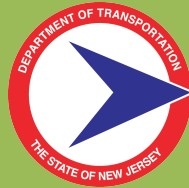




BICYCLE SAFETY

ACTION PLAN TOOLBOX



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MUNICIPAL PLANNING & BICYCLE SAFETY

Local governments can help make bicycling safer. Not only do municipalities have jurisdiction of the local roadway system, they are also responsible for municipal planning, land use, zoning and site development which impacts the streets and the built environment.

While the *Bicycle Safety Action Plan (2016)* focuses primarily on actions to be taken by State or regional entities, actions by counties and municipalities can be important to achieving bicycle safety. Here are some recommendations to consider pursuing at the local level to address bicycle access and safety.

Policy

It is recommended that all municipalities adopt a policy statement supporting improved access and safety for bicyclists. At the very least, these assertions express an intention to create bicycle friendly places, an indication of need, and they increase likelihood that more will be done in the future. Many municipalities in New Jersey have elected to show their commitment to all users of public rights-of-way by the adoption and implementation of a Complete Streets Policy.

As of July 2016, in addition to NJDOT's internal policy, 128 municipalities and 7 counties in NJ have adopted Complete Streets Policies.



Land Use

Land use patterns have an effect on bicycling crashes. In New Jersey, it is not uncommon to find four (or more) lane arterial roadways lined with shopping centers, apartment buildings, schools and office parks with signalized crossings few and far between. On these types of roads, traffic moves at high speeds and drivers don't expect bicyclists.

Master Plan & Planning Studies

Bicycle access and safety should be addressed in all planning activities, including the municipal master plan, redevelopment plans, the transportation element, or a stand-alone Bicycle/Pedestrian Plan or Bicycling Plan. These plans should:

- ✓ Identify existing and proposed elements of the bicycling facility network including on road bicycle accommodations and multi-use paths
- ✓ Inventory problem locations/gaps in network including bicycle crash locations
- ✓ Include specific recommendations for bicycling facilities
- ✓ Incorporate or adopt by reference, state-of-the-practice standards, specifications, and design guidelines for bicycling facilities
- ✓ Identify funding responsibility for proposed improvements (municipality, developer)
- ✓ Encourage the linking of residential developments with commercial areas or with other residential areas by means of segments of multi-use paths



MUNICIPAL PLANNING & BICYCLE SAFETY

Map 8: Recommendations



Borough of Bay Head Bicycle and Pedestrian Plan / Chapter 4 – Recommendations 49

Recommendations Map: Borough of Bay Head Bicycle and Pedestrian Plan

Image: The RBA Group

Land Use, Site Planning and Zoning

The manner in which a municipality approaches land use planning, site development and zoning decisions is crucial to the creation and maintenance of an accommodating and safe bicycling environment. Some of the ways municipalities can address bicycling needs include:

- ✓ Develop a site review checklist to be used by developers to identify what is to be considered (relative to bicycling access and safety) and what is to be included in site development and subdivision plans
- ✓ Allow for mixed use development or suburban activity centers with requirements for a mix of land uses, relationships with transit and bicycling oriented site design in the zoning ordinance
- ✓ Provide options in the zoning ordinance for traditional neighborhood development (TND) or neo-traditional site planning with requirements for the mix of land uses and bicycling and pedestrian friendly streetscapes and roadway design requirements
- ✓ Incentivize bicycling parking and amenities in exchange for increased Floor Area Ratio (FAR), additional square footage and reduced motor vehicle parking requirements
- ✓ In shopping centers, offer incentives for architectural treatments that offer protection to parked bicycles from the elements such as shelters and canopies





MUNICIPAL PLANNING & BICYCLE SAFETY



Mixed-use development, like the Lumber Yard in Collingswood, encourages bicycling with housing located near transit and businesses. Source: NJ Future

Municipal Departments

Municipalities should ensure that municipal staff has the knowledge and tools necessary to encourage and prioritize the development of safe bicycle facilities. Municipalities can:

- ✓ Specify that the development of appropriate pedestrian/bicycle accommodations as a duty or function of the public works department/municipal engineer/municipal manager or municipal administrator
- ✓ Specify “active transportation” as an element of the comprehensive health program to be developed and implemented by the department of health or other similar unit.

- ✓ Create a municipal Bicycle/Pedestrian or Complete Streets advisory group with the responsibility of advising municipal staff and agencies (e.g. planning board, zoning board) regarding desirable, state of the practice projects and programs to address pedestrian/bicycle needs within the community
- ✓ Specify that it is a duty of the municipal public safety unit (police department) to administer and enforce laws pertaining to the control of vehicular, bicycle and pedestrian traffic
- ✓ Authorize/establish Police on Bikes Unit
- ✓ Specify that it is a requirement of the Recreation department to establish recreation programs on safe bicycling and walking behavior
- ✓ Establish maintenance and snow removal provisions to Ensure that bicycle accommodations are safe and accessible
- ✓ Provide professional development opportunities for local officials, planning board and zoning board members and planning, engineering and law enforcement personnel pertaining to bicycling safety projects and programs
- ✓ Take advantage of local planning assistance available through the NJDOT Office of Bicycle and Pedestrian Programs

Images: Princeton.gov and www.wwbpa.org





MUNICIPAL PLANNING & BICYCLE SAFETY

Municipal Projects

- ✓ Implement an internal project review process to ensure that bicycling access and safety needs are addressed as a routine part of the project planning process.
- ✓ Utilize / adopt state of the practice guidelines for the planning and design of bicycling accommodations

Resources

- NJDOT Complete Streets homepage:
www.state.nj.us/transportation/eng/completestreets
- Pedestrian and Bicycle Information Center
www.pedbikeinfo.com
- FHWA Manual on Uniform Traffic Control Devices (MUTCD)
<http://mutcd.fhwa.dot.gov/>
- The American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities <http://www.transportation.org/>
- NJDOT Mobility and Community Form Overview.
<http://www.state.nj.us/transportation/community/mobility/>



Image: Bike Boulevard Ocean City, NJ njbikeped.com





ENCOURAGING BICYCLING

A safe and welcoming bicycling environment requires more than just the presence of facilities and amenities. Education, encouragement, enforcement, and evaluation are needed to support and complement engineering. These programmatic, also known as non-infrastructure, strategies address unsafe behaviors, the development of bicycling skills, and general awareness and support for walking and bicycling.

Municipalities play a critical role in encouragement by giving people a variety of opportunities and incentives to get on their bikes. This toolbox item describes programs, events, and initiatives a local government, usually in collaboration with the bicycling community, can do to encourage bicycling. Education and enforcement are addressed in other sections of the toolbox.

According to the League of American Bicyclists (The League), communities can encourage bicycling by:

- ✓ Celebrating National Bike Month (May), Bike to Work and Bike to School Days: The League has a detailed guide with ideas, strategies and resources to help a community organize a Bike to Work Month / Day



- ✓ Producing community bike maps
- ✓ Installing route finding signage
- ✓ Investing in public bike sharing systems and internal fleets
- ✓ Having the mayor and/or local council host or participate in bike rides
- ✓ Organizing a Ciclovía or Open Streets type event (see p.3)
- ✓ Celebrating successes such as the completion of a new bicycling facility by holding an event or community bike ride
- ✓ Having the local chamber of commerce promote bicycling in the area
- ✓ Promoting recreational cycling by developing facilities such as a mountain bike skills park, cyclocross course, or BMX park



Ocean City, NJ Bike Route
Map Source: bikeocnj.org



Over 1,000 people participated in the 13th annual Tour de Elizabeth in May 2016. The theme of the 15 mile ride was *Bites & Bikes!*, highlighting the city's cuisine and diverse cultural community. Image: GroundworkElizabeth.com





ENCOURAGING BICYCLING

Success Story – New Brunswick Ciclovía

New Brunswick Ciclovía is a free, citywide initiative that closes the streets to cars and opens them to people. It gives people a safe place to exercise and play and allows them to experience New Brunswick's vitality, livability and diversity – all of which promotes healthy, active living. During Ciclovía, the streets become car-free for 5 hours allowing families to run, walk, skate, ride bikes, enjoy active events along the route, and explore the city streets. Ciclovía is a Spanish word that means "bikeway." The first Ciclovía was held in Bogota, Columbia in 1976.



New Brunswick Ciclovía, NJ. Image: www.newbrunswickciclovía.com

The New Brunswick event is a community collaboration and partnership of the City of New Brunswick, New Brunswick Tomorrow, Johnson & Johnson and Rutgers University. The city's first Ciclovía was held on October 6, 2013. Research by the NJ Bicycle and Pedestrian

Research Center found that the event was an overall success. Key findings included:

- ✓ The Ciclovía met the goal of increasing the health and wellness of attendees on the day of the event;
- ✓ It successfully promoted active transportation, with 92% of survey respondents stating that they would consider walking or bicycling more after they experienced the event;
- ✓ The Ciclovía promoted social interaction and engagement to build a strong community by providing a safe and welcoming environment for people of diverse ages, abilities, and cultural backgrounds; and
- ✓ The event strengthened the appreciation of New Brunswick as a great place to live and work.



New Brunswick Ciclovía, NJ. Image: www.newbrunswickciclovía.com



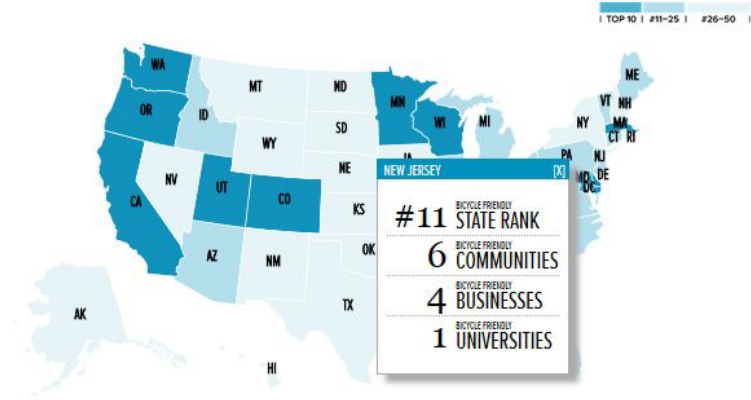


ENCOURAGING BICYCLING

SEVEN STEPS TO PLANNING A SUCCESSFUL CICLOVIA IN YOUR TOWN:

- 1. Identify A Backbone Organization.** The first step is to identify a founding partner or partners: Who or what group will take the lead to organize, advocate for and launch the Ciclovía?
- 2. Involve Your Local Government.** If the local government isn't already involved, elected leaders and municipal departments need to be educated about what the event is and how it benefits the community, including engaging residents of all ages in physical activity, creating opportunities to offer free health assessments, supporting local businesses and fostering a sense of community.
- 3. Create A Planning Committee.** Identify and recruit additional community stakeholders and develop a planning committee. This should include a combination of individuals and groups from the public sector (local government), private sector (area businesses and hospitals) and nonprofits (social welfare, health, and other organizations). This committee will become the core group that is vital to making the Ciclovía event possible. The committee should meet monthly and organize the before, during and after logistical aspects of the event.
- 4. Identify a Preferred Route.** Once a preferred route has been identified (usually a two- to three-mile distance), you'll need to get your city's approval for the event (New Brunswick passes a resolution for every Ciclovía event). You'll also need to coordinate with the local police, traffic, and public works departments to assist with road closures, security and waste management.
- 5. Identify Activity Stops.** You'll need to line up activity stations, as well as sponsors, such as local businesses or vendors, who will take charge of supplying and staffing their respective stations along the Ciclovía route.
- 6. Create a Marketing Strategy.** Make sure you use a variety of tools to promote your Ciclovía event. This can include flyers, website postings, door hangers, radio advertisements and social media promotion. Also, encourage organizations to promote the event through their respective websites and newsletters. Notify local media before and after the event and encourage them to cover the story.
- 7. Recruit Volunteers.** Local community groups, college students, and youth groups are ideal volunteers who can serve as great event ambassadors along the route.

Applying to become a League Bicycle Friendly Community will help your community create new partnerships and momentum for bicycle improvements, allow you to gather essential bicycle-related data in one place, and show how your community compares to similar communities across the country. In addition, the League provides customized feedback and technical assistance to applicants. In New Jersey, Hoboken, Lambertville, Montclair, Ocean City, Princeton, and West Windsor are recognized as bronze level Bicycle Friendly Communities.



NEW JERSEY						
COMMUNITY	STATE	AWARD	POPULATION	JURISDICTION	LAND USE	
Hoboken	NJ	Bronze	50005	Town/City /Municipality	Urban	view report card map it
West Windsor Township	NJ	Bronze	28366	Town/City /Municipality	Suburban	view report card map it
Ocean City	NJ	Bronze	11701	Town/City /Municipality	Suburban	view report card map it
Lambertville	NJ	Bronze	4000	Town/City /Municipality	Rural	view report card map it
Montclair	NJ	Bronze	37726	Town/City /Municipality	Suburban	view report card map it
Princeton	NJ	Bronze	28572	Town/City /Municipality	Urban	view report card map it

Image: bikeleague.org





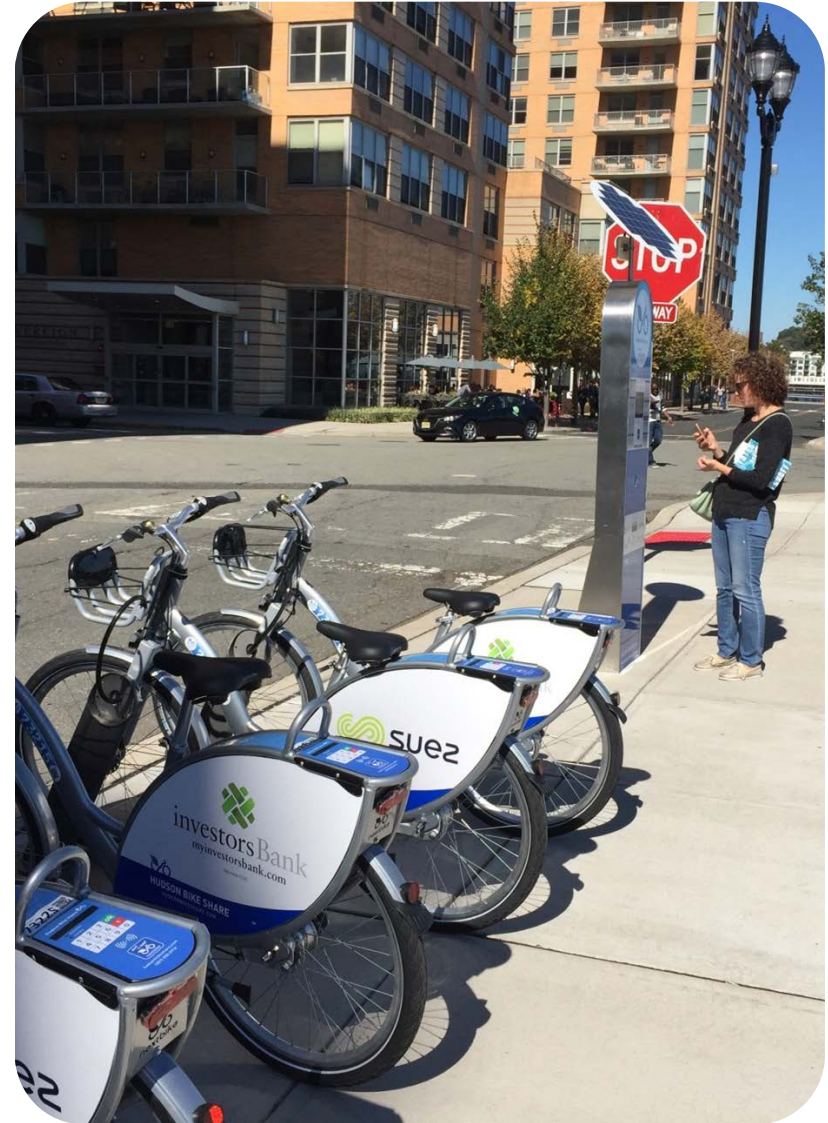
ENCOURAGING BICYCLING

Resources

- Bicycle Friendly America Program information <http://bikeleague.org/bfa>
- New Jersey Partnership for Healthy Kids, 7 Steps to Hosting a Successful Ciclovía. <http://www.njhealthykids.org/7-steps-to-hosting-a-successful-ciclovía/>
- New Jersey Bicycle Sharing <http://njbikeped.org/topics/bicycle-sharing-and-renting/>
- New Brunswick Ciclovía <http://newbrunswickciclovía.com/about/>



Hudson Bike Share, NJ. Image: City of Hoboken



Hudson Bike Share, NJ. Image: City of Hoboken





COMPLETE STREETS

Complete Streets are designed for everyone – all users, modes and ability levels – balancing the needs of drivers, bicyclists, pedestrians, transit vehicles, emergency responders and goods movement.

Complete Streets initiatives support and advance the goals of the *Bicycle Safety Action Plan* (BSAP) through planning, design, construction, operation and maintenance of safe multimodal streets, designed to accommodate all roadway users, consistent with, and that fit the local context. By applying Complete Streets as a guiding principle, a robust, multimodal network with facilities for all users can be implemented over time.



Bike Lane in Wildwood, NJ Image: RBA Group

Implementing Complete Streets does not mean that every street should have bike lanes, sidewalks and transit. There is no universal, prescriptive design. Instead, the concept of Complete Streets is driven by understanding local context, need and demand. All streets should be designed to provide for the access and safety needs of all modes consistent with context.

Travel needs can vary considerably from an urban arterial, to a main street, a suburban residential street, or a rural byway. So, while the underlying goal of balancing the needs of all users remains paramount, the implementation of Complete Streets should vary accordingly.

Why Complete Streets?



There are a host of benefits associated with following the principle of Complete Streets, including:

- ✓ Improved mobility and safety for all users
- ✓ Equity, particularly for those without an automobile
- ✓ Health benefits, through support of active modes of transportation
- ✓ Improved quality of life by supporting livable, walkable communities
- ✓ Economic vitality
- ✓ Reduced environmental impact
- ✓ Enhanced eligibility when applying for funding programs, such as NJDOT Local Aid grants and Sustainable Jersey awards



COMPLETE STREETS

Complete Streets and Safety

High travel speeds, heavy traffic volumes and busy intersections expose both bicyclists and pedestrians to risk. New Jersey in fact, experiences an average of about 19 bicycling and 140 pedestrian fatalities each year, and thousands more are injured.

Complete Streets provide for appropriate bicycle facilities and improved bicycle safety. Appropriate vehicle speeds are a critical component of ensuring the street fits the context. Complete Streets can utilize traffic calming tools, such as appropriate lane widths, curb extensions, chicanes, etc., to encourage safe travel speeds for all users. On-road bicycle lanes have been shown to reduce crash risk rates by about 50%.

Implementation

Implementation means translating policy into action: taking the municipal Complete Streets Policy and using it as a roadmap for implementing strategies, procedures, plans and projects in ways that create networks of safe, multimodal streets that reflect local travel needs, priorities and community context. Implementation can make Complete Streets an integral part of community planning and project design and delivery.

Complete Streets principles are typically adopted through a written policy or resolution by an owner jurisdiction, such as a municipality, county, state, or transportation agency. These written policies define the purpose of Complete Streets, the users and modes they propose to

accommodate, types of improvements that should follow Complete Streets principles, possible exemptions to the policy and the process by which the policy will be implemented. Most importantly, the policy should effectively ingrain the concept of Complete Streets into the everyday way of doing business.

New Jersey is a national leader in advancing Complete Streets implementation. The New Jersey Department of Transportation's (NJDOT) policy has been recognized as the strongest state policy in the country by the National Complete Streets Coalition. Following NJDOT's lead, seven (7) New Jersey counties and 130 municipalities have adopted their own Complete Streets policies (as of June 2016), which represents approximately 15% of all Complete Streets policies, nationally.



Images: njbikeped.org





COMPLETE STREETS

Key components of an effective Complete Streets Implementation Plan include:

- ✓ Update plans, policies and procedures to incorporate Complete Streets principles
- ✓ Incorporate Complete Streets into the development review process
- ✓ Build institutional capacity through training, communication and monitoring
- ✓ Assign staff responsible for overseeing the CS Implementation process
- ✓ Initiate pilot project to build support and demonstrate the value of Complete Streets
- ✓ Integrate Complete Streets into the earliest stages of project delivery and throughout the project life cycle

Cost of Complete Streets

Complete Streets do not usually require significant additional costs or new funding sources. Simple solutions, such as using paint to restripe a roadway and alter its layout, can be implemented during routine maintenance and repairs. The construction costs of Complete Streets elements make up a very small portion of a project's total costs.

A study by the Charlotte Department of Transportation (CDOT) found that the combined, overall market fluctuations in construction costs has a more significant impact on overall construction costs than adding Complete Streets elements.



*Route 45 - A Complete Street in Woodbury, NJ
Image: Google Street View*



*An incomplete street in southern NJ.
Image: Cross County Connection TMA*





COMPLETE STREETS

Success Stories

Numerous projects have been constructed throughout the State that reflect Complete Streets principles. These include sidewalk improvements to repair deteriorated sidewalks, or fill gaps in the network; streetscape improvements to enhance the pedestrian environment with wider sidewalks, street trees, street furniture and/or stormwater management; and resurfacing a rural arterial with striped shoulders and sustainable stormwater management.



Image: Route 52 Bridge, The RBA Group

NJDOT's Route 52 bridge replacement project is an example of synergy between local and state Complete Streets policies to create a more robust, complete network. The new bridge links Ocean City with its mainland neighbors and features a separated lane for pedestrians and bicyclists. Connections are provided to the Linwood bikeway and in Ocean City, to the Haven Avenue bicycle boulevard.

Complete Streets principles are being integrated into transportation planning and design across the state.

The reconstructed Route 36 bridge over the Navesink River in Highlands, New Jersey is another prime example of the inclusion of Complete Streets elements. In addition to accommodations for motor vehicle traffic, the facility includes designated on road bike lanes (in each direction), generous sidepaths on each side of the roadway, plus bicycle/pedestrian overpasses connecting the bridge sidepaths with the Sandy Hook shared use trail.



Image: Route 36 Bridge, The RBA Group

Resources

- NJDOT Complete Streets homepage: www.state.nj.us/transportation/eng/completestreets
- New Jersey Bicycle and Pedestrian Resource Center: www.njbikeped.org/overview-2
- National Complete Streets Coalition: <http://www.smartgrowthamerica.org/complete-streets>
- NACTO: www.nacto.org
- AASHTO: www.transportation.org





FUNDING BICYCLE PROJECTS

Without funding, projects can't be implemented. Identifying funding sources for not just the planning and construction of bicycle facilities but also future maintenance is necessary for a project's success.

There are a variety of funding sources available for the development of bicycle facilities including federal, state, capital funding from the municipality, private and non-profit grants. This toolbox item focuses on the state and federal funding sources available for bicycle facilities.

State Funding Sources

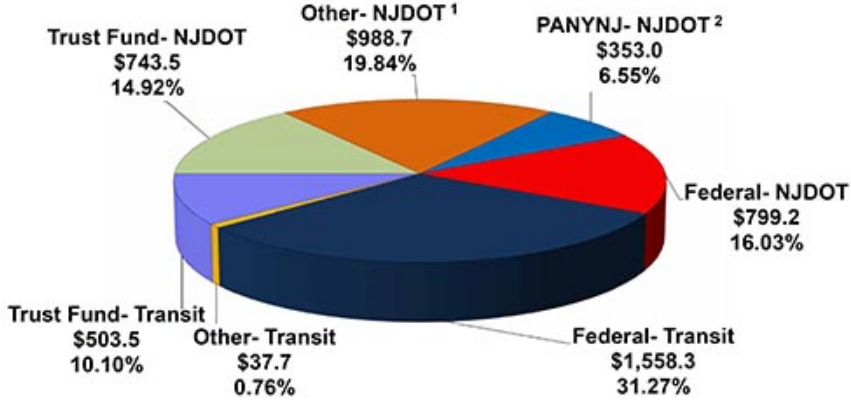
The State Aid Program is one method by which the New Jersey Department of Transportation (NJDOT) can work with county and municipal governments to improve the efficiency of the State's transportation system. The Transportation Trust Fund (TTF) has provided the opportunity for state assistance to local governments for many transportation projects, including bicycling facilities. These programs are administered by the NJDOT's Division of Local Aid and Economic Development (Local Aid).

County Aid

County Aid funds are appropriated annually for the improvement of public roads and bridges under county jurisdiction. Funds are appropriated for counties based on county road mileage and county population and can be used for bicycle transportation improvements.



Sources of Funds
(\$ in Millions)



Transportation Capital Program Fiscal Year 2016
Image: state.nj.us

Municipal Aid

Municipal Aid funds are appropriated annually for the improvement of public roads and bridges under municipal jurisdiction. Funds are appropriated for municipalities in each county based on municipal road mileage within the county and population. Each spring, NJDOT announces the program for that fiscal year and invites municipalities to apply. Additionally, \$5,000,000 is allotted for municipalities qualifying for Urban Aid under P.L. 1978 c.14 (N.J.S.A. 52:27D-178 et seq.). The individual allotments to qualifying municipalities are based on proportions determined by the Department of Community Affairs. Municipal and Urban Aid may be used for bicycle transportation improvements.



FUNDING BICYCLE PROJECTS

Local Aid Infrastructure Fund

Subject to funding appropriation, a **Local Aid Infrastructure Fund** (LAIF) is established to address emergencies and regional needs throughout the State. Any county or municipality may apply at any time. These projects are approved at the discretion of the Commissioner. There is no restriction on using this source of funds to address bicycling needs.



Cape May City received NJDOT grants to build bikeway
Image: Google Street View

Transit Village Grant Program

The **Transit Village Grant Program** is designed to assist municipalities who have been formally designated as Transit Villages and are committed to growing within a half mile of commuter rail, bus, ferry, or light rail. The types of projects eligible for funding include, but are not limited to, construction of bicycle paths and lanes, bike route signs, bicycle parking and storage.

Bikeway Grant Program

The **Bikeway Grant Program** provides funds to counties and municipalities to promote bicycling as an alternate mode of transportation in New Jersey. A primary objective of the Bikeway Grant Program is to support the State's goal of constructing 1,000 new miles of dedicated bike (shared use) paths (facilities that are physically separated from motorized vehicular traffic by an open space or barrier either within the highway right of way or within an independent right of way).

Federal Funding Sources

Many of the federal funding programs used to fund bicycling improvements are administered by the NJDOT's Division of Local Aid and Economic Development, and/or New Jersey's Metropolitan Planning Organizations (MPOs).

Local Lead Program

The **Local Lead Program** provides an opportunity for the MPO subregions to apply for federal funding for the advancement of projects through final design, right of way, and/or construction. This is a competitive program. Each project is reviewed and rated by members of the applicable MPO's Technical Review Committee using the certain criteria related to the project location, type, and design and construction cost. Transit projects are not eligible for this program.

Transportation Alternatives (TA)

Fixing America's Surface Transportation (FAST) Act, the current federal transportation funding legislation, eliminates the Transportation





FUNDING BICYCLE PROJECTS

Alternatives Program (TAP), that was funded under the former MAP-21 federal funding program, and replaces it with a set-aside from a Surface Transportation Block Grant (STBG) program. **Transportation Alternatives** (TA) funds are administered by the NJDOT Division of Local Aid. These set-aside funds are available for all projects and activities that were previously eligible under TAP, encompassing a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, Safe Routes to School projects, community improvements such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity.



NJDOT awarded the City of Hoboken a \$530,000 Transportation Alternatives Grant for the City's Bicycle Network
Image: HobokenNJ.gov

Safe Routes to School

The **Safe Routes to School** (SRTS) program is now funded under the TA set-aside. In NJ, county, municipal governments, school districts, and schools are eligible to apply to the program. Non-profit organizations may partner with a local public agency (LPA) that will assume responsibility for administering the grant. Projects must be consistent with program objectives which are to:

- ✓ enable and encourage children in grades K-8, 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 planning, development and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption and air pollution in the vicinity of schools.

Local Safety Program

The federally funded Local Safety Program (LSP) is a component of wider safety planning, supporting construction of quick-fix, and high-impact safety improvements on county and local roadway facilities. Projects supported by this program have included new and upgraded traffic signals, signage, pedestrian indications, crosswalks, curb ramps, pavement markings and other improvements to increase the safety of drivers, bicyclists, and pedestrians.

- ✓ The LSP typically addresses NJDOT derived high priority crash locations on county or local roadways.





FUNDING BICYCLE PROJECTS

- ✓ Projects must be quick-fix, supported with detailed crash data analyses (utilizing the AASHTO Highway Safety Manual) and have minimal or no environmental or cultural resource impacts.
- ✓ LSP funding may be used for all phases of a project, including design, right of way acquisition, construction and construction inspection.

High Risk Rural Roads

Although the **High Risk Rural Roads Program** (HRRRP) is no longer federally mandated, New Jersey has continued with this program as defined in previous Federal Transportation funding legislation. HRRRP provides federal funds for construction improvements to address safety problems only on roadways that are functionally classified as rural major collector, rural minor collector, or rural local roads and have a crash rate that exceeds the statewide average for those functional classes of roadways.

FHWA's Manual for Selecting Safety Improvements on High Risk Rural Roads includes shared-used paths adjacent to the roadway; shoulders for non-motorized users; exclusive bicycle lanes and bicycle trail grade separation structures as eligible projects.

Safe Routes to School Design Assistance

The **Safe Routes to School Design Assistance** program is a pilot program administered by Local Aid that makes available consultant engineering services to assist Local Public Agencies (LPAs) with the development of plans, specifications, and estimates (PS&E) for their SRTS projects. The program was developed by NJDOT as part of the

Federal Highway Administrations Every Day Counts initiative and is intended to shorten time, reduce costs, and improve quality in the delivery of NJDOT SRTS projects. Currently, program eligibility is restricted to recipients of NJDOT's 2012 and 2014 SRTS grants.



Students crossing in Ridgewood, NJ.
Image: The RBA Group

Resources

- For information on State & Federal funding programs visit: <http://www.nj.gov/transportation/business/localaid/stateaid.shtm>





DATA & EVALUATION TOOLS

Data and Evaluation Tools enable assessments of existing conditions for bicycling in your municipality. With thorough analysis of existing conditions, communities can learn their strengths and weaknesses, and begin to identify opportunities and remove constraints and barriers to bicycling safety and mobility.

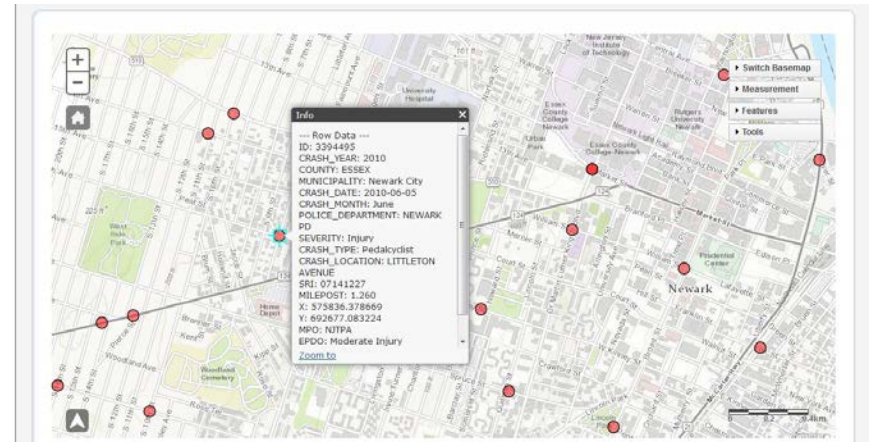
Safety Assessments Tools assist with the evaluation of existing conditions for bicycling in your municipality. Establishing an inventory of your municipality's existing accommodations is a good first step. It provides the framework for identifying needed bicycling access and safety infrastructure improvements.

This toolbox element highlights a few of the data resources and evaluation tools available to communities in New Jersey, including the Plan4Safety crash data analysis tool, road safety audits and bikeability audits/bicycling assessments. These tools can assist your municipality to achieve the following actions indicated in *New Jersey's Bicycling Safety Action Plan*:

- ✓ Establish priorities for bicycle safety capital improvements; and
- ✓ Improve and expand bicycling infrastructure, especially facilities that would mitigate conditions indicated in bicycling crash data, including lighting enhancements and traffic calming treatments at strategic locations.

Plan4Safety

Plan4Safety is a decision support tool, created for the New Jersey Department of Transportation (NJDOT), by the Rutgers Center for Advanced Infrastructure and Transportation (CAIT). The web-based platform integrates statewide crash data from January 1, 2003, through to the latest released with roadway characteristic data, calculates statistical analyses, incorporates network screening layers and models, and includes visual analytical tools (GIS). Currently, the Plan4Safety tool is being considered for an update.



Example of Plan4Safety Crash Data Tool Image: Rutgers Center for Advanced Infrastructure and Transportation (CAIT)

Plan4Safety assists engineers and planners in identifying problem locations and trends, which can then be addressed with engineering improvements and enforcement efforts. Currently, any public agency engineers, planners, researchers and police officers are able to obtain





DATA & EVALUATION TOOLS

full access to Plan4Safety, and use the system for free. [Private] agency engineers are not currently able to obtain a user account, but can access the system by contacting CAIT at 848.445.3113.

Road Safety Audits

A Road Safety Audit (RSA) is a safety performance examination by an independent, multidisciplinary team. The team identifies and evaluates any potential road safety issues that may be hazardous to all potential road users, including bicyclists. Road safety audits can be used in any phase of project engineering, design and construction. RSAs can also be used on any sized project, from minor intersection and roadway safety retrofits, to mega-projects. NJDOT's experience with RSAs has resulted in the implementation of over 100 low-cost, quick-fix countermeasures during the last 5 years. These measures included upgraded and/or new signing and pavement markings, upgraded and/or new traffic signals, along with minor geometric and lighting improvements.



*A Pedestrian Road Safety Audit in North Plainfield, NJ
Image: The RBA Group*

Bikeability Audits / Safety Assessments

A bikeability audit, or bicycling safety assessment, is an unbiased examination/evaluation of the bicycling environment. The general purpose of an audit is to identify concerns related to the safety, access, comfort and convenience of the bicycling environment. In addition to identifying problem areas, an audit can be used to identify potential alternatives or solutions (such as engineering treatments, policy changes, or education and enforcement measures). Bikeability audits can be geared toward examining one, or many, specific types of facilities or features (e.g., an audit focusing on pavement surfaces, intersections, school zones, availability of sufficient pavement space for shared use, etc.).

Informal audits can be performed by any individual or community group. It may be initiated by a bicycling advocacy group, a municipal committee, recreation committee, or other group of residents, such as faith-based, neighborhood associations, a school-based group, or it may be led the municipal engineer, planner or public works director. The best audits include input from a variety of people, from youths to seniors.

More formal audits (i.e., those that follow a standardized set of audit procedures), can also be conducted; these are usually performed by a multidisciplinary team of trained professional which may include engineers, planners, transportation researchers, pedestrian and bicycle specialists, as well as others.





DATA & EVALUATION TOOLS

Bicycle Counts

Bicyclists counts can help determine the demand for bicycle facilities and provide the usage of existing bicycle facilities. Cycling counts can also help communities justify funding bicycle projects and help identify trends, peak hours, etc. Bicycle counts can be collected manually or with the use of automated counters. Counts can be short-term or long-term depending on the need and technology used. There are many innovative technologies that NJDOT has begun utilizing and researching. Some of the more commonly used technologies to count bicyclists are:

- ✓ Induction Loops
- ✓ Infrared beams
- ✓ Infrared counters
- ✓ Laser Scanners
- ✓ Computer Vision



Eco Multi-Counter on Route 52, Ocean City, NJ Image: www.njbikeped.org



Mio-Vision Counter – Video Imaging Technology Image: The RBA Group

Resources

- For more on Plan4Safety, visit: <https://cait.rutgers.edu/tsrc/plan4safety>
- FHWA Road Safety Audits Webpage explains that the RSA process provided guidelines, prompt lists and case studies. Local municipalities can also request peer assistance through the Roadway Safety Peer-to-Peer (P2P) Program: <http://safety.fhwa.dot.gov/rsa/>
- CAIT's New Jersey Local Technical Assistance Program (NJLTAP) and Transportation Safety Resource Center (TSRC) offer a free, statewide Road Safety Audit service to New Jersey towns and counties. For more, visit: <http://cait.rutgers.edu/tsrc/audits>





DATA & EVALUATION TOOLS

- CAIT's 'Conducting Road Safety Audits' course is offered periodically, during the year. Check their main training page, <https://cait.rutgers.edu/cait/training> , to see when the next session of this course is schedule
- The NJ Safe Routes to School Resource Centers Walk/Bike Assessments are tools to help schools, parents, students and the community, identify barriers that might make it difficult or dangerous for children to walk or bike to school. These assessments evaluate the sidewalk, road and neighborhood conditions around the school, and identify key safety improvements that can make walking and biking a safer and easier way for students to get to school. <http://www.saferoutesnj.org/resources/stp/walkbike-assessments/>
- The Pedestrian and Bicycle Information Center (PBIC) Bikeability Checklist is a basic checklist developed to determine the bikability of an area and provide ideas for improving conditions. http://www.pedbikeinfo.org/cms/downloads/bikeability_checklist.pdf
- FHWA Traffic Monitoring Guide <https://www.fhwa.dot.gov/policyinformation/tmguide/>



Buffered Bike Lane, Newark, NJ Image: NJ Bike Walk Coalition





BICYCLE FACILITIES & TREATMENTS

Bicycle facility design and intersection treatments have evolved over the years with a wide variety of options available in the selection and design of bicycle facilities. A bicycle network of appropriately selected and well-designed facilities will provide a safe and convenient bicycling environment for users.

The purpose of this toolbox is to provide a brief overview of the different facility types and intersection treatments that can be utilized to create a bicycle-friendly community. It is meant to provide an introduction to and give examples of typical / more commonly used treatments for enhancing the bicycling environment rather than a comprehensive design guide. For detailed guidance on the design of these facilities please refer to the links in the resources section of this toolbox element.

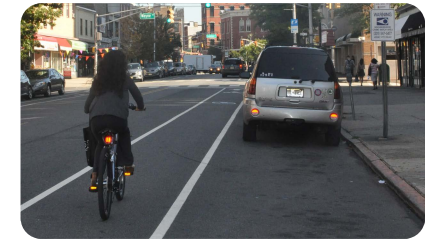
Bicycle Facilities

Design options for on-street and off-street bicycle facilities vary based on the amount of right-of-way required, road and traffic characteristics and degree of separation from motor vehicles. They are typically selected based on community needs, engineering and traffic studies, the surrounding built environment and municipal input.

Bicycle Lanes

Bicycle lanes are travel lanes located adjacent to motor vehicle traffic but reserved exclusively for bicycle traffic. There are many different types of bicycle lanes, as follow:

Conventional Bicycle Lanes are one-way on-street lanes that are signed and marked to designate the space occupied by bicyclists on the roadway. They are typically provided on both sides of two-way roadways.



Bicycle Lane in Jersey City, NJ
Image: The RBA Group

Buffered Bicycle Lanes are conventional bicycle lanes paired with a designated (striped) buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.



Buffered Bicycle Lane in Newark, NJ
Image: Newark Engineering Department

Contraflow bicycle lanes are conventional bicycle lanes designed to allow bicyclists to ride safely in the opposite direction of motor vehicle traffic on one-way streets. They are separated from opposing traffic with (yellow) center line striping and require appropriate accompanying signs.



Contraflow Bicycle Lane, New Brunswick, NJ
Image: Voorhees Transportation Center





BICYCLE FACILITIES & TREATMENTS

Advisory bike lanes are used on low-volume streets that are narrow. They are marked with a solid white line on the right (next to parked cars) and a dotted line to the left. These markings give bicyclists a space to ride, but are also available to motorists if space is needed to pass oncoming traffic.



Advisory Bicycle Lane in Alexandria, VA
Image: AlexandriaVA.gov

Cycle Tracks or Protected Bicycle Lanes

Cycle Tracks are an exclusive bike facility that has elements of a separated path and an on-road bike lane. While still within the roadway right-of-way, cycle tracks are physically separated from motor vehicle traffic with bollards, car parking or other barrier. These bicycle facilities can be one-way or two-way, and raised or on-road.



Raised Cycle Track in Hoboken, NJ
Image: The RBA Group



Protected Bicycle Lane in Newark, NJ
Image: NJBWC

Bicycle Boulevards

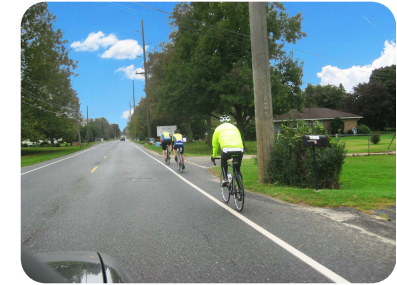
Bicycle boulevards are low volume and low-speed streets optimized for bicycle travel through treatments such as traffic calming, signage, pavement markings and intersection crossings.



Bicycle Boulevard in Ocean City, NJ
Image: VTC

Bike-Compatible Shoulder

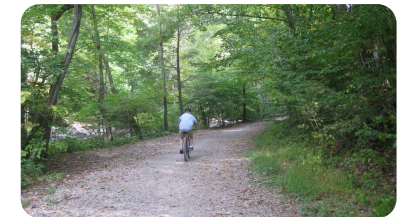
Bike-compatible shoulders offer bicyclists a preferential space within the roadway without a formal designation. They offer a low-cost option for municipalities to encourage bicycling and can be done by narrowing travel lanes to 11' or 10' (urban areas) so that shoulders maybe widened or by utilizing the existing shoulders. Bike-compatible shoulders should be free of debris and snow and should have bicycle-friendly grates.



Bicyclists in Bike-Compatible Shoulder, NJ
Image: The RBA Group

Trails / Shared Use Path

Trails or Shared use paths are bikeways that are physically separated from motor vehicle traffic by an open space or barrier either within the highway right-of-way or within an independent right-of-way. Shared use path facilities accommodate a variety of non-motorized users, most often bicycle and pedestrian traffic.



Columbia Trail, NJ
Image: The RBA Group



Saddle River Pathway, NJ
Image: The RBA Group





BICYCLE FACILITIES & TREATMENTS

Bicycle Markings & Intersection Treatments

The bicycle environment can be further enhanced with pavement markings and intersection treatments that provide information on where and how bicyclists should operate and reinforce the message that bicyclists are legitimate road users.

Shared Lane Markings

Shared lane markings or “sharrows” are road markings typically used on low volume and low speed streets to indicate a shared lane environment for bicycles and automobiles. They are not a facility in and of themselves but are used to support a complete bicycle network. They indicate where bicycle traffic should operate in order to avoid the parked car “door zone” and other hazards.



Shared Lane Markings in Hoboken, NJ
Image: The RBA Group

Bicycle Box

A bike box is a designated area at the front of a traffic lane at a signalized intersection that provides bicyclists with an opportunity to get ahead of queuing traffic during the red signal phase.



Colored Bicycle Lane in Jersey City, NJ
Image: The RBA Group

Green Colored Pavement

Colored pavement can be utilized as a corridor treatment along the length of a bike lane or cycle track, or as a spot treatment, such as a bike box, conflict area, or intersection crossing marking. In United States, most colored lanes are green since AASHTO has given interim approval for the use of green colored pavement for bike lanes.



Colored Bicycle Lane in Jersey City, NJ
Image: The RBA Group

Cross Bike

A cross bike is a series of pavement markings adjacent to the crosswalk indicating space for bicycles to cross major intersections. They increase the visibility of bicycles at intersections and encourage motorists to yield right-of-way to bicyclists waiting to cross.



Cross Bike in Ocean City, NJ
Image: The RBA Group

Intersection Crossing Markings

Intersection crossing markings indicate the intended path of bicyclists. They guide bicyclists on a safe and direct path through intersections, including driveways and ramps. They raise awareness for both bicyclists and motorists to potential conflict areas.



Chicago, IL
Image: NACTO





BICYCLE FACILITIES & TREATMENTS

Bicycle Signs

Signs assist bicyclists with wayfinding and also establish their presence on the roadway especially for motor vehicles. There are a wide variety of signs and signals that are typically used in conjunction with bicycle facilities such as bicycle lanes. These signs also increase the safety of bicycling environment.

Bicycles May Use Full Lane Sign

The “Bicycle May Use Full Lane” sign may be used in locations where it is important to inform road users that bicyclists may legally occupy or “take” the travel lane, usually because there is no compatible shoulder or bike lane.



R4-11

Bicycle May Use Full Lane Sign
Image: MUTCDWrong Way Riding Signs

These signs reinforce the legal requirement that bicyclists are to ride **with** (not against) traffic. Since bicycles have the same rights as drivers of motor vehicles, when operated on a roadway, they should travel in the same direction as adjacent roadway traffic. Riding with traffic makes cyclists safer because at intersections, most motorists look to the left for oncoming traffic. If cyclists ride with motorized traffic, it increase the likelihood of them being seen by motorists at intersections.



R5-1b



R9-3cP

Wrong Way Riding Signs
Image: MUTCDShare The Road Signs

A SHARE THE ROAD sign assembly is intended to alert motorists that bicyclists may be encountered and that they should be mindful and respectful of the bicyclists they see.

Share the road sign in Highlands, NJ
Image: The RBA Group

Resources

- NACTO: www.nacto.org
- AASHTO’s Guide for the Development of Bicycle Facilities: https://bookstore.transportation.org/collection_detail.aspx?ID=116
- NJDOT Complete Streets homepage: www.state.nj.us/transportation/eng/completestreets
- New Jersey Bicycle and Pedestrian Resource Center: www.njbikeped.org/overview-2
- National Complete Streets Coalition: <http://www.smartgrowthamerica.org/complete-streets>
- Manual of Uniform Traffic Control Devices: <http://mutcd.fhwa.dot.gov/>
- NJDOT Manual: Bike-Compatible Roadways and Bikeways Planning and Design Guidelines: <http://www.state.nj.us/transportation/publicat/pdf/BikeComp/introtofac.pdf>





BICYCLE LAWS & REGULATIONS IN NEW JERSEY

Every person riding a bicycle on a roadway in New Jersey is granted all the rights and is subject to all of the duties of a motor vehicle driver. Having the same rights and responsibilities as a motorist means that bicyclists must adhere to the same “rules of the road” that drivers do, including using turn signals, riding on the right side of the road, and obeying traffic signals and signs. By doing so, they enhance their safety.

Title 39: Words and Phrases Defined

As defined by statute, bicycles are not considered vehicles and all roads are considered to be a highway.

Bicycle - any two wheeled vehicle having a rear drive which is solely human powered and having a seat height of 25 inches or greater when the seat is in the lowest adjustable position.

Vehicle - includes all vehicles propelled otherwise than by muscular power, excepting such vehicles as run only upon rails or tracks and motorized bicycles.

Highway - the entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular travel.

Roadway - that portion of a highway improved, designed, or ordinarily used for vehicular travel, exclusive of the berm or shoulder.

Bicycle Laws as per N.J.S.A.

Bicycling is regulated under Title 39 of the New Jersey Statutes Annotated (N.J.S.A.). Title 39 also covers most statutes that pertain to motor vehicle laws. Regulations applicable to bicycles shall apply whenever a bicycle is operated upon any highway or upon any path set aside for the exclusive use of bicycles subject to those exceptions stated herein. The following laws and regulations apply to bicycling in New Jersey.

Operating Requirements (39:4-14)

- ✓ A bicyclist is required to ride as near to the right roadside as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction.
- ✓ A bicyclist may move left under any of the following conditions:
 1. To make a left turn from a left-turn lane or pocket;
 2. To avoid debris, drains or other hazardous conditions that make it impracticable to ride at the right side of the roadway;
 3. To pass a slower moving vehicle;
 4. To occupy any available lane when traveling at the same speed as other traffic; or
 5. To travel no more than two abreast when traffic is not impeded, but otherwise ride in single file.
- ✓ A bicyclist is not permitted to hitch rides with any other vehicles.

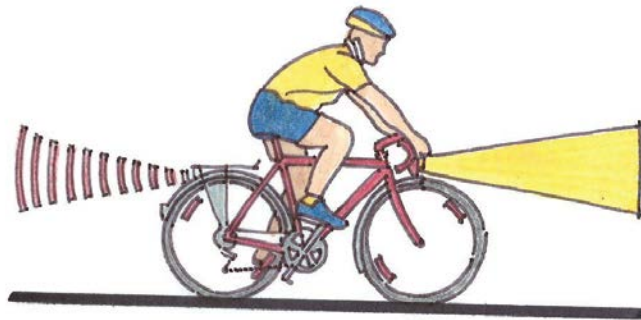




BICYCLE LAWS & REGULATIONS IN NEW JERSEY

Required Equipment (39:4-10 to 39:4-12)

- ✓ When in use at nighttime, a bicycle must be equipped with a front white light and a back red light that are easily visible from a distance of at least 500 feet.
- ✓ A bicycle must have a bell or other audible signal that can be heard from at least 100 feet away. Sirens or whistles are not permitted.
- ✓ A bicycle must have brakes to stop safely
- ✓ A bicycle must have a seat and a bicyclist is required to use the seat, place the feet on the pedals, and the hands on the handlebar at all times



BE VISIBLE

Bicycle Helmets, Requirements (39:4-10.1)

- ✓ Anyone under 17 years of age that rides a bicycle or is a passenger on a bicycle, or is towed as a passenger by a bicycle must wear a safety helmet.
- ✓ A municipality may by ordinance exempt from these requirements a person operating or riding on a bicycle when the bicycle is operated:

- On a roadway closed to motor traffic;
- On a trail, route, course, boardwalk, path or area set aside only for the use of bicycles. An exemption may not be granted for a facility located immediately adjacent to a road or highway used by motor vehicle traffic which does not have a barrier.
- Where bicycles helmets are not required, the operator and/or passengers must dismount and walk to cross a road or highway.

- ✓ In case of violation, the parent or legal guardian may be fined \$25 for a first offense and a maximum of \$100 for a subsequent offense.
- ✓ Bicycle salespersons and rental agents must display a sign stating: "STATE LAW REQUIRES A BICYCLE RIDER UNDER 17 YEARS OF AGE TO WEAR A HELMET." In the case of bicycle rentals, the salesperson/rental agent must provide a helmet, if necessary, for a fee.



Source: Proper Helmet Fitting Check, NHTSA





BICYCLE LAWS & REGULATIONS IN NEW JERSEY

Sidewalk Riding /Municipal Ordinances

New Jersey does not have a state statute prohibiting bicyclists from riding on the sidewalk. However, NJDOT states that “sidewalks are for pedestrians. Riding on sidewalks can cause conflicts with pedestrians and, like wrong way riding, can lead to crashes since it places bicyclists in situations where others do not expect them. Except for very young cyclists under parental supervision, sidewalks are not for bicycling.”



Sidewalk Riding, Image: NJBikePed.com

Some municipalities in New Jersey have imposed restrictions on bicycling on sidewalks or specifically defined sections of sidewalk.

Municipal Restrictions on Sidewalk Riding

Municipality	Restriction
Jersey City	Prohibited on sidewalks in Business District (all ages)
New Brunswick	Prohibited on sidewalks in Business District (all ages), prohibited on all sidewalks (12+ years old)
Burlington	Prohibited on all sidewalks (10+ years old)
Hoboken	Must ride at a speed “no greater than the walking speed of a pedestrian”
Spring Lake	Prohibited in certain areas, including boardwalk, during specified times of day and during the summer
Ocean City	Prohibited in certain areas, including boardwalk, during specified times of day and during the summer

Source: NJ Bicycle & Pedestrian Resource Center

What’s missing from Title 39?

While the New Jersey statutes cover aspects of the law that relate to bicycling safety, the statutes do not address a number of issues that are addressed in the statutes of some other states. These include:

- ✓ **Safe Passing Distance Laws** provide protection for bicyclists by making it clear to drivers that passing a bicyclist safely means giving a certain (defined in the law) amount of space between the bicyclist and motorist. In most instances, safe passing laws say that three feet between the bicyclist and motor vehicle is required.
- ✓ **Vulnerable Road User Laws** have distinct penalties for the serious injury or death of a vulnerable road user when a





BICYCLE LAWS & REGULATIONS IN NEW JERSEY

motorist hits them while performing actions defined by the law.

- ✓ **Dooring Laws** require drivers or passengers in a vehicle to open their door with a degree of care for traffic moving past them in the travel space adjacent to the vehicle.
- ✓ **E-bikes** are not defined by the statute and no operating requirements are provided. Electric bikes have no status as legitimate users of New Jersey's roadways.
- ✓ **Bicyclists riding on the shoulder of a roadway.** Generally shoulders are considered a de facto accommodation for bicycle travel and it is presumed that bicyclists using the shoulder should ride in the direction of traffic in the adjacent travel lane. However, some believe that bicycle traffic is not allowed to travel on the shoulder of a roadway (since a bicyclist has the same rights and responsibilities as drivers of motor vehicles who are prohibited from using the shoulder as a travel lane). According to a 2012 New Jersey Supreme Court ruling (Polzo v. County of Essex), while bicyclists may be inclined to ride on the shoulder, they have no special privileges if they do.

Resources:

- Title 39 of the New Jersey Statutes Annotated (N.J.S.A.) - www.state.nj.us/transportation/refdata/traffic_orders/
- NJ Bicycle & Pedestrian Resource Center, What's the Law Anyway? A Quick Guide to New Jersey Bicycle and Pedestrian Laws (2012) - <http://njbikeped.org/whats-the-law-anyway-a-quick-guide-to-new-jersey-bicycle-and-pedestrian-laws-2012/>

- Syllabus: Donald T. Polzo v. County of Essex - <http://appellatelaw-nj.com/wp-content/uploads/2012/01/Polzo-v.-County-of-Essex.pdf>
- Overview of Bike Laws by State - <http://bikeleague.org/StateBikeLaws>
- Bike Laws by Topic: Explanations and Best Practices - <http://bikeleague.org/content/bike-law-university>



Bicycling Riding in a Bike-Compatible Shoulder in Sea Bright, NJ Image: The RBA Group





BICYCLE EDUCATION

Offering opportunities for people to learn the skills and confidence to ride safely is necessary to achieving the vision of zero bicyclist deaths and serious injuries. There are a number of bicycle safety publications and programs available for communities and individuals of all ages and abilities. This toolbox element highlights several programs and resources available to communities in New Jersey.

Transportation Management Associations

TMAs are private, non-profit, member-controlled organizations established to work with employers and governments to help provide effective and efficient commuting and other transportation options. There are eight TMAs in New Jersey working towards promoting travel alternatives to the use of motor vehicles including bicycling to work and school. Some of the bicycle safety services TMAs may offer include:

- ✓ making safety presentations to students on a variety of bicycle and pedestrian safety topics
- ✓ organizing bike rodeos and skill clinics
- ✓ presenting information on “sharing the road with bicyclists” to high school driver’s education classes
- ✓ teaching classes to individuals wanting to learn more about cycling safety and the rules of the road

- ✓ bicycle route planning
- ✓ emergency rides home for bicycling commuters
- ✓ Safe Routes to School program assistance



Savvy Cyclist: Urban Biking and Safety Skills class hosted by Hudson TMA. Image: HudsonTMA.org

NJ Ambassadors in Motion (NJAIM)

The Bicycle and Pedestrian Ambassadors are the NJ Bicycle and Pedestrian Resource Center’s public outreach team. The team consists of adult ambassadors trained to educate and conduct outreach to bicyclists, pedestrians, and motorists to promote safety and active transportation in New Jersey. The part-time ambassadors work from April to November and provide event outreach, classroom outreach,





BICYCLE EDUCATION

on-street outreach, and municipal/governmental outreach/assistance. Ambassadors occasionally organize safety and educational events at select locations based upon local demand or unique opportunities including bicycle safety presentations, helmet fittings, bicycle safety checks, and distribution of safety materials and bike maps.



Ambassadors handing out safety materials at an event. Image: NJBikePed.org

Bicycling Clubs and Advocacy Groups

Many bicycle clubs and advocacy groups in New Jersey focus on safe bicycling and promote bicycle safety programs and initiatives.

New Jersey Bike & Walk Coalition (NJBWC) is the statewide organization for bicycle and pedestrian advocacy. NJBWC offers a series of cycling education classes. The course curriculum for most

offerings is developed by the League of American Bicyclists and is taught by League-certified Cycling Instructors (LCIs).

Affiliation with a bike club is a wonderful way to enjoy recreational biking. They often provide valuable local information for bicyclists as well as opportunities for social activities and improving skills. There are many community level advocacy organizations, recreational and performance-oriented clubs throughout the state of New Jersey.



Princeton Pedestrian / Bicyclist Advisory Committee. Image: Princeton.gov

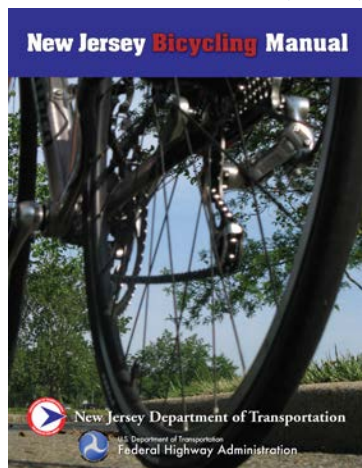




BICYCLE EDUCATION

Publications

[NJDOT New Jersey Cycling Manual](#)



Published in 2010, the purpose of the manual is to provide information required by bicyclists to ride on roadways with other traffic. It is intended for those who have a basic understanding of how traffic operates on our roadways, including the ability to understand traffic control devices, and the ability to control their bikes. The manual includes information on selecting, fitting, and equipping

your bike; quick maintenance checks; traffic basics; sharing the road; parking, your bike; riding at night and in rain and snow; riding with others; and riding on shared-use paths.

[Safe Routes to School Education Resources](#)

NJ Safe Routes to School Resource Center has compiled a list of pedestrian and bicycle safety lesson plans and curriculum currently in use throughout the United States. These lessons are simple, straightforward, and adaptable to different learning styles, audiences, and physical settings. The Resource Center has also assembled supporting pieces of information to enhance pedestrian and bicycle safety in schools.

[National Highway Traffic Safety Administration \(NHTSA\) Cycling Skills Clinic Guide](#)

This guide is written for those intent on planning a bicycle safety skills event for children either at school or in other community settings. The guide offers a step-by-step method to planning and hosting a bicycle safety skills event, including instructions and resources for setting up a course and conducting it to meet the needs of all the children participating.

[New Jersey Division of Highway Traffic Safety \(NJ DHTS\)](#)

The NJ Division of Highway Traffic Safety assists county, municipal and law enforcement agencies with education, public awareness and enforcement of the bicycle helmet law and other bicycle safety issues. The Division has produced bike “hang tags,” with information in both English and Spanish, on the safe operation of a bicycle. The tags are highly visible and designed to hang on bike handlebars. In addition, a brochure presenting facts and tips on safely riding a bicycle and a bicycle helmet law fact sheet are available to download from the DHTS website.





BICYCLE EDUCATION

Resources

- To find the contact information for the TMA in your area, visit <http://www.njtpa.org/project-programs/tmas>
- For more information on NJ Ambassadors in Motion, visit <http://njbikeped.org/nj-ambassadors-in-motion-njaim/>
- To find the a bicycle club near you, visit <http://www.njbwc.org/coalition/>
- For announcements of future bicycle education classes, visit <http://www.njbwc.org/education/>
- SRTS Lesson plans and other material are available for download at <http://www.saferoutesnj.org/resources/education/>
- To download the NHTSA Cycling Skills Clinic guide, visit <http://www.nhtsa.gov/Driving+Safety/Bicycles/CyclingSkillsClinic>
- To download safe bicycle riding brochure and bicycle helmet fact sheet go to the DHTS website at <http://www.nj.gov/oag/hts/bike-resources.html>
- To access the New Jersey Bicycling Manual go to: <http://www.state.nj.us/transportation/commuter/bike/pdf/bicyclingmanual.pdf>



Walk to School Day, a SRTS event. Image: The RBA Group





ENFORCEMENT

Enforcing laws that regulate bicyclists, motorists, and pedestrians is important for ensuring a safe and healthy environment. Ideally, enforcement can lead to mutual respect and consideration among different road users, supporting a “share the road” attitude. It can also lead to a sense on the part of bicyclists that they are being treated equitably.

Provide Officer Training

For many communities, the first step for building an enforcement program is to review laws and policies related to bicycling and provide training to law enforcement officers. Most officers receive little training focused on bicycle laws and safety and many officers are unaware of the laws and safety concerns surrounding bicyclists. Additional training can help close that gap. Training should include information on what, when, where, and how law enforcement should occur to maximize behavior change.

The National Highway Traffic Safety Administration (NHTSA) provides a 2-hour self-paced interactive video training. Content includes understanding bicycle crashes, applying traffic laws to cyclists, enforcement techniques, and crash investigation and reporting. The New Jersey Division of Highway Traffic Safety (DHTS) offers a special training course on pedestrian and bicycle crash investigation.



Law enforcement officers attending the “Title 39: A Bike’s Eye View” course. Image: NJBWC

In addition, “Title 39: A Bike’s Eye View,” a course offered by the New Jersey Bike & Walk Coalition (NJBWC) and Voorhees Transportation Center (VTC) at Rutgers University, provides law enforcement officers with the training necessary to help them understand how New Jersey’s motor vehicle code applies to bicyclists. Courses were held in Camden, Essex, Middlesex, Ocean, and Passaic Counties in August and September 2015. Funding for the development of the course was provided by the NJ Division of Highway Traffic Safety. NJBWC hopes to expand the training to more police departments.





ENFORCEMENT

Positive Ticketing

Positive ticketing is a community program where bicyclists are recognized for appropriate bicycle riding behavior. For example, children and teenagers are rewarded by local law enforcement officers with vouchers for obeying laws and prioritizing safety by wearing bike helmets and abiding by traffic rules.



Image: Ewing Police Department

Voucher prizes can include anything from food deals, cinema tickets, or a chance to see a local sports game, all of which could be donated by local businesses.

Positive ticketing programs have been established across the country, and have successfully boosted community engagement, knowledge of bicycle safety measures, and rapport between law enforcement and youth.



Image: West Deptford Police Department, NJ

Targeted Enforcement

Targeted enforcement focuses enforcement on a limited number of high risk violations. It is more efficient than a general enforcement approach. Focusing on one or more high risk violations such as red light running, passing too close, running stop signs, failure to yield right-of way, or not wearing a bicycle helmet (for under 17 year olds) is appropriate when there is evidence of the relationships between these violations and safety risk.

It is easier to communicate to road users about a limited and specific number of violations than about traffic violations in general. Whether it's an SUV passing too closely to a bicyclist, or a cyclist running through stop signs, targeted enforcement expects/requires both bicyclists and motorists to respect the rules of the road.



Image: Chicago Complete Streets





ENFORCEMENT

Bicycle Patrol

Bicycle patrols or Police on Bikes programs involve the tactical use of police officers using bicycles while on patrol. The International Police Mountain Biking Association (IPMBA) has identified a number of advantages to patrolling by bicycle as opposed to walking or utilizing a patrol car. These include:

- ✓ Bikes are less threatening than patrol vehicles
- ✓ Other bicyclists are more accepting of bike patrol officers
- ✓ Bicycle patrols result in more than twice as many contacts with the public than vehicle patrols
- ✓ Perpetrators often don't notice bike patrols
- ✓ Bike patrols can go where traditional patrol vehicles can't
- ✓ Bicycles cost much less to purchase and maintain than traditional patrol vehicles
- ✓ Bikes provide environmental and health benefits



Image: Cresskill Police Department, NJ

In 2012, the New Jersey Bicycle and Pedestrian Resource Center compiled a list of municipalities in New Jersey that have active bicycle patrols. This includes:

<i>Colts Neck</i>	<i>Marlboro</i>	<i>Hawthorne</i>	<i>Burlington City</i>
<i>Ocean City</i>	<i>Vineland</i>	<i>Dover</i>	<i>Burlington Twp.</i>
<i>Morristown</i>	<i>Elmwood Park</i>	<i>Willingboro</i>	<i>Sayreville</i>
<i>Kearny</i>	<i>Audobon</i>	<i>Florence</i>	<i>Pt. Pleasant Beach</i>
<i>Long Hill</i>	<i>Carlstadt</i>	<i>Cresskill</i>	<i>Bradley Beach</i>

Source: <http://njbikeped.org/rolling-and-patrolling/>



The Morristown Police Department Bicycle Patrol Unit has 15 officers and supervisors that have completed the 40 hour Law Enforcement Police Cyclist Class. The bicycle officers are used for special events, holidays, and anytime a large crowd is anticipated.

Source: www.townofmorristown.org





ENFORCEMENT

Resources

- The International Police Mountain Bike Association (IPMBA) is a non-profit association dedicated to promoting the use of bikes for public safety, providing resources and networking opportunities, and offering training for public safety cyclists. Training materials as well as information on courses and the annual conference, is available at <http://www.ipmba.org/>
- The New Jersey Division of Criminal Justice, Police Training Commission (PTC) is responsible for the development and certification of training courses for local police and for monitoring the PTC certified academies. <http://www.state.nj.us/lps/dcj/njptc/home.htm>
- The National Highway Traffic Safety Administration's "Enhancing Bicycle Safety: Law Enforcement's Role" training video, is available through NHTSA's ordering catalog at <https://mcs.nhtsa.gov/> and select Product ID 810 758
- The National Safe Routes to School Program provides information on how Law Enforcement and Law Enforcement Executives can play an important role in Safe Routes to School programs and become more involved in their communities. <http://www.saferoutesinfo.org/program-tools/enforcement-role-law-enforcement-srts>
- The Pedestrian and Bicycle Information Center (PBIC) has resources on enforcing pedestrian and bicycle laws. <http://www.pedbikeinfo.org/programs/enforcement.cfm>



Image: Washington Township, Gloucester County, NJ



Image: Hoboken, NJ





BICYCLE PARKING

Bicycle parking is essential to support bicycling and increase the number of bicycle trips for commuting, shopping, appointments, and social visits. People must have a secure and convenient place to park their bikes once they reach their destination. Installation will vary depending on whether users are parking for a few hours or longer. Short-term parking must be convenient and easy to use while bicyclists looking for long-term parking are likely to value security and shelter more.

Bicycle parking includes racks, lockers, and bicycle stations. Bicycle racks need to be self-explanatory, allow both the frame and at least one wheel of the bike to be secured with a u-shaped lock, and the rack should make at least two points of contact with the bike. Bicycle lockers are used to securely store a single bicycle usually over a longer period of time. Bicycle stations are buildings or structures designed to provide secure bicycle parking and often incorporate other amenities such as showers or bike maintenance services.

Not having well-planned bicycle parking can discourage bicycling and lead to theft, damage, and locked bikes becoming an obstacle to pedestrians or damaging trees. The following are ways in which local governments can encourage bicycling by making bike parking more widely available.



Image: The RBA Group

Adopt a Bicycle Parking Ordinance

Implement a law requiring bike parking for new development and redevelopment. Such a law ordinarily requires new commercial and multi-family developments provide a specific number of short term and long term bicycle parking facilities. Such a law can benefit developers, too, since the law can include incentives allowing them to reduce the number of car parking spaces in exchange for including bicycle parking.

A model bicycle parking ordinance, that can be customized based on local needs has been developed by Change Lab Solutions and is available at: <http://www.changelabsolutions.org/publications/bike-parking>.





BICYCLE PARKING

Village of South Orange: Bicycle Ordinance

The Village of South Orange amended their off-street parking ordinance to provide for secure bicycle parking and storage for new construction and substantial rehabilitation of multi-family apartment uses. The ordinance requires 1 bicycle parking space for every 3 dwelling units. In addition to providing bicycle storage, bicycle racks shall be required for use by guests of residents, in the amount of 10 percent of the required number of residents' bicycle storage. (Township Ordinance #2011-21)



Image: NJBPRC

Implement a law requiring bicycle parking in parking lots and garages. This provides bicycle parking at locations that have already been determined to be destinations. This can be accomplished by requiring the provision of such parking as a requirement for acquisition or renewal of their business license. Again, Change Lab Solutions' model ordinance includes language requiring bicycle parking in parking lots and garages.

Support the Implementation of Bike Corrals

Bike corrals are collections of bicycle racks installed within a street's curb-to-curb right-of-way, usually near corners. Bike corrals typically hold between five and twelve bike racks (10-24 bike parking spaces) in an area equal to just one vehicular parking space. Bike corrals have many benefits for several different stakeholders in the community including:

- ✓ Improving the outdoor cafe seating environment by removing bicycles from assorted sidewalk furniture and adding aesthetic amenities such as planters.
- ✓ Increasing the quantity, accessibility and overall visibility of bicycling.
- ✓ Acting as de facto curb extensions, which effectively shorten crossing distances and increase visibility at intersections.
- ✓ Improving visibility at intersections by physically eliminating cars parking too close to intersections.





BICYCLE PARKING



Image: City of Hoboken

The City of Hoboken has established a bike corral program, and has invited businesses and institutions to apply for placement of a bike corral near their building. As part of the bike corral program, businesses or property owners can pay a \$750 sponsorship fee to the City to sponsor a bike corral, which the City will install. Sponsorship benefits include a custom made sign on the sidewalk adjacent to the bike corral and listing of sponsor names on the City of Hoboken's webpage. The duration of all sponsorships is for the useful life of that bike corral (generally around 5 years). The sponsoring business/property owner is required to keep the corral free of debris, oversee snow removal and inform the City of structural issues or damages.

Support The Integration Of Bicycling And Transit

Make it convenient for residents to travel to or from a transit station or center without having to take their bicycle on board. This means providing bicycle parking at or near major transit centers or stations. Because many bicyclists are unwilling to leave their bicycle unattended for any significant length of time, short term parking (bike racks) should be augmented with secure bike parking facilities such as bike lockers or bike stations.



Image: Larry Higgs/NJ Advance Media

The Bike Depot at Montclair's NJ TRANSIT Bay Street station provides secure, covered, long-term bicycle parking for 24 bicycles. The Bike Depot is a partnership between the NJ Bike & Walk Coalition and Montclair Township.





BICYCLE PARKING

Require Civic Events To Provide Bicycle Parking

Monitored, or “valet” bicycle parking benefits both cyclists and event promoters; cyclists by providing another option for traveling to the event and promoters by drawing people who might not attend due to the aggravation associated with finding a car parking space and reducing congestion. Here also, the Change Lab Solutions model ordinance has provisions for requiring bicycle parking at large civic events.



Image: Bike JC, Jersey City, NJ

Install Bicycle Parking At Public Facilities

Counties and municipalities can adopt policies and implement projects to install bike parking at public facilities owned by the governmental entity (such as buildings and parks); or they can also elect to install bicycle parking at typical destinations such as commercial and entertainment districts. Similarly, school districts and colleges can take similar actions to provide bicycle parking at their facilities.

Resources

- Association of Pedestrian and Bicycle Professionals (APBP), *Essentials of Bike Parking: Selecting and Installing Bike Parking that Works* (2015). Free to download from <http://www.apbp.org/?page=publications>
- ChangeLab Solutions, *Making a Place for Bicycles: A Bicycle Parking Model Ordinance*. <http://www.changelabsolutions.org/publications/bike-parking>
- Pedestrian and Bicycle Information Center (PBIC), *Bicycle Parking*, http://www.pedbikeinfo.org/planning/facilities_bike_bikeparking.cfm



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END OF REPORT

NEW JERSEY

