ACKNOWLEDGMENTS/DISCLAIMER

During the first two phases of the New Visions effort, CDTC's Bicycle and Pedestrian Issues Task Force conducted a comprehensive review of the concerns surrounding cycling and walking in the Capital District, identified the key obstacles to greater use of these modes of travel, and considered a number of possible regional strategies for enhancing our bicycle and pedestrian travel environments.

Since the initial review by CDTC's Bicycle and Pedestrian Issues Task Force, there have been a lot of improvements throughout the region; several bicycle and pedestrian capital projects have been completed, new funding programs have been implemented, accommodating safe and efficient bicycling and walking facilities while improving the quality of life have emerged as important elements to most municipal planning efforts, traffic volumes have increased, roadways have been redesigned, and more emphasis has been put on walking and bicycling as effective components to better overall health. With these changes in place, the Task Force felt an update showing current bicycle and pedestrian issues in the Capital District was necessary. This update also serves as documentation of how the region has exceeded, met or under estimated the goals set forth in the original Toolbox and Game Plan .

The Task Force again had the luxury of working toward what is not an official CDTC report, but rather their report to CDTC. The distinction is important -- this report presents the sentiments and observations of the Task Force, with considerable allowance for the presentation of subjective material. With this allowance, the resulting document contains a wealth of information and ideas, but it should be kept in mind that this document has not been subject to review by CDTC, and until such review, should not be taken as CDTC policy.

While the interest of and input received is greatly appreciated, this effort particularly benefited from the sustained participation and enthusiasm of Deb Spicer and Elaine Troy of the New York State Department of Health; Kevin McLoughlin formerly of Parks & Trails New York; Don Odell, retired from the Albany County Planning Department; and Sarah Kurpiel, a former Union College student/ CDTC intern. All mapping was provided by Teresa LaSalle of the CDTC staff. The content and philosophy of this document is in large part a result of their contributions. In the end, however, any errors or omissions are the responsibility of the principal author.

Introduction:

Bicycling and walking are not just leisure activities; they are viable modes of transportation and mobility for many people throughout the Capital District. Most people agree that walking and bicycling help reduce pollution, traffic delays, and fuel usage. The benefits of walking and bicycling do not end there. In addition to enhancing quality of life measures, walking and bicycling have proven to provide important and much needed health benefits, as well as having a positive impact on economic development. According to the 2000 census, there has been a 30% reduction in bicycle/pedestrian commuting since 1990 in the Capital District. The Bicycle and Pedestrian Issues Task Force does not believe this is a reduction in the desire/need to walk or bike but rather the lack of inter-connected, safe and accessible facilities. There is also a continued application of low-density development patterns that generally do not encourage bicycling and walking as means of transportation. The Task Force feels that more needs to be done to incorporate walking and biking into the regional transportation system and to increase decision makers' awareness of the importance of providing the facilities for both bicyclists and pedestrians. The result is this document which serves as an update to the regional "game plan" for enhancing the bicycle and pedestrian travel environment.

What is CDTC?

The Capital District Transportation Committee (CDTC) is the designated Metropolitan Planning Organization (MPO) for Albany, Rensselaer, Saratoga, and Schenectady counties. Under federal law, CDTC is the forum for cooperative transportation decision-making, dealing with a wide range of highway and transit concerns and their influence on regional economic vitality, environmental health, and quality of life. CDTC is responsible, together with NYSDOT and the Capital District Transportation Authority (CDTA), for maintaining a long-range regional transportation plan meeting social, environmental, economic, and travel needs of the area. It is also responsible for developing and maintaining a Transportation Improvement Program (TIP) which assigns federal transportation funds for specific projects. The federal government will not entertain projects in the Capital District unless they are consistent with the plan and have been assigned funds through CDTC.

What is *New Visions*?

New Visions refers to CDTC's official long-range regional transportation plan for Albany, Rensselaer, Saratoga, and Schenectady counties. Under federal law, CDTC must maintain a 20-year policy vision for the transportation system that reflects the needs of the area. CDTC's New Visions plan was adopted in March 1997 and included numerous public policies, principles, actions and a twenty-year transportation budget. The New Visions plan established a regional technology (ITS) plan; **a regional bike system plan;** a regional transit plan; and other significant elements. The plan has been instrumental in directing transportation planning and capital investment in the region.

What is New Visions 2030?

New Visions 2030 describes CDTC's current effort to update the existing plan and extend it to a longer time horizon. This document will serve as the updated bicycle and pedestrian system plan for New Visions 2030. Emphasis will be placed on 1) review and analysis of the bicycle and pedestrian goals set forth in New Visions, 2) projects, programs and initiatives that have been implemented that affect the bicycle and pedestrian travel environment and 3) exploring new policy level recommendations that were not addressed by New Visions.

What is CDTC's Bicycle and Pedestrian Issues Task Force?

The Bicycle and Pedestrian Issues Task Force, (Bike/Ped Task Force) was established as part of the original New Visions process and has remained a very active committee that meets monthly to discuss bicycle and pedestrian issues in the Capital District. The Task Force deals with issues ranging from public education to facility planning. The members provide technical guidance on Community and Transportation Linkage Planning Program projects and other bicycle and pedestrian related projects throughout the region. Task Force members also provide guidance and recommendations to CDTC's Planning Committee.

The organizations that are actively represented on the Task Force include: NYS Department of Transportation, NYS Department of Health, Albany County Department of Economic Development, Conservation and Planning, Town of Colonie, Village of Menands, Guilderland Pathways Committee, Halfmoon Trails Committee, Parks & Trails NY, Saratoga County Heritage Trails Committee, CDTA, Hudson River Valley Greenway, the New York Bicycling Coalition and the Mohawk Hudson Cycling Club among others.

The Toolbox and Game Plan

During the first two phases of the New Visions effort, the Task Force conducted a comprehensive review of the concerns surrounding cycling and walking in the Capital District, identified the key obstacles to improved travel by these modes, and looked at several possible regional strategies for enhancing the bicycle and pedestrian travel environment. This review resulted in the 1995 *Making the Capital District More Bicycle-and Pedestrian Friendly: A Toolbox and Game Plan* document.

The 1995 document summarized the Task Force's findings and laid out a four-part plan to enhance the cycling and walking environments over a 20 year planning period. In addition to documenting the Task Force's efforts, a broad range of ideas were presented to initiate discussions about "what can be done" at the citizen, municipal, and regional levels.
Since the initial review by the Task Force, there have been many improvements throughout the region; several bicycle and pedestrian capital projects have been completed, especially when the work accomplished as part of routine highway projects is considered. A prime example of this is the improvements added to Wolf Road. Also, new funding programs have been implemented, accommodating safe and efficient bicycling and walking facilities while improving the quality of life have emerged as important elements of most municipal planning efforts, traffic volumes have increased, roadways have been redesigned/realigned, and more

emphasis has been placed on walking and cycling as effective components to better overall health. With these changes in place, the Task Force felt an update, discussing current bicycle and pedestrian issues in the Capital District, was necessary. This resulted in revised and additional goals and objectives. This update also serves as documentation of how the region has exceeded, met, or underestimated the goals set forth in the 1995 report.

Projects, Programs, and Initiatives Since the Original Toolbox Document

The Bicycle and Pedestrian Issues Task Force has been involved in some way in several projects, programs, and initiatives since the 1995 Toolbox document. They include:

Schenectady County Analysis of the Mohawk Hudson Bike Hike Trail

On seven different days between September 1996 and July 1997, the Schenectady County Planning Department conducted a trail user survey and residential property owner survey along the Mohawk-Hudson Bike-Hike Trail. The results of these surveys are documented in the *Mohawk-Hudson Bike-Hike Trail Analysis of Trail Use, Regional Benefits, & Economic Impact* and *The Mohawk Hudson Bike Hike Trail & Its Impact on Adjoining Residential Properties*. The main goals of the study were to make people more aware of the MHBHT as a regional transportation and economic asset and to bolster efforts to extend and improve the facility.

In addition to documenting the extent and type of use occurring, the County identified user attitudes toward the trail which were used to develop a user profile. The report also incorporated existing and potential regional economic and quality of life benefits of the trail.

In the Spring of 2006, the Capital District Transportation Committee's (CDTC's) Bicycle and Pedestrian Issues Task Force began leading a collaborative effort with the Capital District Regional Planning Commission (CDRPC), the Department of Geography and Planning at the University of Albany, and the New York State Department of Health-Healthy Heart Program to conduct a regional trail survey. With the constantly changing bicycle and pedestrian travel environment in the Capital District, it was felt that an update to the 1997/98 survey completed by the Schenectady County Planning Department was necessary. This new task became a part of the 2006/07 Unified Planning Work Program and data collection began in June.

The Schenectady County survey focused strictly on the Mohawk Hudson Bike Hike Trail. This survey intended to gather information on a regional level and examined three of the largest trail systems in the Capital District. They included:

- Mohawk Hudson Bike Hike Trail (MHBHT)

  The MHBHT was built in the late 1970's and early 1980's upon the Old Erie Canal towpath and rail beds of the area's first transportation routes. The trail is approximately 42 miles in length and generally runs along the Hudson and Mohawk Rivers through Albany and Schenectady Counties. The MHBHT is

truly a regional asset as it traverses through the City of Albany, Town of Colonie, Village of Menands, City of Watervliet, Village of Green Island, City of Cohoes, Town of Niskayuna, City of Schenectady, Town of Rotterdam, Village of Scotia, and Town of Glenville. It includes both on and off-road sections and is considered the 'spine' of the Capital District's bicycle and pedestrian infrastructure.

Seven locations along the MHBHT were selected for inclusion in the survey, focusing on the off-road sections. The study locations were chosen based on major trail access points and include the Corning Preserve, the 4th Street parking area in Watervliet, Colonie Town Park, Niskayuna Railroad Station at Rail Road Station Park, the trail access point near Nott Street in the City of Schenectady, Schenectady County Community College, and Kiwanis Park in the Town of Rotterdam.

- Uncle Sam Bikeway (USB)

  The Uncle Sam Bikeway was built along an old rail bed and extends approximately 3 miles through the northern portion of the City of Troy in Rensselaer County. The entire trail is paved and stretches from Middleburgh Street to Northern Drive. It serves as a valuable transportation and recreational asset to the many nearby residents.
  The access points at Garden Court and 114th Street along the Uncle Sam Bikeway were surveyed and included in the analysis.

- Zim Smith Trail (ZST)

  The Zim Smith Trail will extend for more than 9 miles along Saratoga County right of way through the Town Halfmoon, Town of Clifton Park, Village of Round Lake, Town of Malta, and Town of Ballston in Saratoga County when complete. Currently, only the section of the trail within the Town of Malta and the Village of Round Lake, approximately 4 miles is paved. The Saratoga County Planning Department has taken the lead on completing the portions of the Zim Smith Trail that have yet to be constructed.

  Two major access points along **completed** portions of the Zim Smith Trail were included in the survey effort—Shenantaha Park in the Town of Malta and Round Lake Road in the Village of Round Lake.

The survey utilized three methods of data collection: a trail user count, a trail user survey, and an adjoining residential property owner survey. The trail user count and trail user survey were conducted on-site at the eleven locations noted above in the summer and fall of 2006. Volunteers, Bicycle and Pedestrian Task Force members, University at Albany student interns, and CDTC staff served as surveyors and conducted user counts as well as provided trail users with the opportunity to complete a one page self-administered survey form.

The adjoining residential property owner survey consisted of a self-administered questionnaire that was distributed and returned by mail to owners of residential properties located directly adjacent to one of the three trails. The survey questions were designed to identify the characteristics of the properties and gain insight into the property owners' perceptions and experiences with the trails.

The purpose of the current study is to develop base-line data for other trail segments, make comparisons to the past MHBHT surveys, and to create a 'trail user profile' and 'property owner profile'. While the earlier studies explored the economic impacts of the MHBHT and compared it with other trail systems around the nation, this study is more condensed. The primary focus of this study is to further develop the user profile and to ascertain the attitudes/perceptions of the users and property owners, the type of use (walking, bicycling, in-line skating, etc.), the users origin, and the purpose of the trip (recreation, commuting, health, etc.) It is also the intent of this study to provide local communities with valuable information on how to effectively improve, maintain, and promote local trails as an important regional asset for both the users of the trails and the adjacent landowners.

TRAIL USER COUNT AND SURVEY METHODOLOGY

Survey Instrument

Trail use data was collected by on-site surveyors at each of the eleven locations on two weekdays and two weekend days for a twelve hour period (7 AM – 7 PM) through the use of both a surveyor completed count sheet and a self-administered trail user survey. Data collection began in June of 2006 and continued through October of 2006.

The count sheets were completed for each hour of trail use observance. The count sheet captured data on every user by age range, gender, and trail activity. In some instances survey locations had other attractions near the trails such as boat launches and picnic areas. Surveyors were instructed to only count actual trail users. Additionally, the surveyors recorded the weather, temperature, date, day of week, and survey location.

The trail user survey consisted of a one page questionnaire that was completed by trail users and collected by surveyors on-site. The trail user survey contained questions pertaining to the demographics of users as well as their attitudes and perceptions regarding the trails and other trail users, their use of the trail, whether their use of the trail was partially or the main purpose for visiting the area (if user resides outside of the region), and their recommendations for improvements.

Survey Distribution and Returns

A total of 10,812 users were counted, with 9,541 users on the MHBHT, 459 users on the USB, and 812 users on the ZST. Regarding the trail user survey, a total of 2,007 surveys were completed. The MHBHT accounted for 1,775 user surveys, while 57 user surveys were completed on the USB, and 175 were completed on the ZST.

TRAIL USER SURVEY TOTALS				
	MHBHT	USB	ZST	TOTAL
Completed Trail User Surveys	1,775	57	175	2,007
Total User Counts	9,541	459	812	10,812

Data Limitations

Generating trail use is a difficult task taking into consideration many variables including the number of access points and seasonal variations. Due to the undertaking of such an enormous effort to staff eleven locations for 12 consecutive hours on two weekdays and two weekend days, time periods for data collection varied somewhat by site, day, and weather. Additionally, there were trail access points that were not surveyed, although many of these access points are located between two surveyed access points, with the intention of capturing these users. The seasonal variations in trail usage are estimated as the survey was not conducted in the winter months.

RESIDENTIAL PROPERTY OWNER SURVEY METHODOLOGY

Survey Instrument

The residential property owner survey consisted of a self-administered questionnaire distributed and returned by mail. The questionnaire totaled 5 pages, including an introductory cover sheet identifying CDTC as the administrative agency and stating the purpose of the survey, three pages of questions, and a final page allowing for additional comments and instructions on returning the survey. The survey questions were intended to identify both the characteristics of the properties and to gather information regarding the property owners' perceptions and experiences concerning the adjacent trail.

With the exception of the request for additional comments, no open-ended questions were incorporated into the survey. A copy of the questionnaire is included in Appendix B.

Survey Population

Questionnaires were mailed to all residential properties immediately adjacent to any of the off-road portions of the three trails in the study. Questionnaires were not sent to residential landowners adjacent to segments of the trails where the trails become on-road bike routes on local streets. Adjoining residential properties were identified through the use of tax parcel data within CDTC's Geographic Information System. Address information for the properties were extracted from the most current tax parcel data available to CDTC to produce the mailing list. Each address was assigned a unique identification number which ensured property owner privacy and allowed CDTC to track whether or not a response was received.

Survey Distribution and Returns

In June of 2006 CDTC sent out 338 surveys with a requested return deadline of July 31st 2006. A stamped, addressed envelope was included to facilitate returns. A total of 131

completed surveys were returned, for a response rate of 39%. By trail the results are as follows: MHBHT - 226 surveys mailed, 92 returned for a return rate of 40%; USB - 83 surveys mailed, 21 returned for a return rate of 25%; and the ZST – 29 surveys mailed, 19 returned for a return rate of 62%.

PROPERTY OWNER SURVEY RESPONSES				
	MHBHT	USB	ZST	TOTAL
Total Mailed Surveys	226	83	29	338
Completed Surveys	92	21	19	132
Return Percentage	40%	25%	62%	39%

Data Limitations

Group residences and apartments were not included in the survey as data was only available for the property owner and not residents. This may have also had an effect on the response rate as some properties may be occupied or unoccupied rental units, where the landowner does not live at the address the survey was sent to. Due to the nature of surveys conducted through the mail, participation is voluntary, therefore limiting the surveying agency's control over the response rate.

TASK FORCE RECOMMENDATION

The Task Force commends Schenectady County for its work on their report. The new report including analysis, will be available in the Spring of 2007. The report will be distributed to each municipality within the CDTC planning area and be posted on CDTC's website. This will serve as a great reference for municipalities at all stages of trail development.

Regional Greenway Concept

In 2006, CDTC began working with Alta Planning and Design to develop a regional greenways concept plan. This plan is framed around the work of the Capital District Transportation Committee's (CDTC) Working Group C, and the "Big Idea Initiatives," concepts that have been developed as part of the region's long range transportation plan, New Visions 2030. The plan is intended to generate interest and develop concepts that will help make a greenways system feasible if our region's growth and economic and political climates change. With the region's potential growth pattern, there are concerns for increasing traffic congestion and a loss of our quality of life. Greenways and trails are a positive response to these concerns. This plan focuses on a balance of bicycle/pedestrian travel from a transportation point of view, with an understanding that recreational bicycle/pedestrian travel is important for our region.

As part of this Plan, a Capital Region Greenways Vision Workshop was held on June 20th, 2006 at the Crossings in Colonie. Approximately 50 people attended, representing a cross-section of CDTC's committees and participants in the regional planning process. The workshop was oriented to identify both a vision for the regional trail system and an understanding of the challenges to implementation. Following an overview presentation,

breakout groups worked to identify visions and challenges for a potential Tech Valley Trails system. The full document is available on CDTC's website.

TASK FORCE RECOMMENDATION

The Task Force would like to see this concept implemented understanding that a regional champion has not been identified and resources are limited. CDTC will continue exploring options and provide a forum for discussion on the concept. The concept should continue to be presented whenever possible to educate and gain support from elected officials and advocates.

Bicycle Signage Guidelines

In 2000, the Task Force determined a need for establishing a set of signage guidelines for all municipalities to reference when signing bike routes or multi-use trails. With all municipalities in the Capital District referring to these guidelines, a highly identifiable bicycle network that many bicyclists can use whether for commuting or recreation could be created. Also, motorists can use these guidelines to recognize their responsibilities in sharing the road. Uniformity will help create a higher awareness of the bicycle information that is being conveyed and help increase the participation of cyclists in the area.

The guidelines were completed in May 2001 and accepted by CDTC's Planning Committee in July 2001 for use and dissemination. They serve as an important reference, providing the Capital District with consistent signage guidelines. The Task Force continues to place a great emphasis on establishing consistency along the trail system in order for bicycle signs to be highly recognizable and therefore more user-friendly.

The signage guidelines discuss issues such as application of signs, trailblazing, trail identity signage for both on-road and off-road trails, warning, regulatory, and informational signs, mileage markers, sign placement, and sign maintenance.

TASK FORCE RECOMMENDATION

Continue referencing and distribution of the signage guidelines to establish consistency along the trail system. Projects that are not consistent with the signage guidelines should not receive priority for funding even if the signage is a small component of a larger scope of work (widening, resurfacing, or reconstruction). There should be increased awareness of the guidelines to the region as a whole. The complete signage guidelines are included in Appendix A.

Bike Maps

CDTC and the Task Force have been a part of creating several bicycle/pedestrian maps for the Capital District. The Task Force plays a very important role in the creation of these maps by providing up to date information on facilities and expertise of what elements should be shown on a map to make the biking/walking experience more desirable.

There have been many different versions of the Mohawk Hudson Bikeway map, more commonly known as the "green and white map". This map provides separate paneled sections of the entire Mohawk Hudson Bike Hike Trail (MHBHT) from the Corning Preserve in Albany to the Schenectady and Montgomery County border. Several thousand copies of this map were printed and distributed throughout the Capital District. Individuals from all over the United States and Canada are still regularly requesting copies of this map.

CDTC updated the MHBHT map and printed 12,000 copies for free distribution in the summer of 2004. The new map was created with state of the art GIS software. The panels have been replaced by two seamless layouts, one representing the North-South portion of the trail from the City of Albany to the City of Cohoes and one representing the East-West portion of the trail from the Town of Colonie/City of Cohoes municipal lines to the trail terminus in Schenectady County. As expected, the updated version of the map is just as popular as the "green and white map" and continues to be highly requested. Copies of this map are available upon request and a .pdf is viewable on CDTC's website.

In 2002, CDTC created a Regional Bike-Hike Map that shows an overview by county of on-road and off-road bicycle facilities as well as hiking/nature trails throughout the Capital District. Ten thousand copies were printed. This map proved to be very popular as well and has been used by local cyclists/walkers, people interested in riding through the region, and by several chambers of commerce in tourist information packets. By 2005, there were a limited number of maps remaining, making it difficult for CDTC to accommodate requests. At this time CDTC began to undertake an update to the map which was completed in the spring of 2006. To ensure the availability of the new map, 12,000 copies were printed. The 2006 Regional Bike-Hike Trail Map highlights a new format displaying more detailed information on the regional bicycle and pedestrian facilities. CDTC continues to receive request for the regional map from individuals and organizations both locally and nationally. Copies of this map are available upon request and a .pdf is viewable on CDTC's website.

TASK FORCE RECOMMENDATION

The maps are an important resource to the cycling and walking community. In order to remain effective, the maps should be updated every two to four years, as CDTC staff time and funding allows, using the newest technology available. If needed, partnerships should be created to help reduce printing costs.

Spot Improvement Program

In 1997, CDTC's Planning Committee agreed to a $100,000 per year set aside for small bicycle and pedestrian capital improvements. The Spot Improvement Program was modeled after a similar program in Seattle, WA where residents could send postcards to city officials sighting trouble 'spots' along the roadways, sidewalks, and trail system. The CDTC Spot Improvement Program is unique in that it provides for capital funding for projects that would normally "fall below the radar" of traditional federal funding.

The very first spot improvement project helped the Capital District Transportation Authority install bike racks on several of their busses. This $75,000 project was programmed in the 1998-1999 fiscal year. CDTA currently has their entire fleet of their full-size buses equipped with bike racks.

During the 99-04 TIP update, the Spot money was replenished ($100,000 per year for the five year period 1999-2004. In January 2000, $300,000 was programmed for Round 1. This covered the set aside for federal fiscal years 1999-2000, 2000-2001, and 2001-2002. Table 1 shows the projects funded in Round 1.

Table 1
Spot Improvement Program
Projects Funded in Round 1 (2000)

Project Title	Sponsor	Federal $	Local $	Total Project Cost
Bike Racks	City of Albany	$ 11,200	$ 2,800	$ 14,000
Three Sidewalk Projects	Town of Bethlehem	$ 20,800	$ 5,200	$ 26,000
Bike Racks	City of Cohoes	$ 5,945	$ 1,486	$ 7,431
Route 9/Bike Trail Connection	Town of Colonie	$ 32,000	$ 8,000	$ 40,000
Nott Street Crossing	City of Schenectady	$ 19,428	$ 4,857	$ 24,285
Pedestrian Access Project	Village of Scotia	$ 21,440	$ 5,360	$ 26,800
Green Island Bridge	Village of Green Island	$ 80,000	$ 20,000	$ 100,000
Bike Signs	Town of Malta	$ 6,400	$ 1,600	$ 8,000
Wards Lane Sidewalk	Village of Menands	$ 20,240	$ 5,060	$ 25,300
Station Lane Sidewalk	City of Saratoga Springs	$ 28,800	$ 7,200	$ 36,000
Block House Improvements	Town of Stillwater	$ 7,070	$ 1,767	$ 8,837

During the 2001-2006 TIP update, the Spot money was replenished ($100,000 per year for the five year period 2001-2006). In 2002, CDTC again solicited for projects and $300,000 was programmed for Round 2. This covered federal fiscal years 2001-2002, 2002-2003, and 2003-2004. The projects funded in Round 2 are shown on Table 2.

Table 2
Spot Improvement Program
Projects Funded in Round 2 (2002)

Project Title	Sponsor	Federal $	Local $	Total Project Cost
Railroad Pedestrian Crossing	Village of Voorheesville	$ 57,787	$ 19,263	$ 77,050
Green St. Connector Sidewalk Reconstruction	Village of Schuylerville	$ 24,000	$ 16,000	$ 40,000
Coons Road to Maple Leaf Sidewalk Project	Town of Guilderland	$ 42,200	$ 10,550	$ 52,750
State/Washington Intersection Pedestrian Improvements	Schenectady County	$ 40,000	$ 10,000	$ 50,000
Hadley Sidewalk Improvement	Town of Hadley	$ 22,050	$ 9,450	$ 31,500
Village Pedestrian/Cyclist Crosswalk Project	Village of Hoosick Falls	$ 13,750	$ 4,000	$ 17,750
Pedestrian Improvement Project	Town of Malta	$ 13,200	$ 8,800	$ 22,000
Town of Milton Property Streetscape Improvements	Town of Milton	$ 24,000	$ 6,000	$ 30,000

The Planning Committee again agreed to replenish the Spot Improvement Program funds during the 2003-2008 TIP update at $100,000 per year for the five year period (2003-2008). In May 2004, CDTC solicited for Round 3. Three hundred thousand dollars ($300,000) was programmed for federal fiscal years 2003-2004, 2004-2005, and 2005-2006. Table 3 shows the projects funded in Round 3.

Table 3
Spot Improvement Program
Projects Funded in Round 3 (2004)

Project Title	Sponsor	Federal $	Local $	Total Project Cost
9th Street Gateway Streetscape Project	City of Troy	$16,000.00	$20,000.00	$36,000.00
Connector Sidewalk on First Alley	City of Rensselaer	$32,800.00	$8,200.00	$41,000.00
Central Avenue Safety Improvements	Village of Colonie	$9,600.00	$2,400.00	$12,000.00
Flashing Beacons on Route 151	Town of East Greenbush	$12,000.00	$3,000.00	$15,000.00
South Street Sidewalk	City of Mechanicville	$20,000.00	$5,000.00	$25,000.00
Scott Sidewalk Project	Village of Castleton on Hudson	$60,232.00	$15,059.00	$75,291.00
Route 146/Sherwood Dawson Trail	Town of Clifton Park	$16,000.00	$4,000.00	$20,000.00
Mckown Road sidewalk	Town of Guilderland	$52,000.00	$13,000.00	$65,000.00
Paving 2/3 mile of bike path	Town of Colonie	$14,000.00	$14,000.00	$28,000.00

The 2005-2010 TIP update included a replenishing of the Spot Improvement Program funds at $100,000 per year. In 2006, CDTC solicited for Round 4. Again, $300,000 was programmed, covering federal fiscal years 2005-2006, 2006-2007, and 2007-2008. Table 4 shows the projects funded in Round 4.

Table 4
Spot Improvement Program
Projects Funded in Round 4 (2006)

Project Title	Sponsor	Federal $	Local $	Total Project Cost
Burton Ave. Project-Champlain Canalway Trail	Village of Waterford	$14,400	$3,600	$18,000
Southern Intersection of Euclid Ave w/Berkshire Blvd	City of Albany	$48,000	$12,000	$60,000
Western Gateway Speed Table	City of Cohoes	$23,724	$7,908	$31,632
Crescent Road-Okte School Crossing Improvements	Town of Clifton Park	$24,240	$6,060	$30,300
Crescent-Southbury-Lapp Rds Intersection Improvements	Town of Clifton Park	$24,880	$6,220	$31,100
Halfmoon Physically-Challenged Fishing Access/Trail	Town of Halfmoon	$40,000	$10,000	$50,000
Elsmere Aveneue and Feura Bush Sidewalk Connections	Town of Bethlehem	$105,000	$137,915	$360,000
Community Center Route 9 Spur	Town of Malta	$22,500	$7,500	$30,000

TASK FORCE RECOMMENDATION

The Task Force feels very strongly that this program continue as it provides a means for small scale bicycle and pedestrian improvements to be made. Funding should, at a minimum, remain at $100,000 per year. During the next five TIP updates, the opportunity for the set aside to be increased on a gradual basis to $250,000 per year should be explored. A streamlined process should be developed by CDTC and NYSDOT to assist the municipalities with the administrative responsibilities associated with projects that are funded with federal monies.

Walkable Communities Workshops (Pedestrian Safety Roadshows)

The U.S. Department of Transportation's Pedestrian Safety Road Show has three main objectives at the local level.

1. Generating awareness about pedestrian safety and the walkability problem
2. Channeling this concern into a commitment to act for improvement
3. Helping to lay the groundwork for a realistic plan of action

Quality of life issues are explored during the Road Show and expert opinions for enhancements and improvements are given. Local examples of areas in need of improvement are woven into an educational presentation featuring solutions to problem spots from across the country.

Road Shows are designed for small to medium sized cities or for defined neighborhoods in larger cities. The target audience comes from local government agencies, businesses, not for profits, EMS, fire and police, schools, MPO's, senior citizen groups, builders and developers and local bicycle and pedestrian activists. Road Shows are kept small and workable by limiting attendance to 25 or 30 people.

The usual agenda for a Road Show will:

- ✓ Define the problem - reviewing safety data
- ✓ Provide a Vision of a Walkable Community
- ✓ Provide an opportunity for experiencing local walking
- ✓ Identify barriers to walkability
- ✓ Provide resources for organizing a local Pedestrian Committee
- ✓ Provide opportunity for future meetings of interested parties

In May of 2004, The New York State Department of Health - Healthy Heart Program sponsored 5 Pedestrian Safety Road Shows throughout the Capital District (Bethlehem, Menands/Colonie, Rotterdam, Saratoga Springs and Hoosick Falls) The Task Force and the Department of Health have a strong working relationship and worked together, making these Road Shows very successful. Two previous roadshows were held in the Towns of Bethlehem and Guilderland in 1999.

TASK FORCE RECOMMENDATION:

The public forum provided by the format of the Road Show is most useful to local communities wishing to improve their walkability, safety, and pedestrian environments. Quality of life issues are becoming more prominent in public discourse. Walkable Communities have many of the qualities which local residents desire. The Task Force recommends that collaborating agencies work with local governments to provide more of these forums in the coming years. Training of local experts in presentation of this format will facilitate in increasing the number of communities wishing to make improvements that will result in more people walking and biking, enhancing safety and health benefits and, at the same time, generate a reduction in crash rates.

<u>Pedestrian Infrastructure Index</u>

CDTC staff developed a *Pedestrian Infrastructure Index* in order to evaluate the ‘friendliness’ of intersections to pedestrians throughout the Capital District. Based on a set of specific characteristics, several signalized intersections were evaluated and scored according to how many features the intersection has related to pedestrian travel. The higher the score, the “friendlier” the intersection should be. The score is based on the physical

characteristics of the intersection. Other factors such as vehicular traffic volume, pedestrian volume, and approach speed will be included in a more detailed analysis at a later date. It is hoped that this inventory will help to identify deficient intersections that threaten the safety of pedestrians.

After conducting some preliminary research on similar inventories, a survey form and key (shown in Appendix B) were created for the data collection process. They identify twenty-one (21) intersection characteristics to be inventoried and provide details as to how they should be evaluated. Once the data has been collected, each characteristic receives a score and the results are summarized in a spreadsheet containing all the inventoried intersections. The total score for all of the characteristics for a given intersection is then translated to a letter grade (A though F) to represent the infrastructure index at that intersection. Again, the higher the score, the more pedestrian friendly the intersection should be. Initially, the inventory will evaluate all 400 of CDTC's Transportation System Management (TSM) signalized intersections (the 'critical' intersections in the Capital District). It will later be expanded to incorporate more of the region. Samples of the raw data and score sheet are included in Appendix B.

Once all the data has been collected, CDTC will conduct statistical analyses to determine to what extent the infrastructure index has on pedestrian safety and use at intersections. Other variables to be considered are speed limit, traffic volumes, crash history, and pedestrian volumes. It has yet to be determined whether CDTC has enough data available to conduct a statistically significant analysis. However, it is hoped that with the use of the geographic information systems (GIS) certain trends will become apparent and, eventually, improvements can be suggested at the intersections with problems.

TASK FORCE RECOMMENDATION:

CDTC staff should continue their efforts that focus on pedestrian safety and accessibility. Expanding the inventory to include each signalized intersection in the Capital District should be explored. The data collected on the intersection forms and the "grades" they receive should be formally incorporated into the project evaluation process for funding opportunities. The intersections should be revisited on a regular basis as conditions often change, possibly altering the original score of the intersection.

Pedestrian Specific Improvements

Improvements that enhance pedestrian mobility can be stand alone projects like the Hudson River Way, but often get overlooked because they are a part of a much larger project such as the Wolf Road reconstruction. The following lists highlight some of the pedestrian specific projects.

Sidewalks and/or walking paths have been developed as part of larger projects on:

- Route 7 in Brunswick
- Route 155
- Albany Shaker Road (east of Wolf)

- Wolf Road
- Multi-purpose trail by Albany International Airport
- SPAC/Route 9 walking path
- Vandenburgh Ave by HVCC

Hudson River Way

The Hudson River Way is a pedestrian bridge that spans from Broadway, in the City of Albany, across I-787 to the Corning Preserve. The bridge opened in August of 2003. The project was funded by the City of Albany, NYSDOT, and through private individuals and corporations that participated in the "Buy a Brick" program. The bridge provides residents and visitors with enhanced access to the riverfront.

Photo by Capitalbridges.com

Along with the Hudson River Way, the region continues to be home to other pedestrian dedicated facilities. They include:

- Albany Medical Center's New Scotland Ave. pedestrian overpass
- The Empire State Plaza-Times Union Center walkway
- The "pedestrian plaza" section of Steuben Place, Albany
- The "pedestrian plaza" section of Jay Street, Schenectady
- RPI"s pedestrian overpass, Troy
- Schenectady County Community College's walkway over State Street
- The Dunn Memorial Bridge approaches and sidewalks, Rensselaer

TASK FORCE RECOMMENDATION

The Task Force encourages that both bicycle and pedestrian improvements continue to be included in projects throughout the region. An attempt to track the costs of the bike/ped components of larger projects (reconstruction or resurfacing) should be made.

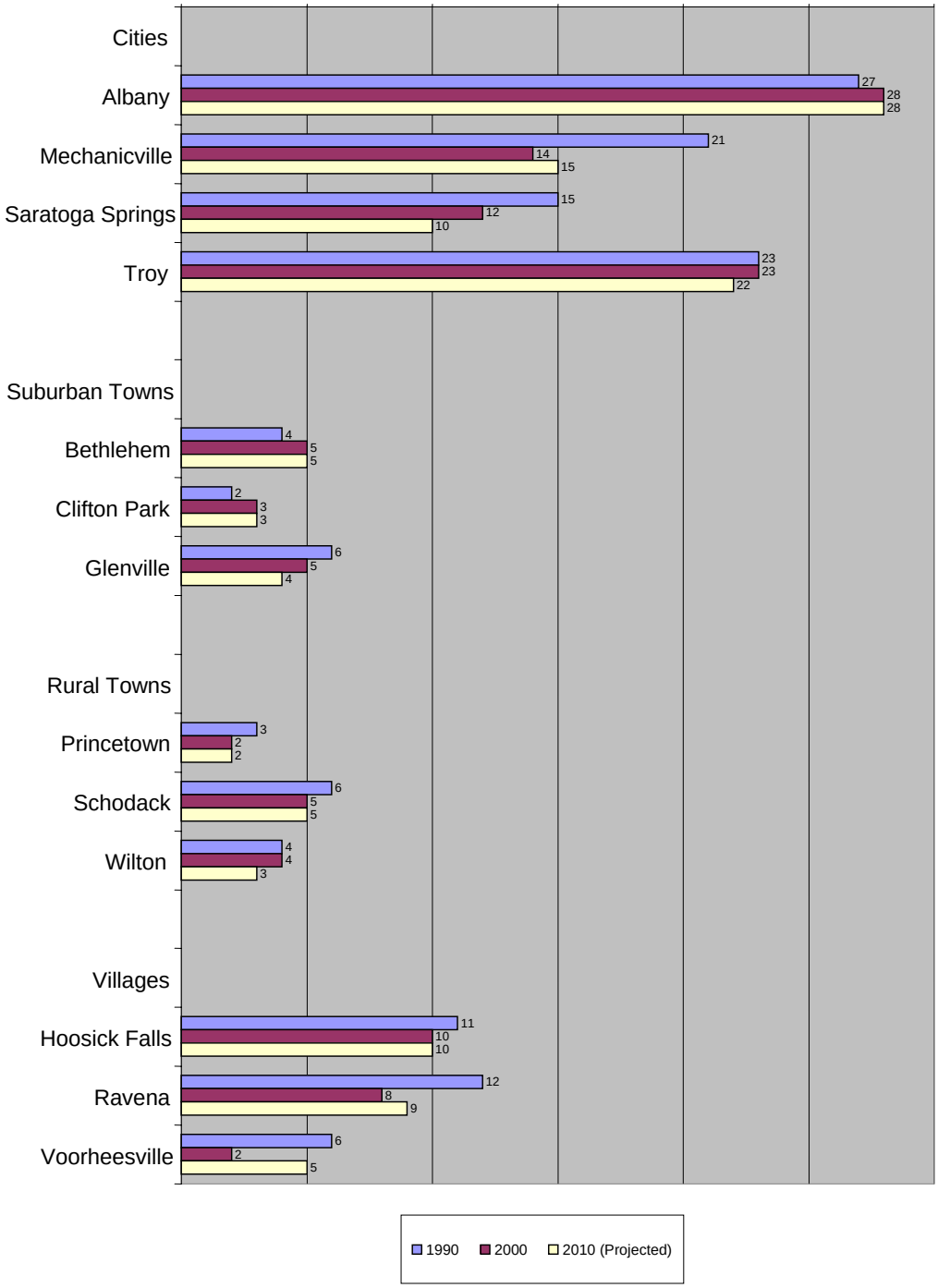
Zero Vehicle Households

Census data from 1990 and 2000 was used to determine the number of "zero vehicle households" in selected communities in the Capital District for those years. These figures were also used to project the amount of "zero vehicle households" that these communities would have in 2010 (See Figure 2). The findings suggest that, in a majority of the communities studied, the percentages of households without any vehicles have only changed slightly between 1990 and 2000 and are not expected to change dramatically by 2010.

As expected, the number of “zero vehicle households” is considerably higher in urban areas than rural or suburban locations. This can be seen in the year 2000, where 12-28% of households in the region’s major urban centers had no vehicle, 2-10% of village households had no vehicle compared to 2-5% in suburban communities. These figures clearly illustrate that vehicle ownership is related to where one lives. The low levels of change from decade to decade suggest that little has been done to reduce the amount of vehicular traffic to make these areas friendlier to walking and bicycling.

It should be noted that the census figures used to create the chart on the following page represent households only and do not include children. It should be kept in mind that children are not permitted, by virtue of their age, to operate vehicles but often need to be mobile whether they are going to school, a part time job, or for recreation. Therefore, children should be kept in mind when planning for bicycle and pedestrian facilities.

Figure 1
Percent of Zero Motor Vehicle Households
in Selected Capital District Municipalities



Wolf Road Pedestrian Survey

CDTC was interested in the thoughts of pedestrians who use the countdown signal near 50 Wolf Road. Many people use the countdown signal to cross Wolf Road on a daily basis. During the lunch hour, there can be as many as thirty people crossing Wolf Rd, at this location.

On October 25th, 2000, CDTC staff handed out 100 surveys to crossing pedestrians at the crossing in front of 50 Wolf Rd between 10 AM and 12:30 PM. The survey consisted of six questions regarding the countdown signal. The return postage was pre-paid for the convenience of those who were given a survey.

The questions asked on the survey were:

1. Do you use the pedestrian button to activate the pedestrian signal (if it is not already activated)?
2. Are you more likely to use the pedestrian button to activate the new countdown signal?
3. Is the new countdown signal easier to understand than a traditional walk/don't walk signal?
4. Have you ever changed your mind about crossing the street based on the information provided by the signal?
5. Do you feel more or less rushed while crossing the street with the new countdown signal?
6. Does the presence of the countdown signal make you feel safe in the crosswalk?

CDTC staff received fifty-three (53) responses. The responses show that most of the people who answered the survey use the countdown pedestrian signal and find it easier to understand than the traditional walk/don't walk signal. The results indicate the signal has changed the minds of pedestrians crossing at 50 Wolf Road. The pedestrians claim to feel less rushed in the intersection with the new signal and a majority feel the signal enhances their sense of safety in the crosswalk.

The main concern of those who answered the survey was the traffic turning left (with a green arrow) out of Colonie Center Mall at the same time as the pedestrians are given the walk sign. The traffic exiting the Mall has a tendency to not yield to the crossing pedestrians. This accounts for most of the negative responses to the safety question in the survey (#6).

The survey results are shown on the following page.

TASK FORCE RECOMMENDATION

This survey was an excellent tool to get a sense of pedestrians' thoughts on count down signals. The number of pedestrians crossing Wolf Road will probably increase when 50 Wolf Road returns to full capacity. Monitoring the vehicular turning movements in and out

of Colonie Center is suggested. A leading pedestrian phase was included as part of the Wolf Road reconstruction.

Transportation Enhancement Program

In 1998, one component of the federal transportation bill, the *Transportation Equity Act for the 21st Century* (TEA-21) included a Transportation Enhancement Program (TEP). The program is administered by each state's Department of Transportation with oversight by the Federal Highway Administration (FHWA). The guidebook developed by NYSDOT states that the program "provides federal reimbursement for non-traditional projects that add value to the transportation system by relating to HUMAN and ENVIRONMENTAL aspects."

Two rounds of solicitations occurred under TEA-21. Each project was expected to fit into at least one of the following categories.

1. Provision of facilities for bicycles and pedestrians, including safety and educational activities for bicyclists and pedestrians
2. Acquisition of scenic easements and scenic or historic sites
3. Scenic or historic highway programs, and provisions of tourist and welcome center facilities
4. Landscape and other scenic beautification
5. Historic Preservation
6. Rehabilitation and restoration of historic transportation structures, or facilities including historic railroad facilities and canals
7. Establishment of transportation-related museums
8. Preservation of abandoned railway corridors, including conversion and use for pedestrian and bicycle trails
9. Control and Removal of outdoor advertising
10. Archeological planning and research
11. Mitigation of water pollution due to highway runoff
12. Environmental mitigation to reduce vehicle-caused wildlife mortality while maintaining habitat connectivity

The Safe, Accountable, Flexible, Efficient, Transportation Equity Act, A Legacy for Users (SAFETEA-LU) was signed into law on August 10, 2005. SAFETEA-LU succeeded TEA-21 as the federal authorization act guiding federal highway and transit programs. The TEP program continued and another round of solicitation occurred. The project categories were the same as in previous rounds.

After NYSDOT reviewed the applications to see if the projects met the eligibility requirements, CDTC was responsible for evaluating, rating, and prioritizing each application. Members of the Task Force have been invited to sit on the review committee during all rounds. CDTC's prioritized lists were submitted, and for the most part were adhered to by the Transportation Enhancements Advisory Committee (TEAC). Several projects in the Capital District have been funded through the Transportation Enhancement Program. Tables

5-7 show the projects funded in the Capital District by the Transportation Enhancement Program.

Table 5
Transportation Enhancement Program
Projects Funded in Round 1 under TEA-21 (1999)

Project Title	Sponsor	Federal $	Local $	Total Project Cost
Troy Pedestrian and Bicycle Trail	City of Troy	$ 1,634,500	$ 408,625	$ 2,043,125
Waterfront Intermodal Enhancement Program	Albany (City)	$ 985,420	$ 246,355	$ 1,231,775

Table 6
Transportation Enhancement Program
Projects Funded in Round 2 under TEA-21 (2002)

Project Title	Sponsor	Federal $	Local $	Total Project Cost
Glenville and Scotia Sidewalk Project	Town of Glenville	$ 525,000	$ 175,000	$ 700,000
Zim Smith Mid-County Trail	Saratoga (County)	$ 985,420	$ 246,355	$ 1,231,775
Mohawk Hudson Bike Path Improvements	Albany (County)	$ 406,000	$ 174,000	$ 580,000
Sherwood Avenue Sidewalks	Town of E. Greenbush	$ 344,480	$ 86,120	$ 430,600
Historic Hadley Bow Bridge	Town of Hadley	$ 1,160,000	$ 290,000	$ 1,450,000

Table 7
Transportation Enhancement Program
Projects Funded in under SAFETEA-LU (2006)

Project Title	Sponsor	Federal $	Local $	Total Project Cost
Erie Canal Towpath Community Connector	Town of Clifton Park	$1,680,000	$420,000	$2,100,000
Luther Rd (NY 151) Pedestrian and Bicycle Access Improvements	Town of East Greenbush	$1,538,080	$424,520	$1,962,600
City of Cohoes Erie Canal Heritage Trail	City of Cohoes	$328,806	$82,201	$411,007
Town of Milton Sidewalk and Curb Project	Town of Milton	$1,368,000	$342,000	$1,710,000

TASK FORCE RECOMMENDATION

During future rounds of the Transportation Enhancement Program, The Task Force would like CDTC to continue to be responsible for submitting a prioritized list of projects to NYSDOT for statewide review. Members of the Task Force should continue to be included as part of the review committee provided they do not have a vested interest in any of the submitted projects. Bicycle and Pedestrian safety and mobility should continue to receive prioritization during the evaluation process.

Major TEP Projects

Zim Smith Trail

When complete, the Zim Smith Mid-County Trail will traverse through 4 towns and 2 villages in Saratoga County, providing another walking/biking asset to the region. Improvements for the Zim Smith Trail were funded through the second round of the Transportation Enhancement Program. The Saratoga County Planning Department has developed a working committee and has taken the lead role in project management.

Partnerships with local DPW's and the Saratoga Heritage Trails Committee and Saratoga PLAN have been created with the Planning Department to further the work along the trail. The Mt. McGregor Correctional Facility also provided two work crews to assist with the clearing of brush from the trail. .

TASK FORCE RECOMMENDATION

The Task Force encourages Saratoga County to continue with their efforts to complete the Zim Smith Trail. Exploring options for connecting to the Mohawk-Hudson Bike Hike Trail should be a priority for the region. If the Capital District ever has a champion and the resources to create a true regional bike/hike system, the Zim Smith Trail would be a major component.

Mohawk-Hudson Bike-Hike Trail Reconstruction

Albany County received funding in the second round of the Transportation Enhancement Program for much needed improvements to portions of the Mohawk-Hudson Bike-Hike Trail. The parts of the trail that Albany County has maintenance responsibilities for were completely reconstructed in late 2004. This included the section from the Albany City Line to the Town of Colonie. As part of this project, a plaque displaying the relevant portion of the trail from CDTC's 2004 Mohawk-Hudson Bike-Hike Map was installed at the trail access point at 4th Street in Watervliet. This was the first major reconstruction effort since the trail was built in the 1970's. This reconstruction is consistent with the goals and objectives of the Albany County Waterfront Committee.

TASK FORCE RECOMMENDATION

The Task Force believes the improvements will greatly enhance the walking/biking travel environment. To help ensure consistency and provide a seamless user experience, future trail improvement projects should be multi-jurisdictional.

"Second Chance" Enhancement Program

CDTC's commitment to bicycle, pedestrian, and canal projects went beyond the federal Enhancement Program. In May 1999, CDTC's Planning Committee endorsed the 1999-2004 Transportation Improvement Program which included a "second chance" program setting aside $800,000 federal funds (equaling $1 million total project costs) for "high priority" TEP candidates not funded in Round 1 of the Enhancement Program.

In March 2000, CDTC solicited the responsible agencies for the highest ranked unsuccessful projects to inquire if they were interested in resubmitting their proposals for consideration in this program. The average total cost of the initial projects was over $1 million and in the interest of funding as many projects as possible the Second Chance Enhancement Program reflected a minimum of 50% local match and/or a cap of $200,000 in federal funds. Table 8 represents the three additional projects funded under this program.

Table 8
Second Chance Enhancements
Projects Funded (1999)

Project Title	Sponsor	Federal $	Local $	Total Project Cost
Spring Run Trail	City of Saratoga Springs	$ 358,000	$ 358,000	$ 716,000
MHBHT Project	Schenectady (City)	$ 304,500	$ 304,500	$ 609,000
Ruhle Road Project	Town of Malta	$ 84,800	$ 21,200	$ 106,000

TASK FORCE RECOMMENDATION

The Task Force commends CDTC on their commitment to bicycle and pedestrian projects. The Second Chance Enhancement Program should be on the Planning Committee agenda as a discussion item each time there is new round of the Transportation Enhancement Program.

Community and Transportation Linkage Planning Program

CDTC's Community and Transportation Linkage Planning Program (the Linkage Program) provides consultant or CDTC staff technical assistance for joint regional-local planning initiatives that link transportation and land use. It is a key implementation activity of New Visions which is predicated on reducing the growth of vehicular travel in the Capital Region. The Linkage Program is also the cornerstone of CDTC's local planning assistance and public outreach efforts. CDTC's transportation and land use policy is that good site and community design are essential to achieving regional transportation system goals. The Linkage Program is one of the most significant cooperative regional efforts in the nation to reflect, in practice,

what representatives of the region's counties, cities, towns and villages as well as state and local transportation providers have adopted as policy.

CDTC has funded a total of 55 collaborative, jointly-funded studies. Study sponsors have included 30 separate urban, suburban and rural municipalities and counties as well as not-for-profits and other public entities. Over $3.3 million in federal, state and local funds have been committed to the Linkage Program since its inception in 2000.

Many of the Linkage Program products place a great deal of emphasis on bicycle and pedestrian travel and facilities. The following are just a few examples of the kind of planning initiatives developed through the program. The final products of these studies are available for review on CDTC's website.

McKnownville Corridor Study:

The study resulted in the development of a corridor plan designed to meet the objective of maintaining a walkable inner suburban neighborhood. This consisted of the consideration of pedestrian, bicycle, and transit facilities as well as streetscape and access management issues. Desired improvements included the rehabilitation and extension of the sidewalk system in the hamlet; improved pedestrian crossings along Western Avenue; traffic calming; reclaiming pavement width for cyclists and pedestrians in some locations with wide shoulders; improved street lighting for visibility of pedestrians and cyclists; establish raised medians in several locations; develop a system of off-road trails/paths.

Town of Malta Linkage Study:

Improvements included the development of sidewalk standards, as well as the development and design of a pedestrian system plan for the downtown area. Also developed were multi-purpose trail standards and plans for a downtown bikeway or trail system that tie in with existing trails.

Hoosick Falls Parking and Pedestrian Project:

The Village of Hoosick Falls implemented a plan for the rehabilitation of Route 22 and the installation of 10 new crosswalks for the sake of revitalizing its downtown business area. Desired improvements along Route 22 would improve both vehicle and pedestrian accommodations. The Village is committed to providing safe and functional parking facilities at its three off-street parking areas, and to maintain the character and historic integrity of the community.

Patroon Greenway Project:

The purpose of this project was to analyze the feasibility of the proposed Patroon Greenway Trail, a path between the Albany Pine Bush preserve and the Corning Preserve, a distance of approximately 6 miles. This link is important considering that it is a major east-west connection to other regional trail and transportation systems. It is expected that this trail connection would attract many recreational and commuter purposes. Another major

component of this study is the relationship the trail connection would have with regional goals and objectives. Areas of concentration include: 1) value to the regional transportation system, 2) environmental justice, 3) economic development, and 4) relevance to possible high-tech development.

TASK FORCE RECOMMENDATION

The Task Force finds tremendous value in this program. The Program should continue, providing planning and technical assistance to local municipalities. While moving towards a regional bicycle and pedestrian system, increasing the capacity for cyclists and pedestrians at the limited number of river crossings should be a priority. When a Linkage, or similar type project, has a river crossing in the study area, a task should be dedicated to accommodating non-motorized travel on the bridges. Bicycle and pedestrian issues are a large part of many of the Linkage projects. If a project has a large bicycle/pedestrian component, a single task force member may be invited to participate on the study advisory committee. The invitation would be on a project by project basis. This person would be responsible for representing the views of the Task Force and this document as well as reporting on the project status at the regularly scheduled Task Force meetings.

Priority Network

As part of the original New Visions process, the Task Force developed a +/-353 mile (84 facility) bicycle/pedestrian priority network that the region should make more bicycle and pedestrian friendly. It was envisioned that this network could become a continuous system of usable facilities. Each segment placed on the network had the following characteristics:

- They are parts of major travel routes -- they connect major activity centers with each other and are the most critical parts of connections between these activity centers and major residential areas.
- They are the most likely facilities to contain some sort of barrier to cycling or walking
- They have few practical alternatives nearby (as any alternative routes would add significant length to a trip)
- They are accessible to residential areas via local (non-through), lower volume roads
- They have potential for use as bike routes, with proper accommodations

The changes proposed by the Task Force include:

- “bike route” designations, and bike lane striping when appropriate
- improvement to Group B/C (average adult cyclists and children) standards as set forth by the FHWA
- installation of “share the road”, “Pedestrian Crossing”, “bike route” and other signage
- more frequent maintenance and sweeping
- provision for additional pedestrian and bicycle amenities (crosswalks, bike racks, pedestrian signals, etc.
- eventual development of a “where to ride”-type map including these facilities

It was also felt that the Priority network could:

1. Identify desirable bicycle and pedestrian travel corridors
2. Provide a "model" to get a sense of the magnitude of resource needs at the regional level
3. Serve as an official plan for bicycle and pedestrian travel
4. Serve as a starting point for local planning
5. Lend additional legitimacy to cycling and walking

Before making any comments or recommendations on the original priority network, the Task Force decided that an analysis of "how we've done" was necessary. The following analysis is based on CDTC staff research, field observations, and communications with some of the municipalities in which the facilities are located. The analysis is looking at what, how much, and where the proposed improvements (listed above) were accomplished since 1995. The numbers are meant to give a sense if we as a region have exceeded, met, or underestimated the goals related to the priority network.

Albany County

- In Albany County 38% (14 out of 37) of the target facilities have had improvements.
- Improvements in signage and sidewalks are the most prevalent. In 5 of the improved segments new signage was installed, and 7 of the segments have received new sidewalks. No segments received both new signs and new sidewalks. Three of the locations received bicycle amenities such as bike racks, pedestrian signals, cross walks etc.
- Many of the sidewalk improvements apply to only a portion of a facility. For example, the segment of NY 32 from Loudonville Rd to Corning Hill Rd., only Livingston Ave to McCarty St. has been improved.
- None of the segments received "improvements that meet Group B/C Standards", or have been officially designated a "bike route".

Rensselaer County

- The ratio of improvements to target improvement areas in Rensselaer County is much higher than that in Albany County, with 52% (11 out of 21) of targeted facilities having received some improvements.
- Installation of new signage seems to be the only improvement made on these priority network facilities. Only one segment, which was improved, received an improvement besides new signage (US 9/20-Columbia County received "Improvements to Group B/C Standards").
- Two segments received new sidewalks and only one of the 21 received "Improvements to Group B/C Standards".

Saratoga County

- In Saratoga County 26% (7 out of 27) of the targeted roadways received improvements.
- New signage was the most notable improvement, with 5 of the 7 improved areas receiving new signs.
- There was also a notable addition of pedestrian amenities, with 3 of the 7 receiving some sort of amenity (crosswalks, bike racks, etc.).

- Saratoga's improvements appear to be more comprehensive than those in the other counties. One segment received improvements in 4 of the categories, and 2 segments received improvements in 2 categories. In Albany, Schenectady and Rensselaer Counties, improvements were made, for the most part, in only one category.
- In no instance in Saratoga County, were there improvements to bike lane striping.

Schenectady County

- In Schenectady County 39% (9 of 23) of the targeted areas received improvements.
- Of the 9 improved facilities, 8 of them included new signs.
- The only other improvement made to the bike/ped network in Schenectady County was the addition of pedestrian amenities and new sidewalks to Route 5 (NY 103-Albany County line).
- No areas received official bike route designation or improvements to B/C Standards.

General Findings

- There are 84 priority network facilities and 41 (49%) of those areas have received improvements (based on those proposed by the Task Force in 1995).
- Overwhelmingly, the most prevalent improvement was the addition of new signage. Next was the addition of sidewalks, largely due to the improvements in Albany County.
- The least prevalent improvements include official bike route designation/striping (2 of 84) and "Improvements to B/C standards" (3 of 84 or 3%).
- The county with the greatest ratio of improvements is Rensselaer, however that was mostly signage, and the county with the lowest ratio of improvements is Saratoga. However, Saratoga County had the most comprehensive improvements.

Figure 2: Improvements by Road Segment

Improvement	Frequency	Percentage
Bike Route Designation	2	2%
Improvements to B/C Standards	3	4%
Signage	27	32%
Pedestrian Amenities	7	8%
New Sidewalks	9	11%

Based on this analysis, which was completed in 2003, with more than half of the planning horizon (1995-2016) remaining, it is safe to say that **based on the modest 1995 criteria for improvements**, the Capital District has exceeded its goal related to the priority network. If improvements continue at the same pace, it can be expected that each of the facilities on the original priority network will receive at least some of the improvements proposed by the Task Force.

Exceeding the goal does not mean the Capital District should stop thinking about or place less emphasis on bicycle and pedestrian issues. In fact, the opposite is true. The number of substantial improvements (upgrade to B/C standards) is well behind schedule. Only 3 of 84

segments have seen substantial improvements. To really make an impact on the creation of inter-connected facilities more substantial improvements are necessary. The region should also be pushing for greater improvements including the installation of more sidewalks, pedestrian amenities, trails, and bike lanes which will enhance bicycle and pedestrian travel.

The Task Force felt that the priority network should be revisited and include other road segments that meet the same criteria set forth in 1995. After much discussion, the Task Force agreed to add 25 new facilities (approximately 115 miles) to the network. Also, all off road trails (i.e. Mohawk-Hudson Bike-Hike Trail and Zim Smith Trail) are now considered part of the network. The additional facilities can also be seen as a way to help "keep the pressure" on the region to continue to include bicycle and pedestrian improvements as part of project development. It should also be noted that the segments that received improvements are still included on the priority network -- more can always be done to improve the cycling/walking environment.

The 109 segments (468 miles) of the updated network are shown in Figure 3. Maps showing the facilities on the updated network by county follow the list.

TASK FORCE RECOMMENDATION

The Task Force recommends that the Priority Network be updated on a regular basis to include other facilities that meet the criteria. Improvements to the Priority Network should be used as the primary performance measure for defining the region's success in accommodating bicyclists and pedestrians.

Figure 3: Facilities on the CDTC Bicycle and Pedestrian Priority Network

Albany County

Facility	Endpoints	Mileage
US 9	Saratoga Co Line-Rensselaer Co Line	13.7
US 20	Schenectady County Line- Dunn Bridge	16.7
NY 2	I-87- Broadway	3.9
NY 5	Schenectady County Line- Broadway	10.6
NY 7	(I-87) NY 2- Schenectady County Line	3.2
NY 32 (Pearl St)	Loudonville Road- Corning Hill Rd	3.7
NY 32 (Broadway)	Wolfert Ave- 1st St (Watervliet)	2.4
NY 32 (3rd Ave)	1st St (Watervliet)- Broadway	0.7
NY 32 (2nd Ave)	25th St. Watervliet-Saratoga County Line	3.0
NY 85	Blessing Road-NY 157	8.2
NY 85A	NY 155-NY 85 W Junction	3.8
NY 140	NY 85-NY 443	2.1
NY 144	Corning Hill Road/NY 32 - Green Co Line	11.3
NY 146	Schenectady Co Line- Altamont (Maple) Ave.	9.9
NY 155	NY 85A- CR 151 (ASR)	10.5
NY 157	NY 85- New Scotland/ Knox Town Line	4.1
NY 378	US 9- Rensselaer County Line	2.9
NY 443	NY 140- US 20	4.1
NY 470	NY 32- Rensselaer County Line	0.8
CR 151 (ASR)	Wolf Road- NY 7	3.4
23rd Street	Broadway- Green Island Bridge	0.5
Albany Shaker Road	Wolf Road- Northern Boulevard	4.5
Broadway	Dunn Memorial Bridge- Wolfert Ave	2.5
Broadway	1st St (Watervliet)- 25th St	2.0
Fuller Road	NY 5- US 20	2.0
Green Island Bridge	NY 32- Rensselaer County Line	0.7
Normanskill Rd/ Krumkill Road	NY 155- Blessing Rd	4.2
Lincoln/ Rapp Roads*	NY 5- US 20	2.9
New Scotland Avenue	US 20- NY 85	4.6
Osborne Road	Sand Creek Road- US 9	2.1
Russell/ Blessing Roads	US 20- NY 85	3.0
Sand Creek Road	Watervliet Shaker Road- Osborne Road	3.5
Sparrowbush/Forts Ferry	US 9- River Road	2.5
Washington Avenue	Fuller Road- Central Ave/ NY 5	4.3
Washington Ave Ext.	NY 155- Fuller Road	2.9
Wolf Road	NY 5- Albany Shaker Road	1.9
	Total	**163.0**

Mileage by Municipality

City of Albany	41.0	Town of New Scotland	16.8
City of Cohoes	2.3	Village of Altamont	0.5
City of Watervliet	4.1	Village of Colonie	4.1
Town of Bethlehem	16.5	Village of Green Island	0.5
Town of Colonie	45.9	Village of Menands	4.0
Town of Guilderland	25.9	Village of Voorheesville	1.6

Rensselaer County

Facility	Endpoints	Mileage
US 4	Saratoga County Line- NY 142	0.2
US 4	US 9/20- 117th St	13.2
US 9	Albany County Line- US 9&20 Split	8.1
US 20	US 9/20 Split- Columbia County Line	10.7
NY 2	15th Street- NY 66	0.2
NY 7	15th Street- VT State Line	25.1
NY 9J	US 9/20- Columbia County Line	11.9
NY 22	NY 7- Washington County Line	7.9
NY 43	US 9- NY 150	7.4
NY 66	NY 2- Spring Avenue	1.1
NY 142	US 4- NY 40	1.0
NY 378	Albany County Line- US 4	0.5
NY 150	NY 151- US 9/20	4.4
NY 151	NY 43- NY 150	7.2
NY 470	Albany County Line- 2nd Avenue	0.2
15th Street	NY 7- NY 2	1.2
Adams/ East/ 2nd Ave/ South St	3rd Ave - NY 9J	0.8
Broadway	.01 mi S of 4th Ave Rensselaer to 3rd Ave (NY 43)	0.1
Campbell/Spring Ave	US 4- NY 66	1.4
Green Island Bridge/ Federal/ Sage	Albany County Line- 15th Street	0.8
Morrison Avenue	NY 378- US 4	0.4
	Total	**103.9**

Mileage by Municipality

City of Rensselaer	3.8
City of Troy	14.2
Town of Brunswick	7.6
Town of East Greenbush	18.3
Town of Hoosick	15.1
Town of Nassau	5.0
Town of North Greenbush	7.2
Town of Pittstown	7.7
Town of Sand Lake	1.9
Town of Schodack	18.4
Village of Castleton-on-Hudson	1.2
Village of East Nassau	1.2
Village of Hoosick Falls	1.6
Village of Nassau	0.8

* Includes Southern Service Road of Washington Ave Extension (.25 miles)

Saratoga County

Facility	Endpoints	Mileage
US 4 Broad St	Rensselaer Co Line- 3rd St/Hudson River Rd	0.3
US 4 / NY 32	Broad St- US4/NY32 split in Stillwater (Town)	14.3
US 4 / NY 32	Horicon Ave- US4/NY32 split in Northumberland	2.3
US 4 / NY 32	US 4/ NY 32 Split- Washington Co Line	0.1
US 4	US4/NY32 split Stillwater (Town)- NY32 Horicon Av	9.3
US 9	AGFTC Boundary- Albany County Line	29.1
NY 9P	US 9 / NY 50- CR 71	5.6
NY 29	West Avenue- US 4	12.3
NY 32	US 4 / NY 32- CR 71	5.2
NY 32	US 4- Albany County Line	1.5
NY 50	US 9- Schenectady County Line	13.7
NY 67	NY 50- US 9	3.8
NY 146	Miller Road- Moe Road	2.3
NY 146	CR 91- Schenectady County Line	0.4
CR 42	US 4 / NY 32 - Washington County Line	0.4
CR 60	NY 67- NY 50	0.6
CR 71	NY 9P- NY 32	4.3
CR 82	NY 67- Carlton Road	5.2
CR 91	Miller Road- NY 146	3.1
CR 109	Carlton Road- US 9	2.0
Carlton Road	CR 82- CR 109	1.0
Clamsteam/Canal Rd	Clamsteam Road- US 9	2.7
Clifton Pk Center/ Sitterly Rd	Moe Road- US 9	2.3
Glenridge Road	Schenectady County Line- Balltown Rd	0.5
Miller Road	NY 146- CR 91 Road	2.5
Moe Road	NY 146- Clifton Park Center Road	0.7
Riverview Road	CR 91- Clam Steam Road	7.1
Swaggertown Rd	Charlton Rd-Schenectady Co Line	2.6
West Avenue	NY 29- NY 50	1.4
	Total	**136.6**

Mileage by Municipality

City of Mechanicville	1.7
City of Saratoga Springs	8.6
City of Saratoga Springs (Outer Dist.)	11.8
Town of Ballston	12.8
Town of Charlton	2.6
Town of Clifton Park	25.3
Town of Greenfield	0.6
Town of Halfmoon	13.6
Town of Malta	8.0
Town of Milton	0.6
Town of Northumberland	1.5
Town of Saratoga	18.4
Town of Stillwater	11.4
Town of Waterford	2.9
Town of Wilton	7.5
Village of Ballston Spa	1.6
Village of Round Lake	1.6
Village of Schuylerville	1.2
Village of Stillwater	2.2
Village of Victory	1.5
Village of Waterford	1.2

Schenectady County

Facility	Endpoints	Mileage
NY 5	NY 103- Albany County Line	11.3
NY 5S	Montgomery County Line- NY 103	2.7
NY 7	NY 146- Helderberg Avenue	1.4
NY 50	Saratoga County Line- NY 5	6.5
NY 103	NY 5S- NY 5	0.5
NY 146	Saratoga County Line- Albany County Line	8.0
NY 337	CR 87- I-890 Entrance Ramps	1.0
CR 87	Princetown Road- NY 337	0.3
Altamont Avenue	NY 146- NY 7	1.8
Aqueduct/Van Vranken/Maxon Road	NY 146- Freemans Bridge Road	2.7
Broadway	Crane Street- NY 7	2.0
Broadway/Crane/Chrisler	NY 5- NY 146	2.5
Erie Boulevard	Freemans Bridge Road- I890	1.7
Freemans Bridge Road	NY 50- Erie Boulevard	1.5
Glenridge Road	NY 50- Saratoga County Line	1.8
Grand Boulevard	Nott St- Van Antwerp Road	1.2
Guilderland Avenue	Helderberg Avenue- Broadway	0.3
Helderberg Avenue	NY 7- Guilderland Avenue	1.1
Maple Avenue	Glenridge Road- Freemans Bridge Rd	2.7
Nott Street	Erie Boulevard- NY 146	2.4
Princetown Road	NY 7- CR 87	0.9
Swaggertown Road	NY 50- Saratoga County Line	4.3
Union Street	Erie Boulevard- Van Antwerp Road	2.3
Van Antwerp/Ashmore/ Fehr St	Grand Boulevard- NY 5	1.7
	Total	**62.5**

Mileage by Municipality

City of Schenectady	19.8
Town of Glenville	23.4
Town of Niskayuna	7.8
Town of Princetown	0.2
Town of Rotterdam	9.3
Village of Scotia	2.1

Figure 4

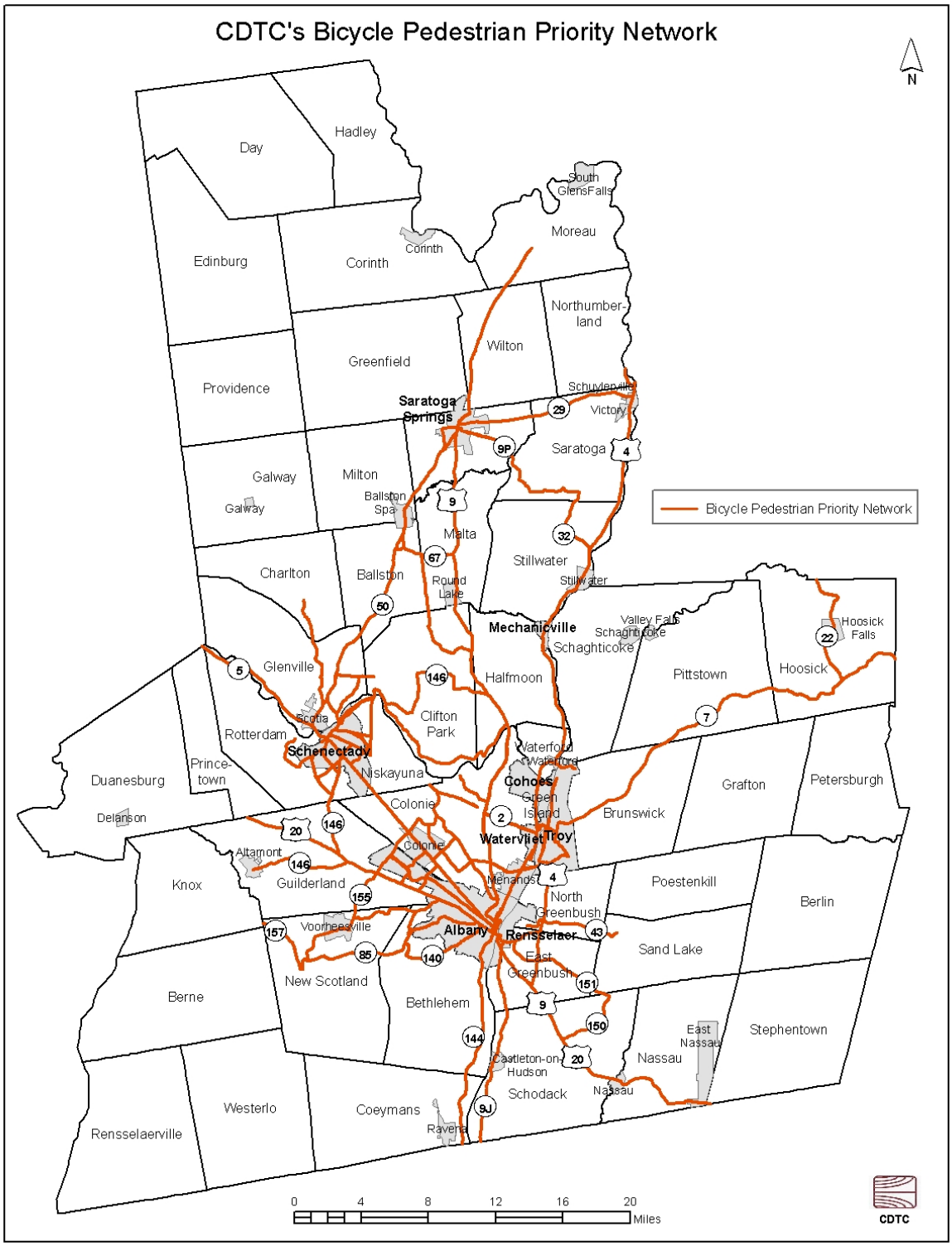

CDTC's Bicycle Pedestrian Priority Network
N
Bicycle Pedestrian Priority Network
Day
Hadley
South GlensFalls
Moreau
Edinburg
Corinth
Corinth
Northumber-land
Wilton
Greenfield
Providence
Schuylerville
Saratoga Springs
Victory
Saratoga
Galway
Milton
Galway
Ballston Spa
Malta
Stillwater
Stillwater
Charlton
Ballston
Round Lake
Mechanicville
Valley Falls
Schaghticoke
Schaghticoke
Hoosick Falls
Glenville
Halfmoon
Pittstown
Hoosick
Scotia
Clifton Park
Rotterdam
Schenectady
Waterford
Waterford
Prince-town
Niskayuna
Cohoes
Grafton
Petersburgh
Duanesburg
Colonie
Green Island
Brunswick
Delanson
Colonie
Watervliet
Troy
Altamont
Knox
Guilderland
Menands
North Greenbush
Poestenkill
Berlin
Voorheesville
Albany
Rensselaer
East Greenbush
Sand Lake
New Scotland
Berne
Bethlehem
East Nassau
Stephentown
Castleton-on-Hudson
Nassau
Schodack
Nassau
Westerlo
Coeymans
Ravena
Rensselaerville
0
4
8
12
16
20
Miles
CDTC

Figure 5

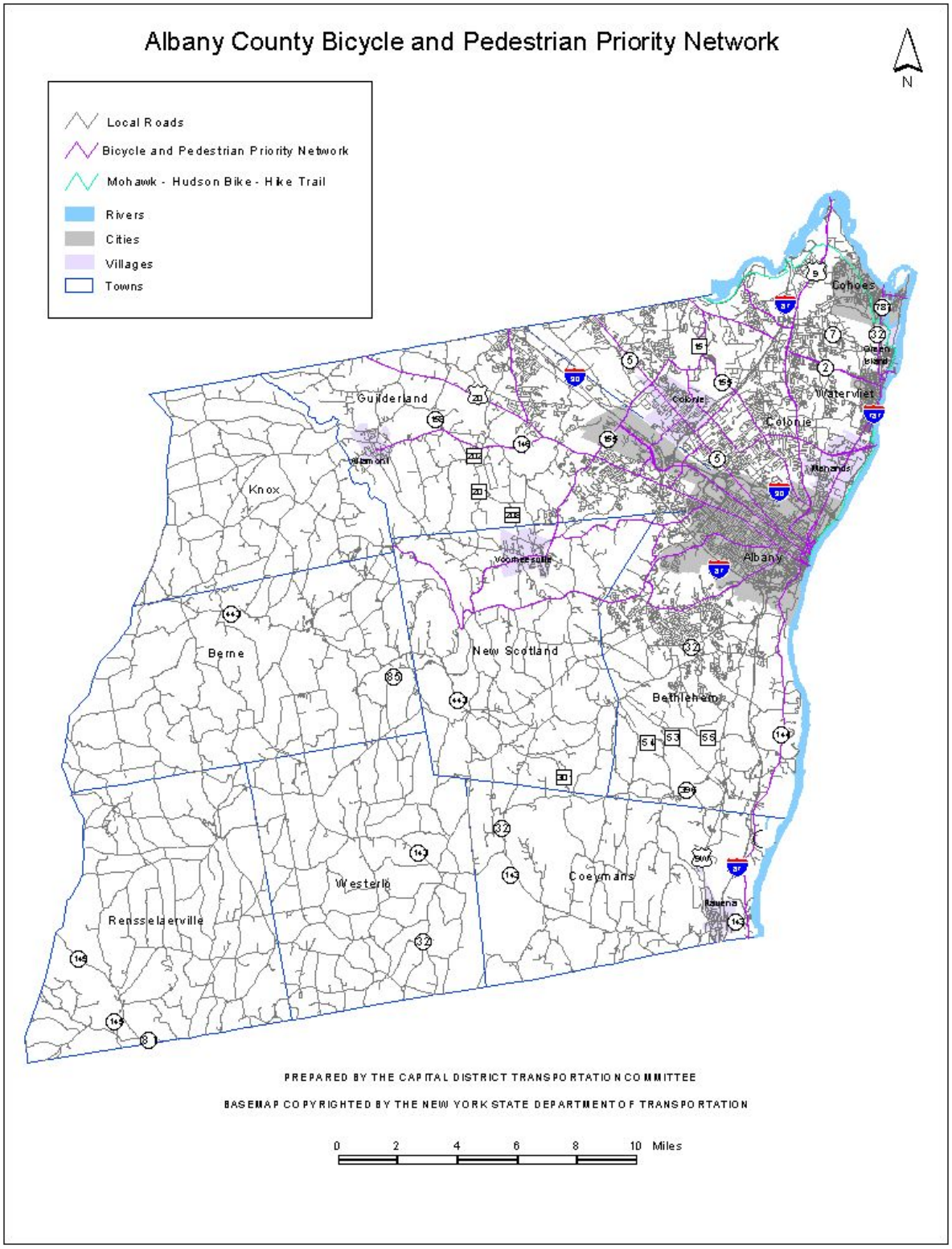

Albany County Bicycle and Pedestrian Priority Network
N
Local Roads
Bicycle and Pedestrian Priority Network
Mohawk - Hudson Bike - Hike Trail
Rivers
Cities
Villages
Towns
Cohoes
Watervliet
Colonie
Guilderland
Knox
Albany
Berne
New Scotland
Bethlehem
Westerlo
Coeymans
Rensselaerville
PREPARED BY THE CAPITAL DISTRICT TRANSPORTATION COMMITTEE
BASEMAP COPYRIGHTED BY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION
0 2 4 6 8 10 Miles

Figure 6

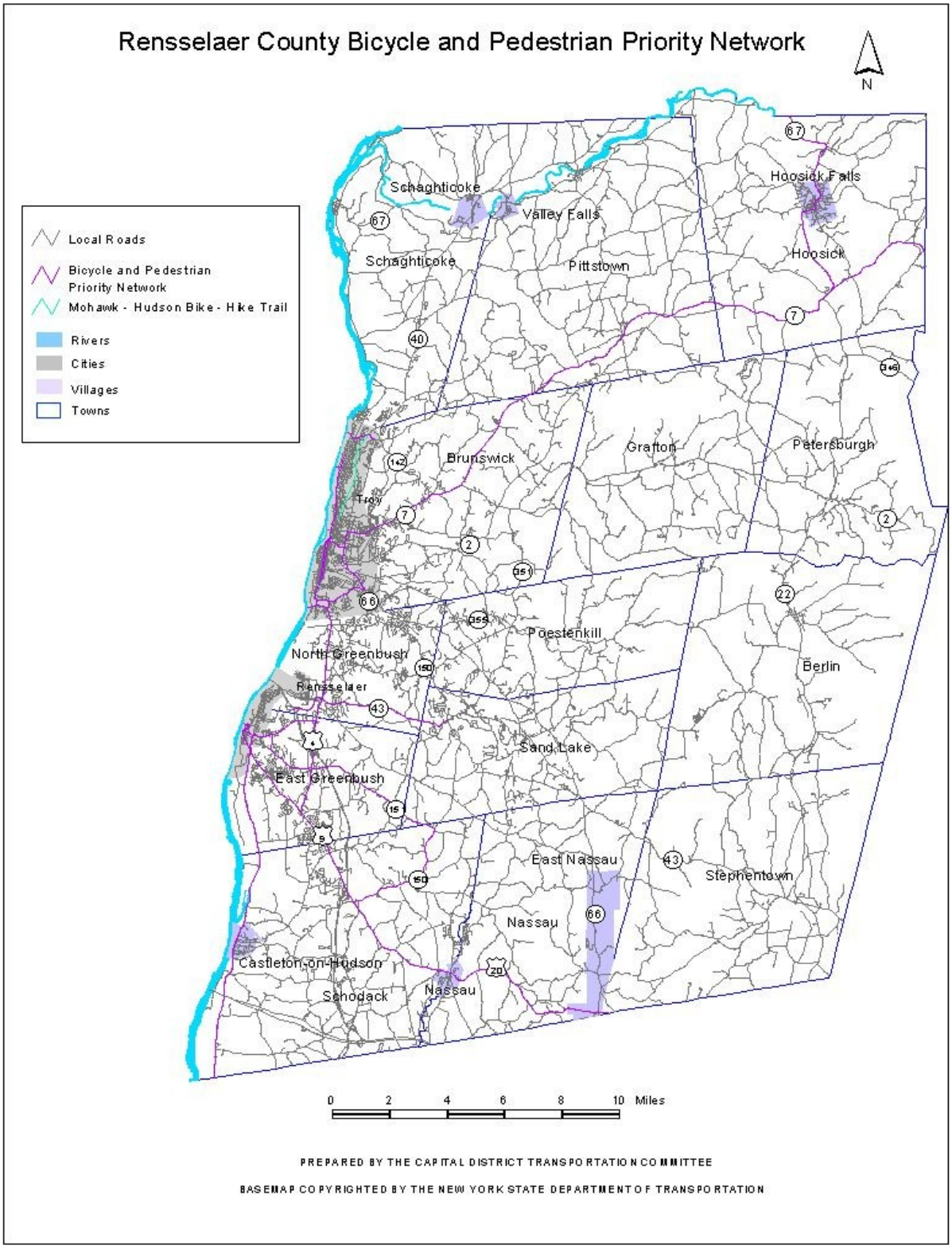

Rensselaer County Bicycle and Pedestrian Priority Network
N
Local Roads
Bicycle and Pedestrian Priority Network
Mohawk - Hudson Bike - Hike Trail
Rivers
Cities
Villages
Towns
Schaghticoke
Valley Falls
Schaghticoke
Pittstown
Hoosick Falls
Hoosick
Brunswick
Grafton
Petersburgh
Troy
Poestenkill
North Greenbush
Berlin
Rensselaer
Sand Lake
East Greenbush
East Nassau
Stephentown
Nassau
Castleton-on-Hudson
Schodack
Nassau
0 2 4 6 8 10 Miles
PREPARED BY THE CAPITAL DISTRICT TRANSPORTATION COMMITTEE
BASEMAP COPYRIGHTED BY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION

Figure 7

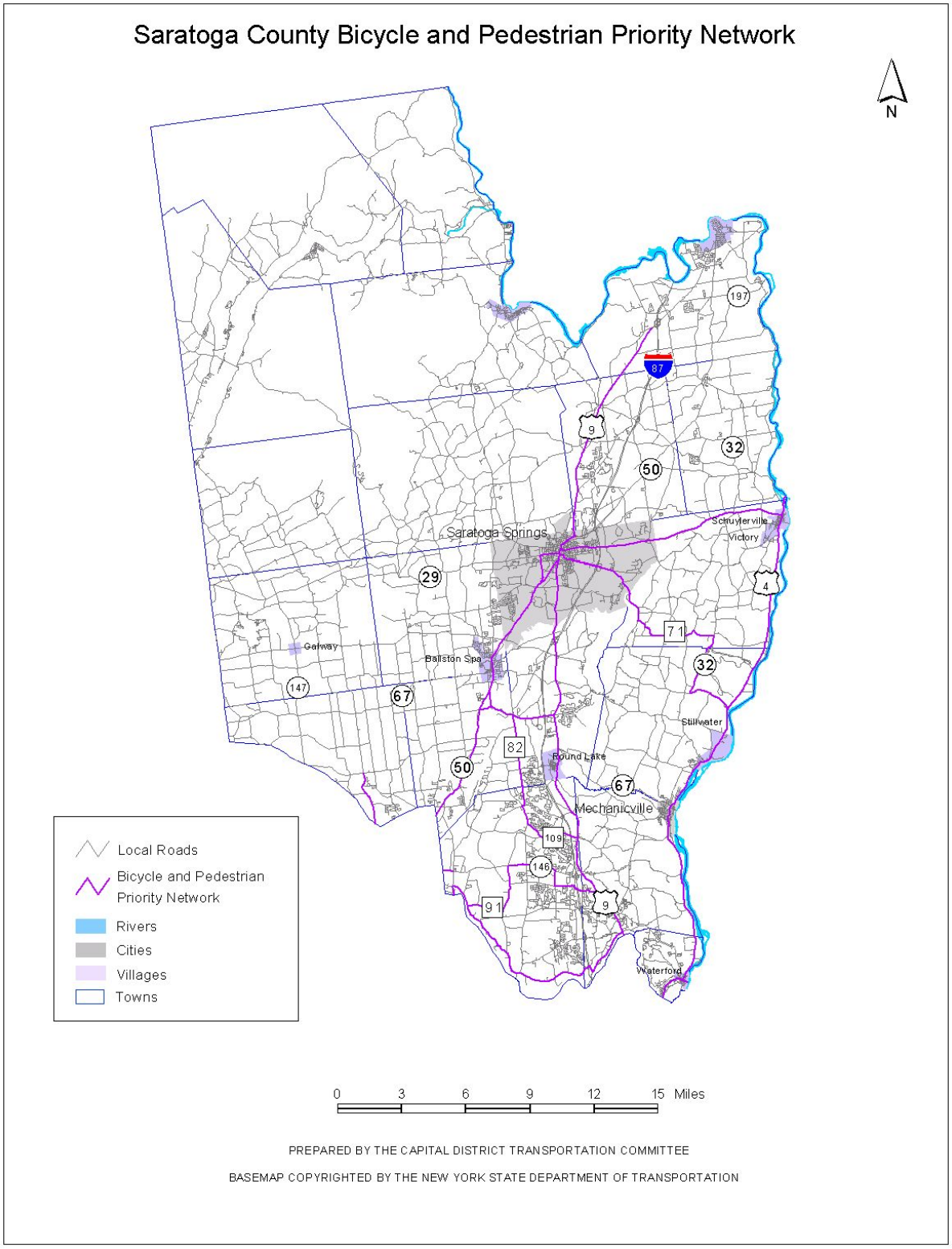
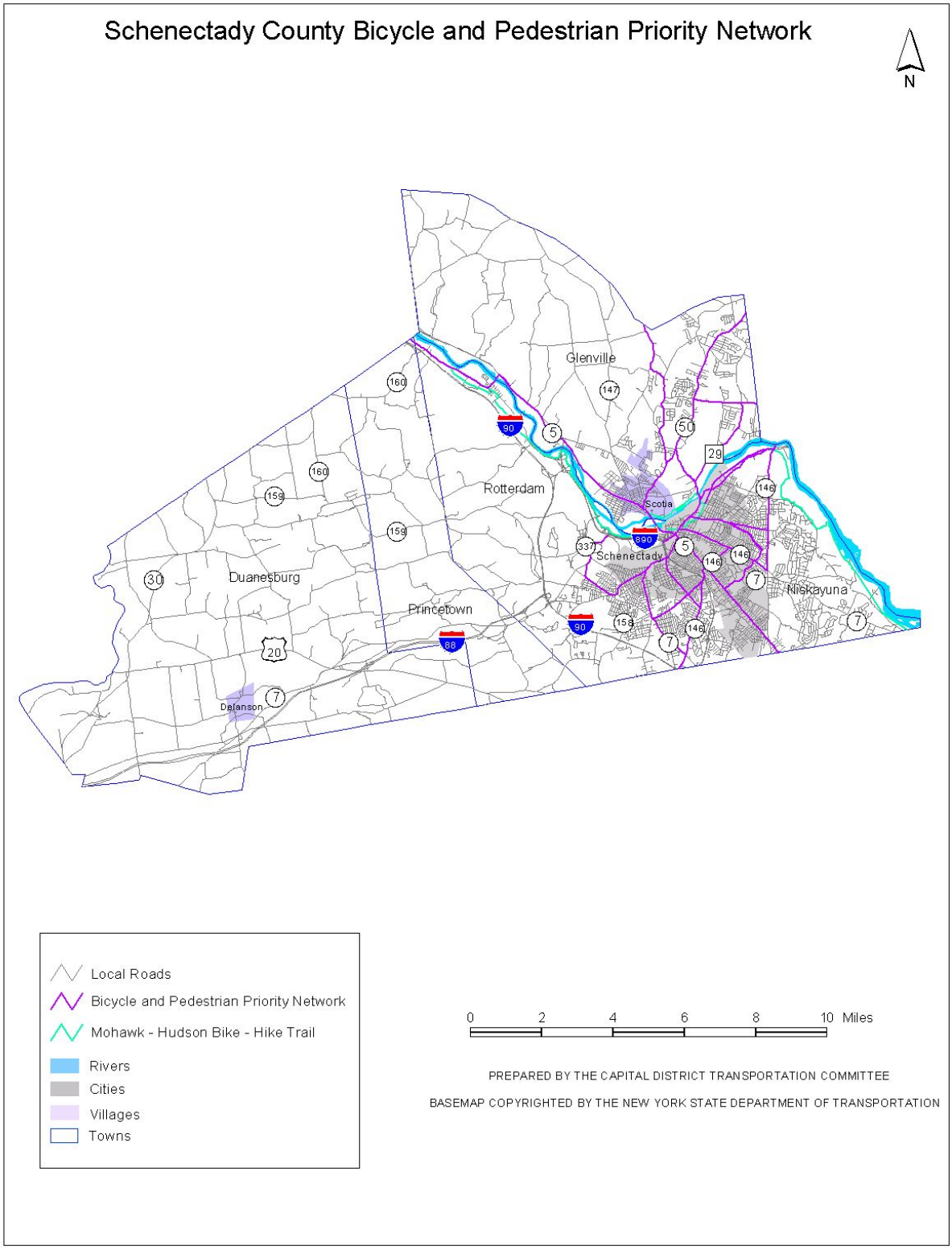

Saratoga County Bicycle and Pedestrian Priority Network
N
Saratoga Springs
Schuylerville
Victory
Gansevoort
Ballston Spa
Stillwater
Round Lake
Mechanicville
Waterford
197
87
9
32
50
4
29
71
147
67
82
109
146
91
Local Roads
Bicycle and Pedestrian Priority Network
Rivers
Cities
Villages
Towns
0
3
6
9
12
15
Miles
PREPARED BY THE CAPITAL DISTRICT TRANSPORTATION COMMITTEE
BASEMAP COPYRIGHTED BY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION

Figure 8


Schenectady County Bicycle and Pedestrian Priority Network
N
Glenville
Rotterdam
Scotia
Schenectady
Niskayuna
Duanesburg
Princetown
Delanson
Local Roads
Bicycle and Pedestrian Priority Network
Mohawk - Hudson Bike - Hike Trail
Rivers
Cities
Villages
Towns
0 2 4 6 8 10 Miles
PREPARED BY THE CAPITAL DISTRICT TRANSPORTATION COMMITTEE
BASEMAP COPYRIGHTED BY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION

Other Programs, Projects or Initiatives

Safe Routes to School

The current federal transportation legislation, the Safe, Affordable, Flexible, Equitable, Equity Act, A Legacy for Users (SAFETEA-LU) funded a Safe Routes to School (SRTS) Program. The SRTS Program empowers communities to make walking and bicycling to school a safe and routine activity once again. The Program makes funding available for a wide variety of programs and projects, from building safer street crossings to establishing programs that encourage children and their parents to walk and bicycle safely to school. Communities will be able to compete for SRTS funds and a minimum of 10% spent in each state must be used for educational purposes.

Bicycle Level of Service

CDTC built upon work done in Buffalo, NY and Baltimore, MD, to develop a Bicycle Level of Service (BLOS). BLOS evaluates the perceived safety and comfort of a bicyclist with respect to motor vehicle traffic while traveling on a roadway corridor and identifies the quality of service provided. Road segments are given a letter grade from A to F, similar to that of the traditional motor vehicle level of service (LOS). CDTC can use the tool to determine how roadway changes such as speed limit, grade, and volume affect the conditions for bicyclists.

Safety Analysis and Events

CDTC has participated in several municipal safety events that are focused around bicycle and pedestrian travel. Safety pamphlets have been distributed along with magnets and reflective arm bands. CDTC assisted the Town of Bethlehem in their "Yield to Pedestrians in the Crosswalk" Campaign which resulted in removable stanchions at several intersections throughout the Town.

CDTC has also taken the lead on analyzing bicycle and pedestrian data throughout the Capital District. Bike/Ped crash maps have been produced to show high incident locations. Sidewalk inventories have been developed for all facilities on the Priority Network, and safety concerns with right turn on red at intersections has been researched.

Bicycling/Walking--Public Health Care Issue

Increasing walking and bicycling as forms of transportation and recreation is also an important public health issue. This country is in the midst of an obesity epidemic. In New York, the percentage of adults who are obese has doubled in little more than a decade, from 10% in 1990 to 20% in 2001. Estimates of the adult obesity rate among the counties served by CDTC (based on data from 1996-2000) are:

Albany	17%
Rensselaer	NA
Saratoga	14%
Schenectady	19%

Obesity rates are also increasing among children, although no comparable state or local data are available.

Being physically active is one of the best ways to prevent or reduce obesity and to improve health overall. Current health recommendations are to get at least 30 minutes a day of moderate physical activity (which includes walking and casual bicycle riding) at least five times a week. In 2001, nearly 60% of adults did not meet these recommendations. In fact, 30% did not get any leisure time physical activity at all. Estimates of the percentage of adults who do not get any leisure time physical activity by county are:

Albany	24%
Rensselaer	32%
Saratoga	29%
Schenectady	35%

Walking is the easiest type of physical activity for most people to do. When asked what their top two leisure time physical activities are, New York adults responded as follows:

Rank	Activity	%	# of Adults
1	Walking	38%	5,215,000
2	Running	7%	966,000
5	Bicycling	4%	602,000

Clearly, walking is the most popular form of physical activity, with over 5 million adult New Yorkers engaged in some level of leisure walking. When combined with the number of adults who run and bicycle, nearly 7 million New Yorkers are using the roadways for their leisure time physical activity, but are probably not included in transportation data about purposeful trips.

Initiative for Healthy Infrastructure (iHi)

The **I**nitiative for **H**ealthy **I**nfrastructure is a project of the State University of New York at Albany designed to help communities create physical environments that support healthy, active lifestyles. 'Healthy Infrastructure' is a new way of describing the connection between facilities for walking, bicycling and physical fitness as an integrated part of transportation, recreation and community quality of life. The initiative includes teaching, research, policy development, public outreach and planning in a cross-disciplinary approach. Specific efforts in the **iHi** program include developing county-level Healthy Infrastructure Plans, establishing a Resource Center to provide technical support, and hosting a biennial Healthy Infrastructure

Conference. The **iHi** team will collaborate with health, community planning and transportation interests to apply health oriented intervention models such as diagnosis, prescriptions and diets in the development of public works programs that benefit active lifestyles. **iHi** is supported by funding from the New York State Department of Health, in partnership with the Research Foundation of the State University of New York and the University at Albany Department of Geography and Planning.

TASK FORCE RECOMMENDATION

Explore the possibilities of including data on leisure time walking, bicycling, and running into regional transportation planning models and decision making. The proper mechanism would have to be created to accurately capture this data. Also, the Task Force supports the continuing efforts of the iHi Program.

GOALS AND OBJECTIVES

As part of the update, the Task Force decided to revise the goals and objectives set forth in the original document. These short, mid-term, and long-term goals are aggressive, yet realistic, to enhance the bicycle and pedestrian travel environment in the capital region.

Short Term (1-3 years)

- Continue promotion and participation in current plans and programs including, but not limited to, the Spot Improvement Program, incorporation of bicycle and pedestrian accommodations into the Transportation Enhancement Program, map updates, CDTC's Community and Transportation Linkage Program, and encouraging active regional participation in the monthly meeting of the Task Force.

- Develop more detailed criteria for an enhanced Pedestrian Priority Network. The current Bicycle/Pedestrian Priority Network weighs heavily on bicycle movements. This should include inter-modal discussions such as bikes on buses and Bus Rapid Transit (BRT).

  The shared use trail system covers both modes, although pedestrians tend not to travel regionally. What pedestrians really need is a fairly seamless network that ensures the shared-use trail system is inter-linked to local sidewalk networks and any transit system so they can take shorter, more practical trips using the local links or less frequently, longer 'recreational' trips transitioning from local to regional network and back again without having to use a vehicle.

- Provide the means for the Task Force to have an active voice at the CDTC Planning Committee meetings.

- Provide a means for CDTC and Task Force members to have an active role in both the planning and design stages of project development throughout the region.

- Continue with prioritization for improvements along the Priority Network. This should include bike route designations, appropriate signage, more frequent maintenance, increased amenities (crosswalks, bicycle parking facilities) and other improvements that meet the needs of the "average" cyclist/pedestrian.

- Encourage any municipality creating and/or updating any municipal plan to incorporate and adopt a local **and** regional bicycle and pedestrian component. This would require coordination with agencies including the Capital District Regional Planning Commission (CDRPC) and the county planning departments. Most municipal plans have some sort of transportation element that focuses on the local issues. The Task Force suggests that a regional component be included and should expand on the local bicycle and pedestrian needs/issues and identify the impact and opportunities for creating a well organized and maintained regional bicycle and pedestrian system.(incorporate into funding sources).

- Mid-Term (3-7 years)

- Support and promote projects and activities that increase the number of Capital District children who walk to school and increase awareness of the benefits walking has on the environment, health issues, and quality of life.

- Increase coordination among other state, regional and local agencies and inter-agency support. This will help reduce duplicative efforts. Focus should be on the Priority Network as a performance measure for this goal.

- Build more financial incentives for multi-jurisdictional projects into the funding programs.

- Comprehensive view of bicycle and pedestrian trips regardless of trip purpose, including leisure time physical activity.

Long-term (more than 7 years)

- Double bicycle and pedestrian trips (priority on commuting trips) in the Capital District and at the same time reduce the bicycle/pedestrian regional crash rate by 10%. This is consistent with the 1995 document's suggestion to apply the Federal Highway Administration's national goal set forth in their *National Bicycling and Walking Study* (1994) to the Capital District. The FHWA's goal is for the changes to occur by 2010. It does not appear that the Capital District will meet this goal by 2010 but is still considered useful as it gives the message that steps need to be taken to increase the safety of both the bicycle and pedestrian travel environments.

- The creation of a well organized and maintained regional bicycle and pedestrian system. This would have both operational and physical components. Specific standards should be developed for greater consistency and the creation of a seamless user experience.

  Physical Components:

  The physical components would most likely include a regional shared-use trail system and a regional bike route system. Both of these should make direct logical inter-connections with each other and with major population/employment centers, schools, recreation areas and other 'key' destinations.
  Other essential physical elements of this system are dense population and business and/or retail centers well served by sidewalks for trips between important trip destinations as well as a bus system that is entirely outfitted with bike racks.

Operational Components:

The operational components would be related to increased coordination and formalized agreements between municipal entities relating to a regional bicycle and pedestrian system. These agreements would lead to the establishment of a single coordinating body for the management and maintenance of the Mohawk Hudson Bike Hike Trail as a single entity. Encouraging coordination relating to development and joint maintenance (signs, sweeping, etc.) of regional bike routes or facilities should be a priority. All coordination should be focused on sharing resources where possible, preventing duplication of effort and expense, creating a seamless / safe / inviting experience for users, and ensuring the kind of multi-jurisdictional communication that prevents local bike routes from meeting at a municipal border or a sidewalk dead-ending short of a logical destination.

- Have a minimum of 25% of all projects with a majority of project funds being used for bicycle and pedestrian accommodations funded by CDTC be multi-jurisdictional, meaning a lead sponsor and at least one co-sponsor from a different municipality and/or agency that will be impacted by the project. *It is understood that some of the projects funded through the Spot Improvement Program, by definition, may be too small to include more than one jurisdiction or have multiple sponsors.*

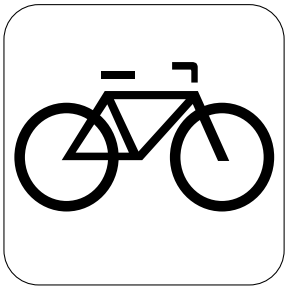
Appendix A
Bicycle Signage Guidelines

BICYCLE SIGNAGE GUIDELINES

FOR THE

CAPITAL DISTRICT

MAY 2001



Prepared by the Capital District Transportation Committee's
Bicycle and Pedestrian Task Force

TABLE OF CONTENTS

THE NEED FOR BICYCLE SIGNAGE GUIDELINES 46
APPLICATION OF SIGNS 47
TRAIL/ROUTE IDENTITY SIGNAGE 48
TRAIL IDENTITY SIGNAGE CONTINUED 49
The Regional Trail 49
TRAILBLAZING 50
On-Road Signs 51
INFORMATION SIGNS 52
DISTANCE /DESTINATION SIGNS 53
WARNING SIGNS 54
REGULATORY SIGNS 55
INTERPRETIVE SIGNAGE 56
The Regional Trail 56
MILEAGE MARKERS 57
The Regional Trail 57
OTHER ON-ROAD SIGNAGE 58
PLACEMENT OF SIGNS 60
MAINTENANCE OF SIGNS 60

THE NEED FOR BICYCLE SIGNAGE GUIDELINES

The Capital District region has a variety of off-road and on-road bicycle routes. From the regional Mohawk-Hudson Bike/Hike Trail to more local trails such as the Zim Smith Trail and the Uncle Sam Trail or the signed recreational bicycle routes in Saratoga Springs, there is a wide range of choices for outdoor recreation. Local municipalities are responsible for most aspects of trails including maintenance.

This guidebook establishes guidelines for all municipalities to reference when signing bike routes or multi-use trails. Consistency should be established in order for bicycle signs to be highly recognizable and therefore more user-friendly. With all municipalities in the Capital District referring to these guidelines we will be able to create a highly identifiable bicycle network that many bicyclists can use whether for commuting or recreation and many motorists can use to recognize their responsibilities in sharing the road. Uniformity will help create a higher awareness of the bicycle information that is being conveyed and help increase the participation of cyclists in the area.

This guidebook will serve as a reference for those municipalities who are unfamiliar with signing bicycle routes and trails. It is not intended to be a replacement for the state Manual of Uniform Traffic Control Devices (MUTCD) in regards to bicycle sign standards but does highlight certain sections of the state MUTCD along with the state designated sign reference numbers. If the state MUTCD does not cover certain aspects of signage, municipalities can refer to the Federal Highway Administration (FHWA)'s
Manual on Uniform Traffic Control Devices (MUTCD). These manuals along with this guidebook will ensure uniformity in the Capital District. The regional element of signing our trails and routes is very important. This can make grant applications more successful and can help reduce individual administration, production, and replacement costs for municipalities.

APPLICATION OF SIGNS

> Bicycle-use related to signs on highways and bikeways serve three basic purposes: regulating bicycle usage, directing bicyclist along pre-established routes, and warning of unexpected conditions. Care should be taken not to install too many signs. A conservative use of regulatory and warning signs is recommended as these signs, if used to excess, tend to lose their effectiveness. The frequent display of guide signs, however, aids in keeping the bicyclist on the designated route and does not lessen their value. Some signs for the bicyclist can also serve the motorist and the pedestrian.

FHWA's MUTCD 9B-1, 1999

Signs are very important to convey information to the cyclist in the Capital District. We want to be able to guide users, not overwhelm them. Signs also help to promote the existence and acceptance of bicycle routes and bicycle use. However, the overuse of signs may result in the wrong effect - cyclists ignoring signs. The above advice from the federal MUTCD should always be considered when placing signs on bike routes.

TRAIL/ROUTE IDENTITY SIGNAGE

Purpose: Trail/route identity signage is intended to promote the trail for tourism and direct trail users.

1. Bike routes and multi-use trails should have a name or number to identify the trail or route whether they are on-road or off-road.
2. An off-road trail identity sign can be more detailed than an on-road identity sign. It can have some identifiable symbol or logo along with the trail name or number.
3. The off-road trail identity sign should be placed at every entrance to the trail and at forks or intersections in the trail.
4. If an established bike trail has a portion of its trail or a connection on-road, the same name or number should be used both on and off-road so as to continue the identity of the trail. However, the New York State Department of Transportation (NYSDOT) does not allow for unapproved signs that do not adhere to the state MUTCD to be used on-road, so any logo or symbol cannot be used on-road.
5. One of the five signs in the newly approved state MUTCD should be used to identify on-road bike routes. Please refer to page fourteen of these guidelines for a description of this type of signage.

From Trails Master Plan, Town of Clifton Park, pg. 37

TRAIL IDENTITY SIGNAGE CONTINUED

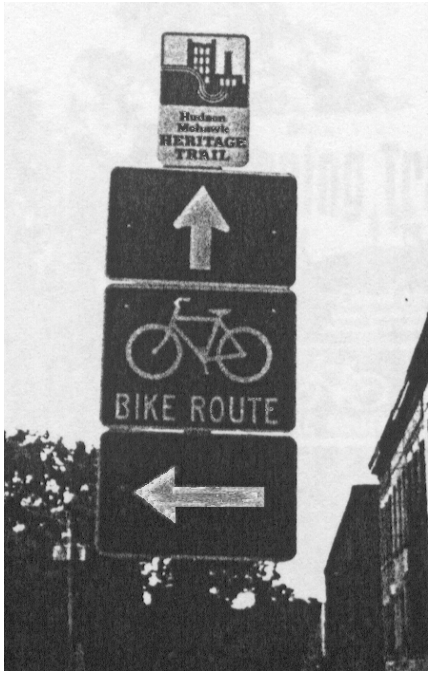
The Regional Trail

1. To create an identity for the regional trail, the Mohawk-Hudson Bike/Hike Trail, all municipalities that own or maintain the trail should use the Mohawk-Hudson Bike/Hike Trail name for identity. This will help when promoting the trail for tourism and directing cyclists who are unfamiliar with the area to the trail.
2. Recognizing that separate municipalities own and maintain the trail and want to establish some sort of municipal identity, municipalities may add another similarly colored and proportioned municipal identity sign below the Mohawk-Hudson Trail sign.
3. Parts of the Mohawk-Hudson Bike/Hike Trail that have been identified as a stand-alone municipal trail should be renamed as unique "sections", e.g. Town of Colonie section, Crescent section) of the Regional Trail. This section identity sign should be placed below the Mohawk-Hudson Trail sign.
4. The Hudson River Greenway Trail System and New York State Canal Trail System logos should be included at kiosks or trailheads along the regional trail. The regional trail represents the linking point of these two larger regional bike/hike trail systems at Cohoes/Waterford. Contact the organizations for information on installing their trail identity signs.

TRAILBLAZING

Purpose: Trailblazing signs are unique indicators that show the direction of a specific trail or route.

1. A trail identity sign should be used with a directional arrow (of a similar color and size) underneath to create a trailblazing sign. Both signs must adhere to state MUTCD standards if on-road.
2. The identity sign and arrow should be placed together on an individual post or pole so that the two signs are understood as one piece of information.
3. In regards to installation of the signs:
   i) If two different routes cross each other's paths it is highly desirable for each route's trailblazing sign to be on a separate post.
   ii) For on-road signs, however, it is advisable to try to use the same post due to the consideration of limited space and visual clutter. A space on the pole should be left between the two groupings of signs so that the comprehension of which arrow goes with which trail/route can be ensured.
   iii) Another option is to mount the signs on a "Y" post, with the different trail signs side by side.
4. Trailblazing signs should generally be used when there is a change in direction or a choice for the trail user at a fork or an intersection. See page eight for on-road guidelines.

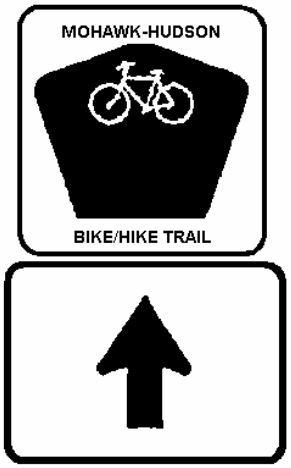


An example of a confusing mix of signs.

TRAILBLAZING CONTINUED

On-Road Signs

1. Municipal standards and state MUTCD standards must be followed when placing signs on-road. "Bicycle Route Guide signs should be repeated at regular intervals to ensure that bicyclists approaching from side streets know they are traveling on an officially designated bikeway", FHWA's MUTCD 2000, 9B-17.
2. Depending on the complexity of the route, on-road trail identity signs should be used at every intersection or just beyond the intersection if it can still be visible.
3. If there is a marked bike lane through an intersection, a sign would be unnecessary.
4. The American Association of State Highway Officials (AASHTO) recommends placing on-road route signs every quarter mile in urban areas. Signs should be placed approximately every two miles in rural areas.

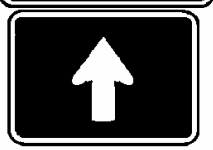


M6-3

M13-43

M14-27

M6-1



M14-43

INFORMATION SIGNS

Purpose: Information signs are used to indicate amenities, sites and other major attractions that are along the trail or off the trail nearby.

1. Historic, scenic, recreational, and cultural sites should be signed.
2. Amenities that should be signed are restrooms, picnic areas, drinking water, phones and other bicycle services.
3. Information signs should be consistent with similar state MUTCD signs.
4. The color "blue" should be used for service guidance, which is consistent with the state MUTCD.
5. The color "brown" should be used for recreational, cultural and scenic guidance, which is consistent with the federal MUTCD.
6. The state MUTCD symbol signs (18" x 18") should be used to indicate the location of telephones, picnic areas, restrooms and drinking water.
7. A directional arrow of a similar color and size can be placed underneath to aid the trail user in locating the amenity or site off the path.

M12-3

M10-7

M11-3

DISTANCE /DESTINATION SIGNS

1. Distances should be indicated on signs in both miles and kilometers.
2. Green and white directional signs (24" x 6") should be used to be consistent with the state MUTCD directional signage.
3. Direction/destination signage should be used at all major entrances.
4. Direction/destination signage should be used at all paths heading off the main trail to indicate where these secondary trails lead, such as a street or a park.
5. Municipalities should use discretion as to the number of these types of signs they use.
6. A trail map should be placed at every major entrance to the trail.

G 1- 1
24″ × 6″

G 1- 1
24″ × 6″

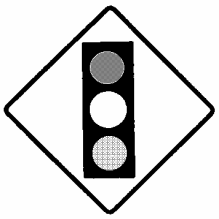
G 1-2 sign

WARNING SIGNS

Purpose: To indicate the need to take caution and be prepared for unexpected changes.

1. Warning signs should be used to indicate sharp curves, steep hills, narrow bikeways, intersections and other unexpected changes on a trail or route.
2. Warning signs on bike trails should be yellow and diamond-shaped, which is consistent with state MUTCD standards.

W2-15
18″ x 18″



W2-17
18″ x 18″

W3-8
18″ x 18″

W7-5
18″ x 18″

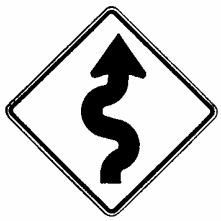
W5-2
18″ x 18″

W3-20
18″ x 18″

W1-2
18″×18″

W1-4
18″×18″

W1-8
18″×18″



W1-10
18″×18″

REGULATORY SIGNS

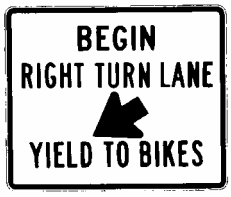
Purpose: Regulatory signs inform road/trail users of the regulations governing the route. Examples include stop signs, yield signs, movement exemptions and prohibitions.

1. The smaller size of the stop and yield sign shown below should be used on bike trails.
2. "No parking" signs (R7-9) should be used along a bike lane where it is necessary to restrict parking.
3. R4-4 signs should be used when right-turning motor vehicles merge with bike traffic on designated bike lanes.
4. Trail etiquette should be conveyed through regulatory signs if there is potential conflict between different types of trail users. The rectangular R9-6 sign can be used when there is conflict between bikes and pedestrians.

R1-1
18″ × 18″

R1-2
24″ × 24″ × 24″

R7-9
12″ × 18″



R4-4
36″ × 30″

R9-6
12″×18′

INTERPRETIVE SIGNAGE

Purpose: Interpretive signage is a narrative sign that gives a description about the surrounding area, whether it be about historic events, wildlife, natural resources or a variety of other subjects.

1. Interpretive signage should be a consideration for any bike trail, especially if it will be promoted as a tourist destination.
2. A consistent color and shape should be used throughout one trail to increase recognition of the sign usage. Different materials can be used to give individual trails a unique character.
3. Wayside areas should be provided to read the interpretive signs.

The Regional Trail

1. Regional trail interpretive signage should be consistent with an agreed-upon corridor standard (e.g. some type of framework or "look" to the signs).
2. Regional trail interpretive signage should be organized around a theme or themes. If different interpretive themes are displayed along the trail, the sign panels should be color-coded for each theme (i.e. green for natural resources, blue for historic events, and orange for cultural information).

MILEAGE MARKERS

Purpose: Mileage markers are used to help emergency providers locate those in need on the trail.

1. Mileage markers should be used on any length of trail especially those that are isolated and/or do not have many access points.
2. Mileage markers should be consistent throughout one trail whether they are signs or on-road pavement markings.
3. They should be located close to a trail identity sign.
4. Mileage markers should be placed so that they can be read from both directions.
5. Major entrances to a trail should show an example of a mile marker for information purposes before someone uses the trail.

The Regional Trail

1. The Mohawk-Hudson Bike/Hike Trail mileage markers should start at zero in Cohoes, head west towards Schenectady, and south, towards Albany. The west-leg should be marked "M" for the Mohawk River and the south leg should be marked "H" for the Hudson River. As the trail grows on both ends, mileage markers can be added easily.

OTHER ON-ROAD SIGNAGE

Guidelines for on-road bike signage must follow the state MUTCD. The following is only a summary of signage information from the state MUTCD. Please refer to the official state MUTCD for exact recommendations.

A. Bike Route Signs

- Used to designate local, regional and inter-regional and interstate bike routes.
- Directional arrows should be used with bike route sign to indicate directional change.

B. On-road bicycle crossing warning sign for motorists

The diamond-shaped Bicycle Crossing Warning (W5-6) sign "alerts the road user to unexpected entries into the roadway by bicyclists, and other crossing activities that might cause conflicts", FHWA's MUTCD 2000, 9B-15.

C. Shared Roadway

The Shared Roadway sign (W5-17) is rectangular and has a black legend and border and yellow background.

This sign is to be used in conjunction with the W5-6 bicycle crossing sign to warn of locations on bicycle routes where the highway geometry or other roadway conditions (e. g. poor lines of sight, narrow bridges) require bicycles to travel within the roadway rather than on a shoulder.

The bicycle symbol pavement marking may also be used to indicate a shared roadway. When there is no bicycle lane or useable shoulder, the symbol should be placed on the roadway as near to the right edge as practicable. A directional arrow can be used with this symbol to indicate

the proper side of the road to bicycle on. For more information, please refer to the state MUTCD: Bicycle Markings 262.24.

PLACEMENT OF SIGNS

On-Road

Refer to municipal standards and state MUTCD standards.

Off-Road

1. A sign should be posted a minimum of 4 feet high to a maximum of 5 feet high, measured from the bottom of the sign to the near edge of the path surface.
2. A sign should have sufficient lateral clearance from the edge of the path to facilitate maintenance. However sign visibility should be considered. AASHTO suggests a minimum distance of 3 feet to a maximum distance of 6 feet from the path.

MAINTENANCE OF SIGNS

1. Signs should be checked after each winter season for fading, wearing or other factors that decrease sign visibility.
2. Signs should be maintained in an upright position.
3. Signs should be highly visible. Trees, grass and other vegetation should be routinely cleared from around sign locations so as to maintain visibility.
4. Missing or damaged mileage markers should be replaced immediately.

Appendix B
Program and Project Materials

Figure 9 On-Site Mohawk Hudson Bike Hike Trail User Survey Form

The Capital District Transportation Committee is interested in finding out how frequently this trail is used, how it is used, and how users feel about the trail. ***If you have not already completed this survey form***, please take a few minutes to answer the following questions.

1. Gender: ❑ Male ❑ Female **2. What is your age?** ❑ 15 or under ❑ 16-24 ❑ 25-44 ❑ 45-64 ❑ 65 or over

3. What Town/City do you live in? _____

4. What is your home zip code? _____

5. What mode of transportation did you use to get to the trail today? ❑ Motor Vehicle ❑ Bicycle ❑ Run, Jog, Walk ❑ Other (please specify)_____

6. Approximately how much time did you spend, or do you plan to spend on the trail today? _____

7. What activity were you engaged in while on the trail today? (check one)

❑ Walking ❑ Running/Jogging ❑ Bicycling ❑ In-line skating ❑ Other (please specify)_____

8. What is your primary purpose for using the trail? (check one)

❑ Recreation ❑ Health/Exercise ❑ Commute to school/work ❑ Travel to other activities (e.g. shopping, visiting friends, etc.)

9. Please estimate the number of days you used the trail during the past twelve months. (check one)

❑ Less than 5 days ❑ 5-10 days ❑ 11-25 days ❑ 26-50 days ❑ 51-100 days ❑ Greater than 100 days

10. On a scale of 1-5, to what extent do you feel the following items are problems on the Mohawk Hudson Bike Hike Trail? (Please circle the number that best describes how you feel about each item.)

		Not a Problem				Major Problem	No Opinion
a.	**Too crowded**	**1**	**2**	**3**	**4**	**5**	❑
b.	**Conflicts with other trail activities**	**1**	**2**	**3**	**4**	**5**	❑
c.	**Behavior of trail users**	**1**	**2**	**3**	**4**	**5**	❑
d.	**Trail surface condition**	**1**	**2**	**3**	**4**	**5**	❑
e.	**Trail width**	**1**	**2**	**3**	**4**	**5**	❑
f.	**Pets off leashes/animal waste**	**1**	**2**	**3**	**4**	**5**	❑
g.	**Litter, glass and debris**	**1**	**2**	**3**	**4**	**5**	❑
h.	**Dangerous road intersections**	**1**	**2**	**3**	**4**	**5**	❑
i.	**Directional signage**	**1**	**2**	**3**	**4**	**5**	❑
j.	**Personal safety (crime)**	**1**	**2**	**3**	**4**	**5**	❑
k.	**Lack of services (water, restrooms, etc)**	**1**	**2**	**3**	**4**	**5**	❑
l.	**Parking and/or access**	**1**	**2**	**3**	**4**	**5**	❑
m.	**Other (please specify)**	**1**	**2**	**3**	**4**	**5**	❑

11. Are there sections of the Mohawk Hudson Bike Hike Trail that you avoid due to deficient trail conditions or general concerns about trail maintenance?

❑ Yes (If "Yes" in what communities are the sections located?)_____
❑ No

12. Is your visit to this trail part of an overnight trip away from home?

❑ Yes ❑ No

13. How would you rate your current health status?

❑ Excellent ❑ Very Good ❑ Good ❑ Fair ❑ Poor

Please use the back of this form to add any additional comments.

----------THANK YOU FOR YOUR PARTICIPATION!----------

Figure 10

No. _____

2006 UNCLE SAM BIKEWAY

ADJOINING RESIDENTIAL PROPERTY OWNER SURVEY

The Capital District Transportation Committee (CDTC) is the designated Metropolitan Planning Organization (MPO) for Albany, Rensselaer, Saratoga and Schenectady Counties. CDTC is responsible for ensuring that any transportation projects utilizing federal transportation funds are the product of a continuous, comprehensive and cooperative planning process.

This survey is part of a study of the Uncle Sam Bikeway and how it affects nearby residents and their property. Your participation in this survey is voluntary; however, your cooperation is extremely important. All of your responses are confidential and all files containing names and addresses will be destroyed when the mailing procedures are complete.

Please refer to your residential property near the Uncle Sam Bikeway when answering the following questions. When finished, please use the enclosed envelope to return the survey to CDTC. In order to have your answers included in the analysis, CDTC will need to receive your completed survey by July 31, 2006

If you have any questions, please do not hesitate to contact CDTC at 518-458-2161.

2006 UNCLE SAM BIKEWAY
ADJOINING RESIDENTIAL PROPERTY OWNER SURVEY

1. Which of the following most accurately describes how you use your property near the Uncle Sam Bikeway? (Please check *one*)

   a.____It is my primary residence
   b.____I rent to a tenant, and do not occupy the residence
   c.____It is my second home (If so, when do you reside there?)_____
   d.____It is unoccupied
   e.____Other (Please describe)_____

2. Where is the trail in relation to your *property line*?

   a.____The trail runs *through* my property
   b.____The trail runs *along the edge* of my property
   c.____The trail is near my property but not touching it
   d.____Don't know

3. Approximately how far (in feet) is the trail from *your house?*

   a.____Less than 100 ft.
   b.____100 ft to 200 ft.
   c.____201 ft to 500 ft.
   d.____Greater than 500 ft.

4. Approximately how large is your property?

   a.____ less than or equal to 1/2 acre
   b.____ between 1/2 and 1 acre
   c.____ between 1 and 3 acres
   d.____ greater than 3 acres

5. What is the approximate current value of your house?

   a.____$ 99,999 or less
   b.____$100,000 to $199,999
   c.____$200,000 to $299,999
   d.____$300,000 to $399,999
   e.____$400,000 or more

6. How would you describe the setting of your house near the Uncle Sam Bikeway? (Please check one)

   a.____Urban b.____Suburban c.____Rural

7. When did you acquire your house?

   a.____After the trail was built
   b.____Before the trail was built

8. Compare your *initial reaction* to the idea of living near the Uncle Sam Bikeway to how you feel about living near the trail today. Would you say that living near the trail is better or worse than you *expected* it to be? (Please circle the number that best indicates how you feel.)

Much better Than I expected	Better	Same	Worse	Much Worse Than I Expected
1	2	3	4	5

9. On a scale of 1 - 5, to what extent do you feel the following items are problems for your household *as a result of the Uncle Sam Bikeway and its users.* (Please circle one number that best indicates how you feel about each item, or check no opinion.)

	Not At All A Problem				Major Problem	No Opinion
a. Illegal motor vehicle use	1	2	3	4	5	9
b. Litter on/near my property	1	2	3	4	5	9
c. Loitering on/near my property	1	2	3	4	5	9
d. Trespassing onto my property	1	2	3	4	5	9
e. Users harass my pets	1	2	3	4	5	9
f. Vandalism of my property	1	2	3	4	5	9
g. Cars parking on/near my property	1	2	3	4	5	9
h. Pet waste on/near my property	1	2	3	4	5	9
i. Unleashed and roaming pets	1	2	3	4	5	9
j. Discourteous, rude users	1	2	3	4	5	9
k. Burglary of my property	1	2	3	4	5	9
l. Disruptive noise from the trail	1	2	3	4	5	9
m. Other (please specify below)	1	2	3	4	5	9

_____

10. Do you feel the trail poses a risk to your own or your family's safety due to the activities of *trail users*?

a.____Yes b.____No c.____No Opinion

11. If you were to try to sell this property, do you think being near the trail would make it *harder or easier* to sell? (Please circle the number that best indicates how you feel.)

Much Easier to Sell	Easier	Same	Harder	Much Harder to sell
1	2	3	4	5

12. How do you think being located near the Uncle Sam Bikeway has affected the *resale value* of this property? (Please check one)

a.____The trail has *lowered* the resale value of this property.
b.____The trail has *increased* the resale value of this property.
c.____The trail has had *no effect* on the resale value of this property.
d.____I have not formed an opinion.

13. Overall, how satisfied are you with having the Uncle Sam Bikeway as a neighbor? (Please circle the number that best indicates how you feel.)

Very Satisfied	Satisfied	Indifferent	Unsatisfied	Very Unsatisfied
1	2	3	4	5

14. How do you feel the trail has affected the quality of your neighborhood? (Please circle the number that best indicates how you feel.)

Much Improved Quality of Neighborhood	Improved	No Impact	Worsened	Much Worsened Quality of Neighborhood
1	3	3	4	5

15. Do you feel the development and management of trails such as the Uncle Sam Bikeway is a good use of public funds?

a.____Yes b.____No c.____No Opinion

16. To what extent do you feel that the Uncle Sam Bikeway is important in providing the following benefits to the *surrounding community*? (Please circle the number that best indicates how you feel about each item, or check no opinion,)

	Not at All Important				Extremely Important	No Opinion
Potential Benefits:						
a. Safe opportunities for public recreation	1	2	3	4	5	9
b. Safe opportunities for health and fitness	1	2	3	4	5	9
c. Tourism and related economic benefits	1	2	3	4	5	9
d. Waterfront access/revitalization	1	2	3	4	5	9
e. Open space conservation	1	2	3	4	5	9
f. Environmental education opportunities	1	2	3	4	5	9
g. Transportation alternatives	1	2	3	4	5	9
h. Location for special events	1	2	3	4	5	9
i. Other (please specify below)	1	2	3	4	5	9

_____

17. How would you categorize your household's use of the trail? (Please check one.)

a.____Daily
b.____Frequent (once or twice a week)
c.____Occassional (once or twice a month)
d.____Rare (once or twice a year)
e.____Never

Please use the following page and/or the back of this form for any comments you might have about the Uncle Sam Bikeway or its management.

THANK YOU FOR YOUR COOPERATION!
Please send us your completed survey in the stamped, addressed envelope provided.

Figure 11
Pedestrian Infrastructure Inventory
Sample-Raw Data

Intersection	Rt 50/ NY 67/ Ballston	Rt 50/ Brookline	Rt 50/ Lakehill	Rt. 146/ US 9	Rt. 146/ I87E9-Fire	Rt. 146/ CC Rd.
Total # of Lanes at the Intersection	10	10	10	24	16	21
Greatest # of Lanes Across Any Road	3	3	3	6	5	6
Left Turn Lanes	2	N	2	6	2	6
Right Turn Channel	N	N	N	2	2	2
Right on Red Prohibited	N	N	N	N	N	N
Signal Phasing	M	S	M	M	M	M
Crosswalks Present	N	N	N	Y	N	2
Crosswalk Type	N	N	N	P	N	P
Crosswalk Condition	N	N	N	FG	N	FG
Pedestrian Buttons	N	N	N	4	N	3
Accessible Pedestrain Buttons	N	N	N	4	N	3
Pedestrian Signals	N	N	N	N	1	1
Sidewalks	N	N	N	2	4	2
Approach Grade	4	4	3	4	N	4
Blocked Views	3	N	N	N	N	N
ADA Compliant Curb Cuts	N	N	N	7	5	5
ADA Compliant Refuge Islands	N	N	N	2	1	2
Turn Radius	4	4	3	4	4	4
Skewed/Offset Intersection	Y	Y	N	N	Y	N
Lighting	N	N	1	4	1	2
Special Features	N	N	N	N	N	N
Overall Score	**17**	**21**	**22**	**32**	**20**	**28**

Figure 12
Pedestrian Infrastructure Inventory
Sample-Score Sheet

Intersection	Rt 50/ NY 67/ Ballston	Rt 50/ Brookline	Rt 50/ Lakehill	Rt 146/ US 9	Rt 146/ I87E9-Fire	Rt 146 CC Rd.
Total # of Lanes at the Intersection	3	3	3	0	2	0
Greatest # of Lanes Across Any Road	3	3	3	0	1	0
Left Turn Lanes	2	4	2	0	2	0
Right Turn Channel	4	4	4	2	2	2
Right on Red Prohibited	0	0	0	0	0	0
Signal Phasing	1	0	1	1	1	1
Crosswalks Present	0	0	0	4	0	2
Crosswalk Type	0	0	0	0	0	0
Crosswalk Condition	0	0	0	2	0	2
Pedestrian Buttons	0	0	0	2	0	2
Accessible Pedestrain Buttons	0	0	0	2	0	2
Pedestrian Signals	0	0	0	0	1	1
Sidewalks	0	0	0	1	2	1
Approach Grade	3	3	2	3	0	3
Blocked Views	1	4	4	4	4	4
ADA Compliant Curb Cuts	0	0	0	4	3	3
ADA Compliant Refuge Islands	0	0	0	2	1	2
Turn Radius	0	0	1	0	0	0
Skewed/Offset Intersection	0	0	1	1	0	1
Lighting	0	0	1	4	1	2
Special Features	0	0	0	0	0	0
Overall Score	**17**	**21**	**22**	**32**	**20**	**28**

Figure 13
Pedestrian Crossing Survey Form

Intersection:

Characteristic	Whole Intersection
Total Number of Lanes at the Intersection	
Greatest Number of Lanes Across Any Road	
Left Turn Lanes	
Right Turn Channel	
Right on Red Prohibited	
Signal Phasing	
Crosswalks Present	
Crosswalk Type	
Crosswalk Condition	
Pedestrian Buttons	
Accessible Pedestrian Buttons	
Pedestrian Signals	
Sidewalks	
Approach Grade	
Blocked Views	
ADA Compliant Curb Cuts	
ADA Compliant Refuge Islands	
Turn Radius	
Skewed/Offset Intersection	
Lighting	
Special Features	

Additional Notes:

Figure 14

Survey Form Key

1. **Total Number of Lanes at the Intersection:** Count the total number of lanes present at the intersection.

2. **Greatest Number of Lanes Across Any Road:** Count the total number of lanes for each road at the intersection (the total number of lanes for each road should equal the total number of lanes at the intersection). Enter the highest number of lanes and the road name to show the maximum distance that a pedestrian might have to cross at the intersection.

3. **Left Turn Lanes:** Enter the total number of left turn lanes present at the intersection. Count each left turn lane individually.

4. **Right Turn Channel:** A right turn channel is a lane which is dedicated to right turns only and is separated from the rest of traffic by a refuge island, guardrail, or other barrier. Do not count normal left and right turn lanes. Insert the number of right turn channels present at the intersection.

5. **Right on Red Prohibited:** This characteristic involves whether or not a sign prohibiting right turns on red is present at any leg of the intersection. Insert the number of corners at the intersection that have right turns on red prohibited.

6. **Signal Phasing:** Indicate whether or not the traffic signal has phases for different traffic movements. Some examples are a left turn only phase, a right turn only phase, a phase where left and right turns on different streets move together, etc. Enter M for lights with multiple phases (protected left turn phases, etc.) or enter S for the standard two-phase light for a four leg intersection.

7. **Crosswalks Present:** Insert how many crosswalks are present at the intersection.

8. **Crosswalk Type:** The most basic type of crosswalk is the standard parallel line crosswalk. If the intersection only contains this type of crosswalk, enter P. However, if the crosswalks are high visibility, have stripes in between the parallel lines, or are textured with bricks or colored pavers, enter the number of crosswalks that have any of these features.

9. **Crosswalk Condition:** Enter the condition of the crosswalks at the intersection based on which crosswalk is in the worst condition. G = Good, recently painted, FG = Fairly Good, a small amount of wear but still visible, F = Fair, a lot of wear (at least 50% of the markings have worn away), P = Poor, barely visible. Four photos will be used to illustrate each of these conditions (see attached).

10. **Pedestrian Buttons:** Enter the total number of pedestrian buttons at the intersection. Count each button individually (if there are two buttons on the same pole, count them both).

11. **Accessible Pedestrian Button:** Enter the number of buttons that are accessible for all pedestrians. Buttons should not be considered accessible if they can only be reached by walking on the grass, are placed too high, or are blocked by vegetation or some other obstacle. Each button should be judged individually, which may result in odd numbers being entered on the survey form.

12. **Pedestrian Signals:** Pedestrian signals may be in the form of a traffic light that is only for pedestrians, the walk/don't walk signs or other visual indicator. Enter the number of signals present at the intersection and count each one individually.

13. **Sidewalks:** Enter the number of sidewalks present on the streets entering the intersection. A sidewalk must be present for more than just a couple of feet on the road. Also, do not count the asphalt type paved areas or bike/hike paths. Judge each leg of the intersection individually and count each side of the road separately.

14. **Approach Grade:** Photos were taken at four locations to illustrate the different levels of approach grade slope (see attached). Enter the number of the photo which most closely resembles the road with the steepest slope entering the intersection (1 = steep slope; 4 = no slope). (Note: We are only interested in the slope entering the intersection due to the inability of motor vehicles to brake properly, especially in the winter. The photos were taken to give the best angle and may not represent slopes entering the photographed intersections.)

15. **Blocked Views:** Enter the number of corners where trees, tall plants, telephone poles, electric boxes, or other objects are located too close to the corner and may block the views of pedestrians. (If any of these features are within approximately two feet of the road, they are probably going to block views.)

16. **ADA Compliant Curb Cuts:** Enter the total number of curb cuts present at all of the corners at the intersection. Count each curb cut individually.

17. **ADA Compliant Refuge Islands:** Indicate the number of corners that have refuge islands. They may take the form of raised, triangular land areas near the corners of the intersection, creating a right turn channel. They may also be in the middle of the street where raised medians are present (State Street in Albany, for example). They must act as a safe haven for pedestrians and should have sidewalks or other physical features to protect pedestrians from motor vehicles.

18. **Turn Radius:** Four photos were taken to illustrate the range of turn radii at various intersections (see attached). Enter the number of the photo that the corners of the intersection most closely resemble. If they are all vastly different, then enter the number of the photo which resembles the corner with the largest turn radius (1 = small radius; 4 = large radius).

19. **Skewed/Offset Intersection:** This only applies to intersections that have streets intersecting at strange angles such as Central Avenue and Washington Avenue in Albany. It also applies

to any intersection where the streets are offset such as Maxwell Road and Old Niskayuna Road in Colonie. Enter Yes or No on the survey form.

20. **Lighting:** Enter the number of street light fixtures present at the intersection (overhead pole lamps or historic lamps). Count only those located at the intersection for the sole purpose of illuminating the intersection.

21. **Special Features/Bus Stops:** Indicate the number of special features present at the intersection. They may include, but are not limited to, the following: exclusive pedestrian phase of the traffic signal, leading pedestrian phase, audible pedestrian signal, passive pedestrian detection, countdown pedestrian signals, pedestrian button indicator lights, bulb-outs, and other traffic claming features.

Additional Notes: List the type of special feature(s) present at the intersection. Also, note if bus stops are present at the intersection and any other relevant observations.

Figure 15

Wolf Road Pedestrian Signal Survey Results (As of 11/24/00)

Do you use the pedestrian button to activate the pedestrian signal (if it is not already activated)?

Always = 46 Sometimes = 5 Never = 2

Are you more likely to use the pedestrian button to activate the new countdown signal?

Yes = 38 No = 12 Not Answered = 3

Is the new countdown signal easier to understand than the traditional walk/don't walk signal?

Yes = 45 No = 7 Both = 1

Have you ever changed your mind about crossing the street based on the information provided by the signal?

Yes = 42 No = 9 Not Answered = 2

Do you feel more or less rushed while crossing the street with the new countdown signal?

More = 16 Less = 35 Not Answered = 2

Does the presence of the countdown signal make you feel safe in the crosswalk?

Yes = 29 No = 24

TOTAL = 53 responses

Glossary of Terms

AASHTO: American Association of State Highway Officials

ADA: Americans with Disabilities Act

BLOS: Bicycle Level of Service

BRT: Bus Rapid Transit

CDRPC: Capital District Regional Planning Commission

CDTA: Capital District Transportation Authority

CDTC: Capital District Transportation Committee

DPW: Department of Public Works

EMS: Emergency Management Systems

FHWA: Federal Highway Administration

GIS: Geographic Information Systems

HVCC: Hudson Valley Community College

iHi: Initiative for Healthy Infrastructure

ITS: Intelligent Transportation System

LOS: Motor Vehicle Level of Service

MHBHT: Mohawk-Hudson Bike-Hike Trail

MPO: Metropolitan Planning Organization

MUTCD: Manual of Uniform Traffic Control Devices

NYSDOT: New York State Department of Transportation

RPI: Rensselaer Polytechnic Institute

SAFETEA-LU: Safe, Accountable, Flexible, Efficient, Transportation Equity Act, A Legacy for Users

SPAC: Saratoga Performing Arts Center

SRTS: Safe Routes to School Program

TEA-21: Transportation Equity Act for the 21st Century

TEAC: Transportation Enhancements Advisory Committee

TEP: Transportation Enhancement Program

TIP: Transportation Improvement Program

TSM: Transportation System Management

USB: Uncle Sam Bikeway

ZST: Zim Smith Trail