

A GUIDE TO CREATING A COMPLETE STREETS IMPLEMENTATION PLAN

NEW JERSEY DEPARTMENT OF TRANSPORTATION



December 2012





Guide to Creating a Complete Streets Implementation Plan

**“Complete Streets is a philosophy;
a way of life. Our goal is to make
New Jersey a sustainable, livable,
walkable, rideable community.”**

James S. Simpson

*Commissioner
New Jersey Department of Transportation*

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INTRODUCTION

Complete Streets are streets designed for everyone – all users, travel modes, and ability levels – balancing the needs of drivers, pedestrians, bicyclists, transit vehicles, emergency responders, and goods movement. However, adopting a Complete Streets policy does not mean that every street in every community should have sidewalks, bike lanes, and transit. There is no universal, prescriptive design. Instead design is driven by local context and demand. By applying Complete Streets as a core, guiding principle, a robust, multi-modal network with facilities for all users can be established incrementally over time.

This *Guide to Creating a Complete Streets Implementation Plan* is a follow-up to the *New Jersey Complete Streets Guidebook*. The purpose of this document is to show municipalities how to translate policy into action, how to take a municipal Complete Streets Policy and use 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.

The *Complete Streets Guidebook* described the process of writing and adopting a Complete

Streets policy: how to understand and respond to local context, issues, and needs; address concerns about liability; and build local support for policy adoption. A model policy template is also provided to guide the development of a relevant and effective policy.

Whereas the *Guidebook* makes the case for Complete Streets and leads to the point where policies begin to come into everyday use, *NJDOT's Guide to Creating a Complete Streets Implementation Plan* empowers municipal decision makers and professionals to get it done through a comprehensive program of planning, training, and design initiatives.



This striped bicycle lane fits the local context, improves safety and mobility, and Completes the Street in Wildwood, NJ

And the momentum is building – by November of 2012 more than 40 New Jersey jurisdictions had adopted a Complete Streets policy, more than any other state. But getting our municipal leaders and professionals to write and adopt Complete Streets policies is just the first step on the journey to building safe streets, improving mobility and access, and creating healthy, sustainable communities.

Incorporating multimodal accommodations into the routine planning, design, maintenance, and operations of our street systems and communities requires more than just understanding and agreeing with a two or three page policy that has been adopted by the governing body. For successful implementation, Complete Streets must become ingrained in even the most routine actions and undertakings of our villages, towns, and cities.

Researchers tell us that the strategies, projects, and improvements that promote and accommodate multimodal travel occur most often at the local level where the demand is, but that the support that makes it all possible – the policies and traffic regulations, design standards and guidelines, training and dissemination of expertise, and funding – typically comes from the state and national level.⁽¹⁾



Guide to Creating a Complete Streets Implementation Plan

This is where the *Guide to Creating a Complete Streets Implementation Plan* comes into play. It demonstrates how New Jersey is turning policy into action and where municipal leaders can turn to get the resources, training, and expertise needed to create healthy, livable, sustainable communities with safe multimodal street systems.

The *Guide to Creating a Complete Streets Implementation Plan* introduces proven strategies and lessons learned for achieving implementation through policy, planning, training, project development, and design methods that make Complete Streets an integral part of community planning and project design and delivery.

How does this work in practice?

First, the Complete Streets concept must be incorporated into the culture and operations of the jurisdiction – the plans, procedures, and regulations that direct and guide the actions of local, county, and state government and agencies. These include municipal master plan elements and zoning ordinances, design guidelines, and project development and delivery procedures.

The New Jersey Department of Transportation (NJDOT) is a national leader in Complete Streets policy, training, and support, and numerous initiatives have been undertaken to

reach the state’s municipal and county decision makers and professionals, stakeholders, and advocates. The Department’s goal is to build a broad base of awareness and acceptance, and integrate Complete Streets into everyday planning and design practice across the state.

“The Complete Streets concept focuses not just on individual roads but on changing the decision-making and design process so that all users are routinely considered during the planning, designing, building, and operating of all roadways. It is about policy and institutional change.”⁽²⁾

***Complete Streets:
We Can Get There from Here***
ITE Journal
May 2008

The *Guide to Creating a Complete Streets Implementation Plan* begins with a discussion of how to implement Complete Streets through planning, policy, and training activities. NJDOT, for example, is investing significant effort and resources to achieve implementation by providing training and

guidance. These policy, planning, and training initiatives are described in Chapter One.

Second, with the policy and planning elements firmly rooted, the focus shifts to the design, funding, and delivery of projects that incorporate Complete Streets principles.

The *Guide to Creating a Complete Streets Implementation Plan* describes how NJDOT is implementing Complete Streets through project design, funding, and delivery. The Department has updated many of its own internal policies and procedures to incorporate the Complete Streets approach.

Project design, funding, and delivery are described in Chapter Two.

When viewed in totality, the many actions and activities described in this document serve as an example for how municipal and county government can adopt similar procedures at the local level to ensure that Complete Streets elements are considered throughout the planning, development, design, and construction of transportation improvements in ways that address the needs of all users, travel modes, and ability levels, and are based on local needs, priorities, and context.



CHAPTER ONE: IMPLEMENTATION THROUGH PLANNING, POLICY, AND TRAINING

There are five main elements to implementing a Complete Streets policy:

- 1) Updating plans, policies, and procedures to incorporate Complete Streets principles;
- 2) Incorporating Complete Streets into the development process;
- 3) Building institutional capacity through training, communication, and monitoring;
- 4) Creating partnerships; and
- 5) Initiating pilot projects to build support and demonstrate the value of Complete Streets.

“The places that have moved beyond the initial policy statement have usually done so by creating a more detailed transportation plan, design manual, or design standards, often while working to apply Complete Streets principles to specific projects.”⁽³⁾

Complete Streets: Best Policy and Implementation Practices
American Planning Association
April 2010

Like the process of building Complete Streets, rolling out an implementation plan can be done incrementally so that the process is not burdensome. Some municipalities have formed a Complete Streets committee or task force to take on the job of reviewing local policies and procedures to see what needs to be revised.

In one town, for example, after the Complete Streets policy was adopted and the first project incorporating the policy was completed, public concerns and comments led to the adoption of a Complete Streets Implementation Policy. The Implementation Policy spelled out exactly how and where the Complete Streets policy would be applied: the types of improvements that would be included (i.e., new crosswalks, repairing and filling in sidewalk gaps, providing appropriate striping and signing), and the exact streets that would be considered (i.e., only those municipal streets classified as Collector and above). A public notice and coordination element was also included to provide adequate opportunity for neighbors to pose questions and comment on proposed improvements.

1) Update Plan Documents

At any level of jurisdiction, a variety of local policies, procedures, plans, and programs may need to be revised to incorporate the

principles of Complete Streets. Examples include:

- Master Plan documents and elements – can be updated to include Complete Streets goals, objectives, and strategies.
- Review of development proposals and site plans – can be updated to ensure that Complete Streets requirements are met.

If a municipality has a circulation element, this is the logical place to include the Complete Streets concept and goals for the network. Many circulation elements have traditionally followed a standard template of inventory, capacity analysis, and capital improvement drawn from a limited palette of intersection improvements and roadway widenings. When mobility is seen only through the lens of vehicular throughput, then the range of improvements is equally limited. The municipal circulation element should look beyond these to consider Complete Streets.

The land use element is likewise often developed in isolation from transportation capacity and mobility considerations. Integrating land use and transportation means bringing these elements together so that the interactions among development and circulation are considered at the very beginning of the planning and development



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process and carried through to design and operation.

Princeton's Planning Board is now updating its municipal circulation element to reflect the need for a robust network of Complete Streets with multimodal accommodations. West Windsor Township also plans to update its circulation element to include Complete Streets during the next Master Plan reexamination. Some municipalities have a specific bicycle and pedestrian plan, which would be another place to address Complete Streets.

The circulation element or bicycle and pedestrian plan can help identify needs and priorities for Complete Streets retrofit projects that might not occur otherwise. These plans can help ensure that future Complete Streets will link up to form an integrated network.

Other types of plans that might be updated to include Complete Streets are redevelopment plans, area or neighborhood plans, or plans for specific corridors. The adoption of Complete Streets policies in Princeton Borough and Princeton Township, for example, followed the Princeton Joint Pedestrian and Bicycle Advisory Committee's plan of *Recommendations Regarding Shared Lane Markings for Bicycles*, which proposed a network of marked bicycle routes.

2) Incorporate into the Development Process

The development review and approval process is an important avenue for implementing Complete Streets, especially in growing communities or areas where redevelopment is proposed. Policies and procedures should be updated to spell out new requirements for developers and property owners that support implementation of Complete Streets. These changes can make our municipal planning and zoning boards stewards of Complete Streets implementation by providing them with a toolbox of regulatory standards and procedures.

- Regulations can be modified to require sidewalks and bicycle accommodations in new development.
- Bicycle parking facilities can be required along with automobile parking.
- Connectivity standards can be included to provide for mobility between neighboring developments. At a minimum, bicycle and pedestrian connectivity can be required.
- Access standards can be enacted to limit driveway interruptions and improve pedestrian and bicycle mobility with continuous, uninterrupted sidewalks and bike lanes.

- Private developers can be required to provide access for bus services and waiting areas for bus passengers.
- Aesthetic standards governing signs, building facades, and landscaping can enhance the quality of the walking environment.
- Crime Prevention through Environmental Design standards can help create greater personal security for pedestrians.



Highland Park recently upgraded the streetscape of the Route 27 commercial area, repairing sidewalks, installing street trees and furniture, and creating rain gardens, to improve safety, access, aesthetics, and sustainability.

The City of Linwood used its Complete Streets policy to encourage a developer to make the Cornerstone Commercial property accessible to bicyclists and pedestrians, with linkages to surrounding facilities.⁽⁴⁾

3) Build Institutional Capacity

Along with updated policies and procedures, it is important to ensure that the people who will apply those procedures have a thorough understanding of what is required and a commitment to Complete Streets. This may require training staff, briefing elected officials and boards, monitoring the implementation process (including exemptions to the policy), and providing public information on an ongoing basis.

Some municipalities have found it useful to set up a Complete Streets committee or task force to spearhead the public information campaign, review project designs, and monitor exemptions to the policy. Over time, as Complete Streets becomes institutionalized, the committee may not need to be as active. In the City of Linwood, the local Green Team has assumed this role.

Licensed professional planners and engineers, for example, are required to complete training each year as part of the licensing process. Similarly, New Jersey state law requires that members of municipal planning boards, zoning boards of adjustment, and combined land use boards complete a basic training course in municipal land use law.

To help fill this educational need, NJDOT has implemented a comprehensive Complete

Streets outreach and training initiative to broaden awareness and acceptance and integrate Complete Streets into everyday planning practice at all levels of government across New Jersey. This initiative included developing promotional materials to introduce the concept to the public, stakeholders, and advocates; convening a Complete Streets Summit and Complete Streets Leadership Roundtable; training NJDOT staff; preparing a training curriculum and promotional video; and sponsoring a series of instructional workshops for local and county decision makers and professionals.

The initial NJDOT Complete Streets promotional materials were introduced at the 2010 New Jersey Bike and Walk Coalition Summit, kicking off a campaign to introduce the public to the benefits of Complete Streets; inform planners, stakeholders, and advocates; and address skepticism and misconceptions about benefits, costs, and liability.

A statewide Complete Streets Summit was held in 2010 with a steering committee of local and state agencies, advocacy groups, Transportation Management Associations, citizens, and other stakeholders. Nearly 200 local, county, regional, and state agency planners, engineers, citizens, and officials attended the Summit.



2010 Complete Streets Summit, New Brunswick, NJ

A follow-up was held in 2011 at the Complete Streets Leadership Roundtable, to evaluate the state-of-the practice, coordinate and share Complete Streets education efforts, and identify ways to focus and refine the message.

For over a decade NJDOT has sponsored in-house training initiatives including Context Sensitive Design, Pedestrian and Bicycle Safety Design, and Complete Streets. Everyone, from Department and Division Heads, to Project Managers, to Civil Engineer Trainees has been targeted. In 2012 alone, more than 150 NJDOT staffers attended workshops on Complete Streets and Pedestrian Safety.

A training curriculum and video were prepared and used to teach a series of 12 workshops with the intent to reach those who will write, adopt, and implement Complete Streets



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policies and improvements throughout the state. Over 300 elected officials, decision makers, and professionals from New Jersey municipalities and counties attended these workshops in April and May of 2012.

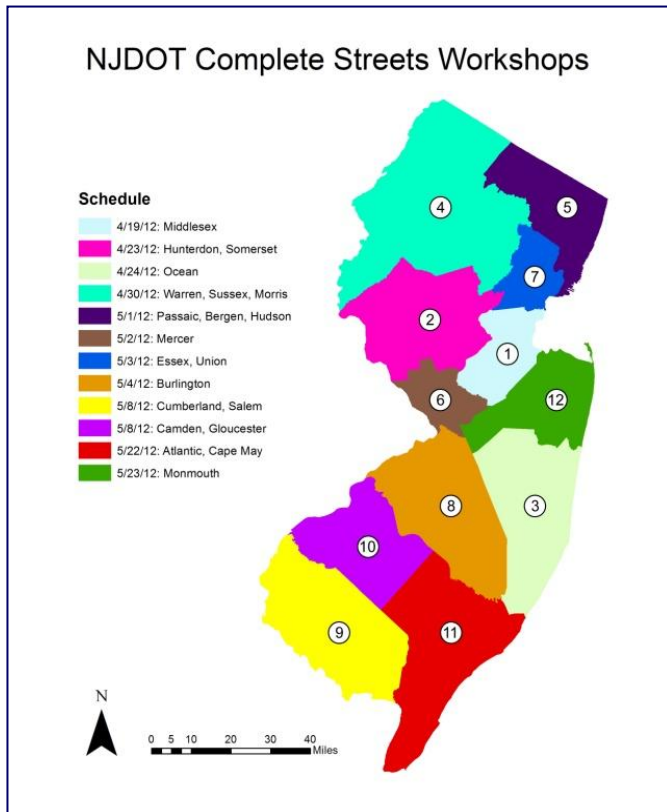
three annual summits has featured sessions on Complete Streets.

In addition to these events, NJDOT, its partners, and advocates, have participated in a series of local, statewide, and national events

to promote and educate New Jersey's decision makers, professionals, advocates, and citizens about Complete Streets. For example, at a recent New Jersey Society of Municipal Engineers meeting more than 60 engineers received training in Complete Streets policy, liability, and design.

NJDOT will consider additional events in the future to support outreach, training, and implementation of Complete Streets if funding is available.

boundaries. Similarly, partnerships between local governments, counties, and NJDOT can help to achieve consistent design treatments for roads operated by different levels of government, including multimodal treatments for intersections involving more than one jurisdiction.



NJDOT Complete Streets Workshop Locations

Beyond its role in the kick-off of NJDOT's Complete Streets education campaign in 2010, the New Jersey Bike and Walk Coalition's Annual Summits continue to be a forum for sharing information on the topic. Each of the

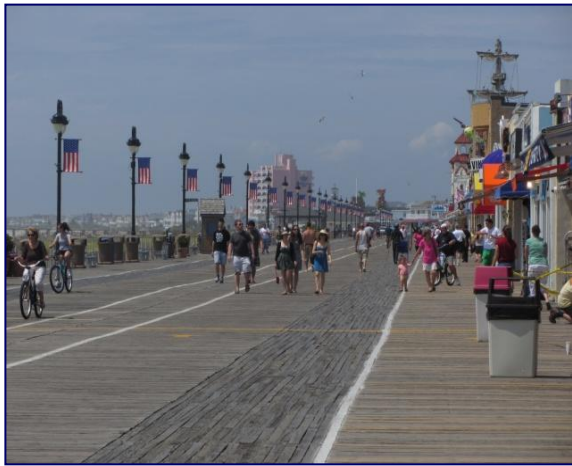
Partnerships within the community and with other jurisdictions and institutions are also key to creating an integrated network of Complete Streets. Within the community, business associations, private developers, and civic groups can be important allies and provide access to additional implementation resources.

Partnerships with neighboring jurisdictions are also important to ensure continuity across



A public-private partnership is building the Lawrence Hopewell Trail in Mercer County, NJ

Lawrence and Hopewell Townships, working with Mercer County and NJDOT, corporate sponsors, schools, and many others, formed a unique public-private partnership to develop a 22-mile long trail that links employment centers, schools, parks, and downtown destinations in the two communities. Future expansion may create linkages to trails, paths, and on-street bikeways in adjacent communities, creating a truly regional network of trail systems and Complete Streets.



The NJ Route 52 Connector bridge project is making the Ocean City beaches and boardwalk accessible for all, without having to drive to get there.

In Ocean City, 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 project links Ocean City with its mainland neighbors and features a separated lane for pedestrians and bicyclists. Connections are provided to the Linwood Bikeway, Ocean City's Haven Avenue bicycle boulevard, and other pedestrian amenities that complement the city's own Complete Streets efforts.

Together the combined facilities create a multimodal spine running parallel to the high-traffic U.S. Route 9 corridor, linking a series of communities, and providing access to

numerous residential neighborhoods, schools, parks, shopping and restaurants, and the boardwalk and beaches in Ocean City.

5) Initiate Pilot Projects

Pilot projects—whether a streetscape improvement, a bicycle route, or filling a gap in the sidewalk network—can help to build local support and demonstrate the value of Complete Streets.

Being able to point to proven success stories can help overcome doubt and skepticism and build a broad-based coalition of support for Complete Streets policies, programs, and projects. Elected officials, residents, and business owners often want to see “where it's been done before” to understand how their own communities, business districts, and neighborhoods may be affected.

Pilot projects also provide synergy with other local goals and plans, such as economic development, community revitalization,

redevelopment, or cost savings.

The City of Pleasantville, for example, is looking into the prospect of reducing school busing costs by building a bicycle/pedestrian bridge that would re-connect local schools and neighborhoods that have become separated by freeways and busy arterial highways.

The Borough and Township of Princeton implemented a network of bicycle Sharrows in the summer of 2011 to improve mobility and safety through the downtown core. Since many roadways in the downtown core are low-speed, narrow, and often include on-street parking, Sharrows were identified as an ideal



A network of Sharrow markings and enhanced crosswalks is recapturing Princeton's streets and creating a multimodal network that truly meets the goal of Complete Streets: serving all users and all modes on all streets.



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solution for the local context, where separate bike lanes were deemed infeasible.

The Sharrow symbols alert motorists to expect bicyclists to occupy the travel lane, and help bicyclists properly align themselves to ride with traffic and avoid “dooring” incidents with parked cars.

The project was a collaborative effort, led by the municipalities and the Princeton Joint Pedestrian and Bicycle Committee, but also supported by Mercer County and NJDOT, who have jurisdiction over some of the roadways. The network will be expanded further by Princeton University.^(5,6)

Combined, these facilities are helping to build a robust bicycle network through the core of Princeton.

Lessons Learned

Advice from municipalities that have implemented Complete Streets can be essential for those considering adopting and implementing their own policies or projects. Chapter One presented a number of real-life examples, success stories, and lessons learned that should be considered and understood

before considering implementation of Complete Streets.

Examples include the following:

1) Work closely with engineering staff – contact and coordination are essential.

The Sharrow symbol was included as an approved regulatory marking in the 2009 update of the Manual on Uniform Traffic Control Devices. Once this update was approved, the Princeton Joint Pedestrian and Bicycle Committee was able to work with local engineering staff to implement the proposed network of bicycle Sharrows on local streets.

2) Keep the policy flexible to work within constraints, such as limited right of way, cost, and connection with local context.

Complete Streets is not a one-size-fits-all concept, and most policies reflect the consideration of cost, local context, and roadway users, when determining applicability of the policy to a proposed or planned project.

3) Inform the public about Complete Streets policies and projects; use visual materials to show them what Complete Streets could look like and which streets might be affected.

NJDOT’s Complete Streets training curriculum includes numerous photographs of projects completed in New Jersey towns and cities, and a series of before-and-after transformations to demonstrate “where it’s been done before” and exactly “how it would look.”

4) Respond to and address concerns from the public and the local business community; update and revise the policy and implementation plan as needs and conditions change.

Following initial concerns from residents about Lawrence Township’s Complete Streets Policy, an Implementation Policy was adopted to spell out exactly how and where Complete Streets would be implemented: the types of improvement that would be included; the streets the policy would be applied to; and a process of public notice, outreach, and coordination.



CHAPTER TWO: IMPLEMENTATION THROUGH PROJECT DELIVERY, DESIGN, AND FUNDING

With the policy, planning, and training elements firmly rooted, the focus shifts to the design, funding, and delivery of projects that incorporate Complete Streets principles. This step of implementation translates the stated goals and objectives of adopted policies and plans into actual on-the-ground improvements and carries Complete Streets implementation through design, construction, operation, and maintenance of our streets, bridges, transit, and supporting infrastructure.

This is how Complete Streets implementation becomes the default way of doing business: not an option or add-on, not something that we'd like to do, but something that must be done. This integration into the earliest stages of project delivery also promotes the development of a multimodal system in the most efficient and cost-effective manner.

A number of policies, procedures, and programs guide the project delivery process; each of these may need to be revised to fully address implementing the principles of Complete Streets:

- Project development and scoping for capital projects – some communities have developed checklists of Complete Streets features to be considered in road construction, reconstruction, and rehabilitation projects.
- Roadway design standards – can be modified to allow for typical sections that include bicycle lanes, adequate shoulders, narrower travel lanes, raised medians, refuge islands, and traffic calming features. The standards may also reference, for example, allowable mid-block crosswalk treatments, multimodal intersection treatments, minimum standards for bus stop design, and pedestrian-scale lighting.
- Capital programming procedures – criteria for project prioritization may be modified to incorporate Complete Streets as part of project funding requests and ranking criteria.
- Operation and maintenance practices – such as signal operations, resurfacing, street cleaning, and snow removal. Failure to address maintenance, for example, can create road hazards when snow and road debris block shoulders and sidewalks, while street resurfacing and utility upgrades provide opportunities to fill in sidewalk gaps or upgrade crosswalks.

NJDOT has updated many of its own internal policies and procedures to incorporate the Complete Streets approach.

Through these initiatives, project delivery and the practice of designing roadways, communities, and transportation infrastructure as Complete Streets is becoming standard, everyday practice at NJDOT.

The Department's own policies, procedures, and programs can serve as examples for how municipal and county government can adopt similar procedures and ensure that Complete Streets principles are considered throughout the project life cycle.



This rural arterial highway under construction in Somerset County incorporates Complete Streets elements and sustainable stormwater management.



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NJDOT Capital Project Delivery

The Department's Capital Project Delivery Process and design manuals have been reviewed and updated for consistency with the NJDOT Complete Streets policy. These initiatives include the following procedural and documentation changes:

- NJDOT has inserted Complete Streets elements and principles into every phase of its Capital Project Delivery Process.
- Office of Bicycle and Pedestrian Programs staff are now designated as Complete Streets Subject Matter Experts, meaning that all project scoping studies must be reviewed for bicycle and pedestrian accommodations before advancing to further study, design, and construction.
- An internal checklist was developed to assist project engineers and consultants in developing and designing projects to be in compliance with the policy.

Project delivery at NJDOT begins with the problem statement, and proceeds to problem screening, concept development, preliminary engineering, and final design and construction.

Local and county planning and engineering professionals can follow or replicate these initiatives to create a similar mindset of Complete Streets implementation being the default way of doing business and requiring its

consideration at each step of project development and delivery.

Integration of Complete Streets into Capital Project Delivery:

Concurrence from the Office of Bicycle and Pedestrian Programs (as the Complete Streets Subject Matter Expert) is required for any project to advance through the NJDOT Project Delivery process, ensuring that Complete Streets principles are applied to the design, funding, and construction of specific projects.

NJDOT Problem Statement

When transportation needs and deficiencies are identified, they are documented in the NJDOT Problem Statement. The Problem Statement provides for consistent format and content as a basis for evaluating needs for potential advancement into the project pipeline. Among other items, the Problem Statement includes the location, travel modes, and how the identified need or deficiency fits into NJDOT's goals (as stated in New Jersey's Long Range Plan – Transportation Choices 2030). Implementing Complete Streets

projects is applicable to several of these goals, such as increasing safety and improving mobility, accessibility, and reliability. A need may also be cited specifically as applicable to NJDOT's Complete Streets policy.

Problem Screening

When NJDOT receives a Problem Statement, it must first be screened to verify the transportation deficiency and assess whether the issue fits into NJDOT's Statewide Capital Investment Strategy and NJDOT goals and objectives. This is the first step before a project can be entered into the project pipeline. The Office of Bicycle and Pedestrian Programs performs a Complete Streets Tier 1 Screening for all Problem Statements to determine if Complete Streets features should be included in the project and whether one or more exemptions might apply. Any Problem Statement must be consistent with NJDOT's Complete Streets goals and objectives in order to advance to Concept Development.

Concept Development

Once a problem statement passes the initial screening, it advances to concept development (CD). The CD phase includes data collection, coordination with stakeholders, defining a Purpose and Need Statement (PNS), developing practical conceptual alternatives,



and selecting the Preliminary Preferred Alternative (PPA).

The PNS is the basis for developing the design alternatives, and the CD guidelines stipulate that the PNS “consider improving provisions for all roadway users (e.g., pedestrians, bicyclists, transit riders) in conformance with the Complete Streets Policy.” Including all users in the definition of project need ensures that all modes are considered from the project outset. Here again, the multimodal approach is built into the process, not an add-on or afterthought.

During evaluation and development of conceptual alternatives, the project delivery procedures further encourage a Complete Streets approach: developing “alternatives that strive to integrate the community’s vision and provide accommodations for all current and future users.” To support this process, NJDOT developed the Complete Streets Checklist to ensure compliance with the policy. The Checklist is discussed below and is included in Appendix A.

As part of CD close out, a well-defined project scope statement is prepared and the Complete Streets Subject Matter Expert reviews the scope to ensure compliance with the Department’s Complete Streets policy.

Preliminary Engineering

Once the CD report is complete, the Preliminary Engineering phase may begin, during which engineering design tasks and environmental studies are undertaken to advance the PPA to Final Design. Similar to the CD phase, a Complete Streets Checklist must be completed to ensure compliance with the policy.

As with the CD phase, Preliminary Engineering close out includes any necessary revisions to the scope statements. The Complete Streets Subject Matter Expert would again review any scope revisions to ensure compliance with the policy.

Final Design and Construction

After the Preliminary Engineering phase is complete, the project moves into Final Design, where the remaining engineering tasks are completed and the project’s construction contract documents are produced, followed by construction.

Because NJDOT has integrated its Complete Streets policy into each phase of the process, all users and modes will have received appropriate consideration in the final implementation, based on context, unless reasonable exemptions have been met and documented.

Complete Streets Checklist

As part of the implementation strategy, NJDOT’s Complete Streets policy calls for the establishment of a Checklist to address pedestrian, bicyclist, and transit accommodations “with the presumption that they shall be included in each project unless supporting documentation against inclusion is provided and found to be justifiable.”

To meet this objective, the Complete Streets Checklist was created to help Project Managers and design professionals develop project alternatives and concepts that are in compliance with the policy.

The Checklist helps ensure that appropriate accommodation for bicyclists, pedestrians, and transit users will be provided on all New Jersey roadways, and applies to all NJDOT projects that undergo the Capital Project Delivery Process. The Project Manager is responsible for completing the Checklist and must work with the designer to ensure that it has been completed prior to advancement to Final Design.

The Complete Streets Checklist is a tool to be used throughout Concept Development and Preliminary Engineering to ensure full compliance with the Complete Streets policy. The Complete Streets Checklist is included in Appendix A.



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Complete Streets Funding Incentive

Over 90% of New Jersey roadways are owned and maintained by counties and municipalities, covering over 7,000 and 25,000 miles, respectively. Nearly 2,500 bridges are also under local and county jurisdiction. Therefore, bringing local and county partners on board is essential to implementing Complete Streets across the state and achieving meaningful improvement in mobility, access, and safety.

NJDOT dedicated approximately 21% of its Fiscal Year 2013 funding to local support programs to help maintain this infrastructure. These funding opportunities are available to counties and municipalities through a variety of local aid programs funded by both the state and the federal government.

New Jersey's Local Aid program is supported by the Transportation Trust Fund and includes a variety of program streams: Local and County Infrastructure Funding, Bridges, Bikeways, Safe Streets to Transit, Highway Safety, and Transit Village programs. Federal assistance is available for Local Programs, Transportation Enhancements, Safe Routes to Schools, Local Safety, High Risk Rural Roads, and Emergency Relief.

A wide variety of project purpose and need, phase and scope, and travel modes are eligible for participation in the application process. Programs are governed by TTF Statute and Municipal Aid and County Aid regulations (N.J.A.C. 16:20A & 16:20B) and projects must be advertised and awarded in accordance with Local Public Contracts Law. Federal Aid requirements include NEPA documentation and ADA compliance.

Several of the local aid programs, including Municipal Aid, Local Bikeways Program, and Safe Streets to Transit, use a competitive selection process in which applicants are evaluated based on a scoring system. The system awards an extra point to towns if they have a Complete Streets policy and an implementation plan, thus creating an incentive to supporting and implementing Complete Streets across the state. In this way, Complete Streets will become the default way of doing business at all levels of jurisdiction, and a statewide roadway network accommodating all users and abilities will emerge over time.

Additional Funding sources for Complete Streets are documented in *Funding Pedestrian and Bicycle Planning, Programs and Projects: A Compilation of Funding Sources*, prepared by the Alan M. Voorhees Transportation Center at Rutgers University.⁽⁷⁾ A link is provided in Appendix B.



A Complete Street for all users: The Kings Highway in Haddonfield, NJ



SUMMARY: CREATING A COMPLETE STREETS IMPLEMENTATION PLAN

This Guide shows local and county partners how to translate policy into action, how to take a municipal Complete Streets Policy and use 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.

The Guide describes and documents proven methodologies, procedures, practical examples, and lessons learned for creating a Complete Streets implementation plan. Key components of an effective implementation plan include:

- 1) Updating plans, policies, and procedures to incorporate Complete Streets principles:** a variety of local policies, procedures, plans, and programs may need to be revised to ensure that Complete Streets requirements are met, including the municipal master plan and master plan elements.
- 2) Incorporating Complete Streets into the development process:** policies and procedures should be updated to spell out new requirements for developers and

property owners that support implementation of Complete Streets. These changes can make municipal planning and zoning boards stewards of Complete Streets implementation.

- 3) Building institutional capacity through training, communication, and monitoring:** ensure that the people who will apply these plans, policies, and procedures have a thorough understanding of what is required and a commitment to implementing Complete Streets.
- 4) Creating partnerships to advance the policy:** partnerships within the community and with other jurisdictions and institutions are key to creating an integrated network of Complete Streets and consistent design treatments and standards for roads operated by different levels of government, agencies, and private developers and property owners.
- 5) Initiating pilot projects to build support and demonstrate the value of Complete Streets:** can help to build local support and demonstrate the value of Complete Streets; proven success stories can help overcome doubt and skepticism and build a broad-based coalition of support for Complete Streets policies, programs, and projects.

- 6) Integrating Complete Streets into the earliest stages of project delivery and throughout the project life cycle:** a number of policies, procedures, and programs guide the project delivery process, including project development and scoping, roadway design standards, capital programming procedures, and operation and maintenance practices. Each of these may need to be revised to fully address implementation of Complete Streets.
- 7) Utilizing available tools and resources:** many agencies, professional associations, and resource centers, including NJDOT, FHWA, the Institute of Transportation Engineers, National Complete Streets Coalition, and New Jersey Bicycle and Pedestrian Resource Center, are available to provide assistance and guidance for implementing Complete Streets. NJDOT's Complete Streets Checklist, for example, is available to ensure that proposed projects and improvements adhere to the Complete Streets policy.



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NEXT STEPS

New Jersey's Complete Streets program is a robust and comprehensive initiative that continues to evolve and advance. Starting with the adoption of Policy # 703 in 2009, Complete Streets has become an integral part of the way NJDOT conducts business and works with its partner jurisdictions and agencies, and is reflected in the services it provides and the infrastructure that it designs, builds, operates, and maintains.

This is true from project inception to completion: how projects are first envisioned and wend their way through the process from Problem Statement to design and construction to life cycle maintenance.

Research indicates that although most of the improvements that promote multimodal travel occur at the local level, the leadership and support that make safe streets possible typically comes from the state and national level: policies and traffic regulations, design standards and guidelines, training and dissemination of expertise, project development and delivery, and funding.

The Department of Transportation has taken the lead in implementing Complete Streets in New Jersey through outreach and training, coordination and cooperation with municipal

and county partners, project development and delivery, and local aid funding.

This *Guide to Creating a Complete Streets Implementation Plan* describes and recommends proven strategies and methods that support implementation of Complete Streets: including master plan elements and zoning; development review; training and outreach to build institutional capacity; forming partnerships; implementing pilot projects; success stories and lessons learned; capital project development and delivery procedures; the Complete Streets Checklist; and funding incentives.

NJDOT continues to innovate: its plans for the future include development of meaningful Performance Measures and incorporating Complete Streets improvements into both resurfacing projects and highway access permitting procedures.



APPENDIX A: NJDOT COMPLETE STREETS CHECKLIST

Background

The New Jersey Department of Transportation's Complete Streets Policy promotes a "comprehensive, integrated, connected multi-modal network by providing connections to bicycling and walking trip generators such as employment, education, residential, recreational and public facilities, as well as retail and transit centers." The policy calls for the establishment of a checklist to address pedestrian, bicyclist and transit accommodations "with the presumption that they shall be included in each project unless supporting documentation against inclusion is provided and found to be justifiable."

Complete Streets Checklist

The following checklist is an accompaniment to NJDOT's Complete Streets Policy and has been developed to assist Project Managers and designers develop proposed alternatives in adherence to the policy. Being in compliance with the policy means that Project Managers and designers plan for, design, and construct all transportation projects to provide appropriate accommodation for bicyclists, pedestrians, and transit users on New Jersey's roadways, in addition to those provided for

motorists. It includes people of all ages and abilities. The checklist applies to all NJDOT projects that undergo the Capital Project Delivery (CPD) Process and is intended for use on projects during the earliest stages of the Concept Development or Preliminary Engineering Phase so that any pedestrian or bicycle considerations are included in the project budget. The Project Manager is responsible for completing the checklist and must work with the Designer to ensure that the checklist has been completed prior to advancement of a project to Final Design.

Using the Complete Streets Checklist

The Complete Streets Checklist is a tool to be used by Project Managers and designers throughout Concept Development and Preliminary Engineering to ensure that all developed alternatives reflect compliance with the Policy. When completing the checklist, a brief description is required for each "Item to be Addressed" as a means to document that the item has been considered and can include supporting documentation.



Guide to Creating a Complete Streets Implementation Plan

CONCEPT DEVELOPMENT CHECKLIST

Instructions

For each box checked, please provide a brief description for how the item is addressed, not addressed or not applicable and include documentation to support your answer.

Item to be Addressed	Checklist Consideration	YES	NO	N/A	Required Description
<i>Existing Bicycle, Pedestrian and Transit Accommodations</i>	Are there accommodations for bicyclists, pedestrians (including ADA compliance) and transit users included on or crossing the current facility? Examples include (but are not limited to): Sidewalks, public seating, bike racks, and transit shelters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Existing Bicycle and Pedestrian Operations</i>	Has the existing bicycle and pedestrian suitability or level of service on the current transportation facility been identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Have the bicycle and pedestrian conditions within the study area, including pedestrian and/or bicyclist treatments, volumes, important connections and lighting been identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Do bicyclists/pedestrians regularly use the transportation facility for commuting or recreation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are there physical or perceived impediments to bicyclist or pedestrian use of the transportation facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is there a higher than normal incidence of bicyclist/pedestrian crashes within the study area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Have the existing volumes of pedestrian and/or bicyclist crossing activity at intersections including midblock and nighttime crossing been collected/provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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Item to be Addressed	Checklist Consideration	YES	NO	N/A	Required Description
<i>Existing Transit Operations</i>	Are there existing transit facilities within the study area, including bus and train stops/stations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is the transportation facility on a transit route?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is the transportation facility within two miles of “park and ride” or “kiss and go” lots?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are there existing or proposed bicycle racks, shelters, or parking available at these lots or transit stations? Are there bike racks on buses that travel along the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Existing Motor Vehicle Operations</i>	Are there existing concerns within the study area, regarding motor vehicle safety, traffic volumes/congestion or access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Existing Truck/Freight Operations</i>	Are there existing concerns within the study area, regarding truck/freight safety, volumes, or access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Existing Access and Mobility</i>	Are there any existing access or mobility considerations, including ADA compliance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are there any schools, hospitals, senior care facilities, educational buildings, community centers, residences or businesses of persons with disabilities within or proximate to the study area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Land Usage</i>	Have you identified the predominant land uses and densities within the study area, including any historic districts or special zoning districts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is the transportation facility in a high-density land use area that has pedestrian/bicycle/motor vehicle and transit traffic?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



Guide to Creating a Complete Streets Implementation Plan

Item to be Addressed	Checklist Consideration	YES	NO	N/A	Required Description
<i>Major Sites</i>	Have you identified the major sites, destinations, and trip generators within or proximate to the study area, including prominent landmarks, employment centers, recreation, commercial, cultural and civic institutions, and public spaces?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Existing Streetscape</i>	Are there existing street trees, planters, buffer strips, or other environmental enhancements such as drainage swales within the study area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Existing Plans</i>	<p>Are there any comprehensive planning documents that address bicyclist, pedestrian or transit user conditions within or proximate to the study area?</p> <p>Examples include (but are not limited to):</p> <ul style="list-style-type: none"> • SRTS Travel Plans • Municipal or County Master or Redevelopment Plan • Local, County and Statewide Bicycle and Pedestrian Plans • Sidewalk Inventories • MPO Transportation Plan • NJDOT Designated Transit Village 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

CONCEPT DEVELOPMENT CHECKLIST: PROJECT MANAGER SIGN-OFF

Statement of Compliance	YES	NO	If NO, Please Describe Why (refer to Exemptions Clause)
The Preliminary Preferred Alternative (PPA) accommodates bicyclists and pedestrians as set forth in the New Jersey Department of Transportation's Complete Streets Policy.	<input type="checkbox"/>	<input type="checkbox"/>	



PRELIMINARY ENGINEERING CHECKLIST

Instructions

For each box checked, please provide a brief description for how the item is addressed, not addressed or not applicable and include documentation to support your answer.

Item to be Addressed	Checklist Consideration	YES	NO	N/A	Required Description
<i>Bicyclist, Pedestrian, and Transit Accommodations</i>	<p>Does the proposed project design include accommodations for bicyclists?</p> <p>Examples include (but are not limited to):</p> <p>Bicycle facilities: bicycle path; bicycle lane; bicycle route; bicycle boulevard; wide outside lanes or improved shoulders; bicycle actuation at signals (loop detectors and stencil or other means); signs, signals and pavement markings specifically related to bicycle operation on roadways or shared-use facilities; bicycle safe inlet grates</p> <p>Bicycle amenities: Call boxes (for trail or bridge projects); drinking fountains (also for trail projects); secure long term bicycle parking (e.g., for commuters and residents); and secure short term bicycle parking.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<p>Does the proposed project design address accommodations for pedestrians?</p> <p>Examples include (but are not limited to):</p> <p>Pedestrian facilities: Sidewalks (preferably on both sides of the street); mid-block crosswalks; striped crosswalks; geometric modifications to reduce crossing distances such as curb extensions (bulb-outs); pedestrian-actuated traffic signals such as High Intensity Activated Crosswalk Beacons, Rapid Rectangular Flashing Beacons; dedicated pedestrian phase; pedestrian signal heads and pushbuttons; pedestrian signs for crossing and wayfinding, lead pedestrian intervals; high visibility crosswalks (e.g., ladder or zebra); pedestrian-level lighting; in-road warning lights; pedestrian safety fencing; pedestrian detection system;</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



Guide to Creating a Complete Streets Implementation Plan

Item to be Addressed	Checklist Consideration	YES	NO	N/A	Required Description
<i>Bicyclist, Pedestrian, and Transit Accommodations (continued)</i>	pedestrian overpass/underpass; and median safety islands for roadways with (two or more traffic lanes in each direction). Pedestrian amenities: Shade trees; public seating; drinking fountains				
	Have you coordinated with the corresponding transit authority to accommodate transit users in the project design? Transit facilities: Transit shelters, bus turnouts Transit amenities: public seating, signage, maps, schedules, trash and recycling receptacles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Bicyclist and Pedestrian Operations</i>	Does the proposed design consider the desired future bicyclist and walking conditions within the project area including safety, volumes, comfort and convenience of movement, important walking and/or bicycling connections, and the quality of the walking environment and/or availability of bicycle parking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Transit Operations</i>	Does the proposed design address the desired/anticipated future transit conditions within the project area, including bus routes and operations and transit station access support transit usage and users?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Motor Vehicle Operations</i>	Does the proposed design address the desired future motor vehicle conditions within the project area, including volumes, access, important motor vehicle connections, appropriateness of motor vehicle traffic to the particular street (e.g., local versus through traffic) and the reduction of the negative impacts of motor vehicle traffic?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Guide to Creating a Complete Streets Implementation Plan



Item to be Addressed	Checklist Consideration	YES	NO	N/A	Required Description
<i>Truck/Freight Operations</i>	Does the proposed design address the desired future truck conditions within the project area, including truck routes, volumes, access, mobility and the reduction of the negative impacts of truck traffic?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Access and Mobility</i>	Does the proposed design address accommodations for those with access or mobility challenges such as the disabled, elderly, and children, including ADA compliance? Examples include (but are not limited to): Curb ramps, including detectable warning surface; accessible signal actuation; adequate sidewalk or paved path (length & width or linear feet); acceptable slope and cross-slope (particularly for driveway ramps over sidewalks, over crossings and trails); and adequate green signal crossing time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Land Usage</i>	Is the proposed design compatible with the predominant land uses and densities within the project area, including any historic districts or special zoning districts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Major Sites</i>	Can the proposed design support the major sites, destinations, and trip generators within or proximate to the project area, including prominent landmarks, <i>commercial</i> , cultural and civic institutions, and public spaces?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Streetscape</i>	Does the proposed design include landscaping, street trees, planters, buffer strips, or other environmental enhancements such as drainage swales?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



Guide to Creating a Complete Streets Implementation Plan

Item to be Addressed	Checklist Consideration	YES	NO	N/A	Required Description
<i>Design Standards or Guidelines</i>	<p>Does the proposed design follow all applicable design standards or guidelines appropriate for bicycle and/or pedestrian facilities?</p> <p>Examples include (but are not limited to): American Association of State Highway and Transportation Officials (AASHTO) - <i>A Policy on Geometric Design of Highway and Streets, Guide for the Development of Bicycle Facilities, Guide for the Planning, Design, and Operation of Pedestrian Facilities; Public Right-of-Way Accessibility Guide (PROWAG); Manual on Uniform Traffic Control Devices (MUTCD); Americans with Disabilities Act Accessibility Guidelines (ADAAG); National Association of City Transportation Officials (NACTO) - Urban Bikeway Design Guide; New Jersey Department of Transportation (NJDOT) - Bicycle Compatible Roadways & Bikeways Planning and Design Guidelines, Pedestrian Planning and Design Guidelines.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

PRELIMINARY ENGINEERING CHECKLIST: PROJECT MANAGER SIGN-OFF

Statement of Compliance	YES	NO	If NO, Please Describe Why (refer to Exemptions Clause)
The Approved Project Plan (APP) accommodates bicyclists and pedestrians as set forth in the New Jersey Department of Transportation's Complete Streets Policy.	<input type="checkbox"/>	<input type="checkbox"/>	



APPENDIX B: REFERENCES

New Jersey Department of Transportation (NJDOT)

- NJDOT Complete Streets Home Page. <http://www.state.nj.us/transportation/eng/completestreets/>
- NJDOT Complete Streets Presentations. NJDOT. 2010. <http://bprc.rutgers.edu/wordpress/index.php/complete-streets-2/>
- NJDOT Planning and Design Guidelines for Bicycle Compatible Roadways and Bikeways. NJDOT. 1996. <http://www.state.nj.us/transportation/publicat/pdf/BikeComp/introtofac.pdf>
- NJDOT Planning and Design Guidelines for Pedestrian Facilities. NJDOT. 1996. <http://www.state.nj.us/transportation/publicat/pdf/PedComp/pedintro.pdf>
- New Jersey Department of Transportation Division of Local Aid & Economic Development Federal Aid Handbook. Federal Aid Quality Improvement Team, NJDOT. May 2010. <http://www.nj.gov/transportation/business/localaid/documents/FEDERALAIDHANDBOOK.pdf>

American Association of State Highway and Transportation Officials (AASHTO)

- *Guide for Development of Bicycle Facilities, 4th Edition*. AASHTO. 2012. https://bookstore.transportation.org/collection_detail.aspx?ID=116
- *Guide for the Planning, Design, and Operation of Pedestrian Facilities, 1st Edition*. AASHTO. 2004. https://bookstore.transportation.org/item_details.aspx?id=119
- *A Policy on Geometric Design of Highways and Streets, 6th Edition*. 2011. https://bookstore.transportation.org/item_details.aspx?id=1917

Federal Highway Administration (FHWA)

- *Context Sensitive Solutions National Dialog Final Report*. 2010. <http://cssnationaldialog.org/documents/CSS-National-Dialog-Final-Report.pdf>
- *Manual on Uniform Traffic Control Devices*. 2009. <http://mutcd.fhwa.dot.gov/>
- *Designing Sidewalks and Trails for Access, Part II, Best Practices Design Guide*. 2001. <http://www.fhwa.dot.gov/environment/sidewalk2/index.htm>

- *Pedestrian Road Safety Audit Guidelines and Prompt Lists* <http://safety.fhwa.dot.gov/intersection/resources/fhwasa09027/resources/Pedestrian%20Road%20Safety%20Audit%20Guidelines.pdf>
- *Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations*. 2010. <http://www.dot.gov/affairs/2010/bicycle-ped.html>
- *Highway Design Handbook for Older Drivers and Pedestrians* <http://www.fhwa.dot.gov/publications/research/safety/humanfac/01103/index.cfm>
- *USDOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations* http://www.fhwa.dot.gov/environment/bikeped/policy_accom.htm
- *Street Design: Part 1 – Complete Streets from Public Roads magazine*. Robin Smith, Sharlene Reed, and Shana Baker. Federal Highway Administration (FHWA). 2010. <http://www.fhwa.dot.gov/publications/publicroads/10julaug/03.cfm>



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Institute of Transportation Engineers (ITE)

- *Complete Streets: We Can Get There from Here* - Authored by John LaPlante and Barbara McCann in the journal of the Institute of Transportation Engineers. May 2008.
<http://www.completestreets.org/webdocs/resources/cs-ite-may08.pdf>
- *Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities: An ITE Recommended Practice*. 2010. Available at www.ite.org/css.
- *Traffic Calming: State of the Practice*. 1999.
<http://www.ite.org/traffic/tcstate.asp#tcsop>

National Complete Streets Coalition

- Complete Streets Fact Sheets (11 fact sheets + 5 sheets on implementing Complete Streets)
<http://www.completestreets.org/completestreets-fundamentals/factsheets/>
- National Complete Streets Coalition Member Compact
<http://www.completestreets.org/webdocs/cs-coalition-membership.pdf>

American Planning Association

- *Complete Streets: Best Policy and Implementation Practices*
<http://www.planning.org/pas/brochure/pdf/report.pdf>
- *Complete Streets: Best Policy and Implementation Best Practices – Chapter 5: Making the Transition*. Ed. Barbara McCann and Suzanne Rynne. Planners Advisory Service Report 559. 2010.
<http://www.completestreets.org/webdocs/resources/cs-bestpractices-chapter5.pdf>

ADA Compliance

- ADA-ABA Accessibility Guidelines
<http://www.access-board.gov/ada-aba/final.cfm#routes>
- *ADA Compliance at Transportation Agencies: A Review of Practices*
http://onlinepubs.trb.org/onlinepubs/archive/NotesDocs/2007%28249%29_FR.pdf
- Department of Justice ADA toolkit
<http://www.ada.gov/pcatoolkit/toolkitmain.htm>
- FHWA - *DRAFT Accessibility Guidance for Bicycle and Pedestrian Facilities, Recreational Trails, and Transportation Enhancement Activities*

http://www.fhwa.dot.gov/environment/recreationaltrails/guidance_accessibility.htm

- *Accessible Public Rights-of-Way Guidelines*. Washington, D.C.: U.S. Access Board. 1999. Available at www.access-board.gov/prowac/guide/PROWGuide.htm. 2005 draft guidelines available at www.access-board.gov/prowac/draft.htm. See also the Public Rights-of-Way homepage, www.access-board.gov/prowac, and the sidewalk accessibility videos at www.access-board.gov/prowac/video/index.htm.

Safe Routes to Schools

- NHTSA website
<http://www.nhtsa.gov/people/injury/ped/bimot/bike/Safe-Routes-2002/index.html>
 - Bikeability checklist
http://www.bicyclinginfo.org/pdf/bikeability_checklist.pdf
 - Walkability checklist
http://katana.hsrrc.unc.edu/cms/downloads/walkability_checklist.pdf
- *SRTS Noteworthy Practices Guide: A Compendium of State SRTS Program Practices*
<http://www.saferoutesinfo.org/sites/default/files/resources/SRTS%20Noteworthy%20Practices%20Guide%20FINAL.pdf>



- Other Federally supported websites:
 - <http://guide.saferoutesinfo.org/>
 - <http://www.walktoschool.org/>
 - <http://www.iwalktoschool.org/>

Easter Seals

- Bus Stop Toolkit
<http://www.oregon.gov/ODOT/PT/docs/ada/ada-bus-stop-toolkit-aug2011.pdf>

Design Resources

- Transportation Research Board (TRB). National Cooperative Highway Research Program (NCHRP). 2008. *Multimodal Level of Service Analysis for Urban Streets*. NCHRP report 616. Available at http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_616.pdf.
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- Association of Pedestrian and Bicycle Professionals and LEJ Graphics. 2002. *Bicycle Parking Guidelines: A Set of Recommendations from the Association of Pedestrian and Bicycle Professionals*. Washington D.C.: Association of Pedestrian and Bicycle Professionals. Available at

www.apbp.org/resource/resmgr/publications/bicycle_parking_guidelines.pdf

- *U.S. Traffic Calming Manual*. Reid Ewing and Steven J. Brown. 2009.
<http://www.planning.org/apastore/Search/Default.aspx?p=3945>
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- *Smart Transportation Guidebook*. PennDOT/NJDOT. 2008.
<http://www.state.nj.us/transportation/community/mobility/pdf/smarttransportationguidebook2008.pdf>

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<http://bprc.rutgers.edu/wordpress/index.php/complete-streets-2/>
- *Constructing, Maintaining and Financing Sidewalks in New Jersey*. Alan M. Voorhees Transportation Center (VTC) and Charles R. Carmalt, ACIP. 2006.
[http://bprc.rutgers.edu/wordpress/wp-](http://bprc.rutgers.edu/wordpress/wp-content/uploads/2012/08/Sidewalks_in_New_Jersey_Final_Report.pdf)

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- *Funding Pedestrian and Bicycle Planning, Programs and Projects: A Compilation of Funding Sources*. New Jersey Bicycle and Pedestrian Resource Center, VTC. March 2009. http://bikeped.rutgers.edu/cgi-bin/ImageFolio43/imageFolio.pl?action=view&link=Funding/Documents&image=VTC_2009_Funding_Bicycle_Pedestrian_Projects_NJ.pdf&url=1
- *NJ Complete Streets Summit Summary Report*. 2010.
<http://bprc.rutgers.edu/wordpress/index.php/2010-complete-streets-summit/#tab-1>
- *New Jersey Complete Streets Policies*. The Alan M. Voorhees Transportation Center, Rutgers University. 2012.
<http://bprc.rutgers.edu/wordpress/index.php/complete-streets-2/>



Guide to Creating a Complete Streets Implementation Plan

New Jersey Bicycle and Pedestrian Resource Center

The New Jersey Bicycle and Pedestrian Resource Center provides primary research, education, and information about best practices in policy and design in creating a safer and more accessible walking and bicycling environment.

Contact Information:

New Jersey BPRC Help Desk

Phone: (848) 932-6814

bikeped@ejb.rutgers.edu

www.njbikeped.org





Endnotes

- (1) City Cycling, edited by John Pucher and Ralph Buehler, 2012, The MIT Press.
- (2) John LaPlante and Barbara McCann, "Complete Streets: We Can Get There from Here." ITE Journal. May 2008, p. 24.
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- (5) Knapp, Krystal. "Call it the Summer of Sharrows: Princetons Plan Lane Markings for Cyclists." *NJ.com*. March 28, 2011.
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- (6) Princeton University 2008 Campus Plan. <http://www.princeton.edu/campusplan/about/>
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Page 12 – Civic Eye Collaborative



For More Information, Contact:
Bikeped@dot.state.nj.us