











June 2017







Acknowledgements

The project team would like to recognize and express appreciation to the numerous individuals who contributed information, attended a meeting or workshop, sent in a comment, or otherwise participated in the development of the Montclair Township SAFE / Complete Streets Implementation Plan. Special thanks to the Steering Committee for their time and on-going commitment to making Montclair a safe and enjoyable place for walking and bicycling.

PROJECT TEAM

The Office of Bicycle and Pedestrian Programs, New Jersey Department of Transportation & The Township of Montclair



with

NV 5

NV5 Company 7 Campus Drive, Suite 300 Parsippany, NJ 07054

and



Susan Blickstein, AICP/PP, Ph.D.

Disclaimer

This publication has been financed with federal funds provided by the United State Department of Transportation's Federal Highway Administration as administered by the New Jersey Department of Transportation (NJDOT). The United States Government assumes no liability for its contents or its use thereof.

STEERING COMMITTEE

Alex Kent, Pedestrian Safety Committee
Alfred Davis, South End Business District of Montclair
Ann Lippel, Senior Citizen Advisory Committee
Ben Selby, Board of Education Transportation Manager
Brendan Gill, Essex County Freeholders
Carmel Loughman, Planning Board
Carole Willis, <i>Planning Board / Traffic & Parking</i> Advisory Committee
Cyndi Steiner, New Jersey Bike / Walk Coalition
Gerry Tobin, Upper Montclair Business Association
Israel Cronk, Montclair Center BID
Janice Talley, Montclair Planning
John Herrmann, Montclair Fire Chief
Katie York, Montclair Senior Services
Katya Wowk, Montclair Communications
Kimberli Craft, Montclair Engineering
Laura Torchio, Montclair Traffic & Parking Advisory Committee/ Bike&Walk Montclair
Rachel Crampsey, Walnut Business (Invited)
Renee Baskerville, 4 th Ward Councilor / Traffic & Parking Advisory Committee / Pedestrian Safety
Rich McMahon, <i>Councilor-At-Large / Traffic & Parking</i> <i>Advisory Committee / Planning Board</i>
Sanjeev Varghese, Essex County Engineer (Invited)
Scott Pollack, Watchung Business
Stephanie Egnezzo, Montclair Police & Traffic

MONTCLAIR SA COMPLETE STREETS IMPLEMENTATION PLAN

TABLE OF CONTENTS LIST OF MAPS

I. INTRODUCTION	1
II. PLANNING PROCESS AND OUTREACH	5
III. STREET TYPOLOGIES / RECOMMENDATIONS	11
IV. IMPLEMENTATION GUIDE	33
V. NEXT STEPS	37

APPENDIX

- A. Technical Memorandum 1: Data Review and Bibliography
- B. Steering Committee Members
- C. Technical Memorandum 2: Network Maps
- D. Community Outreach
- E. Recommended SAFE CS Street Inventory w/ Street Typologies
- F. Montclair Complete Streets Policy
- G. Funding Sources

LIST OF FIGURES

Figure 1: Methodology Figure 2: Key Elements of a Montclair SAFE CS Street Typology TYPOLOGY I - Minor Arterial Street (up to 37.5' wide) TYPOLOGY II - Minor Arterial Street (38' + wide) TYPOLOGY III - Collector Street (up to 37.5' wide) TYPOLOGY IV - Collector Street (38' + wide) **TYPOLOGY V - Local Street**

TYPOLOGY VI - One-Way Street

Map 1: Conte	xt Map
Map 2: Recon	nmended SAFE CS Network
Map 3: Priorit	y Corridors
Map 4: Recon	nmended SAFE CS Network
LIST OF TAB	LES
Table 1: Town	ship Facility Network Maps
Table 2. Pede	strian Recommendations:

Table 2: Pedestrian Recommendation Improvements **Table 3: Implementation Matrix**



BLANK

I. Introduction

Project Purpose & Background

This Montclair SAFE (Streets Are For Everyone) Complete Streets Implementation Plan provides a road map for improving the walking and bicycling environment in the Township of Montclair. The purpose of this plan is to provide guidance towards ensuring that Montclair's streets are designed to encourage safe driving, bicycling and walking and to advance the Township's SAFE /



Complete Streets philosophy.

Montclair, a Bronze-Level Bicycle-Friendly community and a Silver Walk Friendly community, is ahead of most

municipalities in improving multi-modal travel within the Township. This plan builds upon those efforts to further enhance bicycle and pedestrian safety and mobility for users of all ages, abilities and socio-economic backgrounds.

Project Background

The Township of Montclair is a six square mile vibrant community located along the Watchung Mountains in Essex County, New Jersey (Map 1). The Township's transportation network consists of six train stations and a system of bus routes and it has an active commercial district and smaller neighborhood commercial areas.

The Township is committed to investing in making bicycling and walking safer and more accessible to all users. Both the Township and Essex County have Complete Streets Policies and the 2015 Land Use and Circulation Element of the Montclair Master Plan recommended that the Township "establish a network for pedestrian and cyclists".

To further those efforts, the Township submitted an application to the NJDOT Local Bicycle/Pedestrian Planning Assistance Program (LBPPAP) to receive technical assistance in developing a SAFE / Complete Street Implementation Plan. NV5 was selected to provide assistance to the Township in developing this plan.



Map 1: Context Map

Project Objectives

The objectives of this plan are to:

- → Develop and **build consensus** for Community Priorities for travel in Montclair incorporating a SAFE / Complete Streets philosophy
- → **Review and Evaluate** the Township's previous planning efforts
- → Identify a SAFE CS Network for enhanced bicycle and pedestrian mobility
- → Facilitate outreach efforts to draw in stakeholders, elected officials, staff and the community at large to help build consensus for a set of street typologies and design guidelines consistent with providing safe access for all street users
- → Be adopted as an element of the Montclair Master Plan and actively used to assist design decision-making as streets are maintained, repaved, and/or otherwise improved.

What is the Montclair S.A.F.E. Streets Initiative?

"Montclair SAFE began in 2011 as an initiative of the Montclair Traffic/Parking Advisory Committee and the Engineering Bureau to raise awareness of the recently adopted Complete Streets policy and begin the process of engaging the community to envision its streets in a more inclusive way so people walking and rolling (on bikes or in wheelchairs or strollers) are comfortable and feel safe using them.

The group outlined five key goals of the initiative, which are:

- → Identify walking paths and routes and ways to encourage more walking by protecting/enhancing our pedestrian spaces
- → Identify bicycling paths and ways to encourage cycling by designating "preferred" routes and protecting/enhancing existing facilities
- → Identify ways to enhance and promote Montclair's many transit options (trains, buses, jitneys, etc.)
- \rightarrow Implement SAFE plans at little additional cost to the taxpayers of Montclair

Since then we've been able to improve a few streets, the most notable being South Park Street. With its generously portioned sidewalks and traffic-calming, tree-lined median; South Park Street is a great model for how a complete street in the downtown should look and feel."

Source: Montclair Engineering Department





Photos: South Park Street, Credit: Montclair Township & Arterial, LLC

Need for SAFE / Complete Streets

SAFE / Complete Streets help make communities more vibrant and livable. As per Montclair Township – "SAFE stands for "Streets Are For Everyone" and it is the acronym that we believe captures the spirit behind the development of complete streets in Montclair".

SAFE/Complete Streets are streets that are focused on people not just vehicles. They prioritize pedestrian movement with improved sidewalks, safe intersections and crosswalks, ADA accessibility and bicycle facilities that enhance the safety and comfort of those who cycle. SAFE/Complete Streets have many benefits and are needed in Montclair because:

- → SAFE Streets make walking and bicycling safer for all users
- → SAFE Streets create more <u>equitable</u> <u>communities</u>
- → SAFE Streets help the <u>environment</u>
- → SAFE Streets are good for the **economy**
- → SAFE Streets support a healthy and active lifestyle
- → SAFE Streets help reduce <u>traffic</u> <u>congestion</u>

Walking and Bicycling Safety

- → Streets become safer by focusing on improving walking and bicycling.
 Pedestrian improvements, such as bump-outs, high-visibility crosswalks and dedicated bicycle facilities have a traffic calming effect on roadways.
- → From 2006-2015, there were 479 pedestrian injuries, 9 fatalities and 22 incapacitating injuries in Montclair. During the same time, there were 149 bicyclist injuries, 2 incapacitating injuries and no fatalities.

Equitable Communities

→ SAFE Streets help create equitable communities by making it safer for populations (lower-income, minority,

etc) who are more likely to walk or bike due to lack of access to cars.

- $\rightarrow\,$ The income of almost 7% of Montclair's population is below the poverty level.
- → More than 10% of Montclair households have no access to cars and more than 40% have only one car available. In addition, more than 25% of 3 & 4 person households have access to one or no car¹.
- → More than 25% of Montclair's populations identify as Black or African American which is higher than the state (14.8%), more than 5% identify as Asians, and almost 9% identify as Hispanic.
- → Multi-modal travel such as walking and bicycling are the most affordable forms of transportation. According to AAA's Your Driving Costs (2015), a medium size sedan costs 79 cents per mile to own and operate based on driving 10,000 miles annually. By comparison, the League of American Bicyclists estimates that bicycling costs just 10 cents per mile. Walking costs (time and money) far outweigh the benefits.

Environment

→ Walking and bicycling help reduce the amount of gasoline consumed, as well as lower carbon emissions, directly improving air quality.

Economy

- → Active transportation can bring economic benefits to a community, including higher rates of spending in local businesses and an increase in property values.
- → Studies have shown a positive economic impact of walking and bicycling for communities in New Jersey².

¹ As per 2015 American Community Survey, Table B08201: HOUSEHOLD SIZE BY VEHICLES AVAILABLE ² The Economic Impacts of Active Transportation in New Jersey, Alan M. Voorhees Transportation Center

- \rightarrow Walking and bicycling projects also create jobs and save health care costs.
- \rightarrow Walkable and bikeable communities typically see an increase in property values. One study found that a 5 to 10 mph reduction in traffic speeds increased adjacent residential property values by roughly 20 percent.
- \rightarrow When residents walk or bike to transit, they spend less money on driving and have extra disposable income to spend locally.

Health

- \rightarrow Safe walking and bicycling options affects a community's level of physical activity.
- \rightarrow Obesity, diabetes and other diseases have been linked to low levels of physical activity.
- \rightarrow According to the Pedestrian and Bike Information center, "physical activity can help prevent:
 - Heart disease
 - Obesity
 - High blood pressure
 - Type 2 diabetes
 - Osteoporosis (thinning bones)
 - Mental health problems such as depression"

Traffic Congestion

- \rightarrow Bicycling and walking for short trips help reduce traffic congestion.
- \rightarrow Every person that makes a trip by walking or bicycling is one less car on the streets and one fewer car seeking parking.
- \rightarrow Montclair already has 2.9% of workers walking to work, and 0.6% biking to work; however, these numbers do not include commuters that walk or bicycle to the train station or bus stops. More than 25% take public transit to work.
- \rightarrow Bicycles (with some restrictions) are allowed on the NJ Transit trains and the Bay Street station has the State's first Bike Depot to provide safe parking

options for bicyclists. All NJ Transit buses have bicycle racks, thus making it easier to make the first/last mile to transit biking-friendly.

How to Use this Plan?

This plan is a policy and planning guide and will help implement the Township's Complete Streets policy and build on the goals and objectives of the Townships' circulation plan.

It will serve as a resource for local boards/committees and advocates supporting and advancing CS efforts and seeking outside funding for such efforts.

It will serve as a decision-making guide with options (herein referred to as 'typologies') for integrating CS measures into street maintenance, paving and improvement projects based on roadway type, width and speed limits.

Plan Organization

This plan is organized into the following three parts:

Part 1: Introduction

Part 2: Planning Process & Outreach

Part 3: Street Typologies & Recommendations

Part 4: Implementation & Funding

Part 5: Next Steps

ONTCLAIR S OMPLETE STREETS IMPLEMENTATION

II. Planning Process and Outreach

Planning Process

Montclair Township has had an evolving network of proposed bicycle and pedestrian facilities for several years. The project team reviewed the previous planning efforts and developed a recommended SAFE CS network. The desktop exercise of identifying a network was further refined based on outreach and field work. The intent was to develop a network that connects major destinations such as schools, parks; residential neighborhoods; commercial areas in and around Montclair Township.



Map 2: Recommended SAFE CS Network

The network was further developed into a priority SAFE CS network based on input provided by the Steering Committee, a community survey and public meetings. While it was agreed that all streets in Montclair must be safe and accessible for everyone, the priority network identifies those streets that should be given priority investments when opportunity and funds (if necessary) for improvements are allocated. The project team conducted additional field work focused on streets that were included in the priority network. The priority SAFE CS network was then advanced by defining street typologies that include recommendations for pedestrian and bicycle improvements. The street typologies are grouped by roadway functional classification and street width as recommended by the Steering Committee. Street typologies provide a menu of safety enhancements that can be implemented on all Montclair streets.



Map 3: Priority Corridors Figure 1 on the following page summarizes the overall planning process.

METHODOLOGY



Data Collection / Field Visits

The project team reviewed various plans and recommended bicycle and pedestrian networks that have been developed previously. *Appendix A: Technical Memorandum 1* includes a bibliography of the reports, studies, plans, and maps evaluated as part of this task.



Photo: South Mountain Avenue, Montclair, NJ

The project team conducted a desktop review of on-road and off-road corridors, and targeted field investigations to determine the condition of bicycle and pedestrian accommodations along identified priority corridors throughout the Township. This focused on the refined bicycle and pedestrian network, based on the assessment of the various networks developed over the last ten years throughout Montclair, and used the 2015 Land Use & Circulation Element of the Master Plan – Proposed Conceptual Bicycle Route Network as a starting point, see Table 1. This was further refined as recommended by the project Steering Committee at a priority setting workshop in September 2016.

TABLE 1 – TOWNSHIP FACILITY NETWORK MAPS

Year	Name of Map
2005	Bicycle Compatible Roadways
2005	Bicycle Suitability Map
2007	Desired Conditions Sketch
2009	SRTS Bike Network Map
2013	Proposed Conceptual Bicycle Route
	Network from the 2015 Land Use &
	Circulation Element of the Master Plan

Using the information and data collected in previous tasks, we evaluated and analyzed the proposed network in terms of its capability to safely accommodate pedestrian and bicycle travel, and provide connections to major destinations throughout Montclair. With Steering Committee guidance, this evaluation focused on providing connectivity, and enhancing corridors that currently have the potential for enhancing walking or bicycling.



Photo: North Mountain Avenue, Montclair, NJ

Steering Committee Input

A Steering Committee comprising of local community groups, bicycle and pedestrian advocacy organizations and Montclair Township staff was created. A list of Steering Committee members is in *Appendix B*. The Steering Committee members provided their local expertise and knowledge by participating in the following:

- → A **Project Kick-Off Meeting** to learn more about the scope and timeline of the project, to provide feedback on the bicycle and pedestrian network developed by the project team based on previous efforts and help refine the network.
- → A network review meeting (Steering Committee Meeting #2) to review and refine the network and confirm recommendations for priority corridors based on the community survey results

and local knowledge.

- → A concept review meeting (Steering Committee Meeting #3) to review the draft street typologies and recommendations and provide guidance in planning for the Public Information Center / Public Open House.
- → A draft/final plan review meeting (Steering Committee Meeting #4) to provide feedback and comments to be incorporated in the final plan.

In addition, the project team also coordinated with the Montclair Engineering department throughout the project to get additional insight and local data.

Public Outreach

Public involvement is an important factor in bicycle and pedestrian planning. The outreach efforts included conducting public meetings, developing and administering a community survey, and participating in community events.

Priority Setting Workshop - A Priority Setting Workshop was conducted on September 13, 2016 at the Montclair Municipal building. The Project Team facilitated the open house format meeting that included stations with general background about the project, typical bicycle and pedestrian enhancement techniques, draft route network maps for review and a station for walking through an on-line survey to collect detailed insight on preferences and priorities for walking and bicycling.



Photo: Priority Setting Workshop, Montclair, NJ

The refined bicycle and pedestrian facility network maps (North, Central and South areas of Montclair) are included in *Appendix C: Technical Memorandum 2.*

Public Survey – The public survey was posted on the Montclair website and included detailed questions about top priority corridors in each the North, Central and South areas of Montclair. The survey provided opportunity for detailed input.

Survey respondents were asked to prioritize their top three priorities in southern, central, and northern Montclair by ranking their top segments as graphically represented on a map with a corresponding key that divided the choices into street segments. See *Appendix C: Technical Memorandum 2.*



Photo: Survey Announcement on Township's Website Montclair, NJ

In the southern section of Montclair, the following Segments were most often prioritized:

- → Segment 23 (Claremont Avenue, Valley Road, Walnut Street/Park Drive, Forest Street, Label Street, Depot Square) was most frequently priority 1 or 2 (22.63% - Priority 1 and 22.96% – Priority 2);
- → Segment 19 (Elm Street) ranked next highest with 17.5% of respondents selecting Elm Street as their Priority 1; and,

COMPLETE STREETS IMPLEMENTATION PLAN

 → Segment 20 (Park Street, The Crescent, South Fullerton Avenue, Union Street) with the next highest priority, with 16.8% selecting Segment 20 as Priority 1.

In Central Montclair, the following segments were most frequently prioritized:

- → Segment 11/Grove Street (35% Priority 1 and 25% Priority 2);
- → Segment 10/North Mountain Avenue (21.6% Priority 1 and 15.15% Priority 2);
- $\rightarrow\,$ Segment 13/Park Street (15% Priority 1 and 22.7% Priority 2); and,
- → Segment 15/Watchung Avenue (10.8% Priority 1, 13.6% Priority 2 and 26% Priority 3).

In Northern Montclair, the following roadways were most frequently prioritized:

- → Segment 4/Grove Street (22% Priority 1, 18% Priority 2, 18% Priority 3);
- → Segment 1/Upper Mountain Avenue (21% Priority 1, 12% Priority 2, 9% Priority 3);
- → Segment 2/Valley Road (19% Priority1, 15% Priority 2, 8% Priority 3);
- → Segment 3/Park Street) at (16% Priority 1, 24% Priority 2, 13% Priority 3); and,
- → Segment 8/Bellevue Avenue (10% Priority 1, 17% Priority 2, 30% Priority 3).

In addition to survey responses, additional factors such as connectivity, proximity to major generators, and geographic distribution were considered when refining the network.

Open Streets Event – The Project Team was able to take advantage of one of the largest pedestrian and bicycling events that occurs in Montclair, the Open Streets event held on Sunday October 2, 2016. This event is paired with the Tour de Montclair bicycle ride event. During the event, the NV5 team set up an outreach station with surveys to be filled out, and maps to be reviewed and marked up. Many attendees who might not have otherwise known about the project were able to share insights about priorities for walking and bicycling in Montclair and learn more about the survey and participation in the project.



Photo: Open Streets Festival, Montclair, NJ

Network maps were further refined for the event, enhancing display of local connections and other features, see Attachment C – Open Streets Event Maps.

Final Public Open House – A final public open house was held on Wednesday, March 8th, 2017 from 7:00 p.m. to 9:00 p.m. at the Montclair Municipal Building. The purpose of the meeting was to present the methodology, recommended SAFE CS network, and the pedestrian and bicycle recommendations including street typologies and gather feedback from the public.



Photo: Final Public Open House, Montclair, NJ

The format of the meeting was an open house format with presentation boards and comment forms. In addition, to Montclair and NJDOT staff, the meeting was attended by more than 50 people from the community. A sign-in sheet is attached in *Appendix D: Community Outreach* for reference; however please note that the sign-in sheets do not accurately reflect attendance as several attendees did not sign in.

The overall feedback received was positive and many members provided additional comments by filling in the comment forms provided at the open house and via email after the meeting. A copy of the comments is in *Appendix D: Community Outreach.*



Photo: Final Public Open House, Montclair, NJ

III. Street Typologies / Recommendations

Introduction

Based on an analysis of existing conditions and steering committee and public input, the project team developed recommendations for implementing the recommended SAFE CS network in Montclair. The recommendations include pedestrian and bicycle improvements identified in six street typologies.

Street Typologies

Typologies are categorized by functional class (minor arterial, collector, local, and one-way) and roadway width. The width allocated for motorists, buses, trucks, bicyclists, pedestrians, and parked cars is a crucial aspect of street design and effects the applicable treatment of each typology.

The typologies provide options to be considered to enhance pedestrian and bicycle facilities, and will be further advanced during maintenance operations and/or later design phases.



Sampling of the Best Practice Publications

All proposed design treatments are based on roadway data collected such as traffic volumes, speed limits, roadway widths and developed by utilizing state of the practice publications such as the AASHTO Bicycle Design Guidelines, NACTO Guides and NJDOT CS Design Guide.

Recommended treatments include sidewalk improvements, enhanced crossings, shared lane markings/ "sharrows", bike lanes, traffic calming treatments, striping parking lanes etc. On narrower roadways where space is limited, some of the options will require a restriction of onstreet parking. Any parking impacts will be determined during final design.

The six (6) street typologies are listed below:

- \rightarrow TYPOLOGY I Minor Arterial Street (up to 37.5' wide)
- → TYPOLOGY II Minor Arterial Street (38' + wide)
- \rightarrow TYPOLOGY III Collector Street (up to 37.5' wide)
- \rightarrow TYPOLOGY IV Collector Street (38' + wide)
- \rightarrow TYPOLOGY V Local Street
- \rightarrow TYPOLOGY VI One-Way Street

Please note that Bloomfield Avenue was excluded from this study, due to other ongoing efforts along that road.

An example street from the priority corridors was selected for each street typology to demonstrate how a street typology could be applied.

Design Assumptions

The following design assumptions were used while developing the street typologies and can be used a reference while applying the street typologies to different streets within Montclair.

- \rightarrow Sidewalks (4' 6'+)
- → Crosswalk high visibility "continental" striping pattern near key destinations
- \rightarrow Travel lane widths (10' 11')
- \rightarrow Bicycle lane widths (5' 6')

- \rightarrow Buffer between bicycle lanes and motor vehicle travel lanes (1' 3')
- $\rightarrow\,$ Two-way protected bicycle lanes (8' 12') with minimum 1.5' buffer
- \rightarrow Motor vehicle parking lane widths (7.5' 9')

Pedestrian Improvements

The pedestrian network throughout Montclair has had significant investment over the years, yielding a largely, but not 100% complete sidewalk network. However, a complete sidewalk network is one of the elements for creating a safe and accessible walking environment. There a number of additional enhancements that Montclair and other municipalities have utilized to further improve the pedestrian realm.

The pedestrian recommendations can be applied to any street type and vary based on context and land use. The recommendations are categorized improvements into treatments that can be applied to roadway segments, all intersections or signalized intersections. All of the recommended pedestrian improvements are described further with information on typical applications / design and photos showing local and regional examples.

The pedestrian improvements identified include:

- → Roadway Segments
 - Sidewalks and Curb Ramps
 - Pedestrian-Scale Lighting
 - Parklets
 - Mid-block crossings
 - Gateways
- → All Intersections
 - Crosswalks
 - Mini-traffic circles
 - Curb Extensions
 - Pedestrian refuge islands
 - RRFB (Flashing warning lights)
 - In-Street Crossing Sign
- ightarrow Signalized Intersections Only
 - Pedestrian Countdown Signals

Bicycle Facilities

The street typologies provide options for bicycle facilities for each of the street types. The various bicycle facilities recommended include:

- ightarrow Conventional Bicycle Lanes
- \rightarrow Buffered Bicycle Lanes
- ightarrow Two-way protected bicycle lanes
- \rightarrow Climbing Lanes
- \rightarrow Contraflow Bicycle Lanes
- \rightarrow Bicycle Boulevard
- \rightarrow Advisory Bicycle Lanes
- \rightarrow Sharrows or Shared Lane Markings
- \rightarrow Shared Use Path

Each typology includes additional descriptions on the recommended facility highlighting the benefits and considerations for each option.



KEY ELEMENTS OF A MONTCLAIR SAFE / CS STREET TYPOLOGY



Figure 2: Key Elements of a Montclair SAFE / CS Street Typology



Map 3: Recommended SAFE CS Network





STREET TYPOLOGIES:

TYPOLOGY I - Minor Arterial Street (Up to 37.5') TYPOLOGY II - Minor Arterial Street (38'+) TYPOLOGY III - Collector Street (Up to 37.5') TYPOLOGY IV - Collector Street (38'+) **TYPOLOGY V - Local Street TYPOLOGY VI - One-Way Street**

Legend for Typologies





Two-lane Roadway





1.234

ADT

ASSUMPTIONS

- Travel lane widths (10' 11')
- Bicycle lane widths (5' 6')

• Buffer between bicycle lanes and motor vehicle travel lanes

• Two-way protected bicycle lanes (8' - 12') with minimum 1.5' buffer

• Motor vehicle shoulder / parking lane widths (7.5' - 9')

Sidewalks (4' - 6'+)

• Crosswalk – high visibility "continental" striping pattern near schools or "standard" two line pattern elsewhere

PEDESTRIAN IMPROVEMENTS: Recommendations

Pedestrian	RECOMMENDATIONS FOR ALL STREET TYPOLOGIES (I, II, III, IV, V & VI)				
IMPROVEMENTS	Commercial / Retail	Residential	<1/4 Mile of Parks, Schools, Transit	History of Frequent Speeding	History of Ped / Bike Crashes
			<1/4 m	ile	
ROADWAY SEGMENTS					
Sidewalks and Curb Ramps	\checkmark	\checkmark	\checkmark		\checkmark
Pedestrian-Scale Lighting	\checkmark		\checkmark	\checkmark	\checkmark
Parklets	\checkmark			\checkmark	
Mid-Block Crossings	\checkmark		\checkmark		\checkmark
Gateways	\checkmark		\checkmark	\checkmark	\checkmark
ALL INTERSECTIONS					
Crosswalks	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Mini-Traffic Circles	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Curb Extensions*	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Pedestrian Refuge Islands*	\checkmark			\checkmark	\checkmark
RRFB (Flashing warning lights)*	\checkmark		\checkmark	\checkmark	\checkmark
In-Street Crossing Sign*	\checkmark		\checkmark	\checkmark	\checkmark
AT SIGNALIZED INTERSECTIONS ONLY				-	
Pedestrian Countdown Signals	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark

Notes: This planning level table is developed primarily to recommend pedestrian improvements for Montclair and should not be followed without additional design and engineering analysis. Please refer to NACTO Guides, AASHTO and other state of the practice publications for additional guidance. * Except on local roads (Typology V)

SIDEWALKS

- "Backbone" of the pedestrian travel network
- Vary in their design / configuration in relationship to surrounding context (downtown, residential, commercial, etc.)
- Should be designed for universal access and ADA accessibility guidelines
- Require upkeep, maintenance, and snow or ice removal <u>TYPICAL APPLICATIONS / DESIGN</u>
- Should be at least 5' wide (FHWA Recommended Guidelines/ Priorities for Sidewalks & Walkways)
- A sidewalk (8'-10'+) should be provided near parks, schools, and other major pedestrian generators sidewalks
- A minimum 2' buffer (4' is preferred) for street furniture, utilities, etc should be provided



Sidewalk near school / residential, Montclair, NJ



Sidewalk in downtown, Montclair, NJ

COMPLETE STREETS IMPLEMENTATION PLAN

PEDESTRIAN IMPROVEMENTS: Recommendations (Continued)

PEDESTRIAN-SCALE LIGHTING

- Appropriate and adequate lighting activity is a vital measure for pedestrian safety
- Should work in concert with roadway lighting
- Should be implemented at intersections, important points of interest, and along sidewalk corridors

TYPICAL APPLICATIONS / DESIGN

- Should be carefully placed so as to illuminate crosswalks and reduce glare to motorists
- Should utilize uniform lighting levels



Pedestrian-scale lighting, Montclair, NJ Credit: Arterial, LLC

PARKLETS

- Re-purpose a portion of the street next to the sidewalk -- usually 1-2 parallel parking spaces-- as public space suitable for people to use and enjoy
- Provide amenities like seating, planting, bicycle parking, WiFi, and public art

TYPICAL APPLICATIONS / DESIGN

• Can be temporary or permanent in their design, materials and applications



Parklet in Montclair, NJ Credit: Bike&Walk Montclair

MID-BLOCK CROSSINGS

- Provide safe crossing opportunities to destinations or places that are not near controlled intersections
- May incorporate additional features such as actuated warning beacons (RRFBs), signage, curb extensions, medians, etc. <u>TYPICAL APPLICATIONS / DESIGN</u>
- In areas where there is significant pedestrian activity
- Stop lines should be setback 20-50 feet to ensure that a pedestrian is visible to motorists
- Raised crossings can also increase visibility and encourage motorists to stop
- Can also include dedicated markings (such as crossbike) for bicycle crossings

Mid-Block Crossing with curb extensions and signal actuation in Bayhead, NJ

GATEWAYS

- A signing and/or landscaping treatment to alert motorists that they are entering a lower speed environment and to expect pedestrians and bicyclists.
- Can be as simple as signs and landscaping <u>TYPICAL APPLICATIONS / DESIGN</u>
- Usually supplemented with other traffic calming measures such as curb extensions or bulb-outs, public art and crosswalks
- Recommended for entrances to school zones, commercial areas or busy places of activity



Gateway to Forest Hill School, Camden, NJ

PEDESTRIAN IMPROVEMENTS: Recommendations (Continued)

HIGH-VISIBILITY / RAISED CROSSWALKS

- Crosswalk striping that creates a high level of visual contrast with the surface of the roadway is most effective for pedestrians (including those with low vision) as well as drivers
- Raised crosswalks are elongated speed humps that feature a marked crosswalk at the same elevation as the adjacent sidewalks <u>TYPICAL APPLICATIONS / DESIGN</u>
- At roadway intersections where sidewalks or other pathways are present on both sides of the roadway
- Should be designed to minimize crossing distances and should be straight, to make them easier for people with visual impairments to navigate
- Minimum width is 6' but can be up to 15' wide at crossings with a high number of pedestrians



High-Visibility Ladder Crosswalk, Montclair, NJ

10% Max



Typical Crosswalk Patterns

4' Min

- 2% Max. -

8.3% Max.

Detectable Warning

Surface



- Provide pedestrians with a means of negotiating a change of elevation between the sidewalk and roadway
- Are especially important for people using wheelchairs, strollers, walkers, crutches, handcarts, and pedestrians who have trouble stepping up and down high curbs <u>TYPICAL APPLICATIONS</u>
- At all intersections with marked or unmarked crosswalks
- At all mid-block crossing locations
- At on-street accessible parking spaces

MINI-TRAFFIC CIRCLES

- · Typically help reduce speeds at minor intersections
- Can be installed using markings and raised islands and typically have plantings / landscaping
- Landscaping must be regularly maintained so it does not affect visibility
 <u>TYPICAL APPLICATIONS / DESIGN</u>
- Crosswalks should be marked clearly to specify where pedestrians can cross.
- Minimum 15 ft clearance should be provided from the corner to the widest point on the circle
- Adequate signage should be installed

CURB EXTENSIONS (Bumpouts)

- Narrow the roadway by extending the curb at key intersections and midblock locations
- Can either be "constructed", with curbs and concrete surface, or "painted" over existing roadway pavement <u>TYPICAL APPLICATIONS / DESIGN</u>
- Can be implemented at intersections, mid-block crossings, and transit stops on all types of streets
- Should focus on areas of high pedestrian demand where traffic calming is also a priority



Curb Ramps, Montclair, NJ



Mini-Traffic Circle, Princeton, NJ, Credit: WalkBikeNJ.com





Quick Build Curb Extensions, Princeton, NJ, Credit: WalkBikeNJ.com

COMPLETE STREETS IMPLEMENTATION PLAN

PEDESTRIAN IMPROVEMENTS: Recommendations (Continued)

PEDESTRIAN REFUGE ISLANDS

- Also known as crossing islands: Are protected spaces placed on a street at intersections or mid-block crossing locations to separate crossing pedestrians from motor vehicles
- Split the crossing distance into manageable portions
 <u>TYPICAL APPLICATIONS / DESIGN</u>
- Can be used at wide intersections, irregularly shaped intersections or at intersections where two roads converge into one
- Provide a cut-through median level with roadway grade, offering a more efficient design in comparison to raised median islands



Planted median, Austin, TX Credit: NACTO





Minimum Dimensions for cutthrough and raised medians

RRFB (FLASHING WARNING LIGHTS)

- Rectangular rapid flashing beacons (RRFBs) are active warning devices used to alert motorists of crossing pedestrians at uncontrolled crossings
- Remain dark until activated by pedestrians, at which point they emit a bright, rapidly flashing yellow light, which cautions drivers that pedestrians are attempting to cross the roadway <u>TYPICAL APPLICATIONS / DESIGN</u>
- Should be installed on both the right and left sides of the crosswalk, or in a median if available, on the approach to important pedestrian crossings





RRFB in Glassboro, NJ

IN-STREET CROSSING SIGNS

- Makes it easier for pedestrian to cross at an unsignalized crossing
- Alerts motorists of the laws regarding the pedestrian right-of-way at an unsignalized pedestrian crossing
- Can be used in conjunction with other measures such as pavement markings, etc <u>TYPICAL APPLICATIONS / DESIGN</u>
- At unsignalized intersections and crossings
- Typically used near schools, parks and access to trails etc
- Roadway signs need to be selected and placed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD)



In-Street Pedestrian Crossing Sign, Montclair, NJ

PEDESTRIAN COUNTDOWN SIGNALS

- Displays the number of seconds remaining in the pedestrian crossing phase
- Help pedestrians accurately decide when it is safe to cross and when they should wait

TYPICAL APPLICATIONS / DESIGN

- At intersections with complex signal phasing (e.g. there is a dedicated left turn phase for motorists)
- When an exclusive pedestrian signal phase is provided
- At school zone crossings
- At intersections with pedestrian refuge



Pedestrian Countdown Signal, Hoboken, NJ

MONTCLAIR SAFE COMPLETE STREETS IMPLEMENTATION PLAN (Up to 37'wide) (Up to 37'wide) (Average ADT = 12,200) LOCATION MAP (example: Upper Mountain Avenue) SPEED SPEED





Existing street example - Upper Mountain Avenue (Southbound)



RECOMMENDATIONS

BUFFERED BICYCLE LANES

install bicycle lanes on both sides with a striped buffer

BENEFITS	CONSIDERATIONS
 enables bicyclists to ride at their preferred speed without interference from prevailing traffic conditions a buffer provides a greater shy distance between motor vehicles and bicyclists thus appealing to a wider cross-section of bicycle users visually reminds motorists of bicyclists' right to the street 	- parking will need to be restricted - greater enforcement is required to prevent motorists from parking in the bicycle lane

TWO-WAY PROTECTED BICYCLE LANES

 install two-way protected bicycle lanes with a striped buffer with bollards

- dedicates and protects - ideal for roadways with longer	
space for bicyclistsblocks as additional consideration- reduces risk and fear of collisions especially with over-taking vehiclesrequired at driveways and side-s crossings- more attractive to a wide range of bicyclists at all levels and ages- coordinating snow removal and sweeping will be required - buffer will vary depending on w	ns is treet d I





COMPLETE STREETS IMPLEMENTATION PLAN

TYPOLOGY I: Recommendations (Continued)

CLIMBING BICYCLE LANE & SHARROWS

 install a bicycle lane on one side (uphill direction) and add sharrows on the other side of the roadway (downhill direction)

BENEFITS	CONSIDERATIONS
- a dedicated bicycle facility uphill enables motorists to safely pass slower-speed bicyclists - maximizes existing roadway widths - requires no restrictions on parking	 recommended for roadways with steep slopes sharrows do not provide dedicated space for bicyclists and are typically used only by experienced bicyclists requires 25 mph posted speed limit may encourage wrong-way bicycle riding

SHARROWS & TRAFFIC CALMING

• install sharrows or shared lane markings in conjunction with traffic calming measures such as speed humps, narrow travel

lanes, curb extensions, etc.	
BENEFITS	CONSIDERATIONS
 indicate the most appropriate and safe locations to ride on with respect parked cars and moving traffic reinforces the legitimacy of bicycle traffic on the street requires no restrictions on parking can be used to fill a gap within a bicycle network provide wayfinding guidance 	 requires posted speed limit reduction to 25 mph not ideal for high volume roadways does not dedicate exclusive use for bicyclists



For connecting other dedicated bicycle facilities (to fill network gaps) and recommended for experienced bicyclists only



INTERSECTION TREATMENTS

- consider intersection treaments for both bicyclists and pedestrians to improve visibility / safety and help in creating a complete network
- intersection treatments can include but are not limited to high-visibility crosswalks, bicycle boxes, curb extensions, raised crosswalks, continuous bicycle markings, loop detectors at signalized intersections, etc.
- Treatments such as curb extensions also create a traffic calming effect and make it easier for pedestrians to cross the roadway by reducing the crossing distance.



Low-Cost Curb Extensions and continuous bicycle markings, Hoboken, NJ



Bicycle Box, San Francisco, CA (Credit: SF Bicycle Coalition)

SIGNAGE

- place centerline "stop for pedestrians" signs on lower speed roadways to help alert drivers of a crosswalk
- ensure crosswalk signs meet current standards



"Stop For Pedestrians" Sign, Morristown, NJ

OTHER RECOMMENDATIONS

- consider using other traffic calming measures such as tightening the curb radii of certain streets
- install high-visibility crosswalks where feasible and regularly maintain them
- enforce maintenance of sidewalks, including regularly clearing sidewalk of leaves and other debris



Orange Road West, Montclair, NJ

COMPLETE STREETS IMPLEMENTATION PLAN **Typology II: Minor Arterial Street** (38'+ wide) (Average ADT = 12,200)





MONTCLAIR SAFE

Existing street example - Grove Street (Northbound)



RECOMMENDATIONS

BUFFERED BICYCLE LANES

• install bicycle lanes on both sides with a striped buffer

BENEFITS	CONSIDERATIONS
- enables bicyclists to ride at their	- parking will need to be
preferred speed without interference	restricted on one side
from prevailing traffic conditions	- greater enforcement
- a buffer provides a greater shy	is required to prevent
distance between motor vehicles	motorists from parking in
and bicyclists thus appealing to a	the bicycle lane
wider cross-section of bicycle users	- buffers can also be placed
- visually reminds motorists of	between the bicycle lane
bicyclists' right to the street	and the parking lane

TWO-WAY PROTECTED BICYCLE LANES

 install two-way protected bicycle lanes with a striped buffer with bollards

BENEFITS	CONSIDERATIONS
- dedicates and protects space for bicyclists - reduces risk and fear of collisions especially with over-taking vehicles - more attractive to a wide range of bicyclists at all levels and ages	- ideal for roadways with longer blocks as additional considerations is required at driveways and side-street crossings - parking will need to be restricted on one side or both sides for narrow roads





COMPLETE STREETS IMPLEMENTATION PLAN

TYPOLOGY II: Recommendations (Continued)

CLIMBING BICYCLE LANE & SHARROWS

 install a bicycle lane on one side (uphill direction) and add sharrows on the other side of the roadway (downhill direction)

BENEFITS	CONSIDERATIONS
- a dedicated bicycle facility uphill enables motorists to safely pass slower- speed bicyclists - maximizes existing roadway widths	 sharrows do not provide dedicated space for bicyclists and are typically used only by experienced bicyclists parking may need to be restricted on one side on narrow roadways may encourage wrong-way bicycle riding recommended for roadways with steep slopes

SHARROWS & TRAFFIC CALMING

 install sharrows or shared lane markings in conjunction with traffic calming measures such as speed humps, narrow travel

lanes, striped medians, curb extensions, etc.

BENEFITS	CONSIDERATIONS
 indicates the most appropriate and safe locations to ride on with respect to parked cars and moving traffic reinforces the legitimacy of bicycle traffic on the street requires no restrictions on parking can be used to fill a gap within a bicycle network provide wayfinding guidance 	- does not dedicate exclusive use for bicyclists - not ideal for high volume roadways

Alternative C Ped ZONE 7.5' 10' 10' 7.5' © 5' TRAVEL TRAVEL LANE LANE LANE UPHILL COWNHILL PED ZONE BICYCLE LANE SHARROWS (UPHILL) COWNHILL MAX. SPEED: 25 MPH MAX. SPEED: 25 MPH MAX. ADT: 10,000

For connecting other dedicated bicycle facilities (to fill network gaps) and recommended for experienced bicyclists only



INTERSECTION TREATMENTS

- consider intersection treaments for both bicyclists and pedestrians to improve visibility / safety and help in creating a complete network
- intersection treatments can include but are not limited to high-visibility crosswalks, bicycle boxes, curb extensions, raised crosswalks, continuous bicycle markings, loop detectors at signalized intersections, etc.
- Treatments such as curb extensions also create a traffic calming effect and make it easier for pedestrians to cross the roadway by reducing the crossing distance.



Low-Cost Curb Extensions and continuous bicycle markings, Hoboken, NJ



Bicycle Box, San Francisco, CA (Credit: SF Bicycle Coalition)

SIGNAGE

- place centerline "stop for pedestrians" signs on lower speed roadways to help alert drivers of a crosswalk
- ensure crosswalk signs meet current standards



"Stop For <mark>Ped</mark>estrians" Sign, Morristown, NJ

OTHER RECOMMENDATIONS

- consider using other traffic calming measures such as tightening the curb radii of certain streets
- install high-visibility crosswalks where feasible and regularly maintain them
- enforce maintenance of sidewalks, including regularly clearing sidewalk of leaves and other debris



Orange Road West, Montclair, NJ

Typology III: Collector Street (Up to 37' wide) (Average ADT = 5,600)





Existing street example - South Mountain Ave (Southbound)



RECOMMENDATIONS

BUFFERED BICYCLE LANES

install bicycle lanes on both sides with a striped buffer

BENEFITS	CONSIDERATIONS
 enables bicyclists to ride at their preferred speed without interference from prevailing traffic conditions a buffer provides a greater shy distance between motor vehicles and bicyclists thus appealing to a wider cross-section of bicycle users visually reminds motorists of bicyclists' right to the street 	- parking will need to be restricted on both sides - greater enforcement is required to prevent motorists from parking in the bicycle lane



TWO-WAY PROTECTED BICYCLE LANES

 install two-way protected bicycle lanes with a striped buffer with bollards

BENEFITS	CONSIDERATIONS
- dedicates and protects space for bicyclists - reduces risk and fear of collisions especially with over-taking vehicles - more attractive to a wide range of bicyclists at all levels and ages	- ideal for roadways with longer blocks as additional considerations is required at driveways and side-street crossings - parking will need to be restricted on both sides



TYPOLOGY III: Recommendations (Continued)

SHARED USE PATH

• add a two-way shared use path especially in locations with large landscape buffers, longer blocks and where public rightof-way is available

BENEFITS	CONSIDERATIONS
 completely separated from motor vehicle traffic and potentially with fewer intersections and as a result are safer than other facilities can provide an enjoyable recreational opportunity appeals to users of all ages and abilities 	- ideal for roadways with longer blocks as additional considerations is required at driveways - attract a variety of user groups who often



CLIMBING BICYCLE LANE & SHARROWS

• install a bicycle lane on one side (uphill direction) and add sharrows

on the other side of the roadway (downnii direction)		
BENEFITS	CONSIDERATIONS	
- a dedicated bicycle facility uphill enables motorists to safely pass slower- speed bicyclists - maximizes existing roadway widths	 sharrows do not provide dedicated space for bicyclists and are typically used only by experienced bicyclists parking needs to be restricted on one side may encourage wrong-way bicycle riding recommended for roadways with steep slopes 	

SHARROWS & TRAFFIC CALMING

• install sharrows or shared lane markings in conjunction with traffic calming measures such as speed humps, narrow travel lanes, adding curb extensions, etc.

CONSIDERATIONS indicates the most appropriate and safe does not dedicate locations to ride on with respect to parked exclusive use for bicyclists - reinforces the legitimacy of bicycle traffic on



- requires no restrictions on parking
- can be used to fill a gap within a bicycle network
- provide wayfinding guidance

cars and moving traffic

BENEFITS

the street

INTERSECTION TREATMENTS

- · consider intersection treaments for both bicyclists and pedestrians to improve visibility / safety and help in creating a complete network
- intersection treatments can include but are not limited to high-visibility crosswalks, bicycle boxes, curb extensions, raised crosswalks, continuous bicycle markings, loop detectors at signalized intersections, etc.
- Treatments such as curb extensions also create a traffic calming effect and make it easier for pedestrians to cross the roadway by reducing the crossing distance.



Low-Cost Curb Extensions and continuous bicycle markings, Hoboken, NJ





For connecting other dedicated bicycle facilities (to fill network gaps) and recommended for experienced bicyclists only





Bicycle Box, San Francisco, CA (Credit: SF Bicycle Coalition)

MONTCLAIR SAFE COMPLETE STREETS IMPLEMENTATION PLAN (38'+ wide) **Typology IV:** Collector Street (Average ADT = 5,600) (example: <u>Bell</u>evue Avenue) LOCATION MAP 6,900 SPEED LITTLE FALLS TW Ρ LIMIT ADT 25 (2012) CEDAR GROVE TWP TYPOLOGY IV CORRIDORS BELLEVUE AVE Recommended On-Road Safe CS Network ab Existing street example - Bellevue Avenue (Eastbound) **EXISTING** OFF-ROAD SAFE CS NETWORK

Example Street



RECOMMENDATIONS

TWO-WAY PROTECTED BICYCLE LANES

 install two-way protected bicycle lanes with a striped buffer with bollards

BENEFITS	CONSIDERATIONS
- dedicates and protects space for	 - ideal for roadways with
bicyclists	longer blocks as additional
- reduces risk and fear of collisions	considerations is required
especially with over-taking vehicles	at driveways and side-street
- more attractive to a wide range of	crossings - parking will need to be
bicyclists at all levels and ages	restricted on one side



BUFFERED BICYCLE LANES

• install bicycle lanes on both sides with a striped buffer

BENEFITS	CONSIDERATIONS
 enables bicyclists to ride at their preferred speed without interference from prevailing traffic conditions a buffer provides a greater shy distance between motor vehicles and bicyclists thus appealing to a wider cross-section of bicycle users visually reminds motorists of bicyclists' right to the street 	- parking will need to be restricted - greater enforcement is required to prevent motorists from parking in the bicycle lane



TYPOLOGY IV: Recommendations (Continued)

TWO-WAY PROTECTED BIC ADJACENT TO PARKING • install two-way protected bicycle lar between the sidewalk and on-street	YCLE LANES	• 11	8	Alterna	tive C	-	
BENEFITS C - dedicates and protects space for bicyclists - - eliminates risk and fear of collisions especially with over-taking vehicles - - more attractive to a wide range of bicyclists at all levels and ages -	CONSIDERATIONS ideal for roadways with longer blocks as additional considerations is required at driveways and side-street crossings parking will need to be restricted on one side		PED ZONE PED ZONE TWO BICYCL W/4'	9' 8' I-Way ected e Lane BUFFER	↓ 10' TRAVEL LANE	10' TRAVEL LANE	7 P
CLIMBING BICYCLE LANE &	SHARROWS			Alterna	tive D		1

CLIMBING BICYCLE LAN

• install a bicycle lane on one side (uphill direction) and add sharrows

on the other side of the roadway (downhill direction)		
BENEFITS CONSIDERATIONS		
- a dedicated bicycle facility uphill enables motorists to safely pass slower-speed bicyclists - maximizes existing roadway widths - does not need restrictions on parking	- sharrows do not provide dedicated space for bicyclists and are typically used only by experienced bicyclists - may encourage wrong-way bicycle riding - recommended for roadways with steep slopes	

SHARROWS & TRAFFIC CALMING

• install sharrows or shared lane markings in conjunction with traffic calming measures such as speed humps, narrow travel

lanes, striped medians, curb extensions, etc.

BENEFITS	CONSIDERATIONS
 indicates the most appropriate and safe locations to ride on with respect to parked cars and moving traffic reinforces the legitimacy of bicycle traffic on the street requires no restrictions on parking can be used to fill a gap within a bicycle network provide wayfinding guidance 	- does not dedicate exclusive use for bicyclists

INTERSECTION TREATMENTS

- · consider intersection treaments for both bicyclists and pedestrians to improve visibility / safety and help in creating a complete network
- intersection treatments can include but are not limited to high-visibility crosswalks, bicycle boxes, curb extensions, raised crosswalks, continuous bicycle markings, loop detectors at signalized intersections, etc.
- Treatments such as curb extensions also create a traffic calming effect and make it easier for pedestrians to cross the roadway by reducing the crossing distance.



Low-Cost Curb Extensions and continuous bicycle markings, Hoboken, NJ



STRIPED

MAX. SPEED: 25 MPH MAX. ADT: 10,000

Ped Zone

 (\mathbf{P})



Bicycle Box, San Francisco, CA (Credit: SF Bicycle Coalition)

Typology V: Local Street (Average ADT = 1,600)



Existing street example - Llewellyn Rd (Eastbound)



RECOMMENDATIONS

CLIMBING BICYCLE LANE & SHARROWS

• install a bicycle lane on one side (uphill direction) and add sharrows

on the other side of the roadway (downhill direction)		
BENEFITS	CONSIDERATIONS	
- a dedicated bicycle facility uphill enables motorists to safely pass slower-speed bicyclists - maximizes existing roadway widths	 sharrows do not provide dedicated space for bicyclists and are typically used only by experienced bicyclists parking may need to be restricted on one side may encourage wrong-way bicycle riding recommended for roadways with steep slopes 	



BICYCLE ROUTE

 install signage on low-volume /low-speed streets where exclusive bicycle facilities are not necessary

BENEFITS	CONSIDERATIONS
- reinforces the legitimacy of bicycle traffic on the street - requires no additional space or restrictions on parking - can provide wayfinding guidance - can discourage sidewalk riding	- does not dedicate exclusive use for bicyclists



COMPLETE STREETS IMPLEMENTATION PLAN

TYPOLOGY V: Recommendations (Continued)

ADVISORY BICYCLE LANES

 install dashed white lines on both sides of a low traffic volume roadway (no centerline) to delineate bicycle areas

BENEFITS	CONSIDERATIONS
 striping offers visual separation and reminds people that the road is a shared space have a traffic calming effect as motorists tend to travel slower provides a viable option for bicycle facilities on narrow roadways 	 less protection for cyclists than a conventional bicycle lane unfamiliarity with the treatment can lead to confusion may require restrictions on parkina

Alternative C PED ZONE P

SHARROWS & TRAFFIC CALMING

• install sharrows or shared lane markings in conjunction with traffic calming measures such as installing speed humps,

adding curb extensions, etc.

adding ourb exteriorono, etc.	
BENEFITS	CONSIDERATIONS
 indicate the most appropriate and safe locations to ride on with respect parked cars and moving traffic reinforces the legitimacy of bicycle traffic on the street requires no restrictions on parking 	- does not dedicate exclusive use for bicyclists

For connecting other dedicated bicycle facilities (to fill network gaps) and recommended for experienced bicyclists only



BICYCLE BOULEVARD / GREENWAY

can be used to fill a gap within a bicycle

- provide wayfinding guidance

network

- consider a bicycle boulevard / greenway treatment by optimizing bicycle travel along low-volume and low-speed streets using treatments such as traffic calming, signage, and pavement markings, and intersection crossings
- can be achieved with minor changes to the street configuration and no additional width is required
- typical deisgn elements along a bicycle boulevard include forced-turn islands, centerline medians with bicycle/pedestrian pass throughs, raised crossings / intersections, minitraffic circles, pedestrian refuges etc.

INTERSECTION TREATMENTS

- consider intersection treaments for both bicyclists and pedestrians to improve visibility / safety and help in creating a complete network
- intersection treatments can include but are not limited to high-visibility crosswalks, bicycle boxes, curb extensions, raised crosswalks, continuous bicycle markings, loop detectors at signalized intersections, etc.
- Treatments such as curb extensions also create a traffic calming effect and make it easier for pedestrians to cross the roadway by reducing the crossing distance.



Bicycle Boulevard, Portland, OR (Credit: NACTO)



Mini-Traffic Circle, Westfield, NJ



Low-Cost Curb Extensions and continuous bicycle markings, Hoboken, NJ



Bicycle Box, San Francisco, CA (Credit: SF Bicycle Coalition)

MONTCLAIR SAFE COMPLETE STREETS IMPLEMENTATION PLAN

Typology VI: One-Way Streets



(example: Glenridge Avenue) 34' 25 PARP 4,600 ADT (2010) (2010)

Existing street example - Glenridge Ave (Eastbound)



RECOMMENDATIONS

CONTRAFLOW BICYCLE LANE & SHARROWS

 install a contraflow bicycle lane in the opposite direction of motor vehicle traffic with a striped buffer and sharrows on the other side

BENEFITS	CONSIDERATIONS
 provides direct access and connectivity for bicycles traveling in both directions Bicyclists do not have to make a detour as a result of one-way traffic limits dangerous wrong-way riding by allowing cyclists to safely ride in the opposite direction of cars 	 use only where bicyclists can effectively and conveniently make transitions at the terminus of the bicycle lane ideal for a few blocks to complete a proposed or existing bicycle network relevant signage is important buffers are needed for safe movement of the bicyclists

Alternative A PED ZONE 5' CONTRAFLOW W/3' BUFFER W/3' BUFFER PED ZONE CONTRAFLOW CONTRAFLOW



BUFFERED BICYCLE LANE (ONE-WAY TRAVEL)

install bicycle lane with a buffer		
BENEFITS	CONSIDERATIONS	
 enables bicyclists to ride at their preferred speed without interference from prevailing traffic conditions a buffer provides a greater shy distance between motor vehicles and bicyclists thus appealing to a wider cross-section of bicycle users visually reminds motorists of bicyclists' right to the street 	- only accommodates one-way travel for bicyclists - to discourage wrong-way riding a bicycle facility should be provided for the opposite direction on a neighboring street	

COMPLETE STREETS IMPLEMENTATION PLAN

TYPOLOGY VI: Recommendations (Continued)

BICYCLE BOULEVARD / GREENWAY

- consider a bicycle boulevard / greenway treatment by optimizing bicycle travel along low-volume and low-speed streets using treatments such as traffic calming, signage, and pavement markings, and intersection crossings
- can be achieved with minor changes to the street configuration and no additional width is required
- typical deisgn elements along a bicycle boulevard include forced-turn islands, centerline medians with bicycle/pedestrian pass throughs, raised crossings / intersections, minitraffic circles, pedestrian refuges etc.



Bicycle Boulevard, Portland, OR (Credit: NACTO)



Mini-Traffic Circle, Westfield, NJ

INTERSECTION TREATMENTS

- consider intersection treaments for both bicyclists and pedestrians to improve visibility / safety and help in creating a complete network
- intersection treatments can include but are not limited to high-visibility crosswalks, bicycle boxes, curb extensions, raised crosswalks, continuous bicycle markings, loop detectors at signalized intersections, etc.
- Treatments such as curb extensions also create a traffic calming effect and make it easier for pedestrians to cross the roadway by reducing the crossing distance.



Low-Cost Curb Extensions and continuous bicycle markings, Hoboken, NJ



Bicycle Box, San Francisco, CA (Credit: SF Bicycle Coalition)

SIGNAGE

consider placing centerline
 "stop for pedestrians" signs on
 lower speed roadways to help
 alert drivers of a crosswalk



"Stop For Pedestrians" Sign, Morristown, NJ

OTHER RECOMMENDATIONS

- consider using other traffic calming measures such as installing speed humps, tightening the curb radii of certain streets
- install high-visibility crosswalks where feasible and regularly maintain them
- enforce maintenance of sidewalks, including regularly clearing sidewalk of leaves and other debris



Orange Road West, Montclair, NJ



BLANK
IV. Implementation Guide

Introduction

The Township of Montclair's Complete Streets policy (see *Appendix F*) specifies actions to be taken to support its implementation that recognize, integrate, accommodate, and balance the needs of all road users in all projects and make Complete Streets a routine part of everyday operations.

Policy Implementation Priorities

The power of a Complete Streets policy to change the roadway environment and positively impact mobility for all users depends upon the quality of its implementation strategy and execution. Implementation of a Complete Streets policy varies widely by organization (municipality, county, state) and context (roadway conditions, traffic volumes, jurisdiction, transit, socioeconomics, etc.), yet successful implementation is known to include certain common components: (1) a thorough understanding and acceptance by staff, elected officials, and local stakeholders; (2) consistency with other policies, procedures, guidelines, and ordinances; and (3), a comprehensive and systematic relationship to administrative operations.

To achieve full acceptance by staff, elected officials, and local stakeholders, it would be desirable to initiate a program of education and engagement that explains the Complete Streets policy, along with associated planning techniques, design elements, and approaches. In addition, implementation of the Complete Streets policy should be consistent with and supported by other existing policies, procedures, guidelines, and ordinances. These may need to be revised to achieve this consistency. To integrate the Complete Streets policy into the administrative operations of Montclair, the policy should be deployed strategically in a way that is comprehensive and systematic, operating consistently within the normal course of business and affecting all aspects of transportation planning, design, maintenance, and operations.

One way to approach this is by making use of a series of Complete Streets checklists similar to those within the Essex County Complete Streets Implementation Plan that supports a comprehensive, cooperative and systematic Complete Streets implementation among the various departments operating within the Township. Consistent and systematic utilization of the checklists will empower the Township's planners, engineers, maintenance staff, and contracted agents (including consultants and construction companies) to identify, design, construct, maintain, or operate a transportation network with that provides mobility for all users, consistent with the Complete Streets policy.

Project Development and Delivery

A key to Complete Streets implementation is the timely and effective translation of good policy intentions into real world improvements, including capital projects, maintenance and operational procedures, resurfacing, and access considerations during construction or repair work.

An effective project development and delivery process must be explicit, directional, and critical. It is explicit in that it is clearly and purposefully developed, communicated, and implemented throughout the Township. It is directional in that it encompasses a flow of communication from conception to completion. It is critical in that it subjects improvement concepts to scrutiny, review, revision, and/ or approval by an appropriate body. The approving body may be a department within the Township, or a review committee, such as the Traffic and Transportation Committee, with informed members from a cross section of departments (such as planning, engineering, public works, or code enforcement) and elected officials (such as planning board or council members).

It is anticipated that the Township would receive project ideas from a variety of sources. These sources may include public input, staff input, formal planning efforts, and others. Project ideas can be screened by appropriate Township staff to offer an initial assessment of validity.

Once approved, the project would be assigned to the appropriate Township department. Once assigned to appropriate department, the Complete Streets implementation checklists are completed, to determine whether the proposed work complies with the Complete Streets policy, are completed by the project manager and submitted for evaluation by a review Committee.

Implementation of Complete Streets elements on roadways under the jurisdiction of other transportation agencies requires coordination with these agencies. This includes the preparation and transmittal of project needs statements to the relevant agencies requesting the implementation of Complete Streets improvements on the subject roadways. It is fortuitous that Essex County and NJDOT have already adopted their own Complete Streets policies.

Implementation Matrix

Table 2: Implementation Matrix Identifies the limits, jurisdictional responsibility, time-frame for completion and preliminary cost estimate for each link in the Recommended SAFE / CS Network and each proposed pedestrian network enhancement.

Funding Sources

There are a variety of funding sources available for the development of bicycle and pedestrian facilities including: federal, state and local government, capital funding from the municipality, private and non-profit grants.

MONTCLAIR SAL

The following is a compilation of funding sources that have been, or could be used to fund pedestrian and bicycle improvements. It is important to note that funding available for bicycle and pedestrian related projects does change and the Township of Montclair should work closely with NJTPA, Essex County and NJDOT to monitor and take advantage of the new funding opportunities.

- → FEDERAL FUNDING OPPORTUNITIES
 - Transportation Alternatives Program (TAP)
 - Safe Routes to School Program (SRTS)
 - Local Safety Program
 - Recreational Trails Program (RTP)
 - STATE FUNDING OPPORTUNITIES
 - NJDOT Municipal Aid
 - NJDOT Bikeway Grant Program
 - NJDOT Safe Streets to Transit (SSTT)
 - NJ Division of Highway Traffic Safety Grants
 - New Jersey Healthy Communities Network Grants
- → PRIVATE AND NON-PROFIT FUNDING SOURCES
 - Sustainable Jersey
 - People for Bikes Community Grants
 - The Robert Wood Johnson Foundation
- \rightarrow OTHER POTENTIAL FUNDING SOURCES
 - Municipal Allocations
 - Impact Fees
 - Local Private-Sector Funding
 - Adopt-A-Trail Programs
 - Membership campaigns

See Appendix G: Funding Programs and Sources for descriptions of the funding sources.

Table 2: Implementation Matrix						
FACILITY TYPE		COSTS	RESPONSIBILITY	TIME-FRAME Short Term: 1 year Medium Term: 1-2 years Long Term: 2 years +		
Sidewalks		\$50/ LF	Explore shared responsibility for sidewalk maintenance between Township and property owners	Short		
Curb Ramps		\$500 - \$1,500	DPW	Long		
Pedestrian-Scale Lighting		\$1,000 - \$2,000/unit Spaced 50' on center	DPW	Long		
Parklets		\$500 – \$5,000	Private sponsor/ public partnership	Short		
Mid-block cros	ssings	\$500	DPW	Short		
Gateways		\$500 - \$5,000	DPW	Mid		
Crosswalks	A. Striped	\$1,000 - \$2,000	DPW	Short		
B. Paver Style		\$2,000 - \$10,000	DPW	Short		
Mini-traffic cir	cles	\$2,000 - \$10,000	DPW	Mid		
Curb Extensions	A. No Drainage	\$2,000 - \$5,000	DPW	Mid		
	B. Drainage Required	\$5,000 - \$10,000	DPW	Mid		
Pedestrian ref	uge islands	\$5,000 - \$10,000	DPW	Mid		
RRFB (Flashing warning lights)		\$5,000	DPW	Short		

Table 2: Implementation Matrix (continued)

FACILITY TYPE	COSTS	RESPONSIBILITY	TIME-FRAME Short Term: 1 year Medium Term: 1-2 years Long Term: 2 years +
In-Street Crossing Sign	\$200	DPW	Short
Pedestrian Countdown Signals	\$10,000 - \$20,000* (May require new traffic signal- \$200,000)	DPW/ County	Mid
Conventional Bicycle Lanes	\$~10,000 - \$15,000/mile	DPW	Short
Buffered Bicycle Lanes	\$15,000 - \$20,000/mile	DPW	Short
Two-way protected bicycle lanes	\$15,000 - \$20,000/mile	DPW	Short
Bicycle Lanes/ Shared Lane Combo	\$5,000/mile	DPW	Short
Contraflow Bicycle Lanes	\$15,000 - \$20,000/mile	DPW	
Bicycle Boulevard (Speed humps/tables, Shared Lanes)	\$5,000 - \$20,000/mile	DPW	Mid
Advisory Bicycle Lanes	\$10,000 - \$15,000/mile	DPW	Short
Sharrows or Shared Lane Markings	\$2,000 - \$5,000/mile	DPW	Short
Shared Use Path	\$1-2,000,000/mile	DPW	Long

V. Next Steps

We recommend this plan be adopted as an amendment to the Circulation Element of the Master Plan of the Township. It will serve as a guide for future improvements as funds are available and specific roads are evaluated / repaved.

As specific roads are evaluated for improvements, focused public outreach efforts will guide the decision-making on specific typologies and final options selected. This plan is a technical and policy resource for that process.



Appendix

- A. Technical Memorandum 1: Data Review and Bibliography
- B. Steering Committee Members
- C. Technical Memorandum 2: Network Maps
- D. Community Outreach
- E. Recommended SAFE CS Street Inventory w/ Street Typologies
- F. Implementation Matrix
- G. Funding Sources



Appendix A:

TECHNICAL MEMORANDUM 1: DATA REVIEW AND BIBLIOGRAPHY

DRAFT Technical Memorandum 1: Data Review and Bibliography Project #J4666.20

Prepared for:

The New Jersey Department of Transportation



Prepared by: The RBA Group An NV5 Company

Submitted: November 3 2016

Contents

ntroduction	1
Data Reviewed	1
Elements of Prior Plans	2
Bicycle and Pedestrian Network with Recommendations Overlay	2
Next Steps	3
Attachment A – Montclair Bicycle and Pedestrian Recommendation Inventory (2005-2016)	
Attachment B - Potential Facilities List	

Attachment C – Montclair Recommendations Overlay Map

Introduction

This data collection effort review included the review of plans, studies, reports, resources, and mapping provided by Montclair Township. The purpose was to review and build upon bicycle and pedestrian recommendations from prior planning efforts to assist in the refinement of a priority bicycle and pedestrian network. This desktop exercise will further be refined based on outreach and field work.

Data Reviewed / Bibliography

The RBA Team reviewed plans and bicycle and pedestrian networks that have been developed previously. The following tables highlight reports, studies, plans, and maps evaluated as part of this task, each of these documents were provided by Montclair Township.

TABLE 1 - TOWNSHIP REPORTS, STUDIES, AND PLANS

Year	Name of Report, Study, Plan
2005	Montclair Bicycle & Pedestrian Local Assistance Study (NJDOT, Baker)
2009	Safe Routes to School District Wide Engineering, Enforcement & Encouragement Grant including
	10 SRTS Workshops and Travel Plans (NJDOT, RBA)
2009	Montclair Complete Streets Policy (Montclair Township)
2012	Bronze Bicycle Friendly Community Recommendations (League of American Bicyclists) [Bicycle
	Friend Community Feedback Report, 2-13]
2012	Eat. Play. Live Better Community Survey (MSU CREEHS, Partners for Health)
2012	Essex County Complete Streets Policy (Essex County)
2013	Safe Routes to School Action Plans for Montclair's 10 Middle and Elementary Schools
2014	Pedestrian Safety Report (Montclair, VTC)
2014	Montclair Senior Walkability Report
2014	Lifelong Montclair Guide to Public Transportation
2015	Unified Land Use and Circulation Element of the Master Plan (Montclair, TCNJ)
2015	Bloomfield Ave. Complete Corridor Plan (Together North Jersey)
2015	Bloomfield Ave. Corridor Health Impact Assessment (HIA) (NJ Health Impact Collaborative)
2015	Montclair Redevelopment Plans (Montclair)

TABLE 2 – TOWNSHIP MAPS

Year	Name of Map
2005	Bicycle Compatible Roadways
2005	Bicycle Suitability Map
2007	Desired Conditions Sketch
2009	SRTS Bike Network Map
2013	Proposed Conceptual Bicycle Route Network from the 2015 Land Use & Circulation Element of
	the Master Plan
2015	Bloomfield Avenue Complete Corridor Bike Network Map
2015	Montclair Redevelopment Map

Elements of Prior Plans

The Project Team developed an inventory of bicycle and pedestrian recommendations from prior plans based on 24 locations. The recommendations are color coded by type. See *Attachment A – Montclair Bicycle and Pedestrian Recommendation Inventory (2005-2016)*.

The Township's application to the NJDOT Local Bicycle and Pedestrian Planning Assistance Program included a summary of many years' discussion and planning for bicycle and pedestrian design considerations for municipal and County roads in Montclair. As part of the summary, the Township listed recommendations for treatments based on previous studies, including:

- Location
- Study Recommendation
- Study/ Source
- Author
- Year
- Туре
- Status

. See Attachment B - Potential Facilities List.

Bicycle and Pedestrian Network with Recommendations Overlay

This project is using the 2013 Proposed Conceptual Bicycle Route Network included as part of the 2015 Land Use & Circulation Element of the Master Plan as a starting point for the priority bicycle and pedestrian network. This map was developed by the Township as a modification to the 2007 Desired Conditions Sketch Map, and represents the 2007 approach on where bicycle routes may be appropriate, but does not specify the type of bicycle facility.

The *Proposed Conceptual Bicycle Route Network* was compared to the inventory of recommendations reviewed as part of this task. The result is an overlay map of previous bicycle and pedestrian facility recommendations on the 2013 Proposed Conceptual Bicycle Route Network Map. See Attachment C – Montclair Recommendations Overlay Map. Per discussion at the April 20, 2016 Scoping Meeting, Bloomfield Avenue will be excluded from this project's network.

Next Steps

This assessment, along with the information from the outreach tasks, will result in the development of a Proposed Bicycle and Pedestrian Network Map.

0 .

Legend (color coded by shaded cells)

Parking Restriction Changes One-way Changes Sidewalk/Path (Add/Widen) Signage, Striping, & Signals Curbing & Roadway Changes

Location	Study Recommendation	Study/ Source	Author	Year	Туре	Status	Notes	Available PDF/Link
Rail Line - Normal Ave - Mt. Hebron Ave.	1.) Rail Trail, rail with trail shared use path	MONTCLAIR BICYCLE & PEDESTRIAN LOCAL ASSISTANCE STUDY	NJDOT, Baker	2005	Engineerng	Planning		https://files.acrobat.com/a/p review/752b02df-c618-4dae- 88e7-5f7abdfecdc7
Rail Line - 3.5 mile town wide	2.) Rail Trail, rail with trail shared use path			1		1	Ice & Iron Greenway	1
Elm St - b/w Elmwood & Fulton St (Short Term)	 Provide a longitudinal (ladder striped) crosswalk across Elm St at Elmwood Ave 	MONTCLAIR BICYCLE & PEDESTRIAN LOCAL ASSISTANCE STUDY	NJDOT, Baker	2005	Engineer ng			https://files.acrobat.com/a/p review/752b02df-c618-4dae- 88e7-5f7abdfecdc7
	 Install W11-2, pedestrian warning signs, at the northbound and southbound approaches to the proposed crosswalks 							
Elm St - b/w Elmwood & Fulton St (Alternative 1)	 Provide a longitudinal (ladder striped) crosswalk across Elm St at Elmwood Ave Install W11-2, pedestrian warning signs, at the 	MONTCLAIR BICYCLE & PEDESTRIAN LOCAL ASSISTANCE STUDY	NJDOT, Baker	2005	Engineering	1		
	northbound and southbound approaches to the proposed crosswalks							
	Elmwood Ave, & Lexington Ave							
Elm St - b/w Elmwood & Fulton St (Alternative 2)	 4.) Install W11-2, Pedestrian Warning Sign 1.) Install 1 Speed Table with 2 Concrete Chokers between Elmwood Ave and Fulton St 2.) Install 2 W11-2 Pedestrian Warning Sign 2.) Install 2 W11-2 Pedestrian Warning Sign 	MONTCLAIR BICYCLE & PEDESTRIAN LOCAL ASSISTANCE STUDY	NJDOT, Baker	2005	Éngineerng			
	4.) Install 2 RS-6 "Bicyclists Yield to Pedestrians							
	5.) Install 1 Raised crosswalk							
Intersection of Grove St & Glenridge Ave Short Term:	1.) Install 4 countdown signal heads 2.) Install 4 high visability crosswalks	MONTCLAIR BICYCLE & PEDESTRIAN LOCAL ASSISTANCE STUDY	NJDOT, Baker	2005	Engineering			https://files.acrobat.com/a/p review/752b02df-c618-4dae- 88e7-5f7abdfecdc7
Intersection of Grove St & Glenridge Ave Long Term:	1.) Relocate stop bar back 50' on Grove St 2.) Install 2 R10-11a "No Turn on Red" signs				_			
	3.) Install 4 R7-1 "No Parking Any Time" signs		21		1			
Grove St - Short Term:	1.) Install 8 (eght) W16-1 "Share the Road" signs	MONTCLAIR BICYCLE & PEDESTRIAN LOCAL ASSISTANCE STUDY	NJDOT, Baker	2005	Engineerng			https://files.acrobat.com/a/p review/752b02df-c618-4dae- 88e7-5f7abdfecdc7
	3.) Install 3,1C0' of 5' wide concrete sidewalk between Cooper and Watching Aves							

Concont

S:\Project\J466601 NJDOT On-Call\Montclair SAFE CS CIP 2016\Data Collection\Tech Memo 1\Montclair BF rec inventory.xlsx 10/27/2016 2:23 PM

0 .

Legend (color coded by shaded cells)

Parking Restriction Changes One-way Changes Sidewalk/Path (Add/Widen) Signage, Striping, & Signals Curbing & Roadway Changes

Location	Study Recommendation	Study/ Source	Author	Concept <u>Year</u>	Туре	Status	Notes	Available PDF/Link
	4.) Upgrade pedestrian signals to countdown signal heads		1			T	1	
1. A.	5.)Restripe standard crosswalks to longitudinal (ladder striped) crosswalks						Continental striping pattern?	
Grove St - Long Term:	1.) Resurface Grove St 2.) Install a landscaped median barrier 3.) Install a crosswalk with In-pavement lighting at Bellevue Ave							
Intersection of Watchung Ave & Park St (@Watchung Plaza) - Short Term:	 Upgrade 3crosswalks to longitudinal (ladder striped) Install 3 (three) W11-2, Pedestrian warning signs, at al approaches to intersection 	MONTCLAIR BICYCLE & PEDESTRIAN LOCAL ASSISTANCE STUDY	NJDOT, Baker	2005	Engineerng			https://files.acrobat.com/a/p review/752b02df-c618-4dae- 88e7-5f7abdfecdc7
Intersection of Watchung Ave & Park St (@Watchung Plaza) - Long Term:	1.) Relocate Bus Stop to Watchung Plaza West 2.) a. Install Refuge island for pedestrians b. With supporting (4) stamped crosswalks and (3) warning signs							
Valley Rd - Short Term:	 Eliminate on-street parking in sections with limited sight distance Restripe to provide bicycle lanes or 6' shoulders with "there the Pard" size. 	MONTCLAIR BICYCLE & PEDESTRIAN LOCAL ASSISTANCE STUDY	NJDOT, Baker	2005	Engineerng			https://files.acrobat.com/a/p review/752b02df-c618-4dae- 88e7-5f7abdfecdc7
	Sinare tile Koad Signs S.) Install a longitudinal crosswalk between Alvin Place & Cooper Ave, supplemented w a Pedestrian Channelizer (SPCCD) A. Install W11-2 Pedestrian Warning Signs & Actuated							
Valley Rd - Long Term:	Flashing Warring Beacons 1.) Install an infared detection crosswalk w signal & push buttons between Alvin Place & Cooper Ave							
Bradford Elementary School	1.)Create a school pavement "quilt" to define the drop-off zone along College Avenue	SRTS TRAVEL PLAN- BRADFORD ELEMENTARY SCHOOL	RBA	2013	Engineerng			
(College Avenue, Mt. Hebron)	 Construct sidewalk across rairoad tracks on Mt. Hebron along the southern (eastbound) side 							
	 Install "Pull Up" signage in the red zone to reinforce use of the entire curb length Conduct a parking utilization and circulation study and investigate options for school staff and student drop- off and pick-up procedures 							

S:\Project\J466601 NJDOT On-Call\Montclair SAFE CS CIP 2016\Data Collection\Tech Memo 1\Montclair BF rec inventory.xlsx 10/27/2016 2:23 PM

Parking Restriction Changes One-way Changes Sidewalk/Path (Add/Widen) Legend (color coded by shaded cells) Signage, Striping, & Signals Curbing & Roadway Changes Concept Study/ Source Author Status Notes Available PDF/Link Location **Study Recommendation** Year Type 1.)Install roadway striping to define the drop-off area along the driveway and Washington Street including: Restripe stop line, crosswalk, align the stop sign with the SRTS TRAVEL PLAN- CHARLES H. BULLOCK Charles H. Bullock Elementary School stop line ELEMENTARY SCHOOL RBA 2013 Engineering 2.) Update current drop off/pick up procedures with: Map, rules, & procedures along local streets within school campus & any school driceway acces; signs on street; (Washington St) signs for cell phone free zones 3.)Order and install "No Idling Zone" signs around the school 1.) Investigate driveway circulation and potential for widening or changes to Edgemont Road in front of the SRTS TRAVEL PLAN- EDGEMONT ELEMENTARY Edgemont Elementary Schoo school SCHOOL RBA 2013 Engineering (Edgemont Rd, N. Mountain Ave) 2.) Install additional state-of-the-art bike racks 3.)Plan alternative drop-off/ pick-up area, potentially along North Mountain Avenue behind the school 10 1.) Install permanent roadway centerline "Stop for Pedestrian" signs along Orange Road and Hillside Avenue and install push button actuated Rectangular Rapid SRTS TRAVEL PLAN- HILLSIDE ELEMENTARY Flash Beacon pedestrian crossing signs (RRFB) at the midblock crossing on Orange Road SCHOOL RBA Hillside Elementary School 2013 Engineerng 2.)Define and sign an area along St. Luke's Place for drop-(Orange Rd, Hillside Ave, St. Luke's Pl) off or pick-up 3.)Paint "School Zone" pavement legends on the roadways approaching the school 4.) Create a school pavement "quilt" along Orange Road between Hillside School and Montclair Community Pre-K 5.)Evaluate restricting Right Turn on Rec at the Orange Road & Hillside Ave/ Church Street signalized intersection (during school hours) 11 1.)Investigate driveway circulation and student drop-off and pick up procedures around the school campus SRTS TRAVEL PLAN- GLENFIELD MIDDLE SCHOOL RBA Glenfield Middle School 2013 Engineerng 2.)Install additional state-of-the-art bike racks (Maple Ave) 3.)Install "No U-Turn" signs along Maple Avenue around the school property 1.) Change parking restrictions on the southside of 12 SRTS TRAVEL PLAN- NISHUANE ELEMENTARY Cedar Avenue to "No Stopping, Standing or Parking" SCHOOL RBA Nishuane Elementary School during school days (8am-4pm) 2013 Engineerng

S:\Project\/466601 NJDOT On-Call\Montclair SAFE CS CIP 2016\Data Collection\Tech Memo 1\Montclair BF rec inventory.xlsx 10/27/2016 2:23 PM

Parking Restriction Changes One-way Changes Sidewalk/Path (Add/Widen) Legend (color coded by shaded cells) Signage, Striping, & Signals Curbing & Roadway Changes Concept Study/ Source Status Available PDF/Link Location **Study Recommendation** Author Year Type Notes 2.)Create and sign "Park and Walk" locations at the South End Municipa Parking Lot and the Nishuane Park Parking Lot (Cedar Ave) 3.)Use paint and signs to better define drop-off areas. Create a school pavement "quilt" to define the drop-off zone on the school-side of Cedar Avenue 1.) Revise drop-off procedures to separate cars and buses. Have buses only in front of school along N. Fullerton Ave, and two options for cars: -- Chestnut Street on the side of the school and with students using SRTS TRAVEL PLAN- RENAISSANCE AT RAND the side door -- Rand Place across from the school MIDDLE SCHOOL Renaissance at Rand Middle School RBA 2013 Engineering 2.)Reverse the direction of traffic along Rand Place to flow westbound from Forrest Street to N. Fullerton Ave and prohibit right turns onto N. Fullerton Avenue by adding a "No Right Turn" sign (N. Fullerton Ave, Chestnut St, Rand PI) 3.)Widen the sidewalk along Rand Place 4.)Install "Pull Up Here" signage along Chestnut Street to reinforce the proper location for curbside drop-off 20 1.) Change the parking restriction along N. Fullerton Avenue between Fairfield Street and Garden Street SRTS TRAVEL PLAN- WATCHUNG ELEMENTARY along the southbound (west) side to "No Stopping or Wathcung Elementary Schoo Standing." Possibly 7:00 am -9:30 am School Days SCHOOL RBA 2013 Engineerng 2.)Consider installing a 4-Way STOP at N. Fullerton (N. Fullerton Ave, Fairfield St, Garden St, Watchung Ave) Avenue and Fairfield Street 3.)Install a "No Turn on Red" sign at the intersection of N. Fullerton Avenue and Watchung Avenue, at least during school commute hours 4.)Stripe "STAND BACK" lines on the curb ramps around the school Provide a holistic planning framework involving development within zones bordering train stations and https://files.acrobat.com/a/p within the downtown and commercial areas of the review/27683b07-5a18-43fd-Township. UNIFIED LAND USE & CIRCULATION ELEMENT 88e7-79ed4e603746 Montclair Township Montclair, TCNJ 2015 General 16 Redevelopment of C-1 Central Business zone propertyhttps://files.acrobat.com/a/p with a transportation focus on connectivity and improved LACKAWANNA PLAZA REDEVELOPMENT PLAN Phillips Preiss review/e92a65c0-ffe0-4567safety for all modes of travel. VISIONING Grygiel LLC 2015 82c2-5bd1ee8b4881 Lackawana Plaza General

S:\Project\/466601 NJDOT On-Call\Montclair SAFE CS CIP 2016\Data Collection\Tech Memo 1\Montclair BF rec inventory.xlsx 10/27/2016 2:23 PM

0

Legend (color coded by shaded cells)

Parking Restriction Changes One-way Changes Sidewalk/Path (Add/Widen) Signage, Striping, & Signals Curbing & Roadway Changes

Curbing & Roadway Changes				Concent				
Location	Study Recommendation	Study/ Source	Author	Year	Туре	Status	<u>Notes</u>	Available PDF/Link
7 Glenridge Ave and Church St	Ammendment aims to protect the pedestrian-oriented character and low traffic volume of the Church St and Glenridge Ave corridors by creating a new Historic Center Land Use District.	AMMENDMENT TO THE LU & CIRCULATION ELEMENT OF THE MASTER PLAN	Montclair Township Department of Planning and Community Development	2016	General			https://files.acrobat.com/a/p review/4e44cf02-e12f-4a82- b58c-2b53cec87a3c
8 Montclair Township	Educational workshops throughout the state in an effort to raise awareness and help decision makers better understand the unique mobility needs of senior citizens.	MONTCLAIR SENIOR WALKABILITY REPORT	NJDOT, PB, RBA	2014	Programmatic			https://files.acrobat.com/a/p review/cd11abe0-daff-472d- 8f85-a81d8533b788
9 Montclair Township	Inform senior citizens on available public transportation resources.	LIFELONG MONTCLAIR GUIDE TO PUBLIC TRANSP	qitin	2014	Programmatic			https://files.acrobat.com/a/p review/c0a3e92e-70f3-4dc8- a6b2-b1604e705fea
D Montclair Township	Identify and eliminate unsafe conditions on Montclair streets for pedestrians and bicyclists of all ages and abilities.	PEDESTRIAN SAFETY REPORT	Montcalir, VTC	2015	Engineering			https://files.acrobat.com/a/p review/8e0b5f26-b9b6-495c- ab03-e9704be23cc0
1 Montclair Center Gateway	 Create an inviting and attractive pedestrian-oreiented atmosphere at the sidewalk level that seamlessly connects to Montclair Center. 	MONTCLAIR CENTER GATEWAY	Phillips Preiss Grygiel LLC	2011	General			PHASE 1: https://files.acrobat.com/a/p review/c2f53177-0655-4f25- b643-984b2f4ee419
	2.) Facilitate a safe and integrated pedestrian and vehicular circultion network.							PHASE 2: https://files.acrobat.com/a/p review/260d626d-cc40-4fc8- 9231-e1962846aae9
2 Seymour St	Create a regional arts and entertainment district in Montclair center.	SEYMOUR ST REDEVELOP MENT PLAN-DRAFT	Phillips Preiss Grygiel LLC	2016	General			https://files.acrobat.com/a/p review/fc9be6c8-8223-47c6- 8b5a-ad95d2e6bc8c
3 Seymour St	Evaluation of the traffic impacts of the redevelopment of the parcels set forth in the preliminary conceptual plan. Under the redevelopment plan, Seymour S: would be permanatly closed to vehicular traffic at Bloomfield Avenue.	SEYMOUR STREET REDEVELOPMENT PLAN	Klein Traffic Consulting, LLC	2016	General			
4 Montclair Township	To build upon the understanding of exisiting parking conditions and how new development and land uses will effect parking demand and supply in the next few years.	TOWN-WIDE COMPREHENSIVE PARKING STUDY	Montclair, Nelson Nygaard	To Be Completed - 2016	General			

Note: RBA 2009 SRTS Plans were superceeded by the 2013 SRTS Travel plans for each school

S:\Project\/466601 NJDOT On-Call\Montclair SAFE CS CIP 2016\Data Collection\Tech Memo 1\Montclair BF rec inventory.xlsx 10/27/2016 2:23 PM

Attachment B - Potential Facilities List

This list is developed from Montclair Township's January 15, 2015 application for the NJDOT Local Bicycle/Pedestrian Planning Assistance Program. It is categorized by facility type.

Bicycle Facilities

Designated Bike Routes

- North Fullerton Avenue from Chestnut Street to Wildwood Avenue
- Wildwood Avenue from North Fullerton Avenue to Park Street (to connect to Watchung Avenue, Rand Place and High Schools)
- Norwood Avenue from Bellevue Avenue to Alexander Avenue
- Alexander Avenue from Norwood Avenue to Grove Avenue (to connect to Mt. Hebron School)
- Clinton Avenue from Llewellyn Road to Myrtle Avenue
- Myrtle Avenue from Orange Road to S. Mountain Avenue (pleasant bicycling)
- Yantacaw Brook Road from Alexander Avenue through Yantacaw Brook Park
- Glenside Terrace from Yantacaw Brook Park to Bellevue Avenue
- Orange Road from Llewellyn Road to S. Fullerton Avenue
- S. Fullerton Avenue from Orange Road to Bloomfield Avenue (To connect to MKA/Nishuane)

Designated Bike Routes with Signage and Shared Lane Markings (SLM) or Shoulder Striping

- Highland Avenue from Mt. Hebron Road to Edgewood Road (SLM + bike route)
- Edgewood Road from Highland Avenue to Upper Mountain Avenue (bike route only)
- Upper Mountain Avenue from Edgewood Road to Alpine Street (shoulder, SLM, bike route)
- Alpine Street from Upper Mountain Avenue to North Mountain Avenue (bike route only)
- North Mountain Avenue from Bellevue Avenue to Bloomfield Avenue (shoulder + bike route)
- South Mountain Avenue from Bloomfield Avenue to Stonebridge Road (shoulder + bike route)

Install Shared Lane Markings

- Bradford Avenue from Upper Mountain Avenue to Highland Avenue (connecting to Bradford School)
- Montclair from Watchung Avenue to Walnut Station
- McDonough Street from Montclair Avenue to Grove Avenue (per SRTS Application)
- Claremont Avenue from Valley Road to Pine Street(for immediate use before Bloomfield gets "road diet", and more direct connection to Munip. Bldg. & Bay Street Station than Walnut Avenue)
- Hillside Avenue from Orange Road to South Mountain Avenue (to connect to from "bike route" Hillside School)

Install Share the Road Signs with Shoulder Striping (like Harrison)

- Valley Road from Clifton City to Loraine Avenue (where it transitions to Shoulder/SLM combo until Bloomfield Avenue)
- Park Street from Mt. Hebron Avenue to Watchung Plaza Center (where it transitions to SLMs)
- Bellevue Avenue from Bloomfield Town to Norwood Avenue (where it transitions to SLMs)
- Chestnut Street from Grove Street to Valley Road

Montclair SAFE / Complete Streets Technical Assistance

Install Climbing Bike Lane uphill (westbound) and SLM downhill (eastbound)

- Normal Avenue from Valley Road to Cedar Grove Town
- Mt. Hebron Avenue from Grove Street to Valley Road
- Bellevue Avenue from Valley Road to Upper Mountain Avenue
- Cedar Avenue from Orange Road to Harrison Avenue

Special Considerations for Facility Implementation

Road Diet – Bloomfield Ave

• Reduce 4 lanes to 2 with center turn lane, reduce lane width to max necessary for bus. (Design pending results of Bloomfield Avenue Corridor Cost/Benefit Analysis (to be completed 2016, NJDOT, VTC.)

Reduced Lane Width to calm traffic and install Bike Lanes

- Grove Street
- Watchung Avenue
- Alexander Avenue.
- Mt. Hebron Avenue
- Normal Avenue
- Elm Street
- Orange Road
- Cedar Avenue
- Washington Avenue

Reduced Lane width to calm traffic and install Striped Shoulders

- Valley Road
- Park Street (north end can look a lot like Ridgewood Avenue)

Transition Areas (junctions of Bike Lanes, Shoulders, SLMs)

- Grove Street at Oxford Street
- Elm Street at Union Street
- Harrison Avenue/Orange Road at Union Street
- Valley Road at Lorraine Avenue
- Park Street just north of Watchung Avenue

Intersections

Add preferred Bicycle movements at signalized intersections where bike lanes are proposed

May include Bike Boxes, preferred turning lanes, bicycle actuation (loop detectors), and other treatments for bicycle preference.

- Grove Street & Mt. Hebron Avenue
- Grove Street & Alexander Avenue
- Grove Street & Bellevue Avenue
- Grove Street & Watchung Avenue
- Grove Street & Chestnut Street Avenue
- Grove Street /Elm Street & Bloomfield Avenue
- Elm Street & Union Avenue/Washington
- Orange Road & Cedar Avenue
- Orange Road & Washington Avenue
- Valley Road & Bloomfield Avenue
- Valley Road & Watchung Avenue
- N. Mountain Avenue & Watchung Avenue
- Normal Avenue & Valley Road
- Valley Road & Mt. Hebron Avenue
- Bloomfield Avenue entire length

Lighted Crosswalks

Improve mid-block or non-signalized pedestrian crossings with motion activated or push button lighting such as in-pavement, "hawk" or Rectangular Rapid Flashing Beacons.

- Bloomfield Avenue & Midland Av.
- Upper Mountain Avenue at Mountainside Pool
- Valley Road at Cooper Avenue (Starbucks)
- Valley Road at Church mini circle
- Valley Road at Alvin Place
- Others....Grove Street /Elm Street

Other Opportunities

Rail with Trail Opportunities

Explore the feasibility of active rail with trail from Little Falls Station at MSU along the Boonton Line to Upper Montclair Station at Bellevue Ave (as outlined in the Montclair Bike/Ped Action Plan, 2005).

Bicycle Boulevard Opportunities

A bike-priority roadway that allows motor vehicles but uses traffic calming, diverters mini roundabouts, and reduced speeds to give priority to bikes. A great NJ example is Ocean City, NJ's Haven Ave Corridor.

• North Mountain Avenue from Bellevue Avenue to Claremont Avenue (would be key connector from MSU/rail with trail to Montclair Center and the proposed Ice & Iron Trail along the unused rail corridor)

Protected Cycle Track Opportunities

As defined in the NACTO guide, a cycle track is "an exclusive bike facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane." Cycle tracks can be one-way or bi-directional but are separated or "protected" from motor vehicles. Protected cycle tracks should be explored – or even implemented temporarily – to connect major cycling destinations

• Claremont Ave between Park St and Pine Street to accommodate bike share transit users between Valley & Bloom and Bay Street and/or Walnut Street train stations.





Appendix B: Steering Committee Members

Steering Committee Members

Alex Kent, Pedestrian Safety Committee

Alfred Davis, South End Business District of Montclair

Ann Lippel, Senior Citizen Advisory Committee

Ben Selby, Board of Education Transportation Manager

Brendan Gill, Essex County Freeholders

Carmel Loughman, Planning Board

Carole Willis, Planning Board / Traffic & Parking Advisory Committee

Cyndi Steiner, New Jersey Bike / Walk Coalition

Gerry Tobin, Upper Montclair Business Association

Israel Cronk, Montclair Center BID

Janice Talley, Montclair Planning

John Herrmann, Montclair Fire Chief

Katie York, Montclair Senior Services

Katya Wow, Montclair Communications

Kim Craft, Montclair Engineering

Laura Torchio, Montclair Traffic & Parking Advisory Committee/ Bike Walk Montclair

Rachel Crampsey, Walnut Business

Renee Baskerville, 4th Ward Councilor / Traffic & Parking Advisory Committee / Pedestrian Safety

Rich McMahon, Councilor-At-Large / Traffic & Parking Advisory Committee / Planning Board

Sanjeev Varghese, Essex County Engineer

Scott Pollack, Watchung Business

Stephanie Egnezzo, Montclair Police & Traffic



Appendix C:

TECHNICAL MEMORANDUM 2: NETWORK Maps

DRAFT Technical Memorandum 2: Network Maps Project #J4666.20

Prepared for:

The New Jersey Department of Transportation



Prepared by: The RBA Group

Submitted: November 3 2016

Contents

Introduction	1
Mapping Reviewed	1
Steering Committee	1
Public Outreach	2
Priority Setting Workshop	2
Public Survey	3
Open Streets Event	3
Bicycle and Pedestrian Network	4
Next Steps	4
Public Survey Open Streets Event Bicycle and Pedestrian Network Next Steps	3 3 4 4

Attachment A – Steering Committee Kickoff – Recommended Facility Map

Attachment B – Priority Setting and Public Survey Refined Maps

Attachment C – Open Streets Event Maps

Introduction

Montclair Township has had an evolving map of proposed bicycle facilities. The purpose of this task was to review and build upon previous planning efforts to assist in the refinement of a priority bicycle and pedestrian network. This initial desktop exercise has been further refined based on outreach and field work.

Steering Committee

The project developed an initial network of potential bicycle facilities and conducted a network review exercise with the Steering Committee during the project kickoff meeting held on August 3, 2016. See *Attachment A – Steering Committee Kickoff – Recommended Facility Map.* One of the major items that was reinforced by the Steering Committee members was the need to connect whatever network of facilities is created within Montclair to its neighboring communities. Connections to other regional trails, existing or planned, are also major considerations for routing the Montclair priority network. The Liberty Water Gap Trail and the emerging September 11th National Memorial Trail are good examples of this, as they both traverse Montclair.

Mapping Reviewed

The RBA Team reviewed plans and recommended bicycle and pedestrian networks that have been developed previously. The following tables highlight reports, studies, plans, and maps evaluated as part of this task.

The RBA Team will conducted a desktop review of roadway and off-road corridors, complimented with targeted field investigations to determine the condition of bicycle and pedestrian accommodations along identified priority corridors throughout the Township. This focused on the refined bicycle and pedestrian network, based on the assessment of the various networks developed over the last ten years throughout Montclair, and used the 2015 Land Use & Circulation Element of the Master Plan – Proposed Conceptual Bicycle Route Network as a starting point. This was further refined as recommended by the project Steering Committee.

Using the information and data collected in previous tasks, we evaluated and analyzed the proposed network in terms of its capability to safely accommodate pedestrian and bicycle travel, and provide connection to major destinations throughout Montclair. This evaluation focused on providing connectivity, and enhancing corridors that currently have substandard conditions for walking or bicycle riding.

Year	Name of Map
2005	Bicycle Compatible Roadways
2005	Bicycle Suitability Map
2007	Desired Conditions Sketch
2009	SRTS Bike Network Map
2013	Proposed Conceptual Bicycle Route Network from the 2015 Land Use & Circulation Element of
	the Master Plan

TABLE 1 – TOWNSHIP FACILITY NETWORK MAPS



Steering Committee Network Review Exercise

Public Outreach

Priority Setting Workshop - A Priority Setting Workshop was conducted on September 13, 2016 at the Montclair Municipal building. The Project Team facilitated the open house format meeting, that included stations with general background about the project, typical bicycle and pedestrian enhancement techniques, draft route network maps for review and a station for walking through an on-line survey to collect detailed insight on preferences and priorities for walking and bicycling. The refined bicycle facility network maps (North, Central and South) are included in *Attachment B – Priority Setting and Public Survey Refined Maps*


Public Priority Setting Open House



Survey Walk Through on Computers

Public Survey – The public survey posted on the Montclair web site at: (https://www.surveymonkey.com/r/Y6SHWFL) included detailed questions about top priority corridors in each the North, Central and South areas of Montclair. Participants were asked to rank their top three priority corridors for each area, or provide input about additional connections that should be made or entire corridors to be added. Links to the survey were provided for detailed input.



Survey respondents were asked to prioritize their top three priorities in southern, central, and northern Montclair by ranking their top segments as graphically represented on a map with a corresponding key that broke the choices into street segments.

In the southern section of Montclair, the following Segments were most often prioritized:

- Segment 23 (Claremont Ave, Valley Road, Walnut St/Park Dr., Forest St, Label St., Depot Sq.) was most frequently priority 1 or 2 (22.63% Priority 1 and 22.96% Priority 2);
- Segment 19 (Elm Street) ranked next highest with 17.5% of respondents selecting Elm Street as their Priority 1; and,
- Segment 20 (Park Street, The Crescent, South Fullerton Avenue, Union Street) with the next highest priority, with 16.8% selecting Segment 20 as Priority 1.

In Central Montclair, the following segments were most frequently prioritized:

- Segment 11/Grove St. (35% Priority 1 and 25% Priority 2);
- Segment 10/North Mountain Avenue (21.6% Priority 1 and 15.15% Priority 2);
- Segment 13/Park Street (15% Priority 1 and 22.7% Priority 2); and,
- Segment 15/Watchung Ave (10.8% Priority 1, 13.6% Priority 2 and 26% Priority 3).

In Northern Montclair, the following roadways were most frequently prioritized:

- Segment 4/Grove St. (22% Priority 1, 18% Priority 2, 18% Priority 3);
- Segment 1/Upper Mountain Ave (21% Priority 1, 12% Priority 2, 9% Priority 3);
- Segment 2/Valley Road (19% Priority1, 15% Priority 2, 8% Priority 3);
- Segment 3/Park St.) at (16% Priority 1, 24% Priority 2, 13% Priority 3); and,
- Segment 8/Bellevue Avenue (10% Priority 1, 17% Priority 2, 30% Priority 3).

In addition to survey responses, additional factors such as connectivity, proximity to major generators, and geographic distribution

Open Streets Event – The Project Team was able to take advantage of one of the largest pedestrian and bicycling events that occurs in Montclair, the Open Streets event held on Sunday October 2, 2016. During this event, the team set up an outreach station with flyers to be filled out, and maps to be reviewed and marked up. Many attendees who might not have otherwise known about the project were able to share insights about priorities for walking and bicycling in Montclair and learn more about the survey and participation in the project. Network maps were further refined for the event, enhancing display of local connections and other features, see *Attachment C – Open Streets Event Maps*





Tech Memo 2

Page 4

Bicycle and Pedestrian Network

The network of bicycle and pedestrian priority corridors will continue to evolve, both through this project, and afterwards as Montclair implements its Complete Streets policy by continuing to enhance the walking and bicycling conditions throughout town.

This project is using the 2013 Proposed Conceptual Bicycle Route Network included as part of the 2015 Land Use & Circulation Element of the Master Plan as a starting point for the priority bicycle and pedestrian network. This map was developed by the Township as a modification to the 2007 Desired Conditions Sketch Map, and represents the most current thinking on where bicycle routes may be appropriate, but does not specify the type of bicycle facility. Detailed maps for Northern, Central and Southern Montclair detailing each street and the recommended priority bicycle network were created and shared as part of the outreach exercises.

Next Steps

This assessment, along with the information from future outreach tasks, will result in the development of a Proposed Bicycle and Pedestrian Network Map, and targeted Street Typologies that will apply to specific roadways throughout Montclair.

Attachment A – Steering Committee Kickoff – Recommended Facility Map



Attachment B – Priority Setting and Public Survey Refined Maps

NORTHERN MONTCLAIR August 2016

NETWORK SEGMENTS

1. Upper Mountain Avenue

2. Valley Road

3. Park Street

4. Grove Street

5. Normal Ave

6. Mount Hebron Road

7. Alexander Avenue

8. Bellevue Avenue

9. Gordonhurst Avenue, North Fullerton Ave, Carolin Road



Attachment B Page 1 of 3



CENTRAL MONTCLAIR August 2016

NETWORK SEGMENTS

10. North Mountain Avenue

11. Grove Street

12. Central Ave, Edgemont Memorial Park

13. Park Street

14. Essex Avenue, Champlain Terrace, North Fullerton Avenue

15. Watchung Avenue

16. Chestnut Street



Attachment B Page 2 of 3



SOUTHERN MONTCLAIR August 2016

NETWORK SEGMENTS

17. North Mountain Avenue, South Mountain Avenue

18. Bell Street, Orange Road, Orange Road West

19. Elm Street

20. Park Street, The Crescent, South Fullerton Avenue, Union Street

21. Harrison Ave, Cedar Ave

22. Pine Street, Maple Ave, Woodland Ave, Willowdale Ave, Willowmere Ave

23. Claremont Avenue, Valley Road, Walnut Street/Park Drive, Forest Street, Label Street, Depot Square

24. Hillside Avenue, Church Street, Glenridge Avenue



Attachment B Page 3 of 3



Attachment C – Open Streets Event Maps







MONTCLAIR SAFE

Appendix D:

COMMUNITY OUTREACH

- 1. STEERING COMMITTEE KICK-OFF MEETING (8.3.2016)
- 2. PRIORITY SETTING WORKSHOP (09.14.2016)
- 3. STEERING COMMITTEE MEETING (11.14.2016)
- 4. STEERING COMMITTEE MEETING (01.31.207)
- 5. FINAL PUBLIC OPEN HOUSE (03.08.2017)
- 6. FINAL STEERING COMMITTEE MEETING (06.13.2017)



MEMORANDUM OF MEETING

TO:	Kimberli Craft		
FROM:	Mike Dannemiller, Dede Murray		
DATE:	08/03/2016		
SUBJECT:	Montclair SAFE Steering Committee Kick-off RBA Project # J4666.20		

Montclair SAFE/Complete Streets Technical Assistance Steering Committee met with RBA to discuss the project scope and schedule, to gather consensus on priorities, to discuss methods for community outreach, and receive committee member input on concept design. The following summarizes the major items of discussion from the kick-off meeting. The attendee list and meeting agenda are attached.

The Steering Committee performed a Network Mapping exercise to prioritize each member's top five locations for treatment. They were provided a draft network map and a matrix of recommendations from past studies conducted in Montclair to guide their decision making.

There are several immediate action items to be addressed by members of the Steering Committee. These include:

Immediate Action Items:

- RBA will email the Bicycle and Pedestrian Recommendation Inventory to the Steering Committee.
- Montclair Township will be responsible for announcing/publicizing the priority setting workshop and the Public Information Center
- Montclair Township to post project updates/flyers onto their Facebook and Township websites.
- Civic Eye/Blickstein will create an online public survey with an application such as Survey Monkey to gain insight on priority cross sections of residents and visitors of Montclair. They will also provide hard copies of the survey for senior residents.
- RBA will provide a Bicycle and Pedestrian Network Map displaying priority areas.
- RBA will obtain crash data from Charles Brown and Pedestrian Safety Information from Partners for Health.

7 Campus Drive, Suite 300, Parsippany, NJ 07054-4495 | 973.946.5600 | fax: 973.898.9472 | www.rbagroup.com

General notes and clarifications:

- The Steering Committee was informed that no direct action will be taken on Bloomfield Avenue for this project.
- Tour de Montclair will be held on October 02, 2016 and is a public outreach opportunity.



Steering Committee

Network Mapping Exercise Group 1



Network Mapping Exercise Group 2

Network Mapping Exercise Group 3

Attachments:

-Attendee List -Meeting Agenda -Network Mapping Exercise Maps



FirstName LastName		Organization	Email	
1. Andy	Anderson	ECCPSACTSP	anderson158@essex.edu	
2. Ann	Lippel	SCAC (Seniors)	annlippel@gmail.com	
3. Cyndi	Steiner	NJ Bike/Walk Coalition	steincy@gmail.com	
4. Gerry	Tobin	UMBA (Upper Montclair)	gctobin@tobinlawoffices.com	
5. Israel	Cronk	Montclair Center BID	israel@montclaircenter.com	
6. Janice	Talley	Montclair Planning	jtalley@montclairnjusa.org	
7. John	Herrmann	Montclair Fire Chief	jherrmann@montclairnjusa.org	
8. Kathy	Smith	Partners for Health	ksmith@partnersfdn.org	
9. Katie	York	Montclair Senior Services	kyork@montclairnjusa.org	
10. Katya	Wowk	Montclair Communications Director	kwowk@montclairnjusa.org	
11. Kim	Craft	Montclair Engineering	kcraft@montclairnjusa.org	
12. Paul	Mickiewicz	BikeWalk Montclair	paulmickfit@gmail.com	
13. Renee	Baskerville	4 th Ward Councilor/ TPAC/Ped Safety	rbaskerville@montclairnjusa.org	
14. Scott	Pollack	Watchung Business	scott.pollack@lpl.com	
15. Mike	Dannemiller	The RBA Group/ NV5	mdannemiller@rbagroup.com	
16. Dede	Murray	The RBA Group/ NV5	Emurray@rbagroup.com	
17. Bill	Riviere	NJDOT	William.Riviere@dot.nj.gov	
18. Ranjit	Walia	Civic Eye/ Blickstein	ranjit@civiceyecollaborative.com	

SAFE/CS Implementation Plan Steering Committee Kick-off Meeting Attendees 08/03/16



AGENDA

Montclair SAFE Complete Streets Technical Assistance STEERING COMMITTEE KICKOFF MEETING

Wednesday, August 3rd , 2016 10:00 a.m. – 11:30 a.m.

Montclair Municipal Building 205 Claremont Avenue — 2nd Floor Conference Room

Purpose: To present and review the scope, schedule, Steering Committee's role and conduct a mapping exercise to build on previously documented input.

- I. Welcome/Overview of NJDOT's Technical Assistance Program Bill Riviere, NJDOT/ Kim Craft
- II. Scope & Schedule Mike Dannemiller, The RBA Group/ NV5
- III. Community Participation Ranjit Walia, Civic Eye Collaborative/ Susan Blickstein
- IV. Existing Resources Dede Murray, The RBA Group/ NV5
- V. Network Mapping Exercise group activity
- VI. Next Steps Mike Dannemiller/ Kim Craft













MEMORANDUM OF MEETING

TO:Kimberli CraftFROM:Mike Dannemiller, Dede MurrayDATE:09/14/2016SUBJECT:Montclair SAFE Public Workshop
RBA Project # J4666.20

Montclair SAFE/Complete Streets Technical Assistance Steering Committee met with RBA to discuss the project scope and schedule, to gather consensus on priorities, to discuss methods for community outreach, and receive committee member input on concept design. The following summarizes the major items of discussion from the kick-off meeting. The attendee list and meeting agenda are attached.

The Steering Committee performed a Network Mapping exercise to prioritize each member's top five locations for treatment. They were provided a draft network map and a matrix of recommendations from past studies conducted in Montclair to guide their decision making.

There are several immediate action items to be addressed by members of the Steering Committee. These include:

Immediate Action Items:

• RBA will email the Bicycle and Pedestrian Recommendation Inventory to the Steering Committee.

General notes and clarifications:

- The Public Information Center will be scheduled tentatively on Tuesday, October 11 or Wednesday, October 12 from 4-7pm.
- The Town Council briefing will be held tentatively on Tuesday, November 1 at 7pm.
- The Planning Board presentation will be held tentatively on Monday, November 7 at 7:30pm.

7 Campus Drive, Suite 300, Parsippany, NJ 07054-4495 | 973.946.5600 | fax: 973.898.9472 | www.rbagroup.com









Station 2 (in background)

Station 3

Attachments:

- -Attendee List
- -Meeting Agenda
- -Comment Form responses





SIGN-IN SHEET

Montclair SAFE/CS Public Workshop September 13, 2016

Name	Title / Affiliation	Email	Phone	
GRAY RUSSELL	SUSTAINABILINY OFFECER	GRUSSELLCMONTCIA	ERNJUSA ORH	973 509-5221
Jedith Early	greener Bloomfield	Carley judith (@ gmail, com	\$62-202-9251
15822 CROUK	Muntelan Bip	isme a montela.	r conter. com	973 868 8188
Mona Mullig	AN AN	MONAMULLIGAN CS	amain 64	16-462-8284
Mike Mastorel)	Mimarton ela amail com	0 de	1341 4636
Kathy Smith	PFIT	,		<u> </u>
Councilwoman Dr.	BEAKERVILLE MODTILOU	- BBoxkEQUILE @ me	DOT LODG NITUS	973 1141
MERIA DAS	in but	TORIKEWAIK	Planky Co	1 B12 NO.04
Ray Ketchem	Montclair DID	rketchemam	ac con	201-506-6533



Streets Are For Everyone

NJDOT Technical Assistance Project

Welcome!

Welcome to the Montclair Bicycle Facility Prioritization Meeting! This meeting is one of two public meetings whose focus is to get feedback from the community on where to get started in Montclair with bicycle facilities. These meetings are part of Montclair's SAFE (Streets Are For Everyone)/Complete Streets Implementation Plan. Thank you for coming and helping the community develop a strategy for developing/redeveloping its streets as safe and comfortable places for everyone!

What's in the Room:

Please come and stop by the different stations in the room. There are three and there will be staff there to talk with you about your thoughts and get your feedback.

STATION 1 –What are the existing conditions in the community and what have past studies recommended



STATION 2 – Help us identify and prioritize roadways for bicycle improvements.

YES

STATION 3 – Where are we headed with this study? See what's next.



Take the Survey!

Montclair SAFE is hosting a bicycle facility prioritization survey. If you haven't done so yet, you can take the survey at home by typing this link into your web browser:

https://www.surveymonkey.com/r/Y6SHWFL

The survey will only take you a few minutes to complete.

If you don't have a computer or prefer to take the survey tonight, there will be two computers you can use at the meeting itself. Please ask someone for assistance.

Stay Connected

You can follow the progress of the study via the Engineering page on the Township website (montclairnjusa.org), Facebook (Montclair SAFE) and Twitter (@MontclairSAFE).







MONTCLAIR PUBLIC WORKSHPOP TUESDAY, SEPTEMBER 13TH, 5 TO 8PM

Bicycle Priority(s):

Please identify your top priority(s) for bicycle facility improvements and why this area is so important.

Upper Monstoin speedway
The lones No noned So
Oranje Kd
the end needs liefe

Pedestrian Improvements:

Would the area(s) above also benefit from pedestrian improvements? If so, explain what changes you think are important and why.



Bicycle Facility Network

Please list any bicycle facility segments you think should be added to the bicycle network shown at the meeting tonight.

						_
				2		
Have you alr Yes: No: If you have r	eady taken	the on-line bi	cycle surve , do you pla	y? In to do so s	oon?	
Do you have	any other	comments?	<u>()</u> 0	t ev	ery	BANK

THANK YOU!



MONTCLAIR PUBLIC WORKSHPOP TUESDAY, SEPTEMBER 13TH, 5 TO 8PM

Bicycle Priority(s):

Please identify your top priority(s) for bicycle facility improvements and why this area is so important.

Pedestrian Improvements:

Would the area(s) above also benefit from pedestrian improvements? If so, explain what changes you think are important and why.

MONTCLAIR workshopSGB comments form.docx



Bicycle Facility Network

Please list any bicycle facility segments you think should be added to the bicycle network shown at the meeting tonight.

good man not be d OR to dured nothe n but about volne Wotchun to Have you already taken the on-line bicycle survey? Yes: No: If you have not completed the survey, do you plan to do so soon? Yes: No: Do you have any other comments? floor oment 07 very NE, con times 60 nis en gitured 70 vers **THANK YOU!**



Bicycle Facility Network

Please list any bicycle facility segments you think should be added to the bicycle network shown at the meeting tonight.

Have you already taken the on-line bicycle survey? Yes: No: If you have not completed the survey, do you plan to do so soon? Yes: No: Do you have any other comments? lating the ADM.

THANK YOU!



MONTCLAIR PUBLIC WORKSHPOP TUESDAY, SEPTEMBER 13TH, 5 TO 8PM

Bicycle Priority(s):

Please identify your top priority(s) for bicycle facility improvements and why this area is so important.

education and awareness Pedestrian Improvements: Would the area(s) above also benefit from pedestrian improvements? If so, explain what changes you think are important and why. 0 0 10 20 Tructions



Bicycle Facility Network

Please list any bicycle facility segments you think should be added to the bicycle network shown at the meeting tonight.

MOVE "PREDREMY STREET" SELECTED DO RESDOCATEAR STREET QUEE TA. Have you already taken the on-line bicycle survey? Yes: No: If you have not completed the survey, do you plan to do so soon? Yes: No: Do you have any other comments? ENCOURAGE REVERST IVANT 20 NON YH / SOUTH ROU OF FOCUSENG FUNDE Add. INKY EM JUNE +VALLEY LETS MOVE PARK Gran MANY RESSEATER STREETS MEECH ARE **THANK YOU!** QUIETER, SLOWER, LEAFIER, + SAFER.



MONTCLAIR PUBLIC WORKSHPOP TUESDAY, SEPTEMBER 13TH, 5 TO 8PM

Bicycle Priority(s):

Please identify your top priority(s) for bicycle facility improvements and why this area is so important.

A CREATING AN ON-LENE MAP DEUPLAYENG	
SEVERAL NORTH/SOUTH + EXOT/WEET ROUPES	
TO: 1) SCHOOLS; 2) BUINERS ADATALIS; AND, 3) COMMUNIA	1-
STORIFSTATIONS. IT ACQUERENG STREET SEGNI	·
+ READWAY PAINTER & FSTREPENG TO ENDECHTE	ç
BEST ROUPES. I PUBLICIZET PROMOTE & NEW	1
"REINVEGORATION" JE BIKET WALK EMPHAGIS IN YOU	WN.

Pedestrian Improvements:

Would the area(s) above also benefit from pedestrian improvements? If so, explain what changes you think are important and why.

- ENCOURAGE REPAIR + MAENTENAULE AF ROTH SLATE + CEMENT SEDEWALKS - ADD SOMEETS DONAGE DESSGNATING MONTCLAIN AT A "UNALK FIRDENOLY" TOWN - PUBLICIZE (AS IN THE ABOVE)



MONTCLAIR PUBLIC WORKSHPOP TUESDAY, SEPTEMBER 13TH, 5 TO 8PM

Bicycle Priority(s):

Please identify your top priority(s) for bicycle facility improvements and why this area is so important.

Pa	irking or	Nort	h +	South	Mounta	in
	should	not 1	be a	llowe	d. 17	would
	be an	amat	-10-1	bile	path.	
			5		,	
Pedestrian Improvements: Would the area(s) above also benefit from pedestrian improvements? If so, explain what changes you think are important and why.						
-						
-						


Bicycle Facility Network

Please list any bicycle facility segments you think should be added to the bicycle network shown at the meeting tonight.

Have you already taken the on-line bicycle survey?
Nos:
Yes:
If you have not completed the survey, do you plan to do so soon?
Yes:
No:
Do you have any other comments?
Thank you for your efforts on making
I I Cingle
Montclair more bile triendly.
£

THANK YOU!



Bicycle Facility Network

Please list any bicycle facility segments you think should be added to the bicycle network shown at the meeting tonight.

Have you already taken the on-line bicycle survey?	
Yes: No:	
If you have not completed the survey, do you plan to do so soon?	
Yes: No:	
Do you have any other comments?	
Thurk you for Holding these	
THANKYOU! WIGHT There was a pigger promotion of this workst	10P.
MONTCLAIR workshopSGB comments form. docx _ Ads, Social, Neuspage	frr c



MONTCLAIR PUBLIC WORKSHPOP TUESDAY, SEPTEMBER 13TH, 5 TO 8PM

Bicycle Priority(s):

Please identify your top priority(s) for bicycle facility improvements and why this area is so important.

(SVOVE Street.
Valley load p
Park (North to Spoth)
edestrian Improvements:
Pedestrian Improvements: Would the area(s) above also benefit from pedestrian improvements? If so,
Pedestrian Improvements: Would the area(s) above also benefit from pedestrian improvements? If so, explain what changes you think are important and why.
Pedestrian Improvements: Would the area(s) above also benefit from pedestrian improvements? If so explain what changes you think are important and why.
Pedestrian Improvements: Would the area(s) above also benefit from pedestrian improvements? If so explain what changes you think are important and why.
Pedestrian Improvements: Vould the area(s) above also benefit from pedestrian improvements? If so explain what changes you think are important and why. CUSSING BLOW GLE AMC
Pedestrian Improvements: Would the area(s) above also benefit from pedestrian improvements? If so explain what changes you think are important and why.
Pedestrian Improvements: Would the area(s) above also benefit from pedestrian improvements? If so explain what changes you think are important and why. CMSM Glob Get Arc
Pedestrian Improvements: Would the area(s) above also benefit from pedestrian improvements? If so, explain what changes you think are important and why.
Pedestrian Improvements: Would the area(s) above also benefit from pedestrian improvements? If so explain what changes you think are important and why. CASSUR floon field free
Pedestrian Improvements: Would the area(s) above also benefit from pedestrian improvements? If so explain what changes you think are important and why. COSSIM Plan held Are



MEMORANDUM OF MEETING

TO: FROM: DATE:	Kim Craft, Montclair and Bill Riviere, NJDOT Mike Dannemiller, Rachana Sheth 01/31/2017 at 4:00 pm Montclair Fire HQ
ATTENDEES:	See attached Sign-In Sheet
SUBJECT:	Montclair SAFE CS Implementation Plan - Steering Committee Meeting NV5, Inc. Project # J728616.0000095.03

The purpose of the meeting was to review the project scope and schedule, explain the methodology in developing the SAFE Complete Streets typologies and to obtain feedback from the Steering Committee on the six (6) typologies developed in preparation for the public meeting scheduled for March 8th. Handouts were provided (see attached). Presentation boards of background material and each typology were utilized. The sign-in sheet is attached.

Bill Riviere, NJDOT Bicycle and Pedestrian Programs initiated the meeting with introductions and Mike Dannemiller provided background of the project and the schedule. He led a discussion on the typologies for the recommended SAFE CS network. The following summarizes the major items of discussion from the Steering Committee meeting.

Steering Committee Input and Recommendations:

- Pedestrian enhancements / recommendations should be emphasized for the typologies
- The process / methodology in developing the typologies should be clear and clarify how public input via surveys informed the process
- For all typologies, alternatives with sharrows or shared lane markings should at least include traffic calming such as narrower travel lanes by either adding shoulders or a planted or striped median
- A recommendation on pedestrian-scale lighting should be included in the typologies
- A glossary of terms should be included
- Raised crosswalks should be added as one of the traffic calming a recommendation especially for commercial areas, near schools, parks and other amenities
- A shared use path along S. Mountain Avenue and for Washington Street was recommended
- NV5 clarified that the purpose of the typologies was to provide a menu of options for Montclair Township to choose from when needed. Thus, this phase of the project will not provide detailed design plans; but options /concepts that could be applied to any Township street

Immediate Action Items:

- The Public Information Center meeting was rescheduled from 2/22/2017 to 3/8/2017due to scheduling conflicts within the Steering Committee.
- NV5 will add pedestrian enhancements and recommendations for the typologies.
- Typologies will be edited as per recommendations from the Steering Committee

NV5 February 21, 2017 Page 2

Attachments:

- Attendee List
- Meeting Agenda
- Boards:
 - Schedule
 - Recommended SAFE CS Network
 - Recommended SAFE CS Network Table
 - Six (6) Typologies

Meeting Photos









Steering Committee Meeting

January 31, 2017

SIGN-IN SHEET

Name Title / Affiliation Email Phone
William Rivière NJDOT
CARMEL LOUGHMAN PLANNING BOARD CLOUGHMAN CGMAIL-W
Katie York Director of Senior SUCS, Twp. of Mantclair
Mike Dangemiller Principal Engineer Michgel Dannemiller ONV5, COM
SUSW BLICKSTEIN SGB sblickstell@gmail.com
Rachana Sherth, Whan Designer, NVS, RAGIMANA SHETYPONVS- CON
Kathy Smith Rit KSmith@partnersFdn.ore
Stephanie Egnezzo Montclair PD-Traffic Bulan segnezzo@Montclaimjusa.on
Alex Kent MR Ped Safety Akent BD comced. Ng
Laura Torchis Bite ; Walt Montalair torchis laure gmail. com
Tapier Talley Planning Diretor Hoch- Halleyemontclaimjusa or
BEN SELBY BOE TRANSPORTATION AGE belby e Maniche. K12. NJUS
Courselaimon PereiBateulle Monklai Tamphy Bookeulle





STEERING COMMITTEE MEETING Tuesday, January 31, 2017 4:00 – 6:00 pm Montclair Fire Headquarters 1 Pine Street, Montclair, NJ

AGENDA

Introductions	Kimberli Craft / Bill Riviere
Scope Review - Methodology - Schedule	Mike Dannemiller/ Susan Blickstein
Typology Review - Assumptions - Review Exercise	Mike Dannemiller/ Rachana Sheth
Public Meeting	Kimberli Craft / Mike Dannemiller
Next Steps	Kimberli Craft / Mike Dannemiller



Montclair SAFE Complete Streets Implementation Plan

TASK	Description	ост	NOV	DEC	JAN	FEB 1	MAR
1	Project Administration	Admin.	100)
2	Steering Committee Meetings and Public Participation		1 0	utreach			
3	Data Review and Analysis		Review &	Analysis			
4	Review and Planning Concepts				Concepts		3
5	Draft and Final SAFE Complete Streets Implementation Plan						Plan



CLIENT & STEERING COMMITTEE MEETINGS

PUBLIC MEETING

Client & Steering Committee Meetings

Client / Steering Committee Meeting
 Client / Steering Committee Meeting
 Client / Steering Committee Meeting

Public Meeting



1. Public Information Center



RECOMMENDED SAFE CS NETWORK RECOMMENDATIONS (ON-ROADLINKS ONLY)

No STREET NAME	START	END	JURISDICTION	WIDTH	ADT	COUNT YEAR	FUNCTIONAL CLASS	TYPOLOGY
1 Alexander Ave.	Valley Rd.	Grove St.	Local	28.0	1194	2015	Local	V
2 Alexander Ave.	Grove St.	Bloomfield line	County	28.0	4420	2009	Collector	
3 Argyle Rd			Local	26.0			Local	v
4 Bell St.	Mountainview Place	Bloomfield Ave.	Local	32.0	6075	2009	Collector	10
5 Bellevue Ave.	Upper Mountain Ave.	Norwood Ave.	Local	40.0	6940	2012	Collector	IV
6 Bellevue Ave.	Norwood Ave.	Grove St.	Local	37.0	8551	2014	Collector	III
7 Bellevue Ave.	Grove St.	Bloomfield line	Local	35.0	9013	2010	Collector	m
8 Berkeley Pl	Upper Mountain Ave.	Valley Rd.	Local	30.0	1136	2010	Local	v
9 Bloomfield Ave.	N. Fullerton Ave.	Glenridge Ave.	County	56.0	17011	2010	Principal Arterial	XXXX
10 Braemore Rd	Lorraine Ave.	Upper Mountain Ave.	Local	22.0	638	2008	Local	V
11 Brooklawn Rd.			Local	26.0			Local	v
12 Carolin Rd.	N. Fullerton Ave.	Grove St.	Local	26.0			Local	V
13 Cedar Ave.	High St.	Nishuane Rd.	Local	34.0	6625	2015	Collector	JII.
14 Central Ave.	Walnut St.	Chestnut St.	Local	36.0			Local	v
15 Central Ave.	Chestnut St.	Valley Rd.	Local	36.0	1208	2014	Local	V/VI
16 Champlain Terr.			Local	26.0			Local	v
17 Chestnut St.	Valley Rd.	Midland Ave.	Local	32.0	3913	2009	Collector	111
18 Chestnut St.	Midland Ave.	N. Fullerton Ave.	Local	36.0	4392	2011	Collector	111
19 Chestnut St.	N. Fullerton Ave.	Essex Ave.	Local	35.0	5652	2012	Collector	-00
20 Chestnut St.	Essex Ave.	Grove St.	Local	35.0	5545	2012	Collector	
21 Church St.	Bloomfield Ave.	S. Park St	Local	25.0	4540	2014	Collector	VI
22 Church St.	S. Park St	Orange Rd.	Local	41.5	1003	2011	Collector	III
23 Church St.	Trinity Pl.	South Park St.	Local		4707	2016	Collector	III
24 Claremont Ave.	Crestmont Rd.	Valley Rd.	Local	38.0	14743	2009	Minor Arterial	11
25 Claremont Ave.	Valley Rd.	N. Fullerton Ave.	Local	32.0	12847	2011	Minor Arterial	1
26 Claremont Ave.	N. Fullerton Ave.	Grove St.	Local	35.0	12906	2015	Minor Arterial	1
27 Claremont Ave.	Grove St.	Walnut Crescent	Local	32.0	11028	2016	Minor Arterial	1
28 Eagle Rock Way	Undercliff Rd.	S. Mountain Ave.	Local	31.0	1772	2008	Local	v
29 Edgemont Rd.	Watchung Ave.	Parkside	Local	36.0			Local	v
30 Elm St.	Llewellyn Rd.	Elmwood Ave.	County	40.0	13455	2015	Minor Arterial	11
31 Elm St.	Elmwood Ave.	Bloomfield Ave.	County	40.0	11727	2010	Minor Arterial	11
32 Essex Ave.	Chestnut St.	Champlain Terr.	Local	26.0			Local	v
33 Forest St.	Claremont Ave.	End	Local	32.0	2006	2012	Local	V
34 Glenridge Ave.	Bloomfield Ave.	N. Willow St.	Local	34.0	4588	2010	Collector	III / VI
35 Glenridge Ave.	N. Willow St.	Grove St.	Local	32.0 / 42.0	5873	2014	Collector	III/IV
36 Glenridge Ave.	Grove St.	Pine St.	Local	35.0	7974	2010	Collector	ill
37 Grove St.	Bloomfield Ave.	Walnut St.	County	40.0	12743	2011	Minor Arterial	11
38 Grove St.	Walnut St.	McDonough St.	County	40.0	17090	2011	Minor Arterial	
39 Grove St.	McDonough St.	Watchung Ave.	County	40.0	18978	2009	Minor Arterial	11
40 Grove St.	Watchung Ave.	Bellevue Ave.	County	40.0	16181	2011	Minor Arterial	ii ii
41 Grove St.	Bellevue Ave.	Alexander Ave.	County	40.0	13919	2010	Minor Arterial	Ш
42 Grove St.	Alexander Ave.	Clifton line	County	40.0	13599	2011	Minor Arterial	

Source: Montclair Engineering Bureau

BOLD = Priority Corridors

2/8/2017

RECOMMENDED SAFE CS NETWORK RECOMMENDATIONS (ON-ROADLINKS ONLY)

No S	TREET NAME	START	END	JURISDICTION	WIDTH	ADT	COUNT YEAR	FUNCTIONAL CLASS	TYPOLOGY
43 Ha	arrison Ave.	West Orange line	Cedar Ave.	Local	36.0	10362	2011	Minor Arterial	1
44 Ha	arrison Ave.	Cedar Ave.	Warren Pl.	Local	36.0	11086	2008	Minor Arterial	1
45 Ha	arrison Ave.	Warren Pl.	Union St.	Local	36.0	7383	2010	Minor Arterial	1
46 Hi	ghland Ave.	Claremont Ave.	Edgewood Rd.	Local	26.0	771	2010	Local	V
47 Hi	ghland Ave.	Edgewood Rd.	Ingleside Rd.	Local	26.0	1120	2010	Local	V
48 Hi	ghland Ave.	Ingleside Rd.	Windsor Pl	Local	26.0	1105	2010	Local	v
49 Hi	ghland Ave.	Windsor Pl	Little Falls line	Local	26.0	724	2009	Local	V
50 Hi	llside Ave.	South Mountain Ave.	St. Lukes Place	Local	35.5	701	2009	Local	v
51 Lle	ewellyn Rd.	S. Mountain Ave.	Harrison Ave.	Local	32.0	1832	2008	Local	v
52 Lle	ewellyn Rd.	Harrison Ave.	Elm St.	Local	32.0	3246	2009	Collector	-111
53 Lo	orraine Ave.	N. Mountain Ave.	Duryea Rd.	Local	32.0	3642	2011	Collector	m
54 M	aple Ave.	Lincoln St.	Elmwood Ave.	Local	36.0			Local	V
55 M	aple Ave.	Elmwood Ave.	Bloomfield Ave.	Local	36.0	3959	2015	Collector	JII
56 M	ountainview Pl.	Bell St.	Valley Rd.	26	L			Local	v
57 M	t. Hebron Rd.	Highland Ave.	Valley Rd.	Local	35.0	4924	2016	Local	V
58 M	t. Hebron Rd.	Valley Rd.	Grove St.	County	35.0	9519	2009	Collector	u u
59 N.	Fullerton Ave.	NJT Railroad	Watchung Ave.	Local	32.0	3149	2016	Local	V
60 N.	Fullerton Ave.	Watchung Ave.	Wildwood Ave.	Local	32.0	1305	2008	Local	V
61 N.	Mountain Ave.	Bloomfield Ave.	Club St.	Local	33.0	6868	2014	Collector	m
62 N.	Mountain Ave.	Club St.	Watchung Ave.	Local	33.0	4073	2014	Collector	m
63 N.	Mountain Ave.	Watchung Ave.	Lorraine Ave.	Local	33.0	3105	2009	Local	v
64 No	ormal Ave.			County	30.0	10466	2011	Minor Arterial	1
65 No	ormal Ave.	at NJT RR Xing				6979	2016	Minor Arterial	1
66 Oa	ak St.			Local	28.0		0	Local	V
67 OI	range Rd.	Orange line	Llewellyn Rd.	County	40.0	9499	2015	Minor Arterial	11 / VI
68 Or	range Rd.	Llewellyn Rd.	Union St.	Local	30.0	745	2009	Local	VI
69 Or	range Rd.	Union St.	Bloomfield Ave.	Local	40.0	11811	2009	Minor Arterial	11
70 Or	range Rd. West			County	0.0	6352	2011	Minor Arterial	VI
71 Pa	ark St.	Bloomfield Ave.	Claremont Ave.	Local	40.0	7842	2014	Collector	IV
72 Pa	ark St.	Claremont Ave.	Chestnut St.	Local	35.0	5062	2011	Collector	
73 Pa	ark St.	Chestnut St.	Watchung Ave.	Local	35.0	5844	2014	Collector	10
74 Pa	ark St.	Watchung Ave.	Lorraine Ave.	Local	35.0	5882	2014	Collector	.111
75 Pa	ark St.	Lorraine Ave.	Glenwood Ave.	Local	35.0	4899	2014	Collector	III
76 Pir	ne St.	Bloomfield Ave.	Glenridge Ave.	Local	33.0	5177	2016	Collector	.01
77 Pi	ne St.	Glenridge Ave.	Claremont Ave.	Local	33.0	3609	2011	Local	v
78 Pir	ne St.	Claremont Ave.	Walnut St.	Local	33.0			Local	V
79 Ple	easant Way			Local	26.0			Local	V
80 Ple	easant Way			Local	26.0			Local	v
81 S.	Fullerton Ave.	Union St.	Bloomfield Ave.	Local	30.0	6263	2016	Local	V
82 S.	Mountain Ave.	Eagle Rock Way	Union St.	Local	35.0	2893	2014	Local	v
83 S.	Mountain Ave.	Union St.	Bloomfield Ave.	Local	35.0	8809	2014	Collector	III
84 S.	Park St.	The Crescent	Church St.	Local	36.0	1970	2014	Collector	IV

Source: Montclair Engineering Bureau

BOLD = Priority Corridors

2/8/2017

RECOMMENDED SAFE CS NETWORK RECOMMENDATIONS (ON-ROADLINKS ONLY)

No STREET NAME	START	END	JURISDICTION	WIDTH	ADT	COUNT YEAR	FUNCTIONAL CLASS	TYPOLOGY
85 S. Park St.	Church St.	Bloomfield Ave.	Local	54.0	2711	2014	Collector	IV
86 The Crescent	Trinity Pl.	South Park St.	Local	26.0	1922	2016	Local	v
87 Union St.	Orange Rd.	S. Willow St.	Local	32.0	3617	2016	Collector	Ш
88 Union St.	S. Willow St.	Elm St.	Local	32.0	3285	2016	Collector	- 111
89 Upper Mountain Ave.	Bellevue Ave.	Jerome +300 ft.	Local	32.5	15795	2011	Minor Arterial	1
90 Upper Mountain Ave.	Jerome +300 ft.	Mt. Hebron Rd.	County	32.5	9167	2008	Minor Arterial	- 1
91 Upper Mountain Ave.	Mt. Hebron Rd.	Little Falls line	County	32.5	8132	2015	Minor Arterial	1
92 Valley Rd.	Bloomfield Ave.	Claremont Ave.	County	36.0	15195	2014	Minor Arterial	1
93 Valley Rd.	Claremont Ave.	Watchung Ave.	County	32.0	12965	2011	Minor Arterial	1
94 Valley Rd.	Watchung Ave.	Bellevue Ave.	County	32.0	13212	2009	Minor Arterial	1
95 Valley Rd.	Bellevue Ave.	Mt. Hebron Rd.	County	40.0	12920	2014	Minor Arterial	u
96 Valley Rd.	Mt. Hebron Rd.	Normal Ave	County	40.0	13359	2009	Minor Arterial	
97 Valley Way	200 ft. south of Eagle Rock Way		Local	28.0	1849	2013	Local	v
98 Walnut Crescent	Walnut St.	Oxford St.	Local	30.0	6071		Collector	
99 Walnut St.	Valley Rd.	Park St.	Local	35.0	7751	2009	Collector	.01
100 Walnut St.	Park St.	Greenwood Ave.	Local	35.0	8096	2014	Collector	ш
101 Walnut St.	Greenwood Ave.	Grove St.	Local	40.0	7377	2011	Collector	IV
102 Walnut St.	Grove St.	Walnut Crescent	Local	36.0	3651	2009	Collector	111
103 Washington Ave.			Local	28.0	3503	2014	Collector	ш
104 Watchung Ave.	Upper Mountain Ave.	Valley Rd.	County	36.0	5824	2011	Minor Arterial	1
105 Watchung Ave.	Valley Rd.	Park St.	County	36.0	12834	2008	Minor Arterial	1
106 Watchung Ave.	Park St.	Grove St.	County	36.0	12517	2014	Minor Arterial	1
107 Watchung Ave.	Grove St.	Glen Ridge line	County	36.0	14791	2011	Minor Arterial	1
108 Willowdale Ave.	Hollywood Ave.	Washington Ave.	Local	26.0			Local	V
109 Willowdale Ave.	Washington Ave.	Lincoln St.	Local	35.0	1253	2008	Local	V
110 Willowdale Ave.	Lincoln St.	Woodland Ave.	Local	36.0			Local	v
111 Willowmere Ave.			Local	26.0	440	2016	Local	V
112 Woodland Ave.			Local	36.0			Local	v
113 Yantacaw Brook Rd			Local	30.0	705	2009	Local	V

2/8/2017









STREET TYPOLOGIES:

TYPOLOGY I - Minor Arterial Street (Up to 37.5') TYPOLOGY II - Minor Arterial Street (38'+) TYPOLOGY III - Collector Street (Up to 37.5') TYPOLOGY IV - Collector Street (38'+) **TYPOLOGY V - Local Street TYPOLOGY VI - One-Way Street**

Legend for Typologies

SPEED









On-Street Average Parking Not Daily Traffic Permitted (Count Year)



TYPOLOGY I: Minor Arterial Street (Up to 37'wide) (example: Upper Mountain Avenue)





RECOMMENDATIONS

more attractive to a wide

range of bicyclists at all

levels and ages

coordinating snow removal and

buffer will vary depending on width

weeping will be required

install bicycle lanes on bot	th sides with a s	triped buffer		Alternative	e A 🚑
BENEFITS		CONSIDERATIONS		100	
embles bicyclists to rate at their referred speed without interforence ram prevailing traffic conditions a baffer provides o greater shy distance etween matar vehicles and bicyclists has appealing to a wider cross-section of bicycle users visually reminds matarists of bicyclists ⁴ ight to the street		- parking will need to be restricted greater enforcement is required to prevent matorisis from parking in the bicycle lane	Min. Pavement Width: 32.5'		5° TEU ZOWA 5° TEU ZOWA BICYCLE LANE W/ BUFFER Ø
install two-way protecte with bollards	id bloycle lane	s with a striped buffer		Alternativ	е в
BENEFITS	CONSIDERA	TIONS		V	V
	- ideal for ro	adways with longer	The second second	-	4 4 1

MIN, PAVEMENT

WIDTH: 32.5'

(uphil) direction) and odd sharrow y (downhill direction)
CONSIDERATIONS
 requires posted speed limit reduction to 25 mph may encourage wrong-way bicycle nding - necommended formodways with steep slopes

install sharrows or shared lane markings	in conjunction with
traffic calming measures such as install	ing speed humps,
tightening the curb radil, adding curb ex	tensions etc.
BENEFITS	CONSIDERATIONS
 Indicate the most appropriate and safe leadtons to ride an with respect parked cors and moving regific renforces the legithmacy of bloycle traffic an the street: requires no restrictions on parking can be used to fill a gap within a bloycle network provide wayfinding guidance 	- requires posted speed limit reduction to 25 mph - not ideal far high volume roadways - does net dedicate exclusive use for bicyclists

INTERSECTION TREATMENTS

- consider intersection treaments for both bicyclists and pedestrians to improve visibility / safety and help in creating a complete network
- intersection treatments can include but are not limited to high-visibility crosswalks. bicycle boxes, curb extensions, continuous bicycle markings, loop detectors at signalized intersections, etc.
- a traffic calming effect and make it easier for pedestrians to cross the roadway by reducing the crossing distance.

SIGNAGE

· place centerline "stop for pedestrians" signs on lower speed roadways to help alert drivers of a crosswalk ensure crosswalk signs meet current standards



feasible and regularly maintain them

Bicycle Box, San Francisco, CA (Credit: SF Bicycle Coalition)

Alternative C

Alternative D

æ





DRAFT

MAX. SPEED: 25 MPH MAX. ADT: 10.000

MAX. SPEED: 25 MPH MAX. ADT: 10,000



Stop For Pedentrians" Sign

prristown, NJ

TYPOLOGY II: Minor Arterial Street (38'+ wide) (example: Grove Street)





8' 10' 10' P TRAVEL TRAVEL LANE LANE

RECOMMENDATIONS

more attractive to a wide range of

parking will need to be estricted on one side or

both sides for narrow roads

bicyclists at all levels and ages

BUFFERED BICYCLELANE					
install bicycle lanes on both sides wi	h a striped buffer		-	Alternative A	
BENEFITS	CONSIDERATIONS	1			
 Enables bicyclists to ride at their preferred speed without interference fram prevailing traffic conditions biglie provides o greates sky dista biglie provides o greates visually reminds matorists of bigycli right to the street 	- parking will need to be restricted on rom side - greater enforcement is required to prevent motorist from parking in the bicycle lane	ALTERNATE (NO 11' TRAVEL LANE 6' BICYCLE LANE	VER ZOHE D PARKING) ES S W/ BUFFER	SUPERIO CANE DE CANE SUPERIO CANE DE CANE LANE LANE LANE BUFFR BUFFR BUFFR	Pro Zowe
Install two-way protected bicycle	anes with a striped buffer		-	Alternative B	
with bollards				Alternative b	
BENEFITS	CONSIDERATIONS	TITLE	V	4	T
- dedicates and protects space for. bicyclists - reduces risk and fear of collisions especially with over-taking vehicles	-ideal for roadways with longer blocks as additional considerations is required at driveways and side-street		THE DAME		Ten Zone

Install a bicycle lane on one side (uphill direction) and add sharrows on the other side of the roadway (downhill direction) CONSIDERATIONS BENEFITS - a dedicated bicycle facility uphill - parking may need to be enables matorists to safely pass restricted on one side on slawer-speed bicyclists narrow roadways - maximizes existing roadway - may encourage wrong-way bicycle riding widths - recommended for roadways with steep slope n with

SHANNOWS & INAFFIC CALIMIN	0
 install sharrows or shared lane markings in traffic calming measures such as installing tightening the curb radil, adding curb exter BENEFITS 	n conjunction with g speed humps, nsions, etc, CONSIDERATIONS
 - Indicates the most appropriate and safe locations to ride on with respect to parked cors and moving traffic - reinforces the legitimocy of bicycle traffic an the street - requires no restrictions on parking - an be used to fill a gap within a bicycle network - provide wwyfinding guidance 	- does not dedicate exclusive use for bicychids - not vizeal for high valume roadways

INTERSECTION TREATMENTS

- consider intersection treaments for both bicyclists and pedestrians to improve visibility / safety and help in creating a complete network
- intersection treatments can include but are not limited to high-visibility crosswalks. bicycle boxes, curb extensions, continuous bicycle markings, loop detectors at signalized intersections, etc.
- Treatments such as curb extensions also create a traffic calming effect and make it easier for pedestrians to cross the roadway by reducing the crossing distance.

SIGNAGE

· place centerline 'stop for pedestrians" signs on lower speed roadways to help alert drivers of a crosswalk ensure crosswalk signs meet current standards



ow-Cost Curb Extensions and continuous bi-

certain streets

Stop For Pede trians" Sign

prristown, NJ

OTHER RECOMMENDATIONS

consider using other traffic calming

measures such as installing speed

humps, tightening the curb radii of

install high-visibility crosswalks where

feasible and regularly maintain them



Bicycle Box, San Francisco, CA (Credit: SF Bicycle Coalition)





DRAFT

MAX, SPEED: 25 MPH

MAX. ADT: 10,000

MAX. SPEED: 25 MPH MAX. ADT: 10,000

Alternative C

Alternative D

A.

TYPOLOGY III: Collector Street (Up to 37.5' wide) (example: S. Mountain Avenue) LOCATION MAP





2.900

RECOMMENDATIONS

bicyclists

reduces risk and fear of collisions

especially with over-taking vehicles

bicyclists at all levels and ages

- more attractive to a wide range of

install bloycle lanes on both sides wit	n a striped buffer	Alternative A	100
BENEFITS	CONSIDERATIONS		
enables Bicyclists to ride at their oreferred speed without interference (rom prevails taff): conditions a buffer provides a greater sky dista between motor vehicles and bicyclist thus appealing to 9 wider cross-sectio of bicycle users Visually reminds motorists of bicyclis right to the street	- parking will need to be restricted an both sides - grapher enforcement is required to prevent motorist fram parking in the bicycle lane ts'	TEX ZONI S' MIN. PAVEMENT WIDTH: 32.5' BIOYCLE LANE WIDTH: 32.5'	5' 100 Zon BACYCLE ULANE // BUFFER
ROTECTED BICYCLE LAN	ES	Alternative B	
with bollards	anes with a sulped putter		100
projection	CONCIDERATIONS		100
BENEFITS	CONSIDERATIONS		

onger blocks as additional

nsiderations is required

at driveways and side-street

parking will need to be

restricted on both sides

rossings



SHARED USE PATH add a two-way shared use path esper large landscape buffers, longer blocks of-way is available	cially in locations with and where public rig
BENEFITS	CONSIDERATIONS
 - completely separated from motor vehicle traffic and potentially with jewer intersections and as a result are safer than other facilities - can provide an engoyable recreational apportunity - appealis to users of all ages and abilities - parking does not need to be restricted 	 -Ideal for roadways with longer blocks as additional considerations is required al driveways - attract a variety of user groups who often Inave conflicting needs

CLIMBING BICYCLE LANE & SHARROWS

CONSIDERATIONS

bicycle riding

with steep slope

parking will ney d to be

does not dedicate

exclusive use for

bicyclists

restricted on one side

on the other side of the roadway (downhill direction)

SHARROWS & TRAFFIC CALMING

- indicates the most appropriate and safe

incations to ride on with respect to parked

- reinforces the legitimacy of bicycle traffic an

- requires no restrictions on parking - can be used to fill a gap within a bicycle

- provide wayfinding guidance

· install sharrows or shared lane markings in conjunction with traffic calming measures such as installing speed humps, tightening the curb radii, adding curb extensions, etc.

- a dedicated bicycle facility uphill

enables motorists to safely pass-

- maximizes existing roadway

slower-speed bicyclists

BENEFITS

widths

BENEFITS

the street

network

cars and moving traffic

Alternative C + t RECOMMENDE WITHIN PUBLIC 10' 10' TRAVEL TRAVEL LANE LANE R.O.W ONLY





INTERSECTION TREATMENTS

- · consider intersection treaments for both bicyclists and pedestrians to improve visibility / safety and help in creating a complete network
- intersection treatments can include but are not limited to high-visibility crosswalks, bicycle boxes, curb extensions, continuous bicycle markings, loop detectors at signalized
- intersections, etc. Treatments such as curb extensions also create a traffic calming effect and make it easier for pedestrians to cross the roadway by reducing the crossing distance.





Credit: SF Bicycle Coalition)

Typology IV: Collector Street (38'* wide) (example: Glenridge Avenue)





RECOMMENDATIONS

visually reminds motorists of bicyclists' right to the street

Install two-way protected bicycle with bollards	lanes with a striped buffer	Alternative A
BENEFITS	CONSIDERATIONS	
- dedicates and protects space for bicyclists - reduces risk and fear of collisions especially with over-taking vehicles - more attractive to a wide range of bicyclists of all fevels and ages - BUFFERED BICYCLE LANE	 - Ideal for roadways with longer block as additional considerations is required at driveways and side-street crossings. - parking will need to be restricted on one side 	PUEZDAN BY PUEZDAN BY PUEZDA
install bicycle lanes on both sides w	Ith a striped buffer	Alternative B
BENEFITS	CONSIDERATIONS	
anables kinveliets as role at their	- parking will need to be	

NOTECTED BICTCLE EAN	LS W/ PARNI	NG	Altorn	ative C
stan two-way protected bicycle Itween the sidewalk and on-stri	eet parking		Alterna	
INEFITS	CONSIDERATIO	INS		
ledicates and protects space for cyclists Hanhates risk and fear of Histons especially with over-taking hicles nore attractive to a wide range of cyclists at all levels and ages	- Ideal for roodw langer blocks a considerations is at driveways an crossings - parking will ne restricted on ori	ays with additional srequired 5 side-street ed to be side	Peu Zonu 9'7.5' Two-Way Photecreo Bicwrcie Lane	tori tori Revente Interest Lovie Device Lovie 20
INVIBING BICYELE LANE stall a bicycle lane on one side (up	& SHARRON	/S	Alterna	tive D
the other side of the roadway (de	ownhill direction)		12	
ENEFITS	CONSIDERATION	5		
a dedicated blcycle facility uphill ables matorists to safely pass ower speed bicyclists naximizes existing roadway	may encourage w bicycle riding recommended for with steep slopes	roodways	Y B C B	Pto Zom.
dthx.			7.5 10' 9 5' TRAVE BICYCLE LANE LANE (UPHILL)	L TRAVEL P LANE MAX, SPEED: 2 SHARROWS (DOWNHILL) MAX, ADT:
stall sharrows or shared lane m affic calming measures such as phtening the curb radil, adding ENERITS	tarkings in conjuit installing speed curb extensions, CONSI	I humps, etc. DERATIONS	Alter	native E
indicates the most appropriate and cations to ride on with respect to p its and moving traffic einforces the legitimacy of bicycle e street	d safe - does arked exclusi bicycli: traffic on	not dedicate ve use for sts	Pra Zine	A. PER LOW
equires na restrictions on parking ran be used ta fill a gap within a bi stwork provide wayfinding guidance	C)/E/E		9 12' TRAVEL LANE W/ SHARROWS	12' P TRAVEL LANE W/ SHARROWS MAX. ADT:
TERSECTION TREATIME	NTS or both	MAN STATE		
cyclists and pedestrians to imp fety and help in creating a corr	nove visibility /			T
tersection treatments can inclu	de but	PERSONAL PROPERTY	11 301	A. 19
e not limited to high-visibility cr	osswalks,			
cycle boxes, curb extensions, o cycle markings, loop detectors tersections, etc.	at signalized			
eatments such as curb extension	it essier for	11		
idestrians to cross the roadway	/ by reducing		the second	
		I OWLCOST CHIP FYTO PRIORE	and continuous n-	RICUCIO HOY SOD FRANCISCO I
	stall two-way protected bicycle tween the sidewalk and on-stre ENEFITS ledicates and protects space for cyclists iminates risk and fear of iminates risk and ages IIMBING BICYCLE LANE stall a bicycle lane on one side (up 1 the other side of the roadway (de ENEFITS a dedicated bicycle facility uphill a dedicated bicycles facility uphill a dedicated bicycle facility uphill a dedicated bicycles facility uphill is freet reavers are restrictions on parking to a facility and help in creating a con- tersection treatments can inclu cycle bicxes, curb dedesicians to imple dety and help in creating a con- tersection treatments can inclu cycle bicxes, curb extensions, to cycle bicxes, curb extensions, to reatments such as curb extensions, cleatrians to cross the road and makes detatians to cross the road and makes detatians to cross the road and makes detatians to cross the road and and the set and the set on the detation and the or and the detations to cross the road and makes detations to cross the road and and the set on the set on the detates and the or a	stall two-way protected bicycle tanes with a strip tween the sidewalk and on-street parking ENEFITS CONSIDERATION Indicates and protects space for cyclists: "Infinites risk and fear of illinions especially with over-taking includes and protects apace for cyclists at all levels and oges." INTIDENTIFY CONSIDERATION a deficient of the construction of the cyclists and the side of the condway (downhill direction) and a the other side of the condway (downhill direction) and a the other side of the condway (downhill direction) ENEFITS CONSIDERATION a deficient of the condway (downhill direction) a deficient of the condway (the condway	Stall two-way protected bicycle lanes with a striped buffer in tween the sidewalk and on-street parking ENEFTS CONSIDERATIONS Indicates and protects space for typication is sequined at diversal so additional consideration is sequined at diversal considerations in consideration is sequined at diversal considerations in the diversal considerations in consideratina considerenations in considerations in considerations	stati two-way protocoled bioyook tanees with a stringed buffer in tween the sidewalk and on-street parking ENERTS CONSIDERATIONS Reducts and protects agace for thinger side and protects agace for the adate risk ada and the column on this is required and protects aga and the column on this is required to the ther side and the column on this is required the column on the side and the column on the side the column on the side on one side (upbill direction) and add shares the tother side and the column on the side (upbill direction) and add shares the tother side and the column on the side and the column on the side shares or shared for mantaling is peed humps, phenering the cure radii, adding cure watersions, etc. ENERTS Ball shares or shared for markings in conjunction with affic calming measures such as installing ispeed humps, phenering the cure radii, adding cure watersions, etc. ENERTS Brock for the marking the object rations and many sing than a bioset agace and many sing the cure radii, adding cure watersions, etc. ENERTS Brock for the ange watersions to the sing sing than and the phene mean agaregare for angle and the phene mean agaregare for an









TYPOLOGY V: Local Street (example: Llewellyn Road)





1,800

RECOMMENDATIONS

istall a bicycle lane on one side (u in the other side of the roadway (o	ohill direction) and add sharrows lownhill direction)	A	ternative /		
 a dedicated bicycle facility uphill anables matarists to safety pass slower-speed bicyclists manamizes existing roadway widths 	- parking may need to be restricted on one side - may encourage wrong-way bicycle riding - recommended for roadways with steep slopes	Fed Zowe 7 5'	20' Two-Way STREET	5' POR DO BICYCLE LANE (UPHILL) MV	X. SPEED

32.5

BICVCIE BOUTE						
BU VI LE BOULLE		F			-	
	125	t any	2 86 1		- CO 1 I	

· install signage on low-volume /low-speed streets where exclusive bicycle facilities are not necessary

BENEFITS	CONSIDERATIONS
reinforces the legitimacy of bicycle traffic on the street requires no additional space or restrictions on parking can provide wayfinding guidance can discourage sidewalk riding	- does not dedicate exclusive use for bicyclists



SHARROWS & TRAFFIC CA	ALMING
Install sharrows or shared lane ma	arkings in conjunction with
traffic calming measures such as	installing speed humps,
tightening the curb radli, adding o	urb extensions, etc.
BENEFITS	CONSIDERATION
 indicate the most appropriate and s	afe
locations to ride on with respect, parts	ed cars
and maxing traffic reinforces the legitimacy of bicycle ti	raffic on
the street resurvers for restrictions on parking can be used to fill a gap within a bicy	raffic on
network provide wayfinding guidance	rcle

ADVISORY BICYCLE LANES

nstall dashed white lines on both sides of a low traffic volume roadway (no centerline) to delineate bicycle areas				
BENEFITS	CONSIDERATIONS			
 striping offers visual separation and reminds people that the road is a shared space. have o traffic coiming effect as motorists tend to travel slower provides a vable-aption for bicycle facilities on narrow, roadways. 	- less protection for syclists than a conventional bsycle lane - unfamiliarity with the treatment cun lead to confusion - may requirin restrictions on parking			

Alternative C MAX. SPEED: 25 MPH MAX. ADT: 10,000





Credit: NACTO)

traffic circles, pedestrian refuges etc. INTERSECTION TREATMENTS

typical delsgn elements along a bicycle boulevard include forced-turn islands. centerline medians with bicycle/pedestrian pass

required

- consider a bicycle boulevard / groenway treatment by optimizing bicycle travel along low-volume and low-speed streets using treatments such as traffic calming, signage, and pavement markings, and intersection crossings · can be achieved with minor changes to the street configuration and no additional width is

· consider intersection treaments for both bicyclists and pedestrians to improve visibility safety and help in creating a complete network Intersection treatments can include but

throughs, raised crossings / intersections, mini-

are not limited to high-visibility crosswalks, bicycle boxes, curb extensions, continuous bicycle markings, loop detectors at signalized intersections, etc.

Treatments such as curb extensions also create a traffic calming effect and make it easier for pedestrians to cross the roadway by reducing the crossing distance.



ow-Cost Curb Extensions and continuous bi-

ycle markings, Hoboken, NJ



Ini-Traffic Circle, Madison, WI

edit: NACTO)

Bicycle Box, San Francisco, CA (Credit: SF Bicycle Coalition)



TYPOLOGY VI: One-Way Streets (example: Glenridge Avenue)



RECOMMENDATIONS

vehicle traffic with a striped buff	er and sharrows on the other side	· 🏭 🏯	Alternative A
provides direct access and connectivity for bicycles traveling in both directions - Bicyclists da not have to make a detour as a result of one-way traffic - limits dangerous wrong-way riding by allowing cyclists to sofely ride in the apposite direction of cars	-use only where bicyclists can effectively and conveniently make transitions at the terminus of the bicycle lane -ideal for a few blocks to complete a proposed or existing blocke network -relevant signage is important - buffers are meeded for sigle movement of the bicyclists	Fra zone Bier W/	5' 7.5' 11' 7.5' 1007E21ANI BUFFE7 DUTE VIAN SHARBOWS MAX. SI MAX. SI MAX. SI MAX. SI
BUFFERED BICYCLE LA Install bicycle lane with a buff BENEFITS	NE (ONE-WAY TRAVEL)		Alternative B
- minhlin himeliste en ride en rhid	- only accommodates		

m prevailing traffic conditions blcyclists a buffer provides a greater shy distance to discourage between motor vehicles and bicyclists vrong-way riding a thus appealing to a wider cross-section bloycle facility should be provided for the of bicycle users visually reminds motorists of bicyclists opposite direction on a ight to the street eighboring street



SPEED LIMIT

Existing street example - Glenridge Ave (Eastbound)

EXISTING

34



treatment by optimizing bicycle travel along low-volume and low-speed streets using treatments such as traffic calming, signage, and pavement markings, and intersection crossings can be achieved with minor changes to the street configuration and no additional width is feniupen

· typical deisgn elements along a bicycle boulevard include forced-turn islands, centerline medians with bicycle/pedestrian pass throughs, raised crossings / intersections, minitraffic circles, pedestrian refuges etc.

 consider intersection treaments for both bicyclists and pedestrians to improve visibility safety and help in creating a complete network

are not limited to high-visibility crosswalks, bicycle boxes, curb extensions, continuous bicycle markings, loop detectors at signalized intersections, etc.

a traffic calming effect and make it easier for the crossing distance

SIGNAGE

· consider placing centerline "stop for pedestnans" signs on lower speed roadways to help alert drivers of a crosswalk

OTHER RECOMMENDATIONS consider using other traffic calming measures such as installing speed humps, tightening the curb radii of certain streets

walking area of leaves and other debris



ange Road West, Montclair, NJ



Mini-Traffic Circle, Madison, WI





ow-Cost Curb Extensions and continuous biycle markings, Hoboken, NJ

Bicycle Box, San Francisco, CA edit: SF Bicycle Coalition)

regularly maintain sidewalks by clearing

feasible and regularly maintain them

install high-visibility crosswalks where





DRAFT



25 MPH

: 10,000

4,600

ADT

(2010)

Intersection treatments can include but

Treatments such as curb extensions also create pedestrians to cross the roadway by reducing

Stop For Pedeatrians" Sign stown, NJ







MEMORANDUM OF MEETING

TO: FROM: DATE:	Kim Craft, Montclair and Bill Riviere, NJDOT Mike Dannemiller, Rachana Sheth 03/08/2017 at 7:00 pm Montclair Fire HQ
ATTENDEES:	See attached Sign-In Sheet
SUBJECT:	Montclair SAFE CS Implementation Plan – Public Information Center NV5, Inc. Project # J728616.0000095.03

The Montclair SAFE CS Implementation Plan Team (NV5 & Susan Blickstein) held a public open house on Wednesday, March 8th, 2017 from 7:00 p.m. to 9:00 p.m. at the Montclair Municipal Building. The purpose of the meeting was to present the methodology, recommended SAFE CS network, and the pedestrian and bicycle recommendations including street typologies and gather feedback from the public.

The format of the meeting was an open house format with presentation boards and comment forms. In addition, to Montclair and NJDOT staff, the meeting was attended by more than 50 people from the community. A sign-in sheet is attached for reference; however please note that the sign-in sheets do not accurately reflect attendance as several attendees did not sign in. Some of the feedback received is summarized below:

Public Comments

- Street lighting is a major issue and should be highlighted
- Accommodations for landscaping trucks and other large vehicles that typically park in the shoulder should be considered if the recommendations include removing or reducing the shoulder widths
- Safety of the bicyclists in the roadways is a concern
- Consider phasing the implementation of the capital plan municipal streets first as a pilot and then County roads
- Reduce the speed limit to 25 mph town wide

Attachments:

- Sign-in sheet
- Comment forms
- Boards:
 - Schedule
 - What are Bicycle & Pedestrian Friendly Streets?
 - Methodology
 - Recommended SAFE CS Network
 - Priority Network and Street Typologies Assumptions
 - Pedestrian Recommendations
 - Six (6) Street Typologies

NV5 March 20, 2017 Page 2











Name	Title / Affiliation	Email	Phone
Macos Lewis			
KCOTED			
Susan Blickstein	SGB	sblicksteer	Qquail.com
Kachane Sheth	NVSS		0
JOHN KANE	SIENA COMMUNITY GROUP	NJ_JOHNK	@ YAHOO.COM
DAVE FUCIO	People with Vospholther	DAVE. PUED	RVAIROANCE
	6 MM/R		
William Scott	TPIAC	William 6S	cotte Verizou NEI
Cynthia Cox		CJCOX7	1 @ comcast. net
Mollie Shanger	The Martelair Times	grayonor	mjerrey com
Jany Talles	Montelair Top	J	
Will Fearly	Bike and Walk Mentela!	r Nill Ferne	y SC g Mail. CM
Ryan Shanp		rishanp200	gmail.com





Name	Title / Affiliation	Email	Phone	
Counsiluonan REL	Bookenile MD M.	malar Township	(973)	4771146
Laura Torchio B	ike subalt Montchir	torchidanne gmail. com	973 723	5 2848
Alfred Davis	Jr 3601	age Kd MK	973 78	33606
AUDREY HAWLEY	17 GREN	4DA PL.	973 80	9-4372
Bythe Eamar	9 Carteret	St. BLYTHEEAMAN OG	n973-58	30-0838
Roz Moskowitz Bi	elski 11 Wedge	ewood DR. W.O. Please	nt bilky	Cinc Association
CALL DISCO.	6	PSAUL	W Kaye	913-650-0+49
GRAY KUSSELL	JUSTACNABILITY OFFIC	icsty TWSP. of MONTCLASP	973 50	09-5721
BEN SELBY	III BOE	bSelby @ MONTCLAIR. KIR. NJ.	US 973.	509-4055
Sleve Rooning	MPB, HPC #5	Srooney chi e cancast we	et 973-	632-7794
ANDREW REIMANN		ANDREWG JALAPEND (YELING. COM	917 - 99	3-0302
John Sulliva	Bandardan	Johngullius 73 Ocimail com	646-76	3-2365
Mike Dannentiller	NVS	Michael, Dannemiller B.NV5. Co	m 973-9	46-5626







Name	Title	/ Affiliation	Email	Phone
NORMA	79381 1	SIKE: MAUK NUTK		873768-8541
Mar RILA	5	MSUUSGBC		2d 655-9960
James	ra Grant	Resident	iamer	na grant @ gmail.com
Koren	September	Re Sident)	973 7440755
JOE DI	OSCAKÍ	RESIDENT		
Debra	Kagan	Regiz +BURN M		dicagar@bilproduction.n.
Willia	m Riviere	NJDOF		1 91
Michael	Garret	Texpeyer	Mic	had @ cavarly com
			¥	
ė.				





.

Name	Title / Affiliation	Email	Phone
Carmel to between	Bleerin Con	muttee	
D	0		



MONTCLAIR SAFE COMPLETE STREETS IMPLEMENTATION PLAN

Final Public Open House COMMENTS

If you have any comments or recommendations for improving walking or biking in Montclair, please indicate below.







Final Public Open House COMMENTS

If you have any comments or recommendations for improving walking or biking in Montclair, please indicate below.

HIGHLY RECOMEND SHARING ALL OF THESE WITH MAP APS LIKE APPLE; GOOGLE MAPS. I RODE MY BIKE HERE FROM DOWN TOWN BLOOMFIPDD; THE MAPS KEPT ROUTING WE BACK TO BLOOMFIELD AVE, WOULD LOVE TO SEE THESE PROJECTS GET THE MAXIMUM EXPOSURE POSSIBLE. MORESO, I AM YERY INTERESTE IN STAYING UP DATED ON THE PROPOSED RAIL TRAIL FROM HERE TO JERSEY (1TY. - ANDREW REIMANN ANDREW JALAPENDCY(LING COM
BIKE HERE FROM DOWN TOWN BLOOMFIEDD, THE MAPS KEPT ROUTING WE BALK TO BLOOMFIELD AVE, WOULD LOVE TO SEE THESE PROJECTS GET THE MAXIMUM EXPOSURE POSSIBLE. MORESO, I AM VERY INTERESTE IN STAYING UP DATED ON THE PROPOSED RAIL TRAIL FROM HERE TO JERSEY (ITY. — ANDREW REIMANN ANDREW JALAPENDCYLLING.COM
WOULD LOVE TO SEE THESE PROJECTS GET THE MAXIMUM EXPOSURE POSSIBLE. MORESD, I AM VERY INTERESTED IN STAYING UP DATED ON THE PROPOSED RAIL TRAIL FROM HERE TO JERSEY (ITY. — ANDREW REIMANN ANDREW JALAPENDCYLLING COM
IN STAMING UP DATED ON THE PROPOSED RAIL TRAIL FROM HERE TO JERSEY (ITY. - ANDREW REIMANN ANDREW JALAPENDCYLLING.COM
- ANDREW REIMANN ANDREWG JALAPENDCYLLING.COM
ANDREW JALAPENDCYLLING. COM



MONTCLAIR SAFE COMPLETE STREETS IMPLEMENTATION PLAN

Final Public Open House COMMENTS

If you have any comments or recommendations for improving walking or biking in Montclair, please indicate below.

Excellent work. Maybe consider phasing the implementation of the capital plan to do a municipal sheet first (perhaps as a
pilet), demonstrate the success of the complete sheet, then use this success story to push Essex county into more aggiversive comple
Ineed impledentation on county konds.
Also love the mini traffic circles





Final Public Open House COMMENTS

If you have any comments or recommendations for improving walking or biking in Montclair, please indicate below.

Street lights ore not enough. The spects orerall one very DALK	
Nishuone PARK- 15 not it at all at nights	



MONTCLAIR SAFE COMPLETE STREETS IMPLEMENTATION PLAN

Final Public Open House COMMENTS

If you have any comments or recommendations for improving walking or biking in Montclair, please indicate below.

OMDIETE TOPOGRADAG THE KEVIEN TEP 0 minta AN THE Cinia ECUMTH nAA THE TE



Final Public Open House COMMENTS

If you have any comments or recommendations for improving walking or biking in Montclair, please indicate below.

THAT TODES NOT PRIORITIZE LIKE A R ANOTHER. OF ARE EASY TO USE, RUN & BOTH NORTH-GOL LANES THAT VERS D TO MIDN DEIDRITHED NORIC DE 0051 OF HOME OWNERS PAE Thran THOT HAPS mark PASSABLE ARE A MUST. ROADS



MONTCLAIR SAFE COMPLETE STREETS IMPLEMENTATION PLAN

Final Public Open House COMMENTS

If you have any comments or recommendations for improving walking or biking in Montclair, please indicate below.

Cateat to have some thought about happie in the Area.

Blayde regregation from anto tropper will enable more people to whe.

The various choices is policitions show much anoist and will work if

in for all news and also imposite above difficult intersection our as watching \$ the two parle streets. I am there given and one num meds to be done. Stop lights, traybuil anders on any other calements devices unds to be implemented.



MONTCLAIR SAFE COMPLETE STREETS IMPLEMENTATION PLAN

Final Public Open House COMMENTS

If you have any comments or recommendations for improving walking or biking in Montclair, please indicate below.





MONTCLAIR SAFE COMPLETE STREETS IMPLEMENTATION PLAN

Final Public Open House COMMENTS

If you have any comments or recommendations for improving walking or biking in Montclair, please indicate below.

1 Dr 00 narc 00 two rov are Aven ass mal



Michael Dannemiller

From: Sent: To: Subject: Kimberli Craft <kcraft@montclairnjusa.org> Friday, March 10, 2017 9:34 AM Michael Dannemiller FW: SAFE Streets Plan

FYI

Kimberli R. Craft, P.E.

From: juliebrian@comcast.net [mailto:juliebrian@comcast.net] Sent: Friday, March 10, 2017 9:08 AM To: Kimberli Craft Subject: SAFE Streets Plan

Dear Ms. Craft,

Thank you for looking at a plan to make our streets safer for cyclists and pedestrians. I was not able to attend your open house this week, so I wanted to write with a comment. I think it would be wonderful to make bike routes on our streets (like Upper Mountain). In your safety analysis, I urge you to also take into account landscaping trucks that are often parked on our streets. They take up the shoulder if one exists and usually some of the driving lane as well. I don't know what the solution is (maybe they should have to park in their clients' driveways) but that needs to be solved for us to use streets safely.

Thank you,

Julie Clemens

116 Central Ave

Rachana Sheth

From:	Michael Dannemiller
Sent:	Monday, March 20, 2017 10:03 AM
То:	Rachana Sheth
Subject:	FW: SAFE Streets
Follow Up Flag:	Follow up
Flag Status:	Flagged

Please add to public comments:

Michael Dannemiller, PE | Principal Engineer | <u>NV5 – Formerly The RBA Group</u> 7 Campus Drive, Suite 300 | Parsippany, NJ 07054 | P: 973.946.5626

Electronic Communications Disclaimer

From: Kimberli Craft [mailto:kcraft@montclairnjusa.org] Sent: Friday, March 17, 2017 2:40 PM To: 'David Jones' Subject: RE: SAFE Streets

Dear Mr. Jones,

Thank you for sharing your concern, which I will forward to our consultant for inclusion in the final report. Missing sections of sidewalk should certainly be a priority as we seek to improve pedestrian safety on our streets.

Regards, Kim Craft

Kimberli R. Craft, P.E.

From: David Jones [mailto:dkj104@gmail.com] Sent: Friday, March 17, 2017 2:06 PM To: Kimberli Craft Subject: SAFE Streets

Hello Kimberli,

I realize that I am coming to this a bit late and many of the opportunities to voice my opinion have passed, but I was reviewing some of the information about the SAFE Complete Streets Plan and noticed something that concerned me.

According to the attached document (Typologies by Street List from Montclair SAFE) Normal ave has some of the highest traffic volumes in Montclair. My concern is that this street is not on the list of
prioritized streets. The reason for my concern is that the section of Normal ave between Upper Mountain and Highland Ave has no sidewalk, yet might be one of the busiest streets in Montclair.

I feel that this should be part of the prioritized work as it is probably one of the few streets in Montclair that does not have any form of sidewalk. (I've attached a photo of Normal Ave showing the section without the sidewalk - Highland is in the distance.)

I would really appreciate it, if you would consider this portion of Normal ave when prioritizing streets involved in the Complete Streets program.

Thank you

David Jones





MEMORANDUM OF MEETING

TO:Kim Craft, Montclair and Bill Riviere, NJDOTFROM:Mike Dannemiller, Rachana ShethDATE:06/13/2017 at 4:00 pm Montclair Town Hall

ATTENDEES: See attached Sign-In Sheet

SUBJECT:	Montclair SAFE CS Implementation Plan - Final Steering Committee Meeting
	NV5, Inc. Project # J728616.0000095.03

The purpose of the meeting was to review the draft Montclair SAFE Complete Streets Implementation Plan, to obtain feedback from the Steering Committee and discuss next steps. Presentation boards of background material, typologies and the implementation matrix were presented. Handouts included the main body of the report, excerpts from the NJDOT CS Design guide and the agenda (see attached). The sign-in sheet is also attached.

Bill Riviere, NJDOT Bicycle and Pedestrian Programs initiated the meeting an overview of the project and the meeting purpose. Mike Dannemiller and Rachana Sheth provided background of the project, overview of the draft plan and the schedule. The following summarizes the major items of discussion from the Steering Committee meeting:

Steering Committee Input and Recommendations:

- This report is planned to be adopted as an element of the Master Plan and will be presented to the Planning Board and then the Town Council
- Close coordination between county and municipality was recommended especially since there is opportunity to incorporate bicycle and pedestrian accommodations when County roads are resurfaced
- The flexibility of the plan was well-received and the township will solicit consensus from the community to decide what options are selected for implementation
- Modify the implementation matrix to include a recommendation that the Township explore shared responsibility for sidewalk maintenance
- It was recommended that the Traffic & Parking Advisory Committee present and advocate for this plan to be implemented

Immediate Action Items:

- NV5 will provide all final documents necessary to edit and modify the report.
- It was decided that the deadline for sending any additional comments is 6/17/2017
- NV5 will prepare the final plan

NV5 June 26, 2017 Page 2

Attachments:

_

- Attendee List
 - Handouts:
 - Meeting Agenda
 - Excerpts from NJDOT Complete Streets Design Guide

Meeting Photos







6.13.2017

MONTCLAIR SAFE COMPLETE STREETS IMPLEMENTATION PLAN

FINAL STEERING COMMITTEE MEETING SIGN-IN SHEET

Name	Title / Affiliation	Email	Phone	
William Riviere	NJDOT	william. swiere	dot-njejov 600	5304646
Mike Dannemiller	NV5,	Michael. Dannemill	evenus, com 973	3.946.5626
DAVID ANTONIO	Outy of The	DANSONW	Desseranty	y dag
CARMER LOUGHNAN	PLANNING BOX	RS cloudy	ware genal.	Cem
RAGNAWA SHERN	INVS	RACHANA.SNE	THE NVS. COM	9739465685
Kin Cool	Montclair	Kevof @ monte	Daurijusa. com	973-509-5707
Debra Kagan	RWM	debra. Kagan	1@ gmail.con	201 452-4087-
Janic Tally	Montelan		0.	
Stephanie Egnezzb	Montclair PD	Segnezzo@mor	ntclairnjusa.org	973-509-4718
Latira Torchib	BWM	Torcho D Jam	e @gmanl.c	Com 475 723 28
Erin Roll	Montclair Local	rolle no	stclairloal.	news
Liz Brady	New Sersey Bike + Wa	alk Coglition	Liz, brady e 1	nibuc. org
			0	J

144

 $\gamma = 1$



2017 State of New Jersey Complete Streets Design Guide



Health

4

Street design has a major impact on health. Each additional hour spent driving per day is associated with a 6 percent increase in obesity, while each additional kilometer walked is associated with a 5 percent reduction in this likelihood.

Complete Streets provide opportunities for active transportation by integrating features into street designs that facilitate and encourage walking, cycling, and transit use. One study found that residents are 65 percent more likely to walk in a neighborhood with sidewalks.³ Other studies have shown similar effects where bicycle, pedestrian, and transit infrastructure correlate with higher rates of physical activity and lower rates of obesity.

Streets that are designed only for cars discourage other modes of transportation, including walking and bicycling. Even where sidewalks do exist, large gaps in the sidewalk network, wide intersection crossings, speeding traffic, poor maintenance, and the lack of adequate accommodations for the mobility impaired can make walking unpleasant or unsate.



"sitting is the new smoking"

According to the Centers for Disease Control and Prevention (CDC), more than one-third (34.0 percent) of U.S. adults are obese, with a related estimated annual medical cost of \$147 billion in 2008 dollars. Childhood obesity is also a serious problem in the U.S., affecting about 17 percent or 12.7 million U.S. children 2 to 19 years of age. According to the U.S. Department of Health and Human Services (HHS), one big factor in high obesity levels is inactivity. About 55 percent of the U.S. adult population falls short of recommended activity quidelines.¹



New Jersey Complete Streets Design Guide

SIDEWALKS

INTERSECTIONS

Design Speed

SIDEWALKS

Speed is a critical factor in the occurrence of crashes and the severity of their outcomes. Street design in the latter half of the 20th century was grounded in highway design principles that focused on forgiving driver error and accommodating higher travel speeds. The highway design approach bases design speed and posted speed on the 85th-percentile of how fast drivers are driving rather than how fast they should drive. Designing for faster speed increases the frequency of crashes and their severity. This approach accommodates and encourages speeding and reckless driving behavior, and puts drivers who are driving the speed limit and other roadway users at greater risk. Higher design speeds also have a very negative impact on urban areas and degrade

READWAYS

the pedestrian environment by mandating larger curb radii, wider travel lanes, and generous clear zones to accommodate higher vehicular speeds. Designing for cesired travel speed can help lower travel speeds, reduce crash severity, and otherwise improve the built environment for all users.

INTERSECTIONS

Design speed should be selected based on the context. and roadway elements should be selected and designed to support that speed. Where there are higher volumes of pedestrians, bicyclists, and transit users, roadway cesign should encourage a lower speed differential between modes. On most urban roads, a target speed of between 10 and 30 mph is appropriate.



Bikeway Selection Guidance

Selecting the appropriate bicycle facility is a process that requires an understanding of context, roadway characteristics, the types of cyclists expected to use the facility, and how the facility fits within the overall roadway and cycling network. The flow chart below outlines a basic bicycle planning approach for engineers and planners in New Jersey. The process requires the user to determine which bicycle facility is appropriate for the roadway using the Bicycle Facility Table.

The table below uses 85th percentile motor vehicle speeds (if not available, use posted speed) and average daily traffic to determine which bicycle facility is appropriate and comfortable for most adults (generally a bicycle level of traffic stress of 2 or better). Additional factors, such as truck volumes, should also be considered. Design options with lower speeds or greater separation are more attractive for most bicyclists. As with most design guidance, flexibility through professional judgment is essential in applying the guidelines:



A Bicycle Facility Table

	85TH PERCENTILE SPEED ¹											
ADT	≤ 20	25	30	35	40	45	≥50					
≤ 2,500	ABCDEF	A'BCDEF	CDEF	CDEF	CDEF	DEF	F					
2,500-5,000	BCDEF	BCDEF	CDEF	CDEF	DEF	DEF	F					
5,000-10,000	BICDEF	BICDEF	CDEF	DEF	DEF	EF	F					
10,000-15,000	DEF	DEF	DEF	DEF	EF	EF	F					
≥15,000	DEF	DEF	DEF	EF	EF	F	F					

A: Shared Street/Bicycle Boulevard B: Shared-lane Markings C: Bicycle Lane D: Buffered Bicycle Lane E: Separated Bicycle Lane F: Shared-use Path

'If data not available, use posted speed

² Bicycie boulevards are preferred at speeds ≤25 mph ³Shared-lane markings are not a preferred treatment with truck percentages greater than 10%

New Jarsey Complete Streets Design Guide

106



Appendix E:

RECOMMENDED SAFE CS STREET INVENTORY WITH STREET TYPOLOGIES

RECOMMENDED SAFE CS NETWORK RECOMMENDATIONS

(ON-ROAD LINKS ONLY)

No	STREET NAME	START	END	JURISDICTION	WIDTH	ADT	COUNT YEAR	FUNCTIONAL CLASS	TYPOLOGY
	1 Alexander Ave.	Valley Rd.	Grove St.	Local	28.0	1194	2015	Local	V
	2 Alexander Ave.	Grove St.	Bloomfield line	County	28.0	4420	2009	Collector	<iii< td=""></iii<>
	3 Argyle Rd			Local	26.0			Local	v
	4 Bell St.	Mountainview Place	Bloomfield Ave.	Local	32.0	6075	2009	Collector	IN .
	5 Bellevue Ave.	Upper Mountain Ave.	Norwood Ave.	Local	40.0	6940	2012	Collector	IV
	6 Bellevue Ave.	Norwood Ave.	Grove St.	Local	37.0	8551	2014	Collector	10
	7 Bellevue Ave.	Grove St.	Bloomfield line	Local	35.0	9013	2010	Collector	
	8 Berkeley Pl	Upper Mountain Ave.	Valley Rd.	Local	30.0	1136	2010	Local	v
	9 Bloomfield Ave.	N. Fullerton Ave.	Glenridge Ave.	County	56.0	17011	2010	Principal Arterial	XXXX
1	0 Braemore Rd	Lorraine Ave.	Upper Mountain Ave.	Local	22.0	638	2008	Local	v
1	1 Brooklawn Rd.			Local	26.0			Local	v
1	2 Carolin Rd.	N. Fullerton Ave.	Grove St.	Local	26.0			Local	V
1	3 Cedar Ave.	High St.	Nishuane Rd.	Local	33.0	6625	2015	Collector	10
1	4 Central Ave.	Walnut St.	Chestnut St.	Local	36.0			Local	v
1	5 Central Ave.	Chestnut St.	Valley Rd.	Local	36.0	1208	2014	Local	V/VI
1	6 Champlain Terr.			Local	26.0			Local	v
1	7 Chestnut St.	Valley Rd.	Midland Ave.	Local	32.0	3913	2009	Collector	Ш
1	8 Chestnut St.	Midland Ave.	N. Fullerton Ave.	Local	36.0	4392	2011	Collector	10
1	9 Chestnut St.	N. Fullerton Ave.	Essex Ave.	Local	35.0	5652	2012	Collector	ш
2	0 Chestnut St.	Essex Ave.	Grove St.	Local	35.0	5545	2012	Collector	10
2	1 Church St.	Bloomfield Ave.	S. Park St	Local	25.0	4540	2014	Collector	VI
2	2 Church St.	S. Park St	Orange Rd.	Local	35.0	1003	2011	Collector	10
2	3 Church St.	Trinity Pl.	South Park St.	Local		4707	2016	Collector	ш
2	4 Claremont Ave.	Crestmont Rd.	Valley Rd.	Local	38.0	14743	2009	Minor Arterial	11.
2	5 Claremont Ave.	Valley Rd.	N. Fullerton Ave.	Local	32.0	12847	2011	Minor Arterial	1
2	6 Claremont Ave.	N. Fullerton Ave.	Grove St.	Local	35.0	12906	2015	Minor Arterial	
2	7 Claremont Ave.	Grove St.	Walnut Crescent	Local	32.0	11028	2016	Minor Arterial	1
2	8 Eagle Rock Way	Undercliff Rd.	S. Mountain Ave.	Local	31.0	1772	2008	Local	v
2	9 Edgemont Rd.	Watchung Ave.	Parkside	Local	36.0			Local	V
3	0 Elm St.	Llewellyn Rd.	Elmwood Ave.	County	40.0	13455	2015	Minor Arterial	н

Source: Montclair Engineering Bureau

RECOMMENDED SAFE CS NETWORK RECOMMENDATIONS

(ON-ROAD LINKS ONLY)

No	STREET NAME	START	END	JURISDICTION	WIDTH	ADT	COUNT YEAR	FUNCTIONAL	TYPOLOGY
3	1 Elm St.	Elmwood Ave.	Bloomfield Ave.	County	40.0	11727	2010	Minor Arterial	Ш
3	2 Essex Ave.	Chestnut St.	Champlain Terr.	Local	26.0			Local	V
3	3 Forest St.	Claremont Ave.	End	Local	32.0	2006	2012	Local	V
3	4 Glenridge Ave.	Bloomfield Ave.	N. Willow St.	Local	34.0	4588	2010	Collector	III / VI
3	5 Glenridge Ave.	N. Willow St.	Grove St.	Local	34.0	5873	2014	Collector	III / IV
3	6 Glenridge Ave.	Grove St.	Pine St.	Local	35.0	7974	2010	Collector	10
3	7 Grove St.	Bloomfield Ave.	Walnut St.	County	40.0	12743	2011	Minor Arterial	Ш
3	8 Grove St.	Walnut St.	McDonough St.	County	40.0	17090	2011	Minor Arterial	
3	9 Grove St.	McDonough St.	Watchung Ave.	County	40.0	18978	2009	Minor Arterial	II
4	0 Grove St.	Watchung Ave.	Bellevue Ave.	County	40.0	16181	2011	Minor Arterial	- 11
4	1 Grove St.	Bellevue Ave.	Alexander Ave.	County	40.0	13919	2010	Minor Arterial	н
4	2 Grove St.	Alexander Ave.	Clifton line	County	40.0	13599	2011	Minor Arterial	
4	3 Harrison Ave.	West Orange line	Cedar Ave.	Local	36.0	10362	2011	Minor Arterial	1
4	4 Harrison Ave.	Cedar Ave.	Warren Pl.	Local	36.0	11086	2008	Minor Arterial	
4	5 Harrison Ave.	Warren Pl.	Union St.	Local	36.0	7383	2010	Minor Arterial	1
4	6 Highland Ave.	Claremont Ave.	Edgewood Rd.	Local	26.0	771	2010	Local	v
4	7 Highland Ave.	Edgewood Rd.	Ingleside Rd.	Local	26.0	1120	2010	Local	V
4	8 Highland Ave.	Ingleside Rd.	Windsor Pl	Local	26.0	1105	2010	Local	v
4	9 Highland Ave.	Windsor Pl	Little Falls line	Local	26.0	724	2009	Local	V
5	0 Hillside Ave.	South Mountain Ave.	St. Lukes Place	Local	34.0	701	2009	Local	v
5	1 Llewellyn Rd.	S. Mountain Ave.	Harrison Ave.	Local	32.0	1832	2008	Local	v
5	2 Llewellyn Rd.	Harrison Ave.	Elm St.	Local	32.0	3246	2009	Collector	- 10
5	3 Lorraine Ave.	N. Mountain Ave.	Duryea Rd.	Local	32.0	3642	2011	Collector	III
5	4 Maple Ave.	Lincoln St.	Elmwood Ave.	Local	36.0			Local	V
5	5 Maple Ave.	Elmwood Ave.	Bloomfield Ave.	Local	36.0	3959	2015	Collector	Ш
5	6 Mountainview Pl.	Bell St.	Valley Rd.	26	L			Local	V
5	7 Mt. Hebron Rd.	Highland Ave.	Valley Rd.	Local	35.0	4924	2016	Local	V
5	8 Mt. Hebron Rd.	Valley Rd.	Grove St.	County	35.0	9519	2009	Collector	
5	9 N. Fullerton Ave.	NJT Railroad	Watchung Ave.	Local	32.0	3149	2016	Local	V
6	0 N. Fullerton Ave.	Watchung Ave.	Wildwood Ave.	Local	32.0	1305	2008	Local	V

Source: Montclair Engineering Bureau

RECOMMENDED SAFE CS NETWORK RECOMMENDATIONS

(ON-ROAD LINKS ONLY)

No	STREET NAME	START	END	JURISDICTION	WIDTH	ADT	COUNT YEAR	FUNCTIONAL CLASS	TYPOLOGY
e	1 N. Mountain Ave.	Bloomfield Ave.	Club St.	Local	32.0	6868	2014	Collector	
e	2 N. Mountain Ave.	Club St.	Watchung Ave.	Local	32.0	4073	2014	Collector	III
e	3 N. Mountain Ave.	Watchung Ave.	Lorraine Ave.	Local	32.0	3105	2009	Local	v
e	4 Normal Ave.			County	30.0	10466	2011	Minor Arterial	- 1
e	5 Normal Ave.	at NJT RR Xing				6979	2016	Minor Arterial	1555
e	6 Oak St.			Local	28.0		0	Local	V
6	7 Orange Rd.	Orange line	Llewellyn Rd.	County	40.0	9499	2015	Minor Arterial	11 / VI
e	8 Orange Rd.	Llewellyn Rd.	Union St.	Local	30.0	745	2009	Local	VI
e	9 Orange Rd.	Union St.	Bloomfield Ave.	Local	40.0	11811	2009	Minor Arterial	11
7	0 Orange Rd. West			County	0.0	6352	2011	Minor Arterial	VI
7	'1 Park St.	Bloomfield Ave.	Claremont Ave.	Local	40.0	7842	2014	Collector	IV
7	2 Park St.	Claremont Ave.	Chestnut St.	Local	35.0	5062	2011	Collector	10
7	'3 Park St.	Chestnut St.	Watchung Ave.	Local	35.0	5844	2014	Collector	III
7	4 Park St.	Watchung Ave.	Lorraine Ave.	Local	35.0	5882	2014	Collector	Ш
7	'5 Park St.	Lorraine Ave.	Glenwood Ave.	Local	35.0	4899	2014	Collector	III
7	6 Pine St.	Bloomfield Ave.	Glenridge Ave.	Local	33.0	5177	2016	Collector	111
7	7 Pine St.	Glenridge Ave.	Claremont Ave.	Local	33.0	3609	2011	Local	V
7	'8 Pine St.	Claremont Ave.	Walnut St.	Local	33.0			Local	v
7	9 Pleasant Way			Local	26.0			Local	v
8	0 Pleasant Way			Local	26.0			Local	v
8	1 S. Fullerton Ave.	Union St.	Bloomfield Ave.	Local	30.0	6263	2016	Local	V
8	2 S. Mountain Ave.	Eagle Rock Way	Union St.	Local	35.0	2893	2014	Local	v
8	3 S. Mountain Ave.	Union St.	Bloomfield Ave.	Local	35.0	8809	2014	Collector	111
8	4 S. Park St.	The Crescent	Church St.	Local	36.0	1970	2014	Collector	IV
8	5 S. Park St.	Church St.	Bloomfield Ave.	Local	54.0	2711	2014	Collector	IV
8	6 The Crescent	Trinity Pl.	South Park St.	Local	26.0	1922	2016	Local	v
8	7 Union St.	Orange Rd.	S. Willow St.	Local	32.0	3617	2016	Collector	III
8	8 Union St.	S. Willow St.	Elm St.	Local	32.0	3285	2016	Collector	10
8	9 Upper Mountain Av	e Bellevue Ave.	Jerome +300 ft.	Local	28.0	15795	2011	Minor Arterial	1
9	0 Upper Mountain Av	ve Jerome +300 ft.	Mt. Hebron Rd.	County	28.0	9167	2008	Minor Arterial	1

Source: Montclair Engineering Bureau

RECOMMENDED SAFE CS NETWORK RECOMMENDATIONS

(ON-ROAD LINKS ONLY)

No S	STREET NAME	START	END	JURISDICTION	WIDTH	ADT	COUNT YEAR	FUNCTIONAL CLASS	TYPOLOGY
91 L	Jpper Mountain Ave	Mt. Hebron Rd.	Little Falls line	County	28.0	8132	2015	Minor Arterial	1
92 V	/alley Rd.	Bloomfield Ave.	Claremont Ave.	County	36.0	15195	2014	Minor Arterial	1
93 V	/alley Rd.	Claremont Ave.	Watchung Ave.	County	32.0	12965	2011	Minor Arterial	1
94 V	/alley Rd.	Watchung Ave.	Bellevue Ave.	County	32.0	13212	2009	Minor Arterial	1
95 V	/alley Rd.	Bellevue Ave.	Mt. Hebron Rd.	County	40.0	12920	2014	Minor Arterial	11
96 V	/alley Rd.	Mt. Hebron Rd.	Normal Ave.	County	40.0	13359	2009	Minor Arterial	10
97 \	/alley Way	200 ft. south of Eagle Rock Way		Local	28.0	1849	2013	Local	v
98 V	Walnut Crescent	Walnut St.	Oxford St.	Local	30.0	6071		Collector	- 111
99 V	Walnut St.	Valley Rd.	Park St.	Local	35.0	7751	2009	Collector	10
100 V	Walnut St.	Park St.	Greenwood Ave.	Local	35.0	8096	2014	Collector	- m
101 V	Walnut St.	Greenwood Ave.	Grove St.	Local	40.0	7377	2011	Collector	IV
102 V	Walnut St.	Grove St.	Walnut Crescent	Local	36.0	3651	2009	Collector	10
103 V	Nashington Ave.			Local	30.0	3503	2014	Collector	ш
104 V	Natchung Ave.	Upper Mountain Ave.	Valley Rd.	County	40.0	5824	2011	Minor Arterial	11
105 V	Natchung Ave.	Valley Rd.	Park St.	County	40.0	12834	2008	Minor Arterial	II.
106 V	Natchung Ave.	Park St.	Grove St.	County	40.0	12517	2014	Minor Arterial	11
107 V	Natchung Ave.	Grove St.	Glen Ridge line	County	40.0	14791	2011	Minor Arterial	П
108 V	Willowdale Ave.	Hollywood Ave.	Washington Ave.	Local	26.0			Local	v
109 V	Willowdale Ave.	Washington Ave.	Lincoln St.	Local	35.0	1253	2008	Local	v
110 V	Willowdale Ave.	Lincoln St.	Woodland Ave.	Local	36.0			Local	V
111 V	Willowmere Ave.			Local	26.0	440	2016	Local	V
112 V	Woodland Ave.			Local	36.0			Local	V
113 Y	antacaw Brook Rd			Local	30.0	705	2009	Local	v



Appendix F:

MONTCLAIR COMPLETE STREETS POLICY

TOWNSHIP OF MONTCLAIR

A RESOLUTION AMENDING RESOLUTION TO ESTABLISH A COMPLETE STREETS POLICY

December 6, 2011

WHEREAS, by resolution adopted October 6, 2009 the Township of Montclair established a Complete Streets Policy resolving that all public street projects, both new construction and reconstruction (excluding maintenance) undertaken by the Township of Montclair shall be designed and constructed as "complete streets" whenever feasible to do so in order to safely accommodate travel by pedestrians, bicyclists, public transit, and motorized vehicles and their passengers is committed to creating street corridors that safely accommodate all road users of all abilities with special priority given to pedestrian safety and establishing conditions; now therefore

BE IT RESOLVED by the Council of the Township of Montclair, in the County of Essex, that said resolution be amended by amending subsection c of said conditions to read as follows:

c. In any project, should the proportion of the project costs applicable to pedestrian, public transit, and/or bicycle facilities exceed 20% as determined by engineering estimates that would have to be funded with local tax dollars, then and in that event, approval by Council must be obtained for same prior to bidding of the project.

RECORD OF COUNCIL VOTE

	YES	NO	ABS	N.V.	AB		YES	NO	ABS	N.V.	AB
Councilor Africk		\checkmark				Councilor Murnick	\checkmark				
Councilor Baskerville	~					Councilor Terry	\checkmark				
Mayor Fried	~					Deputy Mayor Weller- Demming	\checkmark				
Councilor Lewis	\checkmark					· · · · · · · · · · · · · · · · · · ·					

I HEREBY CERTIFY the foregoing to be a true copy of a resolution adopted by the Council of the Township of Montclair, in the County of Essex, at its meeting held on December 6, 2011.

J. Manal Linda S. Wanat

Clerk of the Township of Montclair, N.J.

TOWNSHIP OF MONTCLAIR

A RESOLUTION TO ESTABLISH A COMPLETE STREETS POLICY

October 6, 2009

WHEREAS, the Township of Montclair is committed to creating street corridors that safely accommodate all road users of all abilities; and

WHEREAS, significant accomplishments have already been achieved by incorporating pedestrian safety and traffic calming measures when public streets are improved; and

WHEREAS, the Township Council supports this "complete streets" initiative and wishes to reinforce its commitment to creating a comprehensive, integrated, connected street network that safely accommodates all road users of all abilities and for all trips; now therefore

BE IT RESOLVED that all public street projects, both new construction and reconstruction (excluding maintenance) undertaken by the Township of Montclair shall be designed and constructed as "complete streets" whenever feasible to do so in order to safely accommodate travel by pedestrians, bicyclists, public transit, and motorized vehicles and their passengers, with special priority given to pedestrian safety, and subject to the following conditions:

- a. Pedestrian and bicycle facilities shall not be required where they are prohibited by law.
- b. Public transit facilities shall not be required on streets not serving as transit routes and the desirability of transit facilities will be determined on a project specific basis.
- c. In any project, should the cost of pedestrian, public transit, and/or bicycle facilities cause an increase in project costs in excess of 5%, as determined by engineering estimates, that would have to funded with local tax dollars, then and in that event approval by Council must be obtained for same prior to bidding of the project.



Appendix G:

FUNDING SOURCES

COMPLETE STREETS IMPLEMENTATION PLAN

I. Funding Sources

Funding Programs and Source

The following is a compilation and brief description of sources of funding that have been, or could be used to fund pedestrian and bicycle improvements in New Jersey. The list is not exhaustive, but it identifies funding sources that can be utilized to fund bicycle and pedestrian planning and project development activities, as well as construction. Some funding sources may also be used to fund programmatic activities.

FEDERAL FUNDING OPPORTUNITIES
Transportation Alternatives Program (TAP)2
Safe Routes to School Program (SRTS)2
Local Safety Program
Recreational Trails Program (RTP)
STATE FUNDING OPPORTUNITIES
NJDOT Municipal Aid4
NJDOT Bikeway Grant Program
NJDOT Safe Streets to Transit (SSTT)
NJ Division of Highway Traffic Safety Grants5
New Jersey Healthy Communities Network Grants5
PRIVATE AND NON-PROFIT FUNDING SOURCES
Sustainable Jersey
People for Bikes Community Grants
The Robert Wood Johnson Foundation
OTHER POTENTIAL FUNDING SOURCES
Municipal Allocations
Impact Fees
Local Private-Sector Funding7
Adopt-A-Trail Programs
Membership campaigns

Federal Funding Opportunities

Federal funding available for bicycle related projects is in a state of flux until a new federal transportation bill is updated. The current Federal Transportation Bill —known as Moving Ahead for People in the 21st Century (MAP-21) — was passed in 2012. Federal funding is set to expire on October 29, 2015. As new federal transportation legislation is adopted, the Borough of Bay Head should work closely with NJTPA, Ocean County, and NJDOT to monitor and take advantage of the new funding opportunities.

Transportation Alternatives Program (TAP)

Transportation Alternatives is the largest federal source for bicycle and pedestrian funding under MAP-21. TAP provides federal funds for community based "non-traditional" projects designed to strengthen the cultural, aesthetic and environmental aspects of the nation's intermodal system. TAP projects must relate to surface transportation.

While Transportation Alternatives projects are federally funded, the funds are administered by the New Jersey Department of Transportation and the state's Metropolitan Planning Organizations (MPOs).

Eligible projects must fall into one of the following seven categories:

- Provision of facilities for pedestrians and bicycles (sidewalks, curb ramps, bike lane striping, wide paved shoulders, bike parking, off-road trails, bike and pedestrian bridges and underpasses).
- Scenic or historic highway programs including the provision of tourist and welcome center facilities as well as scenic turnouts, overlooks and viewing areas.
- 3. Landscaping and other scenic beautification (streetscape projects including lighting, benches, planting, decorative walls, and walkways; the reintroduction of native or endangered plants or trees).

MONTCLAIR SAFE

COMPLETE STREETS IMPLEMENTATION PLAN

- 4. Historic preservation.
- 5. Rehabilitation of historic transportation buildings, structures and facilities (including historic railroad facilities and canals).
- 6. Preservation of abandoned railway corridors (including the conversion and use for pedestrian and bicycle trails).
- 7. Environmental mitigation to address water pollution due to highway runoff or reduce vehicle-caused wildlife mortality while maintaining habitat connectivity.

The federal funds for TAP projects are provided to the project LPA on a reimbursement basis only. The local public agency (LPA) must have the financial capability to advance project costs for materials and contractors. Before applying, prospective LPAs should assess their capability to comply with state and federal requirements for procurement of materials and services, accounting practices, right-of-way and easement acquisitions, environmental regulations and applicable design standards.

For more information on the Transportation Alternatives Program in New Jersey, visit <u>http://www.state.nj.us/transportation/business/l</u> ocalaid/alternatives.shtm

Safe Routes to School Program (SRTS)

The Safe Routes to School Program (SRTS) is a federally funded reimbursement program administered by the New Jersey Department of Transportation (NJDOT), in partnership with the North Jersey Transportation Planning Authority (NJTPA). Under MAP-21 legislation, the Transportation Alternatives Program (TAP) funding does not provide for a standalone Safe Routes to School Program. The New Jersey Department of Transportation (NJDOT) has elected to continue funding the SRTS program separately.

COMPLETE STREETS IMPLEMENTATION PLAN

Projects must be located within two miles of a school that serves students in grades K-8. Infrastructure projects may include the installation of sidewalks, crosswalks, bike lanes, multi-use paths, traffic calming measures, and other means to ensure the ease and safety of children walking or biking to school.

Any municipality, school district, or county is eligible to apply for funding after a solicitation is announced. Non-profit organizations are not eligible as direct grant recipients for the solicitation. However, non-profit organizations may partner with a local public agency that will assume responsibility and administration for the grant.

Formoreinformation,visithttp://www.state.nj.us/transportation/business/localaid/srts.shtmorhttp://www.njtpa.org/project-programs/project-
development/safe-routes-to-school.aspx

Local Safety Program

The Local Safety Program (LSP) was established by the NJTPA in 2005 in conjunction with NJDOT as a competitive program. The purpose of this program is to advance quick-fix safety improvements on county and local roadway facilities within its region. To date, over \$44 million in projects have been selected for the program. Municipalities located within the subregions may make a request through their respective county to sponsor an application.

Local Safety Program projects typically address NJTPA/NJDOT derived high priority crash locations. Projects must be supported with detailed crash data, and will be in a constructionready state at the time federal authorization is received. Proposals must demonstrate a location's crash history (using multi-year data) and clearly show a relationship between the types of crashes and the proposed improvements (e.g., pedestrian signals will address a history of pedestrian crashes).

Crash prone locations within the NJTPA region have been identified with the assistance of NJDOT and Plan4Safety using network screening. Bridge Avenue in Bay Head is ranked 42nd on the top pedestrian corridor list for Ocean County because there were two pedestrian crashes along the roadway between 2009-2013. For more on the Local Safety Program, visit http://www.njtpa.org/project-programs/projectdevelopment/local-safety/fys-2016-and-2017-lsphrrr-solicitation.aspx

Recreational Trails Program (RTP)

The Federal Highway Administration's Recreational Trails Program (RTP) provides financial assistance to states for developing and maintaining trails and trail facilities. The RTP funds come from the Federal Highway Trust Fund, and represent a portion of the motor fuel excise tax collected from non-highway recreational fuel use. Since the program's inception in 1993, New Jersey has awarded more than \$16 million to federal, state, county and local governments, and non-profit agencies. Projects are funded on an 80% federal share and 20% matching share basis.

The DEP's Green Acres Program administers the program in New Jersey. Projects are reviewed and recommended for funding by the New Jersey Trails Council. Land on which trail facility is to be funded must be public land or private land with an easement for public recreational use. Maximum grant award is \$24,000 for nonmotorized projects.

Permissible uses and projects include:

- Maintenance and restoration of existing trails;
- development and rehabilitation of trailside and trailhead facilities and trail linkages for trails (e.g., parking, signage, shelters, sanitary facilities);

- purchase and lease of trail construction and maintenance equipment;
- construction of new trails in existing parks or in new right of way;
- for motorized use only, acquisition of easement and fee simple title to property for trails.

Activities not eligible for funding include land condemnation; trail feasibility studies; law enforcement activities and personnel; road and sidewalk repairs; purchase of promotional materials; projects on land with railroad tracks; conversion of non-motorized trails to motorized use.

Formorevisit,http://www.nj.gov/dep/parksandforests/natural/trail_grants.htm

State Funding Opportunities NJDOT Municipal Aid

Under Municipal Aid program, each county is apportioned a share of the total funding based on population and the number of local centerline miles. Municipalities compete for portions of their county's share. NJDOT provides 75 percent of the grant amount when a town awards a contract and the remaining 25 percent upon completion of the project.

Applications receive points based on various criteria including existing road conditions, Average Daily Traffic (ADT), safety improvements, and access to nodes (schools, residential areas, employment centers, etc). Other important criteria include the project's readiness to construct, whether the municipality has received an allotment within the last three years, and the municipality's award and close-out performance on previously awarded State grants. For more information, visit www.state.nj.us/transportation/business/localaid

www.state.nj.us/transportation/business/localaid /municaid.shtm

MONTCLAIR SAFE

COMPLETE STREETS IMPLEMENTATION PLAN

NJDOT Bikeway Grant Program

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

Although priority will be given to construction of new bike paths, the proposed construction or delineation of any new bicycle facility will be considered. Ineligible projects/activities include right-of-way purchases associated with any project, operating costs associated with any project, and planning activity costs. In order to be eligible, a project must place no restrictions upon hours of use by bicyclists (with the exception of dusk-to-dawn closings, as of some parks). Applicants must use the *AASHTO 2012 Guide for the Development of Bicycle Facilities* For more information, visit www.state.nj.us/transportation/business/localaid /bikewaysf.shtm

NJDOT Safe Streets to Transit (SSTT)

SSTT program provides funding to counties and municipalities in improving access to transit facilities and all nodes of public transportation. The objectives of the SSTT program are:

- To improve the overall safety and accessibility for mass transit riders walking to transit facilities.
- To encourage mass transit users to walk to transit stations.
- To facilitate the implementation of projects and activities that will improve safety in the vicinity of transit facilities (approximately one-half mile for pedestrian improvements).

Types of work eligible for funding under SSTT include:

COMPLETE STREETS IMPLEMENTATION PLAN

- Intersection safety improvements
- Constructing new sidewalks, curb ramps, sidewalk widening and major reconstruction
- Traffic calming measures
- Pedestrian oriented lighting
- Traffic control devices that benefit pedestrians

Bicycle facilities are not eligible for funding.

Formoreinformation,visitwww.state.nj.us/transportation/business/localaid/safe.shtm

NJ Division of Highway Traffic Safety Grants

The NJ Division of Highway Traffic Safety offers, on an annual basis, federal grant funding to agencies that wish to undertake programs designed to reduce motor vehicle crashes, injuries, and fatalities on the roads of New Jersey. Municipal, county, state government and law enforcement agencies, as well as non-profit organizations, are encouraged to apply for NJDHTS grant funding to address specific, local traffic safety issues. Grants available include:

Comprehensive Traffic Safety Programs (CTSP's)

Comprehensive Traffic Safety Program grants address multiple traffic safety concerns within a county or larger community. CTSP grants include numerous tasks and strategies involving enforcement, education and engineering. The potential grantee must provide a detailed Problem Identification section with extensive information about the community, motor vehicle crash experience (including pedestrian & bicycle), data analysis and creative solutions to reduce these crashes.

Pedestrian Safety

The goal of the pedestrian safety program area is to lower the pedestrian fatality

and injury rates. In the Central Region, municipalities that are statistically high for pedestrian injury crashes are eligible to apply for our Pedestrian Safety Grant. The grant includes funding for overtime enforcement at pedestrian safety hot spots in the community and educational outreach throughout the community.

Other Eligible Programs

Grant applications may also be submitted that utilize enforcement, education or engineering counter-measures to address other specific traffic safety issues including:

- Speed
- Aggressive Driving
- Bicycling Safety
- Crash Investigation
- Distractions
- EMS Training relating to crash response
- Motorcycle Safety
- School Bus/Pupil Transportation
- Traffic Engineering primarily pedestrian pavement markings and pedestrian signs, but some traffic studies will be considered

New Jersey Healthy Communities Network Grants

These grants support projects advancing the implementation of policy changes and/or development of the built environment to support healthy eating and active living. Supported projects make the healthy choice the easy choice; make healthy food and beverages the affordable, available and desired choice; encourage and support physical activity by ensuring accessibility and safety; and make healthy school, work, and community environments the norm and not the exception. In 2016, up to 50 New Jersey-based entities will receive grants of up to \$20,000. http://njhcn.org/

Private and Non-profit Funding Sources

Sustainable Jersey

Sustainable Jersey registered towns get special priority access and notification of incentives and grants, and are eligible for the Sustainable Jersey Small Grants program. Over \$1.75 million in grants have been provided to towns for community-based projects to improve quality of life in New Jersey.

Eligible projects include actions that would score a municipality points toward Sustainable Jersey certification. This includes projects addressing issues from renewable energy and green building design, waste reduction, a sustainable master plan, water conservation, natural resources management, energy management, and transportation issues. Most projects also include public outreach campaigns and many have involved school children and community organizations.

http://www.sustainablejersey.com/grantsresources/sustainable-jerseysmall-grantsprogram/

People for Bikes Community Grants

The PeopleForBikes Community Grant Program provides funding for important and influential projects that leverage federal funding and build momentum for bicycling in communities across the U.S. These projects include bike paths and rail trails, as well as mountain bike trails, bike parks, BMX facilities, and large-scale bicycle advocacy initiatives.

Since 1999, we have awarded 341 grants to nonprofit organizations and local governments in 49 states and the District of Columbia. Our investments total more than \$2.9 million and have leveraged nearly \$670 million in public and private funding. http://www.peopleforbikes.org/pages/communit y-grants

MONTCLAIR SAFE

COMPLETE STREETS IMPLEMENTATION PLAN

The Robert Wood Johnson Foundation

The Robert Wood Johnson Foundation invests in grantees (e.g., public agencies, universities, and public charities) that are working to improve the health of all Americans. Current or past projects in the topic area "walking and biking" include greenway plans, trail projects, advocacy initiatives, and policy development. http://www.rwjf.org/en/how-wework/grants.html

Other Potential Funding Sources

The following funding sources for greenways have been identified by Project for Public Spaces, Railsto-Trails Conservancy and the National Trails Training Partnership.

Municipal Allocations

The most common sources of funding at the municipal and county level include allocations from a specific department, such as the park and recreation department or public works department. Incorporating funding for maintenance of bicycle and pedestrian facilities into the annual budget guarantees funds are available to cover maintenance.

In some localities, a portion of an increase in the sales tax will be set aside for recreational trail or other conservation funding. Rarely, new taxes will be levied to exclusively support active transportation projects.

Impact Fees

Regulated by subdivision policies, impact fees require residential, industrial and commercial development project leaders to provide sites, improvements and/or funds to support public amenities such as open space and trails. Impact fees may be allocated to a particular trail or greenway from land development projects if the fund is a dedicated set-aside account established to help develop a county- or city-wide system of trail or greenway projects.

COMPLETE STREETS IMPLEMENTATION PLAN

Local Private-Sector Funding

Local industries and private businesses may agree to provide support for greenway development through one or more of the following methods:

- Donations of cash to a specific greenway segment
- Donations of services by large corporations to reduce the cost of greenway implementation, including equipment and labor to construct and install elements of a specific greenway
- Reductions in the cost of materials purchased from local businesses that support greenway implementation and can supply essential products for facility development

Adopt-A-Trail Programs

These are typically small grant programs that fund new construction, repair/renovation, maps, trail brochures, facilities (bike racks, picnic areas, birding equipment).

Membership campaigns

The return from this can be significant (The Pikes Peak Area Trails Coalition raises \$18,000 per year), but your effort must be repeated every year.



blank



