

Complete Streets

a guide for Vermont communities



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Contents

- What Are Complete Streets?..... 1
 - Act 34: Municipal Requirements Under the Act..... 1
 - Why Complete Streets?..... 2
 - Vermont Examples..... 2
 - Opportunities for Achieving Complete Streets..... 4
- Complete Streets Planning and Design..... 5
 - 1) Determine the Land Use and Transportation Context 5
 - 2) Determine Potential Users 9
 - 3) Assess the Transportation Facilities..... 9
 - 4) Issues Beyond the Roadway 12
 - 5) Select Complete Street Tools..... 13
 - 6) Consideration of Cost versus Need and Probable Use..... 30
 - 7) Documentation, Reporting and Maintenance..... 33
- Complete Streets References..... 34
- Performance MeasuresA-1
- Maintenance.....A-2
- Reporting FormsA-3



What Are Complete Streets?

Complete Streets is a philosophy and approach to planning, design, construction and maintenance of our roadway network to consider all users, including pedestrians, bicyclists and transit riders. Context and current or potential travel patterns need to be considered in determining the appropriate way to meet the needs of all modes of transportation. Not every street or road will be used by a wide variety of modes, but a complete streets approach considers all users, and seeks desirable, practical and affordable improvements that will be accepted by the community. A Complete Streets project does not need to be all or none incremental improvements may contribute meaningfully to a multi-modal system.

The [Complete Streets](#) approach to planning and engineering has arisen after many decades where automobiles were the primary, and sometimes the only, mode of transportation considered in the design process. In the past 10 or more years, there has been a steady shift toward a more comprehensive view of the users that should be considered in the planning and design of transportation networks. In 2005, the [National Complete Streets Coalition](#) was established, which serves as an advocate for communities and states to adopt complete streets policies, and as a clearinghouse for information. This work has been further supported by the American Association of Retired Persons ([AARP](#)).

Act 34: Municipal Requirements Under the Act

A complete streets policy for Vermont is implemented by [Act 34](#) of the 2011 Legislature: *An act relating to a transportation policy that considers all users.* The following is from the bill's text (Act 34, Section 1):

The purpose of this bill is to ensure that the needs of all users of Vermont's transportation system—including motorists, bicyclists, public transportation users, and pedestrians of all ages and abilities—are considered in all state and municipally managed transportation projects and project phases, including planning, development, construction, and maintenance, except in the case of projects or project components involving unpaved highways. These "complete streets" principles shall be integral to the transportation policy of Vermont.

All levels of government are subject to the provisions of the act, and the following outlines the specific requirements for municipalities:

19 V.S.A. § 309d. POLICY FOR MUNICIPALLY MANAGED TRANSPORTATION

Except in the case of projects or project components involving unpaved highways, for all transportation projects and project phases managed by a municipality, including planning, development, construction, or maintenance, it is the policy of this state for municipalities to consider "complete streets" principles, which are principles of safety and accommodation of all transportation system users, regardless of age, ability, or modal preference.

If, after the consideration required under this section, a project does not incorporate complete streets principles, the municipality managing the project shall make a written determination, supported by documentation and available for public inspection at the office of the municipal clerk and at the agency of transportation, that one or more of the following circumstances exist:

- 1) *Use of the transportation facility by pedestrians, bicyclists, or other users is prohibited by law.*

- 2) *The cost of incorporating complete streets principles is disproportionate to the need or probable use as determined by factors such as land use, current and projected user volumes, population density, crash data, historic and natural resource constraints, and maintenance requirements. The municipality shall consult local and regional plans, as appropriate, in assessing these and any other relevant factors.*
- 3) *Incorporating complete streets principles is outside the scope of a project because of its very nature. The written determination required by subsection (a) of this section shall be final and shall not be subject to appeal or further review.*

The Vermont Agency of Transportation (VTTrans) has identified the following types of projects as being outside the scope of Complete Streets (item 3 above) in their [guidance](#) on Act 34, which primarily includes maintenance activities (not a complete list):

- Crack sealing
- Culvert replacement
- Emergency repairs
- Guardrail replacement
- High risk rural road (HRRR) projects
- Ledge/slope projects
- Pothole repair
- Preventative maintenance, bridge maintenance projects
- Projects with pre-approved scopes of work (i.e., grant funded projects)
- Roadside mowing
- Road/shoulder sweeping
- Shim/leveling projects
- Sign replacement

Why Complete Streets?

Complete Streets projects can provide diverse and widespread benefits, including the following:

- Streets that accommodate all users are safer for everyone, including automobile drivers and passengers. For example, everyone on the road is put at risk when a driver must cross the center line to avoid a collision with a bicycle or pedestrian, especially on a narrow road with restricted sight distance.
- Complete Streets can provide greater mobility and accessibility to those without a car. This can be particularly important to the quality of life for seniors and young people, allowing for greater opportunities to participate in constructive social and educational activities.
- Complete streets can offer a choice for less costly modes of transportation, which has economic benefit to individuals or families.
- Active travel (walking and bicycling) can improve health and provide needed daily exercise.
- It is more efficient to accommodate all modes at the planning and design stage, rather than retrofit after the fact, and correct safety issues for non-automobile road users.

Vermont Examples

While Act 34 was passed in the 2011 legislative session, the concept of complete streets is not new to Vermont. VTTrans, as well as many communities throughout the state, have been following Complete Streets principles in many transportation projects. The following are just a few examples.

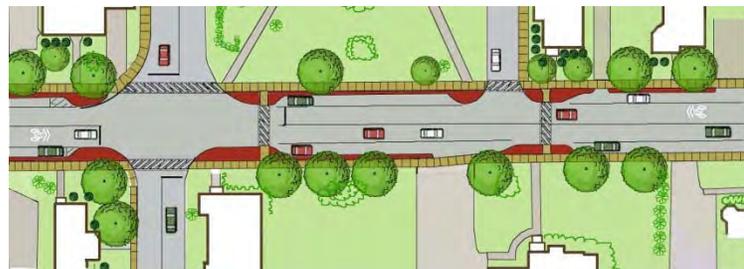
Burlington: Transportation Plan and Street Design Guidelines

The City of Burlington has identified a plan for a network of complete streets in the city, and established design criteria for them in a set of Street Design Guidelines. The illustration to the right shows the features of a complete street, which is a conversion for Colchester Avenue from a four lane auto-oriented street to a three lane Complete Street. See the [Burlington Transportation Plan](#) for more information.



Waterbury-Main Street/Route 2: Reconstruction of Street with streetscape improvements

Waterbury's Main Street is undergoing a major street reconstruction project. The results, currently in the final design phase, will include wider sidewalks, on-street parking, tree plantings, pedestrian-scaled lighting, bulb-outs at pedestrian crossings, and shared lanes for bicycles.



Jericho-Main Street: Streetscape and Sidewalk

The Town of Jericho has constructed streetscape improvements that include sidewalks, lighting, and landscaping with a design that is appropriate for small village center.



Cornwall-Route 30: Rural Pedestrian Shoulder Treatment

Route 30 in Cornwall, just outside of Middlebury, provides a scenic route for local walking. However, the road did not provide any shoulder room for pedestrians. While the traffic volumes on this route are not especially high, the rural high speed nature of the traffic created a hazard for pedestrians. Recent improvements have added a shoulder for walking, an appropriate design for a rural setting, and much less costly than a sidewalk.



Norwich-Route 10A Corridor: Reallocation of Right of Way

Route 10A between Hanover and Norwich is a multimodal corridor, with vehicles, bicycles and pedestrians regularly commuting between the two communities. A VTrans resurfacing project provided an opportunity to reconfigure the corridor, converting two eastbound lanes to one travel lane and one bicycle lane. The new configuration was tested during the temporary restriping of the first layer of new pavement, allowing monitoring and adjustments to the design before the final striping.



Burlington-Riverside Avenue: Street with Sidewalk, Bicycle lanes and Parallel Multiuse Path

This street passes through very diverse urban neighborhoods in Burlington, and is also a major traffic route connecting northern Burlington with Winooski. Recent reconstruction of this route included a sidewalk on one side, bicycle lanes along the street, and a multi-use path on the other side. In this way, many types of bicyclists are now served on the corridor. Lighting and crosswalks are provided as needed.



Opportunities for Achieving Complete Streets

There are a number of implementation opportunities for developing a “complete” transportation system. The most common are VTrans grants that are targeted to bicycle and pedestrian improvements, such as the “Transportation Alternatives” federal funding program, established in the 2012 federal transportation funding legislation. There are also opportunities to piggyback the improvements onto other projects or activities, such as:

- Major utilities work, such as sewer, storm drain, or water projects often involve major excavation of a street, and create an opportunity to rebuild it in a manner consistent with complete streets principles.
- Resurfacing projects provide an opportunity to review items, such as lane width and striping, to provide for bicycles, or sometimes pedestrians. Shoulder widths may be extended, and drainage structures that may pose a hazard to bicycles can be replaced.
- Subdivision and site development projects often include constructing access and modifications to public roadways, which should be compatible with complete streets principles. Subdivision and zoning regulations can also require complete streets considerations, such as non-motorized connectivity requirements or consideration of the impact of a proposed development on non-motorized travel conditions.

Complete Streets Planning and Design

Generally, most transportation projects that use state or federal funds must adhere to the [VTrans Project Development Process](#) or the [Local Transportation Facilities](#) guide for municipally managed projects. Both of these begin with the development of a purpose and need statement, which describes the entire rationale for the project and identifies the deficiencies it is intended to correct and the outcomes desired. VTrans states:

Purpose and Need Statements (P&N) are the backbone of our work. They are the crux of the Project Definition Phase. The P&N needs to be written to state the problems of the transportation facility and the goal for that facility. A Purpose and Need Statement should not describe the author's recommended solution. The reader should be presented with sufficient material to understand the needs and goals of the project and then logically reach the same conclusion reached during the Project Definition Phase.

The *purpose* of a project may be thought of as the goals that it seeks to realize, such as improvements to safety, mobility, accessibility (including non-vehicular), economic development or the aesthetic enhancement.

The *need* for the project consists of one or more identified circumstances that can be localized in the project area and fail to realize the identified goal(s).

Complete Streets principles require that the purpose and need statement include the perspectives of all users and modes. For example, purposes that embody complete streets might include:

- address safety concerns for all users including pedestrians and bicyclists
- provide safe routes to school for all users and modes
- serve places that generate high non-vehicular demand such as:
 - high density housing or commercial area
 - parks, playgrounds, museum or other civic, cultural or tourist attractions
 - college or university
 - concentrations of elderly, low income families or young children
 - established desire lines (per community input)
- improve ADA compliance
- complete or expand a pedestrian and bicycle network
- improve opportunities to reduce auto dependence
- set the stage for community goals such as higher density or mixed use development or downtown economic development

There are many approaches that can meet the goals of Act 34. The following are suggested as steps for implementing a complete streets plan or project design, which can be folded into the overall project development process.

1) Determine the Land Use and Transportation Context

Land use and transportation are inextricably linked. Land uses generate the need for travel and connectivity, and their arrangement dictates the possible means of travel. Compact settings, with a variety of land uses in close proximity and connected by streets that accommodate a variety of modes of travel, will have a higher portion of trips made by walking, biking or transit. Areas with more dispersed settlement patterns require longer trips, and will be more auto-dependent. An important first step in complete streets planning or design is determining the land uses and settlement patterns in the project area.

Complete Streets Project Reporting Form

Town/City of _____

This project reporting form and attached checklist can serve to document that Complete Streets practices and principles were considered and implemented where appropriate for the project listed below. This form should be completed after preliminary plans and retained in the project file.

Project Name: _____

Project Number: _____

Date: _____

Attach completed checklist

Complete Streets Exemptions:

Is the use of the transportation facility by pedestrians, bicyclists, or others users prohibited by law? Y / N

Is the cost of including complete streets principles disproportionate to the need or probable use? Y / N

Are complete streets principles outside the scope of the subject project because of its very nature? Y / N

Supporting documentation can be attached to this document and retained in the project's file. For all other instances a brief description of the Complete Streets practices and principles that have been incorporated into the subject project's design can be included below.

Describe Complete Streets elements included in project: _____

Complete Streets - Municipal Planning/Scoping Project Checklist

Obtain the Municipal/Regional Plan(s)

- Determine multi-modal status of subject facility per plan(s) recommendations

Determine Land Use Context

- Ascertain land use type & density: existing; future/desired
- Determine context zone: existing; future/desired

Identify Current Transportation Modes and Facilities; Transportation Data

- Determine roadway classification: existing; future/desired
- Determine pedestrian and bicycle facilities: existing; future/desired
- Identify existing and projected transit service features
- Obtain current and projected traffic volumes
- Identify current and projected pedestrian/bicyclist use
- Obtain existing crash data (including pedestrian and bicycle crashes)

Identify Constraints on Transportation Project Development

- Determine existing roadway right-of-way
- Determine location of traveled way within right-of-way
- Assess potentially available private front yard space
- Identify existing natural resource constraints
- Identify existing historic resource constraints

Other Factors (explain any that apply)

- Environment _____
- Economic development _____
- Aesthetics _____
- Historic preservation _____
- Health _____

Describe Alternatives Considered

Describe Preferred Alternative and Indicate complete streets elements in final recommendation
