intervals along the roadway (e.g. 1,000’), but should be installed to correspond with the markings. It is estimated that the restriping and installation of signs would cost \$25,000.

For South Street, a reduction of parking lane striping from 8’ to 7’ is recommended. The shared lane markings are then recommended for installation at regular intervals (approx. every 150’ – 200’) and immediately following each signalized intersection along the roadway. “Bicycles may use Full Lane” signs are recommended for installation at greater intervals (e.g. 1,000’) along the roadway, but should be installed to correspond with the markings. It is estimated that the restriping and installation of signs would cost \$32,000.

No potential constraints are anticipated for this concept.

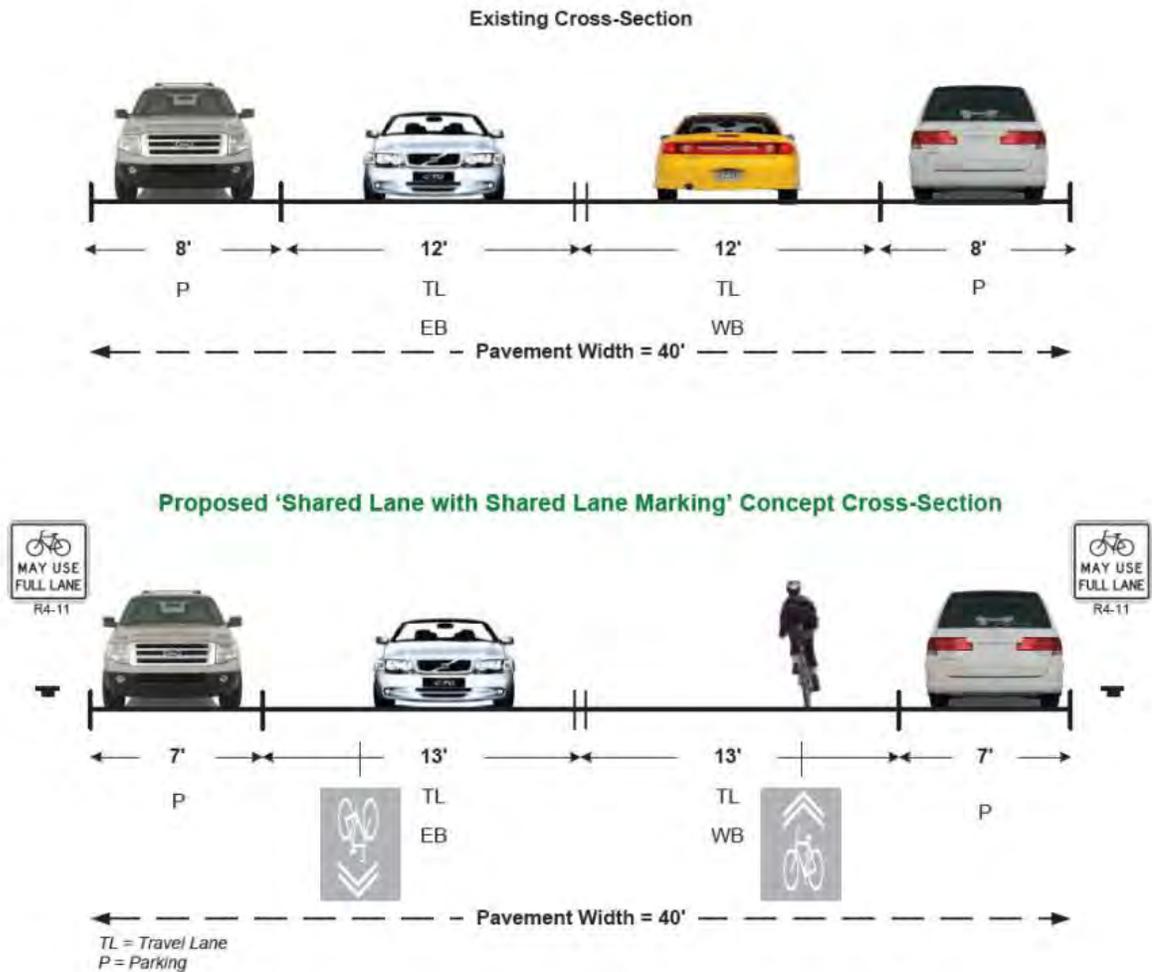


*Sussex Avenue, looking South, toward Speedwell Avenue*



*South Street, looking East*

**Figure 2: Concept Template #2a Shared Lane Concept with Shared Lane Markings (40' Cross-Section)**



## B. Concept Template 2b

Concept Template #2b proposes the re-striping of parking lanes on roadways with a 42' cross-section. The proposed cross-section would include two 14' travel lanes and 7' striped parking in each direction, and shared lanes with full travel lane utilization for the bicyclist. Since on-street parking is permitted, shared lane markings should be installed at minimum of 11' from the face of the curb, as well as "Share the Road" signs (W11-1, W16-1P). "Share the Road" signage is recommended to indicate the potential for side-by-side travel by motorists and bicyclists. Concept #2b is illustrated in **Figure 3**.

This template could be applied to Washington Street, (from the Morristown Boundary to Cattano Avenue), and Speedwell Avenue, (between Sussex Avenue and Frederick Street). On Washington Street, a reduction of parking lane striping (where present) from 8' to 7' is recommended. The shared lane markings are recommended for installation at regular intervals (approx. every 150' – 200') and immediately following each signalized intersection along the roadway. Share the road signs are recommended for installation at greater intervals (e.g. 1,000') along the roadway, but should be installed to correspond with the pavement markings. It is estimated that the restriping and installation of signs would cost \$24,000.

For Speedwell Avenue a reduction of parking lane striping (where present) from 8' to 7' is recommended. Shared lane markings are recommended for installation at regular intervals (approx. every 150' – 200') and immediately following each signalized intersection along the roadway. Share the road symbols are recommended for installation at greater intervals (e.g. 1,000') along the roadway, but should be installed to correspond with the pavement markings. It is estimated that the restriping and installation of signs would cost \$27,000.

No potential constraints are anticipated for this concept.

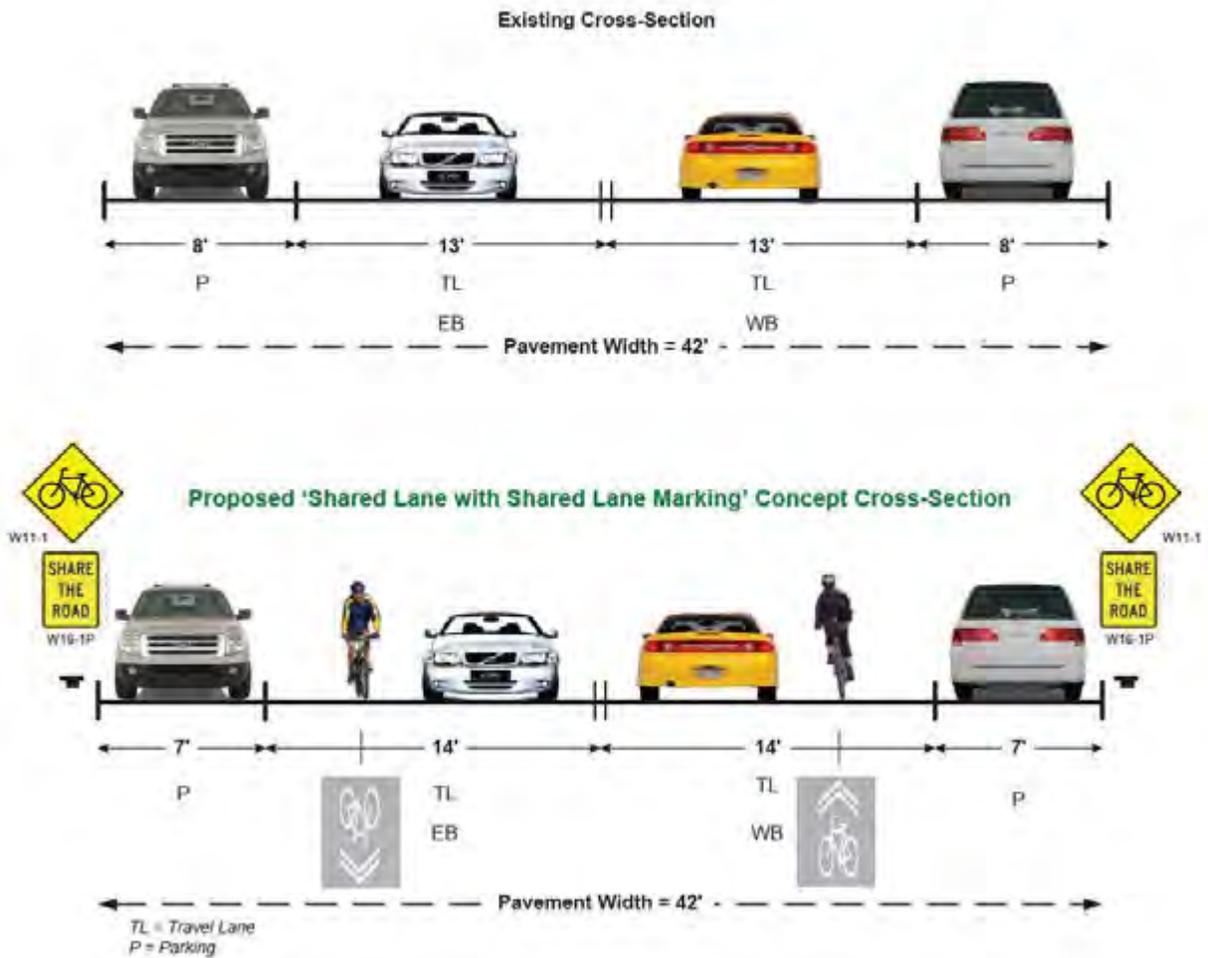


Washington Street, looking East



Speedwell Avenue, looking South

**Figure 3: Concept Template #2b Shared Lane Concept with Shared Lane Markings (42' Cross Section)**



## *C. Concept Template 2c*

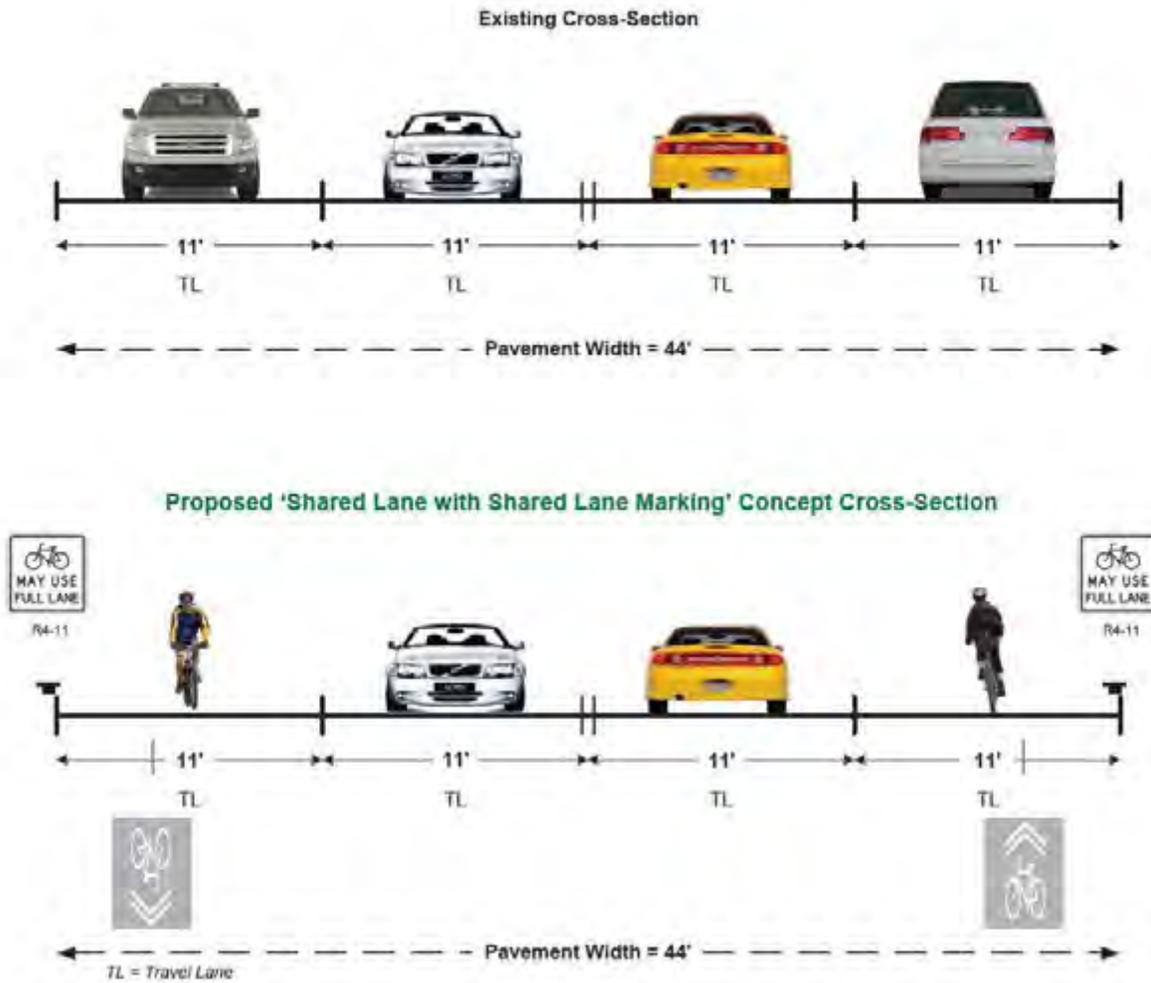
Concept Template #2c proposes installing shared lane markings on roadways with a 44' cross-section. For this template, four 11' travel lanes would remain, but enhancements are proposed to provide a shared lane situation for full travel lane utilization by a bicyclist. On-street parking is not permitted in these locations, so Shared Lane Markings are recommended for installation at least 4' from the face of the curb in addition to 'Bicycles May Use Full Lane' signs (R4-11). Concept #2c is illustrated in **Figure 4**.

This template can be applied to Spring Street between Morris Street and Speedwell Avenue. On Spring Street, shared lane markings are recommended for installation at regular intervals (approx. every 150' – 200') along the roadway. "Bicycles may use Full Lane" signs are recommended for installation at greater intervals (e.g. 1,000') along the roadway, but should be installed to correspond with the markings. It is estimated that the restriping and installation of signs would cost \$23,000.



*Spring Street, looking South, towards Morris Street*

**Figure 4: Concept Template #2c Shared Lane Concept with Shared Lane Markings (44' Cross Section)**



## 8.2.3 Concept Template #3 – Centerline Restriping

Concept Template #3 proposes restriping of the roadway centerlines to provide additional space for future installation of bicycle facilities (e.g. shared lane markings, shoulders, etc.). In situations where bicycle facilities can only be accommodated (without ROW impacts) on one side of the roadway, shifting centerlines could provide the necessary additional space needed to accommodate bicycle facilities on both sides. Once restriping is completed, one of the previous four (4) concept templates could be implemented. In addition shifting the centerlines, the locations may require additional planning, investigation, and engineering review.

Potential locations for centerline restriping are James Street (from South Street to MacCulloch Avenue), Martin Luther King Avenue from (Center Street to Spring Street), and Abbett Avenue (from Ridgedale Avenue to Martin Luther King Avenue). For example, on Martin Luther King Avenue, current roadway widths are not bicycle compatible in the northbound direction. Shifting the roadway centerline 2' toward the southbound lane will increase to the northbound lane width to 14' making it compatible for the application of Concept Template 2b.

Potential constraints associated with shifting the centerlines include traffic impacts and the relocation of raised pavement markers. It is recommended that centerline shifting be reviewed further when the identified roadways are under consideration for repaving or reconstruction.



*Restriping the centerlines on Martin Luther King Avenue could provide added space for a 14' northbound travel lane.*

## 8.2.4 Concept Template #4 – Bicycle Route Designation

Concept Template #4 proposes the designation of low-volume residential streets as Signed Bicycle Routes. The purpose of signing roadways as Bicycle Routes is to provide directional information and connections for bicyclists to reach community destinations. Many lower speed (25 MPH) residential streets in Morristown were determined bicycle compatible per NJDOT guidelines and have the potential to be signed as a Bicycle Route. For this concept, Bicycle Route signage (D Series: D1-1 and D-11-1) is recommended for installation at the start and end of the proposed routes, with additional signage provided at major decision points to provide guidance for bicyclists. The D1-1 plaques are recommended to identify destinations, and could include “To Downtown”. In addition to providing bicycle connections within neighborhoods, the signed bicycle routes could serve as connecting routes to other roadway corridors that are improved under other concept templates, such as Mt. Kemble Road (US 202) and Martin Luther King Avenue. Concept #4 is illustrated in **Figure 5**.

Examples of where this template could be applied are:

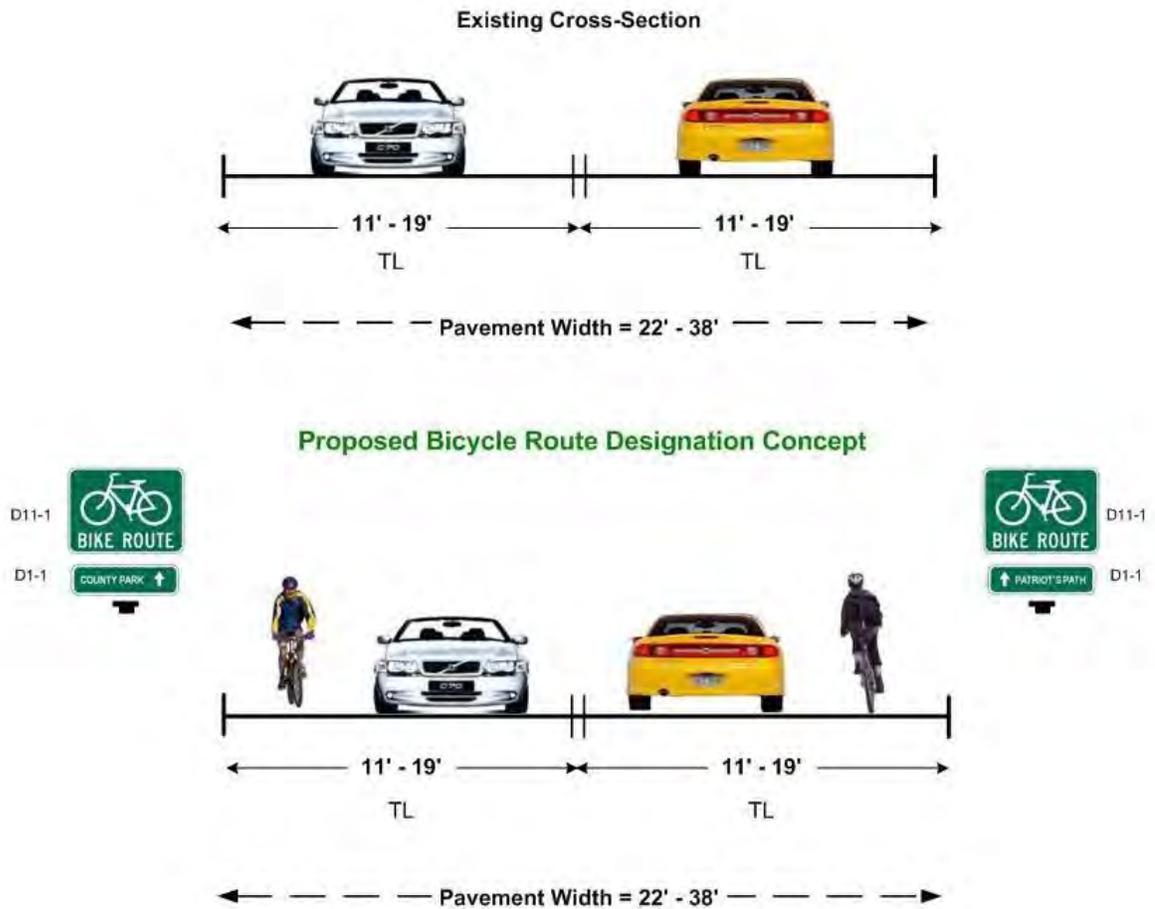
- Valley View Drive: providing a connection to the Jacob Ford Playground
- Ogden Street: providing a connection to the Thomas Jefferson Elementary School.
- Jersey Avenue: providing a connection to the Jersey Avenue Playground
- Mills Street and Early Street: providing a connection to the Morristown High School

It is estimated that the installation of signs would cost between \$17,000 and \$20,000 per route.



Destinations such as the Morristown Train Station or Foote’s Pond Wood near the Thomas Jefferson Elementary School could be better served through the designation of bicycle routes throughout Morristown.

**Figure 5: Concept Template #4 – Bicycle Route Designation**



TL = Travel Lane  
SH = Shoulder

\*Most roadways permit on-street parking

## 8.2.5 Further Study

Connectivity within a network is important when developing on-road bicycle facilities. To that end, several roadways that could provide key bicycle connections in Morristown present significant challenges to accommodating bicycles, beyond the implementation of Shared the Road Markings and signs, and will require further study.

These roadways include:

- Speedwell Avenue (US 202), north of Frederick Street
- Speedwell Avenue (US 202), between Sussex Avenue and Flagler Street
- Ridgedale Avenue, north of Abbett Avenue
- Lafayette Avenue
- Madison Avenue (NJ 124), west of I-287
- MacCulloch Avenue
- Pine Street

For these roadways, investigation is recommended into possible removal of on-street parking, reduction in the number of travel lanes, and potential minor widening to increase available existing pavement width for bicycles. An example of this type of change is the concept of a Road Diet. A Road Diet involves reducing vehicle travel lanes and reallocating roadway space for other modes of travel and potential uses, such as bicycle lanes.

Road diets, such as the one on Morris Avenue, have been successfully constructed on roadways with an AADT under 20,000, and have resulted in improved multi-modal travel, speed reductions, and minimal traffic diversions. However, at a minimum, this treatment requires analysis of peak hour traffic volumes and roadway capacity before it can be implemented.

These potential changes will require more detailed engineering review and design, as well as coordination with residents, property owners, transportation agencies, and other involved stakeholders.

## 8.3 Bicycle Facility Improvements at Intersections and Bridges

Several important connections through Morristown will include traversing major intersections and bridges by bicyclists. Of the five (5) intersections that were analyzed during this study, it was identified that three (3) are scheduled to receive enhancements as part of a “complete streets” policy currently being initiated by Morris County. These intersections are located along Morris Street at Spring Street, Lafayette Avenue, and Elm Street. Critical to the success of the complete streets application along this corridor will be the application of bicycle facilities if they have not been planned already.

For the remaining two (2) intersections, at Speedwell Avenue/Sussex Avenue and Ridgedale Avenue/Lafayette Avenue, consistency of lane widths through the intersections and the installation of appropriate striping and signage will help to increase motorist awareness of the presence of bicyclists at these locations. At these locations 13’ - 14’ shared travel lanes are recommended through the intersections. An example of how these improvements may look can be found in Figure 8, on the following page.

Since Morristown is bisected by Interstate 287, several bridges may require crossing. NJDOT's *Planning and Design Guidelines for Bicycle Compatible Roadways and Bikeways* recommends that for small sections of roadway, bicyclists may use sidewalks on bridges when combined with adequate signage and striping.

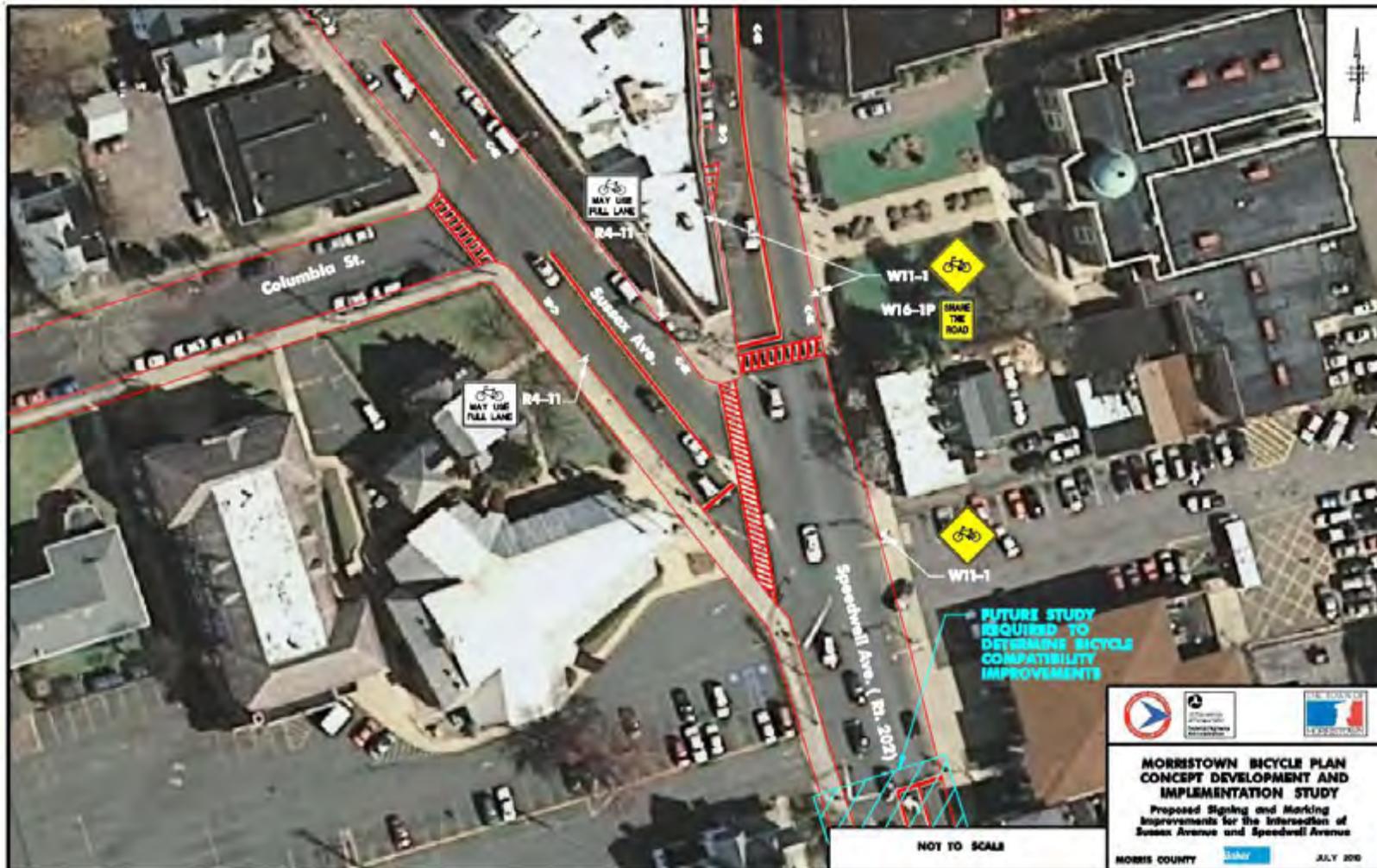


*Sidewalk located on Madison Avenue Bridge*



*Intersection of Sussex Avenue and Speedwell Avenue*

Figure 6: Proposed Signing and Striping at Sussex Avenue and Speedwell Avenue



## 8.4 Operation and Maintenance Issues

The condition of the roadway surface is an important element in both bicycle safety and level of service. In general, due to their high pressure, narrow profile tires, lack of suspension, and need to maintain balance, bicycles require a higher standard of road maintenance than motor vehicles. Potholes, bumps, seams, and debris — which can be of minor annoyance or no consequence whatever to motor vehicles — are potential hazards to bicycle traffic as these obstacles can cause loss of control of the bicycle, or cause the bicyclist to risk conflict with motor vehicle traffic by swerving to avoid the obstacle.

For the above-mentioned reason, the roadway surface on which bicycles normally operate should be maintained free of potholes, bumps, corrugations, seams, unravelled pavement edges, gravel, glass fragments, and any other debris or obstacles that mar a smooth riding surface. The area involved includes the right portion of the outside travel lane plus any additional space. Typically, this portion of the roadway gets less attention, as maintenance efforts are concentrated on the portion of the roadway used by motor vehicles. Maintenance repairs in this area should be carried out with the needs of the bicycle in mind; i.e., they should be done in a workmanlike fashion with particular attention to providing a smooth pavement surface.



The following actions are recommended by the 2012 AASHTO Guide for the Development of Bicycle Facilities as requirements in the operation and maintenance of bicycle facilities.

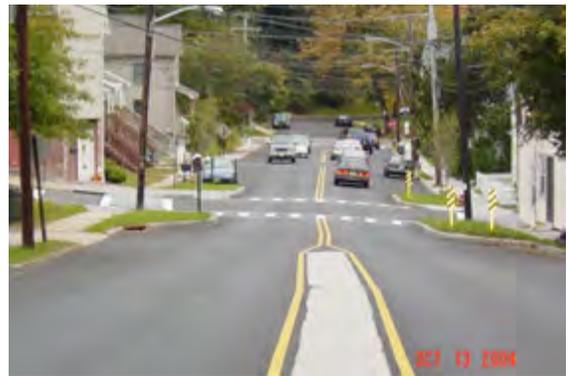
- Create a smooth surface free of potholes and debris.
- Eliminate dropoffs from pavement edges.
- Inspect pavement conditions - do not allow unravelled pavement edges.
- Inspect signs - making certain that signs do not intrude into bicycle travel space.
- Control growth of trees, shrubs, and vegetation.
- Supply trash and recycling receptacles and be sure they are regularly emptied.
- Mow areas in the vicinity of bike paths.
- Plow snow - do not use deicing agents.
- Enforce and prevent unauthorized motor vehicles from using the path.
- Maintain bicycle and shoulder lane stripings and markings.
- Establish an agency responsible for the control, maintenance, and policing of bicycle facilities.

Maintenance of roadways to accommodate bicycle traffic does not usually require changes in the types of maintenance activities that are carried out; rather it requires changes in the focus of maintenance practices. Where possible, maintenance, repair and litter removal activities should be shifted to include, not to ignore, roadway margins and shoulders.

## 8.5 Traffic Calming

Traffic calming should also be considered in conjunction with bicycle facilities, especially on residential streets in close proximity to schools and other community facilities. The Town should ensure that the design of future traffic calming improvements accommodates bicyclists to the greatest extent possible. For example, if roadway closures are considered, gaps for pedestrians and bicyclists should be provided to maintain access for non-motorized traffic. The benefits of traffic calming for bicycling and walking are:

- Traffic calming techniques can be used to provide better roadway conditions for bicyclists by better defining the space available to each mode, by improving intersection design for non-motorized users and by giving greater priority to their movement.
- Reduced traffic speeds and volumes allow bicyclists to share the roads with vehicles.
- Quieter streets and increased ease of crossing enhance bicycle mobility.
- Lower traffic speeds improve safety.



# Chapter 9: Proposed Bike Network & Implementation Plan



## 9.0 PROPOSED BIKEWAY NETWORK & IMPLEMENTATION PLAN

Because of the great difference in skill levels among bicycle riders, different types of bicycle facilities are needed to serve riders in New Jersey. Advanced bicyclists are best served by bicycle compatible streets and highways, which have been designed to accommodate shared use by bicycles and motor vehicles. Basic bicycle riders will be especially interested in riding on bikeways, which are designated facilities that encourage bicycle use.

### 9.1 General Network Recommendations

The existing conditions analysis was used to develop a proposed bikeway network. This network is shown in **Map 4**. Connections are provided to major community facilities and services, residential areas, retail and employment centers, and to existing or planned bikeway facilities within Morris Township, the Town of Madison, and Morris County. Recommendations for the Town's bikeway network are based on the existing measurements of the roadways (lane widths, shoulder widths, rights-of-way width, etc.), as well as the characteristics of development and land uses in the area. Recommendations generally fall within three different types: bike lanes, shared roadways, or multi-use trails. Chapter 8 contains design guidelines for different types of bikeways. Short-term recommendations are those that require more modest improvements; long-term recommendations require more significant improvements and therefore are more likely to coincide with roadway reconstruction projects. The Town should work closely with state, county, and Township officials to successfully implement the network.

### 9.2 Implementation Plan

Morristown covers an area of roughly three (3) square miles. The average bicycle trip ranges between 3 – 5 miles. As a result, Morristown presents a tremendous opportunity for increasing the amount of bicycle travel in town through on-road bicycle compatibility enhancements. As detailed and illustrated in this Plan, there are multiple treatments that can be installed in Morristown to improve bicycle mobility. The following sections provide guidance on coordination and planning necessary for developing bicycle facilities in Morristown.

Bicycle accommodations on Morristown roadways (e.g., lane striping, pavement markings, signage, etc.) will likely need to be installed in phases based on the availability of resources, local priorities, and implementation of scheduled roadway improvements (e.g., re-striping, repaving, reconstruction, etc). Consequently, there may be thresholds and opportunities for advancing different elements of the bicycle network.

Table 10 presents the recommended action items in a matrix to provide a potential outline for implementing the conceptual improvement templates and developing a comprehensive bicycle network.

#### 9.2.1 Implementation Goals

1. Encourage enjoyable use of bicycling without threatening or discouraging pedestrian use.
2. Prioritize safety issues and locations of high accident data
3. Provide clear bicycle facilities without sign clutter.
4. Prioritize implementation projects on roads leading to the train station

5. Target high demand areas for bicycle improvements
6. Integrate bicycle facilities as part of ongoing roadway repaving plans
7. Identify areas in need of traffic calming that will assist to improve bicycle facilities
8. Implement Share the Road markings and signs on full length roadways, and later follow up on areas in need of greater attention
9. Use share the road stencils and paint on low traffic areas and thermoplastic on high traffic areas.

**Table 10 Implementation Plan - Action Items**

<b>Policy Initiatives</b>	
Identify the Bicycle Network of Roads in Morristown, by primary and secondary routes.	<b>Short Term</b>
Develop a Bicycle Advocacy Board to review transportation, repaving and development plans, coordinate with township and county engineers, conduct annual evaluation statistics, etc.	<b>Short Term</b>
Dedicate a funding source for bicycle planning, design and implementation projects.	<b>Mid Term</b>
Incorporate bicycle facility improvements, where feasible, into new transportation and development projects.	<b>Continuous</b>
Review existing Town and School District policies and procedures to encourage and promote bicycle use.	<b>Short Term</b>
Coordinate with Morris Township and Morris County governments to facilitate implementation of multi- jurisdictional bicycle facilities.	<b>Continuous</b>
<b>Planning &amp; Construction</b>	
Implement Paved Shoulders and Shared Roadways with signage on primary routes. (Bicycle Network, Secondary Corridors).	<b>Short Term</b>
Implement Paved Shoulders and Shared Roadways with signage on secondary routes (Bicycle Network, Secondary Corridors).	<b>Mid Term</b>
During all repaving, reduce painted parking stalls from 8 feet to 7 feet, except where line-of-site issues require more.	<b>Continuous</b>
Evaluate bicycle parking supply and demand, and add bicycle racks as needed.	<b>Continuous</b>
Install sufficient bicycle parking facilities at bus and rail commuter stations/stops	<b>Continuous</b>
Develop a Bicycle Spot Improvement program for low-cost improvements (roadway surfaces, warning signs, bicycle rack installations, replace drain grates).	<b>Mid Term</b>
Evaluate areas for further study (for road diets, removal of parking, or lane width reductions: <ol style="list-style-type: none"> <li>1. Speedwell Avenue (Sussex to Flagler; north of Frederick St.)</li> <li>2. Ridgedale Ave (north of Abbett Avenue)</li> <li>3. Lafayette Avenue</li> <li>4. Madison Avenue</li> <li>5. South Street (Madison Ave. to Woodlawn)</li> </ol>	<b>Long Term</b>

6. James Street (Lidgerwood Pkwy. to Township) 7. Around the Green	
Completion of regional trail networks to provide off-road connections for bicyclists travelling in and through Morristown, including: <ol style="list-style-type: none"> <li>1. Path around Lake Pocahontas</li> <li>2. Two-way contraflow pathway from Traction Line Trail to Ford Ave along Morris Ave.</li> <li>3. Path connections from Patriots Path at MLK Ave. to Train Station</li> <li>4. Improved connections from west side of Speedwell Ave Patriots Path to east side of Speedwell Patriots Path on Cory Road</li> </ol>	<b>Long Term</b>
Convert Share the Road markings and signed facilities to bicycle lanes on high priority roads, where feasible.	<b>Long Term</b>
<b>Community Outreach</b>	
Develop and implement an Education, Outreach, and Enforcement Program focused on children (under 17), adult cyclists, cyclists on the sidewalks, Hispanics, and motorists.	<b>Short Term</b>
Develop and implement a Public Awareness Campaign that promotes bicycling in Morristown and enhances resident's interest in improving the Town for cycling.	<b>Short Term</b>
Develop and implement a wide range of promotional events intended to generate enthusiasm and wide public support for cycling in Morristown (i.e., Bike Tours)	<b>Continuous</b>
Develop informational Map of Bicycle Facilities in Town.	<b>Mid Term</b>
<b>Miscellaneous</b>	
Collect bicycle facility evaluation data; including counts of cyclists on the road, on the sidewalk, riders without helmets, cyclists riding in the wrong direction, bicycle-motorist crash data in 3 year increments, and monitor public attitudes about bicycling in Morristown.	<b>Continuous</b>

Source: *Bicycle Planning Steering Committee Meeting # 6, Meeting Minutes*

Notes: *Short-term = 0-2 years, Mid-Term = 0-4 years, Long Term = 0-6 years.*

### 9.2.3 Potential Constraints to Plan Implementation

While bicycling in Morristown has been identified throughout the community as a priority to improve quality of life issues, address deteriorating human health concerns and stimulate the economic development potential in the downtown area, there are always constraints to implementing this plan.

Constraints were identified during public and steering committee meetings, public surveys, and field visits. First, as Morristown was built before the Revolutionary War, many of its roads are narrow and cannot accommodate sufficient width for bicycle lanes. Second, as Morristown provides a critical roadway link between surrounding communities and the interstate highway system of I-287, I-80, and Route 24, motor vehicle traffic volumes are extremely high during peak hours on many of Morristown's roads. With this in mind, municipal officials must decide whether or not bicycles and pedestrians in Morristown should have the same rights to share the roads as the motor vehicles that are destined for

neighboring communities. Third, as the regional center for commerce, restaurants, and offices, on-street parking is in high demand, and cannot be easily removed to provide increased space for bicyclists. Town officials must evaluate whether or not the ample supply of off-street parking garages can adequately support the central business district. Finally, due to the urban setting of Morristown, most roadways have constrained rights-of-way that cannot be widened due to existing land uses and the presence of adjacent sidewalks.



*Bicyclist travelling west on South Street.*



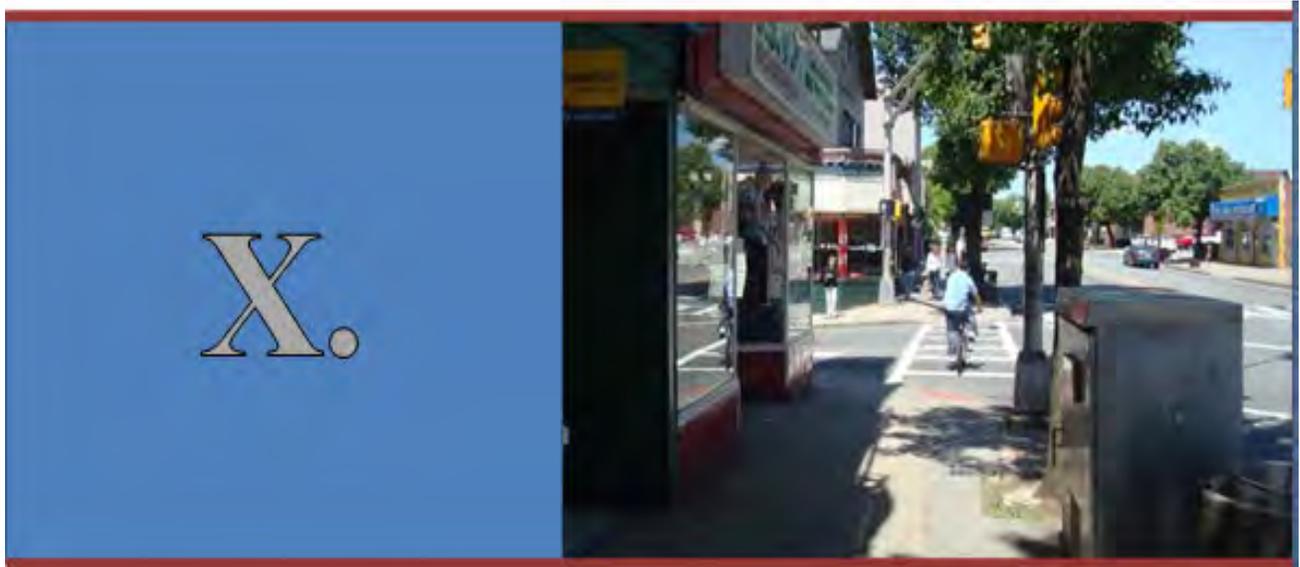
*Bicyclist riding on the sidewalk along Morris St.*

### 9.3 Coordination Efforts

Coordination between Morristown, the Township of Morris, and Morris County should continue to advance improvements to accommodate bicycles on roadways inside and around Morristown. Following this study, a potential step could be the formation of a working group (e.g. Bike/Ped Task Force) to pursue opportunities and resources to support the design and implementation of the on-road facilities. The working group could assist in establishing bicycle compatible routes, as well as identifying potential regional connections that can be supported collectively.

Coordination should also include the identification of opportunities through future development and encouraging feedback from local cycling groups. As projects occur, such as office expansions and commercial developments, opportunities to advance bicycle improvements should be pursued. In addition, through coordination and collaboration, responsibility can be shared regarding future maintenance for bicycle facilities.

# Chapter 10: Education, Enforcement and Funding



## 10.0 EDUCATION, ENFORCEMENT & FUNDING

Concurrent with the design and construction of on-road bicycle facilities, developing education plans is essential to correct behavior of cyclists that currently ride on the sidewalk or ride on the roadways but in the wrong direction. Similarly, the development of enforcement policies is necessary to encourage automobile drivers and existing and new riders to follow the rules of the road. Finally, the implementation of any new bicycle facility or education program requires public funds. The following section provides a thorough discussion of available funding opportunities.

### 10.1 Education

In addition to physical improvements, bicyclist and pedestrian education programs are critical to reducing the number of crashes involving bicycles and to encouraging people to use the new bikeway network. Many crashes occur due merely to a lack of knowledge on the part of bicyclists or motorists about traffic laws and etiquette. The first step is typically to create a public awareness campaign aimed at both drivers and cyclists. Potential strategies include:

- Publishing flyers, pamphlets, and posters stressing the rights and responsibilities of both groups. Similar safety information can also be incorporated into a bikeway network map.
- Distributing materials to the municipal building, library, community center and schools.
- Using the Town website, newsletters, and press releases to further publicize the campaign.
- Coordinating with TransOptions' Bike To Work Week, bicycle stores and local bicycle clubs to develop and disseminate informational materials.

School-based bicycle safety programs should be evaluated and enhanced to incorporate strategies, such as:

- Incorporating bicycle safety information into the physical education curriculum.
- Incorporating driver and cyclist responsibility information into drivers' education courses.
- Developing a Safe Routes to School program.
- Developing a bicycle helmet distribution program.
- Holding a bicycle rodeo event for children with games, safety training and helmet distribution.

To properly plan for future growth of bicycle use, it is key to implement educational programs that encourage lawful and safe practices among bicyclists and motorists. When educating a community it is important to dispel myths, encourage courteous and lawful behavior, and enhance awareness. By utilizing the resources of the local police, schools, and libraries, education programs have the potential of reaching a broader audience and cross section of the community.

The following five (5) groups should be educated about bicycle safety and awareness in Morristown:

1. Bicyclists Riding on Sidewalks
2. Young (17 and under) bicyclists
3. Adult bicyclists
4. Hispanic bicyclists

## 5. Motorists

Educational materials regarding recommended bicycle travel practices and behavior can be accessed at the following locations:

- **NJDOT – Biking in New Jersey**  
<http://www.state.nj.us/transportation/commuter/bike/>
- **Federal Highway Administration (FHWA)– Bicycle Safety Education Resource Center**  
<http://www.bicyclinginfo.org>

*Touring Tips*

<http://www.state.nj.us/transportation/commuter/bike/tourtips.shtm>

*Good Practices Guide*

<http://www.bicyclinginfo.org/education/resource/bestguide.cfm>

Through public meetings it was identified that the Hispanic community represents a major segment of the cycling community in Morristown. In an effort to provide educational material for the Hispanic community, the FHWA and the National Highway Traffic Safety Administration (NHTSA) currently provide a multitude of resources pertaining to educational campaigns for Hispanic bicyclists. In addition to marketing materials, the FHWA has prepared multiple reports on the topic and two (2) have been provided in **Appendix G and H**. Educational materials in Spanish can be accessed at the following locations:

- **FHWA – Safety Programs**  
[http://safety.fhwa.dot.gov/ped\\_bike/hispanic/materials/index.cfm](http://safety.fhwa.dot.gov/ped_bike/hispanic/materials/index.cfm)
- **NHTSA – Pedestrian and Bicycle Safety among Hispanics**  
<http://www.nhtsa.gov/Driving+Safety/Bicycles/Pedestrian+and+Bicycle+Safety+Among+Hispanics>

Several flyers for bicyclist are prepared in Spanish and reports addressing similar issues have been developed by the FHWA and the NHTSA.



## 10.2 Enforcement

The key to encouraging a safe and well traveled transportation system is an enforcement program for traffic regulations as they apply to each type of roadway user: motorists, bicyclists, and pedestrians. The Town of Morristown can reduce poor travel behavior and encourage beneficial travel habits through enforcement. This process should include reviewing current ordinances and traffic regulations to identify elements that may unnecessarily affect certain roadway users, such as bicyclists. As bicycle facilities are installed, it is recommended that local ordinances and regulations be developed or revised to clarify items such as: application of vehicle laws to bicyclists, permitted movements on and across bicycle facilities (e.g. permitted motor vehicle movements across bicycle lanes), bicycling on sidewalks, and bicycle parking requirements. Possible sources for reference include the California Vehicle Code (Division 11, Chapter 1), the Pennsylvania Consolidated Statutes (Title 75, Chapter 35), and the City of Cambridge, MA Traffic regulations (Article XII).

In addition, a review of enforcement regulations and practices may assist in identifying opportunities to partner with community, county, or state organizations to inform users about safe bicycle travel behavior, such as the required use of helmets by bicyclists under the age of 17 (N.J.S.A 39:4-10.1). Outreach and promotion through community channels and events is a critical piece in reminding motorists, bicyclists, and pedestrians of applicable laws and recommended travel practices.

## 10.3 Funding Opportunities

Appendix F includes the *Funding Pedestrian and Bicycle Planning, Programs and Projects*, Rutgers University, 2009.

### 10.3.1 Not-for profit Funding Sources

#### A. Bikes Belong Coalition, Ltd.

Bikes Belong is the national coalition of bicycle suppliers and retailers working together to put more people on bicycles more often. Through national leadership, grassroots support, and promotion, we work to make bicycling safe, convenient, and fun. One of the Coalition's primary activities is the funding of local bicycle advocacy organizations that are trying to ensure that TEA-21-funded bicycle or trail facilities get built. Grants are awarded for up to \$10,000 on a rolling basis.

- Visit [www.bikesbelong.org](http://www.bikesbelong.org).
- Contact Bikes Belong, (303) 449-4893.

### 10.3.2 North Jersey Transportation Planning Authority (MPO) Funding Sources

#### A. Congestion Mitigation and Air Quality Program

Congestion Mitigation and Air Quality (CMAQ) funds are focused primarily on transportation control measures (TCMs). TCMs are strategies whose primary purpose is to lessen the pollutants emitted by motor vehicles by decreasing travel demand (e.g., reducing motor vehicle trips, vehicle-miles traveled, and use of single occupant vehicles) and encouraging more efficient facility use (e.g., reducing vehicle idling and stop-and-start traffic in congested conditions, managing traffic incidents expeditiously).

In addition, CMAQ funds may be used for projects that reduce vehicle emissions directly through vehicle inspection and maintenance programs and fleet conversions to less polluting alternative-fuel vehicles. Intermodal freight facilities, strategies to reduce particulate emissions, and public education and other related outreach activities in support of TCMs are also eligible. The funds are intended primarily for new facilities, equipment, and services aimed at generating new sources of emission reductions. Operating funds that support these projects are generally restricted to a 3-year period. The CMAQ enabling legislation explicitly prohibits funding of construction projects that provide new capacity for single-occupant vehicle travel, such as the addition of general-purpose lanes to an existing highway or a new highway at a new location.

- Contact [your local TMA](#). TMAs are invited annually by the NJTPA to submit proposals for new CMAQ projects.
- Read the [SAFETEA-LU Fact Sheet on CMAQ](#).

## B. Local Scoping and Local Lead Projects

The Local Scoping Program provides the MPOs' subregions (counties) the opportunity to use federal funding to advance local, surface transportation projects through preliminary engineering and the National Environmental Policy Act (NEPA), thereby developing a solution to a defined transportation problem. The subregion identifies a transportation problem (i.e., congested roadway, structurally deficient bridge, missing link in a bike or pedestrian system) and solves this problem during the "scoping" phase of the project development process. After the scoping process, the project would be ready for final design. The Local Lead Program allows the MPOs' subregions to apply directly for federal funding for the advancement of local, surface transportation projects through the final design, right-of-way acquisition and construction phases of the project development process. Projects must be surface transportation projects (i.e., roadways, bridges, bike paths, pedestrian facilities) on roads with the functional classification of rural major collector, rural minor arterial, rural principal arterial, urban collector, urban minor arterial, or urban principal arterial.

- Visit NJDOT's Local Scoping and Local Lead Webpages.  
<http://www.state.nj.us/transportation/business/localaid/lead.shtm>
- Visit NJTPA's Local Scoping/Local Lead Program Webpage.
- Contact Sasha Braithwaite, Principal Environmental Planner, (973) 639-8422.

## 10.3.3 New Jersey Department of Transportation Funding Sources

### A. Discretionary Aid Program

The Discretionary Aid Program provides funding to address emergency or regional needs throughout the state. Any county or municipality may apply at any time. These projects are approved at the discretion of the Commissioner. Under this program a county or municipality may also apply for funding for safe streets to schools and bikeway projects. This program is administered by the NJDOT Division of Local Aid and Economic Development.

- Visit [NJDOT's Discretionary Funding Webpage](#).
- See [NJDOT's State Aid Handbook](#).
- Contact the [appropriate NJDOT District Office](#).

### B. Local Aid for Centers of Place

This funding is a NJDOT program designed to assist municipalities who have formally participated in implementation of the New Jersey State Development and Redevelopment Plan (SDRP). Such participation entails designation as a Center by the State Planning Commission, preparation of a Strategic Revitalization Plan and Program, which has been approved by the Commission, or entrance into an Urban Complex, which has been approved by the Commission. The program provides the opportunity to apply for funds to support non-traditional transportation improvements that advance municipal growth management objectives as outlined

in the action planning agenda of the municipality. Participation of municipalities in the SDRP ensures eligibility to compete for funds in the program. This program is administered by the NJDOT Division of Local Aid and Economic Development.

Typical projects include: pedestrian and bicycle improvements; adaptive reuse of abandoned railway corridors (pedestrian and bicycle trails); scenic or historic transportation improvements; landscaping/beautification of transportation related facilities (streetscape improvements); and rehabilitation of transportation structures.

In general, eligible projects are similar to Transportation Enhancements projects, but only SDRP municipalities are eligible to apply for funding. Allowable costs include preliminary engineering, design and construction. An annual solicitation for project proposals is sent to all eligible municipalities. This program is administered by the NJDOT Division of Local Aid and Economic Development in cooperation with the Bureau of Statewide Planning. All applications are forwarded to the Local Aid and Economic Development Office for review and evaluated by a Centers of Place Review Committee, which includes representation from the New Jersey Economic Development Authority and Downtown New Jersey. A recommendation is made for final approval by the Commissioner of Transportation. Funding levels have varied from \$750,000 to \$3 million depending upon appropriations by the Legislature.

- Visit [NJDOT's Centers of Place Webpage](http://www.state.nj.us/transportation/business/localaid/centerplace.shtm).  
<http://www.state.nj.us/transportation/business/localaid/centerplace.shtm>
- See [NJDOT's Centers of Place Handbook](http://www.state.nj.us/transportation/business/localaid/documents/centershandbook.pdf).  
<http://www.state.nj.us/transportation/business/localaid/documents/centershandbook.pdf>
- Contact the [appropriate NJDOT District Office](#).

### C. Locally Initiated Bicycle Projects

This program provides funds for municipalities and counties for the construction of bicycle projects. These could include roadway improvements, which enable a roadway or street to safely accommodate bicycle traffic, or designated bikeways (signed bike routes, bike lanes or multi-use trails). The solicitation for project applications occurs at the same time as the solicitation for municipal aid projects. Applications are solicited, evaluated, and rated by NJDOT staff. Based on this evaluation, a list of recommended projects is proposed to the Commissioner of Transportation, who makes the final selection. This program is administered by the NJDOT Division of Local Aid and Economic Development.

- Visit [NJDOT's Bikeways Funding Webpage](http://www.state.nj.us/transportation/business/localaid/bikeways.shtm).  
<http://www.state.nj.us/transportation/business/localaid/bikeways.shtm>
- Contact the [appropriate NJDOT District Office](#).
- Contact Sharon Roerty, New Jersey office of National Center for Bicycling and Walking, (973) 378-3137.

## D. Safe Routes to School

Safe Routes to School is a new federal-aid program. Its purposes are to: enable and encourage children, including those with disabilities, to walk and bicycle to school; make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age; and facilitate the planning, development, and implementation of projects and activities that improve safety and reduce traffic, fuel consumption and air pollution in the vicinity of schools. In New Jersey, the program is coordinated by the Division of Local Aid and Economic Development.

- Visit [FHWA's Safe Routes to School Webpage](http://safety.fhwa.dot.gov/saferoutes/). <http://safety.fhwa.dot.gov/saferoutes/>
- Read the [SAFETEA-LU Fact Sheet on Safe Routes to School](#).
- Contact Sheree Davis, NJDOT Bicycle & Pedestrian Coordinator, (609) 530-6551, [sheree.davis@dot.state.nj.us](mailto:sheree.davis@dot.state.nj.us).

## E. Transit Village Initiative

This program is administered by NJDOT & NJ Transit, and provides funds for municipalities and counties for the construction of pedestrian access and safety improvements. It includes the Safe Streets to School program. The solicitation for project applications occurs at the same time as the solicitation for municipal aid projects. Applications are solicited, evaluated, and rated by NJDOT staff. Based on this evaluation, a list of recommended projects is proposed to the Commissioner of Transportation, who makes the final selection. The program is administered by NJDOT's Division of Local Government Services.

- Visit [NJDOT's Transit Village Initiative Webpage](#).  
<http://www.state.nj.us/transportation/community/village/index.shtml>
- Contact Vivian Baker at NJ TRANSIT, (973) 491-7822, [vebaker@njtransit.com](mailto:vebaker@njtransit.com).

## F. Transportation Enhancements

The Transportation Enhancements program funds community-based projects that expand travel choices and enhance the transportation experience by improving the cultural, historic, aesthetic and environmental aspects of the transportation infrastructure. Several types of transportation-related projects are eligible, including: provisions for pedestrians and bicycles; safety and educational programs for pedestrians and bicyclists; scenic or historic highway programs; landscaping and other scenic beautification; historic preservation and site acquisition; rehabilitation of historic transportation buildings; preservation of abandoned railway corridors; control and removal of outdoor billboards; archeological planning; environmental mitigation of stormwater; establishment of transportation-related museums.

Any municipal or county government, non-profit organization or State agency may submit a Transportation Enhancement application. However, the municipal governing body in which the project is located must support it. All applications from local agencies and non-profit civic groups should receive municipal governing body endorsement. Regional projects should receive

the endorsement of all affected counties and municipalities. A multi-discipline Committee reviews the projects and makes recommendations to the Commissioner of Transportation who makes final selections. Designated "Centers" receive additional consideration since acknowledged consistency with the goals of the State Development and Redevelopment Plan usually increases a project proposal's chance of success. This program is federally funded, and is administered by the NJDOT Division of Local Aid and Economic Development. In FY 2004, more than \$11.5M was given to 27 New Jersey towns.

- Visit [NJDOT's Transportation Enhancements Webpage](http://www.state.nj.us/transportation/business/localaid/enhancements.shtm).  
<http://www.state.nj.us/transportation/business/localaid/enhancements.shtm>
- Read the [SAFETEA-LU Fact Sheet on Transportation Enhancements](#).
- Contact the [appropriate NJDOT District Office](#).