



**Borough of Madison
Morris County, New Jersey**

Complete Streets Policy Manual

March 2020

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This Policy Manual Update was produced as a collaborative effort by staff, consultants and interns of the Borough of Madison with the review by the Complete Streets Committee as designated by the Governing Body. This supercedes the July 2013 Policy Manual prepared in conjunction with Madison Resolution 161-2012.

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1. Background Information

- 1.1. Mission of the Complete Streets Committee: There is hereby established the Complete Streets Committee which shall be in effect for the purpose of developing and recommending policy guidelines and priorities for complete streets on roads contained within the borough. The Committee shall make recommendations for individual roads within the Borough via implementation of a Complete Streets Policy. The guidelines will be submitted for adoption to the Governing Body of the Borough of Madison.
- 1.2. Complete Streets are promoted by Federal, State, Regional and Municipal Policies, such as original NJDOT Policy 703. Complete Streets are defined as roadways designed to enable safe, attractive, comfortable, accessible use for pedestrians, bicyclists, motorists with public transportation and services to promote healthy physical and mental activity. In Madison, the policy combines prior local efforts to define Bicycle Routes, Traffic Calming, Sidewalk Plan and public inputs with regional, state and federal documentation and guidelines.
- 1.3. Complete Streets in the Borough of Madison are not a one size fits all solution, but an attempt to create key roadways that accommodate multi-modal users of all ages and abilities and consider municipal context and character in design.
- 1.4. About the Borough of Madison:

The Borough of Madison is a small suburban community in southeast Morris County, New Jersey, about fifteen miles due west of Times Square. Madison borders on five other municipalities: the Boroughs of Florham Park and Chatham are to the north and east; the Townships of Chatham, Harding and Morris are to the south and west. Morristown and Summit are nearby, to the northwest and southeast, respectively.

Madison is served by Morris and Essex Morristown Line trains of NJ Transit direct to Penn Station in New York City. It also provides service to Hoboken (with connections to lower New York City). In addition, there is also local commuter bus service. NJ State Route 124 passes through Madison to support the west to east commuter routes to Manhattan and outlying areas.

Access by auto to the Borough is easiest from the NJ Route 24 freeway. Traveling west Exit 7A connects Route 124 through Chatham to Madison. Traveling east use Exit 2A, turn right off the ramp and take the first left onto Park Avenue.

1.4.1 Brief History

Madison is located on a ridge of land extending from the city of Summit northwest toward the town of Morristown. This ridge is made up of the remains of the terminal moraine left by the Wisconsin Glacier more than 10,000 years ago. Low-lying

wetlands are on either side of this ridge; the Great Swamp to the southwest and the Black Meadows/Troy Meadows area to the northeast. These lowlands are part of the remains of Lake Passaic, which was formed by melting ice as the glacier receded. Until the lake disappeared the higher elevation portions of Madison were on a small island in the lake.

In 1804, the Morris Turnpike was established along the route of present Main Street. In 1837, the Morris and Essex railroad was completed, following this natural ridge through Madison. Being on the "main road", Madison developed earlier than many neighboring towns and was heavily influenced by its access to good transportation.

The earliest settlers of European descent arrived about 1715 and established "Bottle Hill" at the crossroads of Ridgedale Avenue and Kings Road. The Luke Miller house at 105 Ridgedale Avenue is thought to be the oldest remaining home in the Borough, built around 1730. Morris County, created in 1739, was divided into three townships. The area north of Kings Road was in Hanover Township and the area to the south in Morris Township. In 1834, the village was formally named Madison, and in 1889, with a population of 3,250 persons; it seceded from Chatham and became its own borough in order to develop a local water supply via a newly established Board of Utility Commissioners.

1.4.2 Contemporary Madison

Madison's growth accelerated after the Civil War. The railroad provided excellent transportation for farm produce. Later it made possible the establishment of a flourishing rose growing industry, still commemorated in Madison's title as The Rose City. The Morris and Essex Line became one of America's first commuter railroads, attracting well-to-do families and contributing to the development of "Millionaire's Row," which stretched from downtown Madison to Morristown.

Rapid population growth in the 20th century, especially in the 1920's and following World War II, created an almost fully developed municipality. Madison, with an area of four square miles, has a population of approximately 16,000. The dominant land use is single-family housing, occupying 52 percent of the developed land, generally on lots less than one acre. Public and quasi-public uses occupy 25 percent of the developed land and commercial uses 13 percent. Most of the remaining land is used for multi-family housing with less than two percent vacant or industrial use.

Today, the Borough of Madison road network contains paved roadway surfaces distributed between 234 local roads including 5 Morris County routes, a New Jersey state arterial highway and Interstate 24 (accessed via Chatham to the east and Florham Park to the west). The entire network by road segment is attached in the Appendices to this report.

1.4.3 The first roads paved in Madison in 1896 listed below are still considered principle routes of travel and appropriate routes to consider priorities for Complete Streets today:

Road Name	Length (Feet)*	Current Width (Feet-Min)
Belmont Avenue	860	30
Brittin Street	2650	35
Central Avenue	5100	42
Crescent Road	1200	30
Elm Street	1600	35
Fairview Avenue	2000	30
Garfield Avenue	4100	32
Green Avenue	5600	42
Green Village Road	6200	42
Greenwood Avenue	5750	36
Hillside Avenue	2000	40
Keep Street	1850	29
Kings Road	8050	47
Loantaka Way	5100	41
Madison Avenue	8650	42
Main Street	7600	42
Maple Avenue	1700	30
Morris Place	2200	36
North Street	2750	31
Park Avenue	5350	44
Prospect Street	3850	40
Ridgedale Avenue	4650	38
Rosedale Avenue	4150	36
Woodland Road	12100	35

1.4.4 The County of Morris paves and plows the following roads in Madison which are generally collector-arterial roads as defined in the local Master Plan Circulation Element:

Route	Road Name	Length (ft)*	Width (ft-min)
CR 608	Central Avenue	5100	42
CR 647	Green Village Road	6200	42
CR 601	Loantaka Way	5100	41
CR 623	Park Avenue	5350	44
CR 628	Shunpike Road	5950	47

1.4.5 The State of New Jersey paves and plows Route 124 (the predecessor of Interstate 24) Madison Ave and Main Street. This local arterial had a reduction in interstate and regional traffic since the completion of I-24; however traffic counts suggest there has not been a decrease in total traffic loads. The state planned and acquired certain rights to the I-24 in 1927 but it was not completely open to traffic until 1992 :

Route	Road Name	Length (ft)*	Width (ft-min)
Route 124	Madison Avenue Main Street	16250	42

The larger high volume roads are usually a priority for safety improvements and often these improvements must be promoted and coordinated with other government agencies having jurisdiction.

*Lengths of Roads Rounded and Approximate

1.4.6 At the present time, the Borough of Madison can be summarized as an upscale suburban community with a stable population and little space remaining for expanded development. Certain redevelopment activity that may increase density in public transit areas will be limited but probable over the next ten years and it is likely from regional demo-graphics that the general population will age in place, that is to say, most will not relocate to another area. As a result, Complete Streets implementation in the Borough of Madison will focus on how to retrofit existing streets to more effectively balance the needs of multiple roadway users.

1.5 Summary of Objectives

This Policy Manual combines the goals of the Complete Streets programs as promoted by the Federal and State government, with the volume of work completed by and for the Borough of Madison in the past decade, and with new work presented by the Madison Complete Streets Committee herein, having many of the same goals and objectives, generally being the desire to create a municipal road system that addresses the needs of many users and abilities (pedestrian or vehicle, motorized or non-motorized, able or impaired) and promote the spirit of cooperative use of the transportation system that all citizens deserve.

2.0 Introduction to Complete Streets

The Borough of Madison Complete Streets guidelines will set priorities to address multimodal traffic safety concerns in our residential neighborhoods, ranging from speeding motorists and cut thru traffic to pedestrian and cyclist safety and education. Most neighborhood traffic problems are not limited to a particular site, but are area-wide problems. The goals and objectives of the initiative are to:

- Create safe roadways that accommodate users of all ages and abilities.
- Promote pedestrian, bicycle, mass transit, and multi-modal uses,
- Incorporate context and character of the municipality to design,
- Improve safe, accessible, effective roads and sustainable green streets,
- Promote awareness of multiple uses of local roads,
- Promote slow speeds in residential neighborhoods, and
- Promote citizen involvement, positive physical and mental well being.

This is a guidance document for the Borough to reach its goals of improving the existing street and transportation network for people of all ages, modalities, and abilities. While recommendations exist for the consideration of the Borough in the decision making process, no individual streets or intersections are designed for specific roadway improvements, except by way of ranking the importance of Complete Streets on the overall local road network. This is in keeping with Sustainable Jersey's description of the intent of these policies.

2.1 Complete Streets Resolutions

**R 161-2012 RESOLUTION OF THE BOROUGH OF MADISON
RECOGNIZING THE ADOPTION OF A COMPLETE STREETS POLICY
(Appendix)**

**R 102-2013 RESOLUTION OF THE BOROUGH OF MADISON AMENDING
THE COMPLETE STREETS POLICY TO INCLUDE A MEMBER OF THE
SUSTAINABLE MADISON ADVISORY COMMITTEE (Appendix)**

**R ___-2020 RESOLUTION OF THE BOROUGH OF MADISON AMENDING
THE COMPLETE STREETS POLICY TO INCLUDE UPDATED PRIORITIES,
OBJECTIVES, REFERENCES AND APPENDICES.**

2.2 Benefits of Complete Streets:

Complete Streets offer many benefits for individuals and the borough in general. They improve safety for all roadway users, are cost effective, promote equity by increasing access, promote livability, encourage economic development, and improve people's health by encouraging them to walk and bike as a means of transportation.

Safety: Tens of thousands of people die each year in car crashes. To promote safety, and reduce crashes, public transportation is stressed harder, as it is the safest form of transportation. Additionally, all crashes are reduced when streets are designed for bicyclists and pedestrians, causing the road to be narrower, reducing speeds and promoting awareness of one's surroundings.

Accessibility: Added sidewalks and bike lanes allow for alternative routes for transportation, for those without a vehicle, whether due to financial reasons, age, or disabilities. Improving the accessibility of transit also reduces the need for para-transit services, serving more people than currently. In addition, Complete Streets also provides connections to bicycling and walking trip generators such as employment, education, residential, recreation, retail centers and public facilities. With alternative forms of transportation more easily available, traffic congestion will be reduced, allowing for faster travel to destinations.

Economics: Complete Streets allow for cheaper forms of transportation (biking, walking, public transportation, etc.) rather than owning and maintaining a personal vehicle. The cost of implementing Complete Streets measures is relatively cheap, and many roads are already safe and can be classified as a Complete Street, especially most rural roads. By incorporating sidewalks, bike lanes, safe crossings and transit amenities into the initial design of a project, the site is spared of the expense of retrofits later.

Health: Complete Streets promotes the use of alternative modes of transportation, such as biking and walking. Both are not harmful towards the environment, and good for the body. By promoting healthy alternatives, Complete Streets policies help in the reduction of both carbon emissions of the car and the physical and mental well-being of the users of the transportation corridor.

2.3 Complete Streets Guidelines:

The Complete Streets Guidelines recognize that each neighborhood has unique characteristics requiring an individualized approach to solving traffic concerns. The guidelines outline a number of different traffic calming measures to be used to solve certain problems encountered in our neighborhoods. The initiative is committed to:

- Building from the historic, mixed use downtown to sustainably plan pleasant, accessible, environmentally friendly places to walk, bicycle and use transit for people of all ages and abilities in Borough;

- Enhancing current walking and bicycling opportunities through signage, roadway markings and/or street infrastructure improvements, including sidewalks and traffic calming, where feasible, to expand existing safe routes to existing destinations;
- Promoting walking, bicycling and transit use through consideration of specific street safety needs of children, older adults, and people with disabilities in new and retrofit roadway projects, especially those projects at and near schools, community facilities, transportation hubs, and the downtown;
- Creating a flexible policy that promotes retrofitting a network of streets and sidewalks over time, and opportunities to develop trails and pathways, where feasible, that benefit cardiovascular health by considering all modes of transport and all roadway users in transportation projects;
- Ensuring that complete streets projects reflect and consider the environmental, cultural and historic context of the Borough, as well as realistic cost constraints;
- Promoting outreach and education to all street users detailing the rules of the road, the rights and responsibilities of all roadway users in a multi-modal environment;
- Implementing the complete streets policies to support other local initiatives such as the Sustainable Jersey certification process;
- Creating mechanisms to measure successful implementation of complete street policies and goals;
- Developing a flexible checklist to help weigh the benefits and constraints of potential complete streets project components, including maintenance projects and retrofit improvements for improved public health and safety;
- Involving residents and business owners in promoting walking and bicycling in Madison Borough;
- Seeking public input via surveys of all those directly affected by retrofit projects that include new sidewalks, traffic calming measures or other major upgrades;
- Identifying and fill critical gaps in the transportation network for all roadway users;
- Designing all projects in accordance with the American with Disabilities Act (ADA) standards and guidelines;
- Working with NJ Transit to improve access to the train station and lighting of accessible routes and roadway crossings;

- Allowing exceptions to the Complete Streets policy to be contingent upon the presence of specific safety concerns and set a clear procedure that requires high-level approval prior to granting exceptions.
- Providing a transportation system that serves all residents;
- Create a system for exceptions that is explicit and understandable.

2.4 A Complete Streets Policy is not:

- A design prescription. It's not about adding sidewalks and bike lanes to every road, but it is about considering those options as part of municipal planning and decision making and coordinating designs with other municipal and regional authorities.
- A mandate for immediate installation or retrofitting of existing transportation networks. Rather, it is about creating a structure for implementing these improvements over time and whenever feasible.
- While implementing a Complete Streets program is an important sustainable community feature, other initiatives and issues must be addressed, including land use planning, environmental concerns, and proximity of transit facilities, recreational land and other open space.

In summary, the Borough of Madison Complete Streets guidelines will set priorities to address multimodal traffic safety concerns in our residential neighborhoods with the goals of increasing public safety and improving the existing street and transportation network for people of all ages, modalities, and abilities.

3. Education

- 3.1. Multimodal Usage of roadway systems means that roads are not just for cars. Drivers need to share the road with bicyclists, pedestrians (when sidewalks are not present). Though not encouraged, some neighborhoods use the streets informal non-designated play areas for children. Drivers need to understand the importance of driving more slowly in residential neighborhoods. A driver traveling at 40 mph who sees a pedestrian 100 feet away doesn't have enough time to react or stop; in fact he or she would likely hit the pedestrian at 38 mph. A driver going 25 mph would be able to come to a complete stop before reaching the pedestrian.
- 3.2. Complete Streets designs are only one approach to slowing traffic, creating an atmosphere of multimodal transportation is also very effective. Driving the posted speed limit of 25 mph can be too fast when children are present. Thus advisory speeds may be 15 mph. Local roads were never intended to serve as thoroughfares or provide cut through traffic, although the local grid system does allow for it. The primary critical goal for local connecting streets will be to reduce speed, as well as limit regional cut through circulation. Staying to the main roads will calm residential neighborhoods and promote patient driving. Residents should consider alternate modes of transportation such as bicycling or walking to reduce automotive congestion and promote healthy living. Design and implementation of these policies will promote alternative forms of travel and safer streets for all. There are many relatively low cost options available to the municipality to start the ball rolling, noting proper planning of more costly road improvements reduces implementation cost.
- 3.3. Safe Routes Pledge (from Madison Traffic Calming report in 2006) :
I pledge to support the Madison Safe Routes Program by caring for others as I exhibit positive motorist behavior in the following ways:
 1. Recognize that use of my car use impacts the livability of other residents' neighborhoods, just as theirs impacts mine.
 2. Agree to drive within the speed limit on all roads.
 3. Stop to let pedestrians cross and be courteous to bicyclists and other users.
 4. Minimize car use by combining trips, and using public transit, jitneys or carpools wherever possible.
 5. Keep my full attention on driving avoiding distractions such as cell phone use, texting, chatting or other multi-tasking dangers.
 6. Let other motorists know about driving courteously by talking about safe routes and multi use roadways.
- 3.4. All borough vehicles will be SAFE cars as municipal employees set the example for the community, to promote careful driving and respect for others. Training Borough staff on the elements of the complete streets policy can take the form of outreach on complete street design features and the meaning of the policy as it impacts the work of municipal departments. Borough staff will be provided with the complete streets policy, goals, performance measures and the checklist to see how their work can contribute to accomplishing a network of complete streets. Borough staff that

participated in creating the Complete Streets Policy Plan for Madison Borough should conduct outreach to other borough staff to go over the policy plan.

3.5 Resources: There are numerous resources available to assist in developing complete streets educational events and programs. A comprehensive list of resources and examples of materials can be found in the appendix of this report. The following are great places to begin:

- Information on Safe Routes to School

<http://www.saferoutespartnership.org/state/bestpractices/curriculum>

- Information on Traffic Calming:

<https://www.ite.org/technical-resources/traffic-calming/traffic-calming-measures/>

- Information on Bike Routes:

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

<http://www.state.nj.us/transportation/commuter/bike/application3/pdf/GreatSwampRide.pdf>

- Information on Accessible Routes:

<https://www.access-board.gov/guidelines-and-standards/buildings-and-sites>

- Information on Complete Streets:

<http://www.smartgrowthamerica.org/documents/cs/policy/cs-nj-dotpolicy.pdf>

https://www.state.nj.us/transportation/eng/completestreets/pdf/CS_Model_Policy_2019.pdf

- Complete Streets in New Jersey:

A Compilation of State, County and Municipal Policies

<http://njbikeped.org/complete-streets-2/>

- NJ Complete Streets Summit Summary Report

FHA, New Jersey Department of Transportation & Rutgers Bloustein School

<http://njbikeped.org/2019-complete-streets-summit/>

3.6. For further information see the Appendix to this report for a comprehensive list of resources including educational, reference and guideline documents.

4. Implementing Complete Streets

One of the primary goals of this plan is implementing a network of complete streets through the roadway modifications and maintenance projects slated for capital improvements. Working with the Borough Engineer, the Complete Streets Project Team designed a ranking spreadsheet to be used prior to the design of a roadway or maintenance project to help identify priorities and suitable components to incorporate into the project.

4.1. Points and Priority

To provide a guide to setting priority for complete streets measures. The greater the points obtained by each street, the higher the priority for Complete Streets to be implemented. This is reflected by the total values entitled “Complete Points”.

The potential of spillover of traffic into other neighborhoods due to the implementation of complete streets measures need to be weighed against apparent potential benefits of any restrictive controls.

4.2 Priority Point System

Order of priority ranking is between 1-13, with 1 being top priority, or most points obtained, and 13 being the lowest priority, or least points obtained. Please note that if a traffic safety concern is identified or arises, the Borough can prioritize these locations even if they do not contain the highest point values herein. Accident reports at intersections is not part of the appendix but is included via prior studies as further described within this section.

Priority Ranking	Points Required for Ranking	Need for Complete Streets Implementation
1	9-15	High; Needs to be implemented as soon as possible
2-3	6-8	Relatively High; Needs to be implemented in the near future.
4-5	4-5	Medium; Complete Streets will be implemented over the life of the road.
6-7	2-3	Relatively Low; Complete Streets implementation low priority, but will happen.
8-9	0-1	Low, Street conforms to suggested measures, or doesn't need much change from existing condition.
10	Dead End Street	Minimum Complete Street Implementation

4.2.1 Traffic Volume Average (24-hour)

Average annual daily traffic (AADT) is determined by taking the total volume of vehicle traffic on a road divided by 365 days. Traffic volumes will be measured for a 24 hour period on the streets in the complete streets area. Older records using publicly available data may be used with notes regarding the source, date and need for improved studies. Motorist’s travel speeds are compared to the posted speed limit throughout Madison Borough in cooperation with Police traffic monitoring.

Average Daily Traffic (ADT)	Points
Heavy (Over 14000 vehicles per hour)	4
Moderate (Up to 11000 vehicles per hour)	3
Mild (Up to 8000 vehicles per hour)	2
Limited (Up to 5000 vehicles per hour)	1
Light (Up to 2000 vehicles per hour)	0

4.2.2 Speed Limit

The maximum speed achieved at each site will determine the total points added overall. The streets with higher speeds have more points. Higher priority for safe multimodal circulation is assigned to these faster roadways.

Speed Limit	Points
0-25 Miles per Hour	0
26-35 Miles per Hour	1
36-45 Miles per Hour	2
46+ Miles per Hour	3

4.2.3 Presence of Sidewalk

The location of pedestrian accessible sidewalk areas will add to the points of the overall street. These pathways provide safe travel for those who travel by foot, and allow for a healthy alternative form of travel, and raising its point total as a Complete Street. In specific cases, points may be assigned based on the absence of sidewalk, but sidewalks usually exist now according to need.

Design Features	Points
Continuous Sidewalks (Both Sides)	2
Partial Sidewalks (One Side)	1
No Sidewalks Present (Both Sides)	0

4.2.4 School Zones and Public Zones

Points for neighborhood features will be assigned based on the type of activities that are in the neighborhood. Generators will be considered in terms of likely pedestrian and bicycle activity. The following table will act as a guide.

School Activity Generators	Points
Outside of Buffer Zone (Located outside of 1000 Foot Buffer Region)	0
In the Vicinity of a School (Located within 1000 Foot Buffer Region)	1

Recreation and Pedestrian Activity Generators	Points
Outside of Buffer Zone (Located outside of 500 Foot Buffer Region)	0
In the Vicinity of a Park/Recreational Center/Business Center (Located within 500 Foot Buffer Region)	1

4.2.5 Bikeway

This reflects objectives for the municipal Bike Route plans adopted by the Governing Body. A value of 2 indicates Phase 1 priority, while 1 is a Phase 2 priority. . In specific cases, points may be assigned based on the absence of bikeways, but again a comprehensive plan has already been developed.

Design Features	Points
No Bikeway on Street (Both Sides of the Street)	0
Phase 2 Bike Route Priority	1
Phase 1 Bike Route Priority	2

4.2.6 Road Plan Priorities

Based on the year the project occurred/will occur, the Road will be ranked by how soon it can be completed with Complete Street regulation.

Planned Completion	Points
In the Next 2 years (2014-2016)	3
In the Next 6 years (2017-2020)	2
In the Next 10+ years (2021+)	1
Recently Completed Prior to 2014	0

4.2.7 Traffic Calming Ranking

Points based on the Percentage of Traffic Calming required for the location as identified in the Traffic Calming report dated 2006. This factor is obtained by dividing the total points of traffic calming at each location by the overall total points (58). Locations with the highest percentage rank from the previous study include several problematic roads and intersections that also reflect accident prone locations. A comprehensive report of accident logs at intersections is not available from Madison Police Department at this point in time.

Value of Traffic Calming Percentage	Points
Very High (Above 40%)	3
High (Between 30-40%)	2
Moderate (Between 20-30%)	1
Low (Under 20%)	0

4.3 Conditions and Context

Complete street measures are designed to enhance the roadway environment for walking and bicycling and to better balance the needs of motorized and non-motorized traffic through visual or geometric modifications to the right-of-way (often referred to as traffic calming), signage, and striping. Streets designed for pedestrians and bicyclists, as well as for motorists, result in less traffic crashes overall and enhance visual communication between motorists and non-motorists, creating a safer roadway space for all users. The contextual factors and right-of-way constraints in Madison Borough lend themselves to multi-modal complete street activities.

- <http://www.pedbikeimages.org/>

4.4 Exceptions/Exemptions to the Complete Streets policy shall be documented in writing and filed in the Borough Engineer's Office and in consultation with the Complete Streets Committee, for final approval by the Borough Engineer, with supporting data that indicates rationale and specifies which the following conditions apply:

- 1) Non-motorized users are prohibited on the roadway.
- 2) Cost of accommodations is disproportionate to the cost of the project, (i.e. comprising more than 20% of total cost).
- 3) The safety or timing of a project is compromised by Complete Streets details.
- 4) There is not sufficient space to safely accommodate new facilities.
- 5) The road has an average daily traffic (ADT) of less than 1500 vehicles.
- 6) The inclusion of pedestrian, public transit, bicycle or multi-modal facilities is detrimental to wetlands, floodplains, streams, historic or social resources.
- 7) The inclusion of a new sidewalk, traffic calming or other facilities will impact local multimodal travel or usage patterns in a negative way, or cause negative impact to adjoining streets.

4.5 Funding Complete Streets

There are a number Federal, State, local finance and grant options for implementing roadway projects and educational programs associated with the Borough of Madison Complete Streets policy.

4.5.1. Federal Funding

- The largest resource for Federal funding of non-motorized projects has traditionally been the Federal Highway Administration (FHWA). These funding programs include the Surface Transportation Program (STP), Transportation Enhancements (TE), Congestion Mitigation and Air Quality (CMAQ), Safe Routes to School (SRTS), Safe Routes to Transit (SRTT), Recreational Trails Program (RTP) and Safe, Accountable, Flexible, Efficient Transportation Equity Act, 21st Century: (ISTEA-SAFETEA-TEA21)
- These programs provide monies to state Departments of Transportation to allocate accordingly.

4.5.2. State/Local Funding

- The New Jersey Department of Transportation provides funding for complete streets projects and programs through numerous local aid programs (4).
- The Association of New Jersey Environmental Commissions is another source of funding for complete streets work. <http://anjec.org/SustFunding.htm>.

4.5.3 Grants

While there are many grant opportunities available for complete streets programs, some are better suited for new programs in small communities. Two opportunities for funding that are good matches for the Borough of Madison include the National Center for Safe Routes to School:
<http://www.saferoutesinfo.org/funding-portal/mini-grants>

4.5.4 Sustainable Jersey:

The 2011 Sustainable Jersey™ Small Grants Program will award 30 grants to local governments.
http://www.sustainablejersey.com/resources.php?sec_num=9

5. **Complete Streets Measures of Success**

- 5.1. Complete Streets should be selected on a case by case basis with input by the borough engineer, and the Police Traffic Safety Officer. The Borough Council can approve measures either as a stand-alone maintenance project or as part of major road reconstruction project. Factors that should be considered when determining the method should include:
- Effectiveness in delivering multi-modal safety measures to residents.
 - Cost effectiveness of complete streets measures.
 - Storm water operations or maintenance.
 - Snow removal operations.
 - Effect on neighboring roads.

- 5.2 Improved Accessibility for Users of All Ages & Abilities
- Improve safety and compliance of public and private accessible access points.
 - Assure ADA compliant upgrades to sidewalks, crosswalks, and curb ramps.
 - ADA compliant upgrades to sidewalks and curb ramps at public transportation.
 - Increase accessible sidewalks and connecting gaps in the sidewalk network.
- 5.3 New infrastructure and/or retrofitted streets to improve access to biking, walking and transit for people of all ages and abilities. Street projects are designed to create a network of complete routes for bicycling and walking.
- Increase in pedestrian scale lighting.
 - Increase pedestrian amenities.
 - Increase in bicycle lanes, multi-use trails, shared roadway markings or bicycle safety signage (such as Share the Road signage).
 - Increase in new bicycle parking opportunities.
 - Increase in complete streets at and near schools, Main Street, community facilities and/or transportation hubs.
 - Increase in streets retrofitted with traffic calming measures.
- 5.4. Common Multimodal Traffic Control measures. Level 1 option tends to be less expensive and easier to implement.

Level 1	Level 2
Bicycle lanes	Angle parking
Crosswalks	Road surface or texture
Education on traffic issues	Chicanes
Enforcement	Chokers
Graduated stops	LED Radar signs
Guide signs	Curb extensions
Left turn lanes	Diverters
Narrowing streets with striping	Sight distance
No Thru Street truck signs	Median barrier
Mid Block X-walk Signage	School Zone LED Strobe Signs
Pavement markings and signing	Roadway improvements
Reflective pavement markers	Roundabouts
Speed limit signing	Semi-diverters
Stop signing	Sidewalks, and pedestrian ramps
Street parking	Signal timing and phasing
Tree planting and landscaping	Traffic signal improvement
Tree trimming	Turning lanes
Turn restrictions	

5.5 Walking-Jogging-Cycling Programs

Health and wellness events for senior citizens are an important part of implementing complete streets policies and goals. The Madison Rose City Steppers is one such example. There are several main elements in starting walking programs for senior citizens:

- Outreach: Efforts to get more senior citizens walking differ from school walking programs as their daily activities are less scripted. The best places to begin are senior centers and service providers, health facilities, and libraries. Borough staff can meet with the people in charge of these facilities to talk about conducting senior specific pedestrian safety presentations and information gathering.
- Senior specific pedestrian safety presentations: As people get older, walking speed, reaction time, balance, peripheral vision, night vision and ability to gauge street crossing distances diminishes. Senior citizens take longer to cross the street because it takes them longer to ascend and descend the curb; they walk more slowly, and are more apt to slow down in the middle of a crossing if there are trip hazards such as potholes. The presentations should focus on street safety, as well as learning about concerns or impediments to walking experienced by the participants.
- Mapping a walking route: Determine where senior citizens like to walk each day and walk the route. Note the sidewalks and curb ramps, lighting along the proposed route, street benches and the distance. Distribute the map to places of outreach and encourage people to start walking.

Joggers: Like bicyclists, people who currently jog or would like to start jogging, benefit from maps showing recommended routes. Working with running clubs, the Borough could use data already collected on traffic volumes and speeds of certain streets, sidewalk continuity and lighting to help joggers plan routes. A town hall style meeting could announce the initiative and serve as a forum for roadway safety, as well as providing people a chance to organize jogging groups.

Cyclists: The local public impetus for the Madison Bike Route contracts for striping and signage improvements throughout the Borough were a direct result of resident and regional advocates for cycling. The mapping and adoption of the Bike Route is confirmed by the applications for and funding by the State of New Jersey. That funding has been superseded by TEA21 and the ARRA most recently, but constant emphasis on the priorities for cycling in the Complete Streets programs now advocated by Federal and State planners can still achieve the “Share the Road” objectives of cyclists.

5.6. Suggestions from the Public

While this policy manual contains a large number of guidelines, reference and educational documents, it does not replace the need for local knowledge or input. Frequently, the best application of Complete Streets technology is advocated by residents, property owners and commuters, who live on, or work near, or travel upon the local road network in question. Therefore, public suggestions in the planning, design and implementation phases are often important to the success of the projects.

6. Recommendations

The following specific operational recommendations are tabulated to help expedite the implementation of Complete Streets in the Borough of Madison.

- 6.1 Keep municipal traffic studies up to date with Master Plan elements.
- 6.2 Maintain a complete streets plan to be referenced in the Master Plan.
- 6.3 Budget for periodic restriping, stenciling, signage for the bike lanes.
- 6.4 Identify projects to complete within five years.
 - Glenwild Road traffic calming in school zone (NJDOT funding).
 - Burnet Road complete street reconstruction (NJDOT funding).
 - Cook Ave Parking Lot pedestrian access improvements.
 - Waverly Place reconstruction streetscape improvements.
 - Follow-up traffic studies on Prospect St/Greenwood Ave/Kings Rd.
 - Signage/Striping of crosswalks at school entrances and zones.
 - Rapid Flash Beacons at busy cross-walks and mid-blocks.
 - Speed Laser Signage at speed control areas.
- 6.5 Identify Recently Completed Projects as Measures of Success
 - Greenwood Ave phased reconstruction.
 - Prospect Street reconstruction.
 - Rosedale Ave Traffic Calming (local parks and pool).
 - Ridgedale and Woodland signage and striping.
 - School Zone Flashers (Kings, Central, Tory J Sabatini).
 - Midblock Cross walk on State Highway 124 (Junior School).
 - New Flashers (Brittin/Greenwood, Noe/Woodland, Fairview/Central).
 - Lincoln Place Streetscape (Train Station).
 - Samson Ave Safe Routes to School (Kings Rd School).
- 6.6 Review current hot spots
 - Central Business Crosswalks / Street Smart
 - Kings / Maple and Kings / Cross (RRFB)
 - Greenwood / Lorraine (RRFB)
 - Green / Garfield (Speedlaser)
- 6.7 Schools
 - Onsite Circulation
 - Crossing Guards
 - DropOff/Pickup Use of Shoulders
 - PTA Advice and Courtesy Info
 - Walk to School Programs
- 6.8 Maintain priority complete street projects in the 20 Yr. Road Program.

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