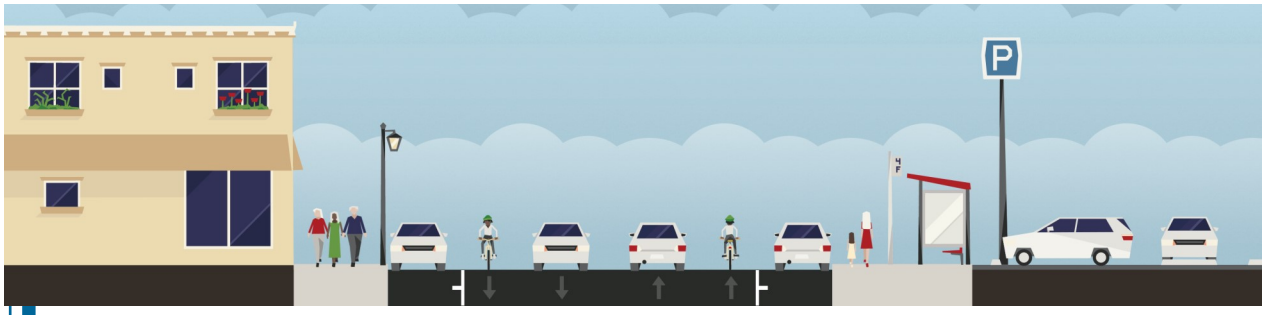

TOWN OF NISKAYUNA

COMPLETE STREETS WORKSHOP

CDTC Capital District Transportation Committee

Town of Niskayuna, N.Y. 1809

May 17th, 2016

PLANNING4PLACES

Sam Schwartz Transportation Consultants

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INTRODUCTION

CDTC is the federally-designated Metropolitan Planning Organization (MPO) for Albany, Rensselaer, Saratoga, and Schenectady counties, and 78 municipalities including the cities of Albany, Schenectady, Troy and Saratoga Springs. In 2015, the CDTC released an RFP (Request for Proposals) seeking consultant assistance to develop and implement a Complete Streets educational and technical assistance workshop series to assist local jurisdictions in developing and implementing Complete Streets policies.

On behalf of local member jurisdictions, the CDTC workshop series offered to administer the consultant contract and serve as project manager for workshop development and implementation. The CDTC developed a competitive selection process whereby they partnered with the Town of Niskayuna, city and county officials, CDTA, NYSDOT, and nonprofit organizations, business and community groups and interested residents to ensure that all those with a stake in the outcome are actively involved in the Complete Streets policy development and implementation.

The workshop and partnership between CDTC, the Town and other stakeholders was developed to help transportation planning practitioners and decision makers identify and overcome barriers to implementation. Assisting the Town and CDTC were the consulting firms of Planning4Places, a Niskayuna-based land use and transportation planning firm and Sam Schwartz Engineering – a leading traffic and transportation planning and engineering firm based in New York City.

WORKSHOP DEVELOPMENT PROCESS

The workshops were the result of a collaborative development process that included CDTC staff, Town of Niskayuna staff, and the Consultant Team. Based on the application for the workshop that was submitted to CDTC, the consultant team developed a draft agenda and set of questions and data requests that would help to develop the workshop and frame the conversation.

A few weeks prior to the workshop, CDTC staff, Niskayuna staff and the Consultant Team met to discuss and review the agenda and meeting logistics. Participating in this discussion were Chris Bauer and Chris O'Neill from CDTC, Laura Robertson from the Town of Niskayuna, Jim Levy and Katherine Ember from Planning4Places, and Mike Flynn and Stacey Meekins from Sam Schwartz.

WORKSHOP AGENDA

The workshop agenda follows on the next two pages.

TOWN OF NISKAYUNA
COMPLETE STREETS WORKSHOP
MAY 17, 2016
NISKAYUNA TOWN HALL

Workshop objectives:

- Understand the benefits of Complete Streets
- Understand design solutions
- Identify funding opportunities and low-cost solutions
- Explore policy types and local examples

Agenda

9:00 Introductions

a. Instructors
b. Participants
   i. Ice breaker exercise: "A Complete Street is _____"

9:30 Module 1: Complete Streets overview

a. What are Complete Streets?
b. Why are Complete Streets important?
   i. Mobility for all
   ii. Safety
   iii. Health
   iv. Economic development
   v. Social equity & opportunity
c. The breadth of Complete Streets
   i. Images of Complete Streets in different contexts (rural, suburban, commercial, residential, etc.)
d. Group Exercise: How would Niskayuna benefit from Complete Streets?

10:30 Break

10:40 Module 2: Performance Measures

a. Role of streets
b. What is and what should be measured

11:00 Module 3: Design Tools

a. Designing for context – how to make it fit
b. Specific design tools
   i. Low-cost solutions
c. Design guides & resources

12:15 Lunch

12:45 Module 4: Effective Complete Streets policies

a. Types of policies
b. Local and/or comparable examples:
    i. Bethlehem, NY (resolution) – *Discussion led by Robert Leslie, Director of Economic Development and Planning – Town of Bethlehem*
    ii. Troy, NY (ordinance)
    iii. Fishkill, NY (resolution)
    iv. Saratoga Springs, NY (policy)
    v. Jamestown, NY (ordinance)
c. Ten elements of a policy

1:30 Group exercise: Complete Street options for the Town Center Triangle

a. Background – Set the stage for the design exercise with an overview of the existing corridors and intersections, including their deficiencies and the Town's goals for the future.
b. Group discussion on potential Complete Street opportunities

3:15 Module 5: Funding and implementation

a. Trade-offs of local design exercise
b. Challenges of implementation
c. Funding opportunities

3:45 Adjourn

WORKSHOP NOTES

The following notes summarize the discussion from the workshop.

The Workshop began at 9:10AM.

Introductions: Chris Bauer, CDTC, opened the meeting with an overview and introductions. He introduced the Consultant Team. This was followed by introductions by all participants.

Mike Flynn began the workshop with the Ice Breaker Exercise and discussion of Complete Streets. Initial thoughts from attendees on what they wanted to get out of the workshop and what Complete Streets are were discussed. Ideas for what people wanted to get from the workshop included:

- How to overcome obstacles to implementation
- Learn more about Complete Streets
- How to properly and fully define Complete Streets
- How to implement Complete Streets on County and State-owned roads
- How to ensure that maintenance work is considered in conjunction with Complete Streets efforts
- How to move forward with a resolution or facilitating a process for implementation
- what are the local issues/concerns
- Cost Effective implementation

Attendee ideas on what Complete Streets are and what they contain included:

- Safety for bicyclists
- Safety for children
- A design to accommodate all users
- A street with sidewalks
- Consideration of all users including utilities and the impact on the environment (beyond human users)

(All Modules identified below included a PPT slide presentation)

M. Flynn moved into *Module 1: Complete Streets Overview*. He discussed the components of Complete Streets and why they are important. The Module completed with a group exercise where attendees were asked to provide ideas of how Niskayuna would benefit from Complete Streets. The answers provided included:

- Van Antwerp near Union Street: Repaving and utility work has created a serious problem with the road being torn up and repaved. Need utility coordination (Asset Management)
    - Should also use these types of situations to evaluate the potential to improve existing conditions.

- Encourage aging in place and make any necessary improvements for alternative transportation options
- Encourage everyone, especially children, to walk and bike (especially to schools)
- Awareness of cost-benefit of Complete Streets and benefit of Complete Streets.
    - Need to expose the "cost of business as usual" vs. providing improvements which are always seen as having a cost.

A question was raised regarding the availability of data and safety benefits of different facilities. M. Flynn responded that there are crash reduction factors (data) available but there is not a consistent "manual" or standard.

A point was made that there is no shoulder to Rosendale Elementary School and this is a major obstacle to allowing or encouraging children to walk or ride to school. M. Flynn mentioned the 5E's (Engineering, Education, Encouragement, Enforcement, Evaluation). An attendee suggested considering creating a walk & bike app to encourage walking and bicycling. The group agreed it is important to work with the School District. There was also discussion regarding maintenance of protected bicycle lanes and whether paved shoulders are better in some cases. As Rosendale is a County-owned road coordination between all the entities are important.

M. Flynn began *Module 2: Performance Measures*. He discussed the role of streets and what performance measures are and what should be measured.

An attendee mentioned that for ADA Transition Plans, a municipality could potentially get two efforts completed at the same time – the Transition Plan sidewalk and curb ramp existing conditions analysis and a Complete Streets inventory. While in the field staff can look for compliance issues while also developing preliminary ideas for Complete Streets improvements that could be tied to the Transition Plan. Anne Benware currently heads the *CDTC ADA Working Group*.

A high level goal discussed by the group included getting more youth to use alternative transportation options. This should be a focus of developing and implementing any new facilities within the Town as they should make it easier for youth to get around.

It was noted that arterials should be a focus to coordinate with NYSDOT and Schenectady County so that arterials are more usable and so that the barriers between neighborhoods can be removed, increasing mobility throughout the Town. There was some discussion about the potential focus area for the Town – arterials, non-arterials and off-street facilities and where the greatest safety need is within the Town. The representative from CDTA noted that buses run on the main roads within municipalities because this is generally where people are located and the appropriate infrastructure is in place. CDTA can not serve a neighborhood if customers are unable to get to a stop safely. An attendee noted that given this, it is important that bus stop locations and accessibility be considered in the future.

It was mentioned that Rosendale Road from Lock 7 Road to Mohawk Road is a problem area. Snow is a major issue. M. Flynn discussed key missing connections and how making these connections could provide the best cost-benefit.

A NYSDOT representative noted that coordination between the different levels of government is essential. It was stated that NYSDOT is focused funding on preservation projects. Sidewalks located along NYSDOT facilities are "beyond preservation" and as such are difficult to fund.

M. Flynn noted that the benefit of a Complete Streets policy is to begin to identify needed/wanted improvements. A CDTC representative noted that there is a (limited) budget for bike/pedestrian facilities. If there is a desire to see more funding going toward these types of facilities it will take some effort as the needs for all transportation infrastructure vastly outpace the available funding. However, CDTC and NYSDOT can help fill in the gaps, particularly if priority networks are identified. Municipalities could work with developers to hold escrow funds for a later date when large sections of sidewalk could be installed. The CDTA representative noted that CDTA writes letters of support for projects when they come before municipalities for review. The group discussed the need for better access to Craig Elementary along Balltown and a crossing to the SJCC. One option would be to fix the drainage issue there and install a sidewalk.

M. Flynn began *Module 3: Design Tools*. After reading the NYS Complete Streets policy quote in the presentation an attendee stated that they were interested to see there was nothing regarding the environment or utility-related issues. He noted that it is vital that utilities are included in any Complete Streets efforts. The CDTA representative mentioned that bus stops are ideally found at crosswalks. The group discussed the challenges of bus stops along Central Avenue and pedestrians often crossing mid-block. Anne Benware said CDTC is encouraging a Complete Streets approach for all projects, even maintenance and operations type projects, even though the State's Complete Streets Law does not require it. The group asked about the guidebooks presented and if there were guidebooks that focused on suburban or rural areas.

M. Flynn showed a new guidebook in the works "The Rural Answer for Flexibility in Street Design" available at ruralstreets.net in answer to the question brought up before lunch. He presented *Module 4: Effective Complete Streets Policies*. A discussion on the types of policies began the presentation and was followed by a discussion of local examples. One local example was the implementation of a Complete Streets Resolution in the Town of Bethlehem. R. Leslie, Director of Economic Development and Planning, was in attendance and provided a local perspective on Complete Streets implementation and details of how Complete Streets are managed and implemented in the Town:

- There is an 11 member Committee that was established in 2008. The Committee spearheaded development of the Resolution.
- Implementation has not been totally consistent with the resolution, but the last 2 years have been more successful.
- The Town conducts pavement scoring efforts every 2 years.
- Complete Streets has been institutionalized in Town Hall and within each of the Departments. It is vital that there is coordination between departments.
- The effort has resulted in better coordination in road paving/utility work, road conditions and the bike/pedestrian network, however they do struggle with public works priorities and underground utilities. Implementation of coordinated efforts can fail due to conflicts and priorities.

- The Town has a bike/pedestrian network which is reviewed/used in Complete Streets discussions.
- Regarding sidewalk installation, the Town has been able to maximize their sidewalk budget by having Town staff clear an area, put down the sub-base and having a contractor put down the cement. The Town then goes back and finishes the project with grading and seeding. By doing this, the Town has been able to reduce the cost of sidewalk installation to $11/linear foot from nearly $80/linear foot when a contractor did all the work. The cost does not include Town labor since the labor is already paid for as part of the annual budget.
- Rob detailed the "flow chart" of Complete Streets efforts/implementation in the Town of Bethlehem as follows:
  Champions → Policy → Plan/Prioritization → Getting the right people to the table → Implementation & Timing

Town of Bethlehem staff noted that the bike/pedestrian committee, which is staffed by the Planning Department, is advocating for Complete Streets. They are developing a toolbox for use with new subdivisions and roadways that they can refer to when proposals are made.

Discussion ensued regarding how Niskayuna could use the Bethlehem effort as a model for developing a similar effort in the Town. It was mentioned that the Public Works department needs to be engaged, involved, and be a champion for Complete Streets.

Group Exercise: Complete Street options for the Town Center Triangle: The Town Center Triangle is an area defined prior to the workshop as being bordered by Nott Street East to the North, Van Antwerp Road to the east/south, and Balltown Road to the west/south.

An attendee mentioned that there is a bad line of sight when making a left turn out of the Library driveway onto Nott Street East. There was further discussion ensued regarding making connections within the "Town Center Triangle." Connections were recommended between Van Antwerp Road and Nott Street East and it was noted that there was a proposal to make a connection near Felthousen's Florist & Greenhouse property. One attendee discussed looking at a connection to/from Van Antwerp Village Apartments.

Discussion then moved to Balltown Road. There was discussion about the issues and safety concerns with the intersection of Balltown Road and Nott Street. A significant conflict causing backups and turning movement concerns is found with the combined eastbound through and left turn lane. There are also vehicle and bike/pedestrian conflicts and issues at this intersection. J. Levy showed a conceptual (re)design developed for parking in front of the Co-Op plaza and a reconfigured intersection for Nott Street on the west side of Balltown Road. This concept provides for a left-, through-, and right-turn lane. The discussion then centered on turning movements coming from the Stewart's Shops property onto Nott Street East – particularly left turns onto Nott Street East. It was noted that the Planning Commission has discussed this and determining potential improvements is something that the Commission is considering.

Attendees noted that there is a lot of cut-through traffic on the side streets. Much of this is (likely) local residents avoiding Balltown Road. This traffic typically drives at high speeds and needs to slow down. Traffic calming was discussed as an option that should be considered in conjunction with Complete Streets implementation.

A CDTC staffer mentioned that the Town should inventory what is being done currently and consider what can realistically be accomplished in the future. It took a while for Bethlehem and the Committee to get to the point they are at today.

A comment was made that Balltown Road needs a bike lane. Attendees then discussed the potential to develop a bike trail along the east side of Balltown from Nott Street to Van Antwerp, with the eventual goal being a trail that reaches Mohawk Commons. It was noted that in order for this to happen, all the intersections will need safe crossings.

An attendee asked if there were any resources for low-cost options and green streets implementation assistance. The Consultant Team offered to identify resources and provide them in the meeting notes. Some of the resources that can be consulted include the following:

Capital District Transportation Committee (CDTC)

New Visions 2040 Plan

http://www.cdtcmpo.org/rtp2040/2040.htm

Complete Streets Advisory Committee

http://www.cdtcmpo.org/compst/compst.htm

Bicycle and Pedestrian Committee

http://www.cdtcmpo.org/bkpedtf.htm

New York State Department of Transportation Complete Streets:

https://www.dot.ny.gov/programs/completestreets

National Complete Streets Coalition

http://www.smartgrowthamerica.org/complete-streets

City of Philadelphia Green Streets Program

http://www.phillywatersheds.org/what_were_doing/green_infrastructure/programs/green_streets

Small Town and Rural Streets

http://ruralstreets.net/

American Association of Retired Persons (AARP) – Planning Complete Streets For an Aging America

American Association of Highway Traffic Officials (AASHTO) – Green Book, Guide for the Planning, Design, and Operation of Pedestrian Facilities, Guide for the Development of Bicycle Facilities, Roadside Design Guide,

American Planning Association (APA) – Complete Streets: Best Policy and Implementation Practices

Federal Highway Administration (FHWA) – Manual on Uniform Traffic Control Devices (MUTCD)

Institute of Transportation Engineers (ITE) – Designing Walkable Urban Thoroughfares

National Association of City Transportation Officials (NACTO) – Urban Street Design Guide, Urban Bikeway Design Guide

Transportation Research Board (TRB) – Highway Capacity Manual

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M. Flynn presented *Module 5: Funding and Implementation*. The focus of this module was to discuss trade-offs, challenges of implementation and funding opportunities. He noted that all transportation funding programs fund Complete Streets implementation at some level – albeit some programs will only fund particular implementation opportunities related to the program.

A discussion of funding sources, design guides, and considerations for implementation were provided.

The workshop ended with a brief overview of the Top 3 next steps/solutions which are included below along with a list of potential Complete Streets Champions and initial identified Needs & Solutions for the Town Center Triangle and entire Town.

The meeting adjourned at 3:35PM

IDENTIFIED WORKSHOP OUTCOMES

"Top 3" Near Term Priorities/Next Steps

- Look into developing a policy or resolution *(having one implemented or adopted can help with funding requests and grant applications)*
- Establish a Committee to spearhead Complete Streets and related activities in the Town.
    - Work to develop a vision and bike/pedestrian priority network.
- Identify near-term priority low-cost/"low-hanging fruit" implementation ideas

Identified "Champions" to involve early in the process to help shepherd implementation

- A Committee of Town Residents (Safe Routes Committee?)
- The Town Public Works Department
- The Planning Department/Town Planner

Key Stakeholders and Officials to keep engaged and updated on progress and activities

- All Town Departments
- Local Business Association/Chamber of Commerce
- Metroplex
- NYSDOT
- Schenectady County Economic Development & Planning Department
- Schenectady County Department of Engineering & Public Works
- CDTA
- CDTC

Preliminary Identified Opportunities/Needs/Solutions:

- Van Antwerp Road – Drainage issues & a 14" (main) water main that needs to be replaced. Potential Asset Management/CS Enhancement Opportunity?
- Consider a trail from Van Antwerp Road to Nott Street East that comes out in close proximity to the Shop Rite Plaza.
- Install sidewalks north along Van Antwerp from where they end just north of the CVS up to Van Antwerp Village Apartments.
- Can double-up on field work by undertaking both ADA Transition Plan requirements and Complete Streets existing conditions analysis/needs/opportunities assessment.
    - *ADA Transition Plans are required for municipalities that have 50 or more employees (seasonal employees/part time employees count). Niskayuna has a current TIP project so it will require following federal aid procedures as outlined in NYSDOT's Procedures for Locally Administered Federal Aid Projects – Chapter 13 states: 13.3.3 ADA Transition Plan 28 CFR 35.105 requires "a public entity that employs 50 or more persons" to prepare a ADA Transition Plan identifying noncompliance in pedestrian accessible routes and facilities in the municipal Sponsor's public right-of-way, along with a plan and schedule for corrective action. It is important to note that these employees can be volunteers, such as firefighters. Additionally, even if the entity does have less than 50 employees (see section 13.3.2) it still needs to conduct self-*

evaluations. Failure to have a Transition Plan may result in federal fund ineligibility.

- Increase availability of alternative transportation options for youth by increasing the available of facilities for them to use
- Look at SRTS options for the section of Rosendale Road from Mohawk Road to Lock 7 Road
- Nott Street East: Add a crosswalk from Town Hall to the Library. Consider placing a movable yield sign in the road during peak times for pedestrian usage (i.e. library overflow parking at Town Hall). Consider using cones or other option to narrow roadway to slow traffic approaching the crossing.
- Assess whether or not the CDTA bus stops and locations are where they need to be today and for the future?
- Increase coordination between different levels of government to enhance Complete Streets implementation
- Nott Street East – look at narrowing the width of the travel lanes.
- Nott Street East/U.S. Post Office – investigate potential to fix offset driveways for the Post Office, Office Complex, and Shop Rite Plaza.
- Investigate the potential to develop a trail along Van Antwerp Road from Nott Street East north to the G.E. Circle. There is a lot of bicycle and pedestrian traffic on this road and no facilities for these users.
- Look at how to improve safety for pedestrians/bicyclists and vehicles making turning movements out of the Stewart's Shops' driveway onto Nott Street East.
- Consider potential traffic calming options on residential streets with cut through traffic.

SIGN-IN SHEETS

Scans of the sign-in sheets for the workshop follow below.

TOWN OF BETHLEHEM COMPLETE STREETS RESOLUTION

The workshop included a discussion of local/comparable examples in New York State as part of Module 4. One of the examples was from the Town of Bethlehem and with representatives from the Town in attendance at the workshop, they led a detailed discussion of their experiences in implementing the Resolution and Complete Streets improvements. A copy of the Resolution follows below.

NYSAMPO COMPLETE STREETS FACT SHEETS

Copies of the NYSAMPO Complete Streets Fact Sheets follow below.

TOWN OF NISKAYUNA
COMPLETE STREETS WORKSHOP
MAY 17, 2016
NISKAYUNA TOWN HALL

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TOWN OF NISKAYUNA
COMPLETE STREETS WORKSHOP
MAY 17, 2016
NISKAYUNA TOWN HALL

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TOWN OF NISKAYUNA
COMPLETE STREETS WORKSHOP
MAY 17, 2016
NISKAYUNA TOWN HALL

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TOWN OF NISKAYUNA
COMPLETE STREETS WORKSHOP
MAY 17, 2016
NISKAYUNA TOWN HALL

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RESOLUTION NO. 30

TOWN BOARD
TOWN OF BETHLEHEM
RESOLUTION
COMPLETE STREETS

WHEREAS, a goal of the Town of Bethlehem Comprehensive Plan is to improve mobility – the ability of people, regardless of age and status, to engage in desired activities throughout the Town; and

WHEREAS, the Town of Bethlehem Comprehensive Plan recommends maintaining and enhancing bicycle and pedestrian connections within neighborhoods, and between neighborhoods and hamlet centers;

WHEREAS, the Town of Bethlehem has established a pathways committee (PaTHs 4 Bethlehem) to explore bicycle and pedestrian facility connections and address issues; and

WHEREAS, bicycling and walking are important forms of transportation and recreation in our community; and

WHEREAS, bicycling and walking contribute to health, fitness, neighborhood vitality, social interaction, and economic development; and

WHEREAS, the full integration of all modes in the design of streets and highways will increase the capacity and efficiency of the road network, reduce traffic congestion by improving mobility options, limit greenhouse gas emissions, and improve the general quality of life; and

WHEREAS, educating the public about safety, health and mobility are part of being a quality community; and

WHEREAS, Complete Streets are defined as facilities that are designed and operated to enable safe and efficient access for all users. Persons with disabilities, pedestrians, bicyclists, motorists and transit riders are able to safely and efficiently move along and across a complete street.

NOW, THEREFORE, BE IT RESOLVED, the intent of the Town of Bethlehem Complete Streets Policy is to recognize bicyclists and pedestrians as equally important as motorists in the planning and design of all new street construction and street reconstruction undertaken by the Town.

BE IT FURTHER RESOLVED, it is also the intent of the Town of Bethlehem Complete Streets Policy to recognize that local Town streets with low vehicle volumes and slow travel speeds safely and efficiently accommodate bicyclists and pedestrians. However, principal Town roads that are characterized as having high vehicle volumes and high travel speeds, and are important for bicycle and pedestrian travel to access and connect to destinations in and adjacent to the Town, shall be considered for Complete Streets treatment.

BE IT FURTHER RESOLVED, that the Town Board hereby resolves to establish a Complete Streets Policy as follows:

Engineering: The Highway Superintendent shall consider the safe and efficient accommodation of bicyclists and pedestrians in all new street construction and street reconstruction undertaken by the Town of Bethlehem.

1. In addition, where the need for bicyclist and pedestrian facilities has been established or is defined in Town planning documents, including but not limited to the Bicycle and Pedestrian Priority Network identified by the PaTHs 4 Bethlehem Committee, the Highway Superintendent shall consider the addition of safe bicyclist and pedestrian facilities in new street construction and street reconstruction undertaken by the Town of Bethlehem. The addition of the bicyclist and pedestrian facilities shall be consistent with the scope of the improvement project, context sensitive to the surrounding environment, and shall not be disproportionate with the cost of the larger project.

2. Bicyclist and pedestrian facilities are defined as improvements that are above and beyond the normal space, surfaces, pavement markings, and signing that would routinely be incorporated into street design and maintenance for the accommodation of bicyclists and pedestrians. These facilities shall include but not be limited to sidewalks, curb cuts and ramps, marked crosswalks, pedestrian actuated signals, paved shoulders, bicycle route signing, bicycle lanes, bicycle parking facilities, and shared use paths.

3. Bicycle and pedestrian facilities may be planned, designed, developed and maintained in accordance with guidelines adopted by the United States Department of Transportation (USDOT), New York State Department of Transportation (NYSDOT), and the American Association of State Highway and Transportation Officials (AASHTO) or other guidelines approved by the Town of Bethlehem.

4. Whereas, if the Highway Superintendent determines that the inclusion of bicycle and/or pedestrian facilities are unable to be accommodated on a roadway or within Town right-of-way proposed for construction or reconstruction, he/she shall provide said determination in writing, with supporting documentation, to the Town Board for their information.

Education and Encouragement: The Town supports the promotion of bicycling and walking for health, fitness, transportation and recreation through events, programs and other educational activities, which benefit residents, students, businesses and visitors of all ages and abilities. These activities can be coordinated with the PaTHs 4 Bethlehem Committee, other Town Committees and Departments, local bicycle clubs, schools, health organizations and other partners.

Furthermore, the Town encourages the NYSDOT and Albany County to consider a Complete Streets approach when constructing or reconstructing their respective streets in the Town.

Enforcement: The Town will provide a balanced enforcement of the New York State Vehicle and Traffic Law for motorists, pedestrians and bicyclists. This will include enforcement of pedestrian's right-of-way in crosswalks, bicyclists riding with traffic and all modes sharing the road safely.

Additionally, the Town may consider the use of traffic calming applications as an alternative to bicycle and pedestrian facilities. Traffic calming applications help to physically or psychologically calm motor vehicle traffic behaviors, thereby aiding in the enforcement of a safe environment for bicycle and pedestrian travel.

On a motion by Mrs. Dawson_, seconded by Mr. Kotary, and by a vote of _5_ for, 0_ against and _0 absent, this RESOLUTION was adopted on _August 12, 2009_.

Complete Streets

FACT SHEET

Overview

The concept of a "complete street" has been in the transportation planner's vocabulary for a number of years. It refers to a set of street design concepts that ensures that all users are safely accommodated, regardless of how they travel or what their special needs may be. Consider this description of "First Avenue": Jennifer may safely drive home from work; Andy, who is visually impaired, can cross the street where there is a traffic signal, and board the bus; Joe and Amy can ride their bikes to school.

Who has adopted Complete Street Policies in New York State?

Fourteen New York State counties or municipalities have adopted Complete Street policies as of 2011:

Buffalo, NY	Complete Streets Policy	2008
New York City, NY	Sustainable Streets Strategic Plan	2008
Bethlehem, NY	Resolution No. 30	2009
Ulster County, NY	Resolution No. 229-09	2009
Babylon, NY	Complete Streets Policy	2010
Brookhaven, NY	Resolution 2010-993	2010
Cuba, NY	Resolution	2010
Elizabethtown, NY	Resolution	2010
Gowanda, NY	Resolution	2010
Islip, NY	Resolution	2010
Kingston, NY	Resolution	2010
Salamanca, NY	Comprehensive Plan: Complete Streets Policy	2010
Rochester, NY	Resolution 2011-356	2011
Town of Lewisboro, NY	Resolution	2011

A complete street design will save money on future transportation retrofits; reduced congestion will provide more efficient travel within your community; and creating complete streets can spur economic development.

Pittsford, New York

Complete Streets Act

This concept was given the force of law in New York with the passage of the Complete Streets Act in August, 2011 (S05411A/A08366). The law took effect on February 15, 2012. The law does not provide any additional funding for complete street design features, so funding decisions should be addressed early in planning stage. It states that "the transportation plans of New York State should consider the needs of all users of our roadways including pedestrians, bicyclists, public transportation riders, motorists and citizens of all ages and abilities, including children, the elderly and the disabled...Therefore, it shall be the policy of the state to consider people of all ages and abilities and all appropriate forms of transportation when planning roadway projects." The law covers only projects that are funded with federal and state funds. However, NYSAMPO encourages local governments to consider these principles for locally funded projects as well.

The section of the law defining responsibilities of New York State DOT and local agencies that undertake street projects: "Consideration of complete street design. (A) For all state, county and local transportation projects that are undertaken by the Department [of Transportation] or receive both federal and state funding and are subject to Department of Transportation oversight, the department or agency with jurisdiction over such projects shall consider the convenient access and mobility on the road network by all users of all ages, including motorists, pedestrians, bicyclists, and public transportation users **through the use of complete street design features in the planning, design, construction, reconstruction and rehabilitation, but not including resurfacing, maintenance, or pavement recycling of such projects."**

The law further goes on to outline typical design features for complete streets:

"(B) Complete street design features are roadway design features that accommodate and facilitate convenient access and mobility by all users, including current and projected users, particularly pedestrians, bicyclists and individuals of all ages and abilities. These features may include, but need not be limited to: **sidewalks, paved shoulders suitable for use by bicyclists, lane striping, bicycle lanes, share the road signage, crosswalks, road diets, pedestrian control signalization, bus pull-outs, curb cuts, raised crosswalks and ramps and traffic calming measures;** and recognize that the needs of users of the road network vary according to a rural, urban and suburban context."

The law does provide some exceptions, including:

- Not required for roads, like interstate highways, where use by pedestrians and bicyclists is prohibited;
- Cost is disproportionate to need, based on land use context, traffic volumes, and population density
- Demonstrated lack of need, based on the above factors; or lack of community support;
- Design features would have an adverse impact on public safety.

Given those requirements, there are a number of examples of complete streets design features, based on the understanding that there is no singular design prescription for such a street. Each one is unique and responds to its community context. However, one constant with all features is that safety considerations must always be factored into any Complete Streets design.

While many people associate Complete Streets with an urban or suburban context, there is a place for these strategies in rural areas too. Complete Streets will look different in rural communities than they do in urban, and care should be given to ensure roadways in these villages and hamlets are designed to fit their setting. In town centers, narrower streets, well-marked pedestrian crossings, sidewalks, and street trees can all work to improve safety while maintaining a pleasant, small town feel. On streets where homes are located along one side of the street, sidewalks with accessible curb cuts lining just that side may be the best fit. Sometimes a rural road can be completed by simply providing wide shoulders to allow safe bicycling and walking.

A Complete Street May Include:

- **Narrower travel lanes, which contribute to slower vehicle speed and free up space for other uses in the existing right-of-way. A design called a "road diet" may convert a four lane street to two through lanes, a center two-way left turn lane, and space for bicycle lanes. In an urban setting with lower speed limits and a low volume of trucks and buses, ten foot lanes are often sufficient for two lane roads.**
- **Sidewalks that are wide enough and without obstacles so they can be used comfortably by all pedestrians, including those with visual or mobility impairments. Providing sidewalks that are five feet wide is considered best practice. Four foot wide sidewalks meet current standards, but require additional width at regular intervals per ADA standards to allow wheelchairs to pass one another. Special design attention is necessary where spaces like sidewalk cafes will share the public right-of-way.**
- **Proper accommodation of pedestrians at intersections, including crosswalks, curb ramps as required by the Americans with Disabilities Act, and accessible pedestrian signals. The latter are designed to accommodate visually impaired pedestrians with a locator tone and computer generated spoken messages. Crossing distance can be reduced through use of curb extensions and median refuge. (see NYSAMPO Fact Sheets on Designing Signalized Intersections to Accommodate All Users and Timing Traffic Signals to Accommodate Pedestrians at NYSAMPO website: http://www.nysmpos.org).**
- **Bicycle lanes or wide paved shoulders, depending on local policy. A new pavement marking called a "sharrow" may also be used when there is not enough pavement width for a bicycle lane. It consists of a bicycle and chevrons pointing in the direction of travel. It guides the cyclist to the proper location on the street, and alerts motorists that cyclists may be there.**
- **Transit accommodations including special bus lanes or bus pull-outs, and comfortable and accessible transit stops. Bus stops should have shelters, and must be designed so the bus driver can deploy the wheelchair lift or ramp.**
- **Landscape elements that help curb stormwater runoff such as bioswales, planters, rain gardens and street trees – are mutually beneficial for mobility and the environment. Such green elements contribute to a more comfortable and visually interesting environment for all users. Numerous trees reduce the heat island effect and offset CO_2 while widened sidewalks and increased pedestrian features make the street friendlier to those walking by. Traffic-calming elements like chicanes, pedestrian islands, and curb extensions provide site opportunities for bioswales, street trees, and rain gardens.**
- **Complete streets are often used to stimulate economic development, ideally as compact mixed-use with both retail, commercial, and residential spaces. Designers must consider how stores and restaurants will receive deliveries, and where visitors and residents will park their cars without interfering with the needs of pedestrians, cyclists, or transit. Concepts include rear delivery access, and strategically placed loading zones with time restrictions.**

The National Complete Streets Coalition is an excellent source of information on the design and benefits of Complete Streets.

http://www.completestreets.org/complete-streets-fundamentals/factsheets/

New York State Association of
Metropolitan Planning Organizations
http://www.nysmpos.org/

Complete Streets FACT SHEET 2.0

Since the NYSAMPO Complete Streets Fact Sheet was published in 2012, additional needs have been identified. They are addressed in this addendum.

The original Complete Streets Fact Sheet can be found at www.nysmpos.org

MORE MUNICIPALITIES HAVE ADOPTED COMPLETE STREETS ORDINANCES AND POLICIES

A number of additional New York municipalities have officially recognized the importance of considering Complete Streets elements in street design and road improvement projects through the adoption of local ordinances or policies. Most use language that is similar in content to the New York State law.

Since any list is quickly outdated, readers are referred to the **New York State Department of Transportation's Complete Streets web page**:

https://www.dot.ny.gov/programs/completestreets

HOW CAN COMPLETE STREETS BE IMPLEMENTED IN SIMPLIFIED PAVING PROJECTS?

A focus on managing infrastructure assets at a time of limited capital funding has resulted in many jurisdictions, from local to State, doing simplified or maintenance paving work. Such projects may entail a simple overlay, or mill and resurfacing, and is generally limited to "working between the curbs or shoulders".

Complete Streets necessarily reflect their location.

An urban street that is curbed will require different treatments than a suburban or rural roadway that has paved shoulders but no sidewalks. There is no single approach to designing Complete Streets.

While this places limits on the range of Complete Streets elements that can be employed, there is still a great deal that can be done. Often changing pavement markings alone can improve the experience of all roadway users. There are other low cost improvements that may be outside the scope of simplified paving, but worthy of consideration.

HOW CAN COMPLETE STREETS BE IMPLEMENTED IN SIMPLIFIED PAVING PROJECTS?

Begin with a simple inventory.

- **Supply**: What is the pavement width? What is the pre-construction layout: number and width of lanes, on-street parking, bus stops, bike lanes, crosswalks?
- **Environment**: What comprises the adjacent land use? Is it a residential street, a neighborhood shopping area, a commercial strip? Is there a school or park on the street? Consider that Complete Streets should fit in the land use context.
- **Demand**: The context will relate to who uses the street and for what purposes. Are there generators of pedestrian activity? Is the street part of an established bicycle network, or a bus route?

Understand the project context

- **Pavement.** Paving of uncurbed roadways is sometimes limited to the travel lanes. This can leave a drop-off at the shoulder that is unsafe for bicyclists, and a deteriorated shoulder surface that can be a hazard for both bicyclists and pedestrians. Roads should be paved to the full extent of the shoulder, and narrow shoulders widened where possible.
- **Drainage.** Drainage problems like low areas where ponding occurs should be addressed as a matter of course in paving projects. Bicycle friendly drainage grates should be installed.

Consider what can be accomplished with pavement markings.

- **Road diet**. Is this a 4 lane street that can be reduced to 2 through lanes, a center two-way left turn lane, and bike lanes?
- **Bike lanes**. Even on a 2 lane street, there may be sufficient width to accommodate bike lanes. Sometimes space can be gained by limiting parking to one side of the street. When pavement width is not adequate, shared lane markings ("Sharrows") or a bike boulevard designation can be considered.
- **High visibility crosswalks**. Can pedestrian safety be improved by making crosswalks more easily seen?
- **Curb extensions**. Where there is on-street parking, curb extensions (bulb-outs) can shorten the distance that pedestrians have to cross. While it is preferable that these be raised concrete, at-grade painted extensions have been used successfully.
- **Reverse angle parking.** Where there is sufficient pavement width, this technique improves safety for motorists and cyclists, because drivers exiting the parking space have a clear view of approaching traffic, including bicycles.

Curb extensions: Painted curb extension at Water and Broad street in New York City. *(Above)*

Reverse angle parking: Before and after photos of reverse angle parking on Hawley Street in downtown Binghamton. *(Below)*

Consider additional low-cost improvements.

If there is community support for these changes, the municipality may be encouraged to invest some resources to make additional changes as part of the project.

- **Traffic Signals.** Add pedestrian signals with countdown displays where there are none. Use accessible pedestrian signals that have audible and/or tactile indications where engineering judgment finds they would be warranted (refer to *Manual on Uniform Traffic Control Devices* §4E.09-13). Where there is vehicle detection, make sure bicycle detection is provided, including pavement markings to identify where bicyclists should position themselves to be detected.
- **Mid-Block Crosswalks.** If the distance between signalized intersections is long, and pedestrian conditions warrant it, consider a mid-block crosswalk with high visibility ladder markings and a pedestrian-actuated signal or pedestrian hybrid beacon (refer to *Manual on Uniform Traffic Control Devices* §4F). The latter is often referred to as a HAWK (High Intensity Activated Crosswalk) beacon.
- **Curb Extensions.** Construct concrete curb extensions. They are more effective in protecting pedestrians by making them more visible to drivers, which is not the case with at-grade painted extensions.

HOW CAN COMPLETE STREETS ACCOMMODATE GOODS MOVEMENT?

When planners and engineers are considering how to make an existing thoroughfare into a Complete Street, they most often focus on improving accommodations for pedestrians, including those with vision or mobility impairments; cyclists; and transit users when the street is a current or future bus route. Those involved in goods movement are often left out of the Complete Streets design conversation. But goods movement can be an important component of Complete Streets, especially when one of the objectives of the new streetscape is to encourage economic development, which often occurs in the form of neighborhood-scale retail and commercial space. Restaurants and shops will require daily deliveries, and residences and offices may rely on parcel services, making truck traffic an unavoidable part of street life. Planning for goods movement from the outset will help ensure a successful design that truly accommodates all users.

It is important to distinguish between different types of goods movement when looking at land use plans and urban design. Good planning can lead to the creation of a network of urban truck routes that can best accommodate trucks that are not providing local delivery service, whether they are traveling through the city or going from a factory or warehouse/distribution center to a freeway interchange. Once designated, these routes will be less desirable for Complete Street treatment. Local judgment is still important, as in a situation where a "Main Street" serves as a truck route, but must also accommodate all users. Local deliveries and services like garbage removal are the kind of goods movement that must be addressed in the Complete Streets context. Vehicles may range in size from relatively small parcel service and delivery trucks to tractor-trailers.

While some of our cities were designed with mid-block alleys for rear delivery, most were not. Few neighborhood businesses have on-site loading docks. Most often delivery trucks must compete for curbside space.

Successful Complete Streets projects rely on stakeholder involvement. Outreach to current businesses must include discussion of their delivery needs, with the potential for meeting with their suppliers as well. Find out the type of trucks that are being used, and frequency, duration, and time of day of deliveries. Ask if deliveries can be made in off-hours, when the street is not busy with people. Then consider loading zones. The City of Philadelphia has included loading zone requests in their Complete Streets program. Determine how much curb front is needed, the hours the loading zone will operate, and the duration of stay (typically no more than 30 minutes). Develop an enforcement plan, which is necessary to make loading zones work. Position loading zones so they will have a minimal impact on parking and bus stops. Local stakeholders can often be helpful in determining an acceptable trade-off in the competition for curb space.

Intersection design should be reviewed to ensure that pedestrian crossing distances are short, while still allowing for delivery truck turning movements. Consider mountable curbs on medians and roundabouts, and marking stop bars further back to allow turning trucks to swing into the opposite lane.

It is important to plan ahead. If the land use objective is for mixed-use development or redevelopment, consider how the street will accommodate additional truck traffic, and work with economic development officials and developers to create off-street delivery areas.

Most importantly, be creative in accommodating goods movement in your Complete Streets designs as you consider the needs of all users. Ignoring goods movement may detract from the ultimate success of the project and its economic development potential.

IMPLEMENTING COMPLETE STREETS

Implementing Complete Streets projects can be a challenge. The existence of a state law or local ordinance that requires consideration of the needs of all users in project design does not guarantee the creation of a Complete Street. It is the responsibility of transportation and urban planners to work with residents and businesses on a street that is slated for construction to educate them about Complete Streets and encourage their input on design elements that will meet their needs. The street owner must be engaged early in the project development process as well, to understand the range of options they may be willing to consider. They will know about limitations of the built infrastructure that are not otherwise apparent. Finding a champion can also be key in garnering support. Decision makers may be more willing to dedicate resources when they see that a Complete Street project is responding to the needs their constituents have identified, and are not perceived simply as a required response to a law.

Before: Raymond Avenue in Poughkeepsie, a four-lane road. *(Above)*

After: "Road diet" transformation from four lanes into a two-lane street with roundabouts, a median, and improved sidewalks and crosswalks. *(Right)*

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http://www.completestreets.org/complete-streets-fundamentals/Factsheets

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