

VIII. TRANSPORTATION

A. Introduction

The transportation infrastructure in Cabot is assessed in regard to the adequacy of the roadways for handling vehicle traffic, and for its ability to provide for other modes of travel, including pedestrian and bicycle routes. Well-maintained routes, serving motor vehicles, bicycles, and pedestrians are important to establish connections between the rural areas of Town and the Village Center. Also important are connections of local roads to the principle arterial road, U.S. Route 2, which provides for interregional travel needs.

Good transportation routes have a bearing on the local economy. Local retail business owners depend on well-maintained routes, as well as adequate parking areas, to attract business. The local agricultural industry is also dependent on a good road system, since farmers depend on them to get their products to markets -- or allow customers access to their farm.

A well-planned multi-modal transportation infrastructure that provides connections to alternative transportation options, such as ride-share programs and public transportation, encourages a reduction in the number of single-occupant vehicle trips, having a positive impact on energy conservation and creating more bicycle- and pedestrian- friendly roadways.

Finally, a safe pedestrian infrastructure is particularly vital in the downtown village area of Cabot, where it makes sense to walk rather than drive from home or place of business to schools, recreational facilities, stores, post office and Town Hall.

B. Existing Conditions

Existing Road System

Cabot has approximately 76.8 linear miles of roadways, 18 miles paved and approximately 60 unpaved. The Town is responsible for the maintenance of approximately 69.5 miles of roadway.

The amount of road in each of four classifications is listed in Table VIII – 1 below. (See also Map 3 in Appendix B.)

Route 215 is the main north-south corridor in Town, extending from the Town of Walden in the north to the Town of Marshfield in the south. It is “Main Street” when it passes through the Cabot Village, and is also the main thoroughfare passing through Lower Cabot. The speed limit on Route 215 ranges from 30 M.P.H. in Cabot Village to 50 M.P.H. north and south of the main village area.

Much of U.S. Route 2 in Cabot is scenic, providing long views of forested areas, cultivated fields, and pastureland. The land adjacent to Route 2 in Cabot is sparsely developed, and all of the land is zoned either “Low Density Residential and Agricultural” or “Shoreland” (a small section along Route 2 currently zoned Medium Density Developed District is proposed to be eliminated – see Land Use section).

Plans for the widening and repaving of the stretch of Route 2 that lies in Cabot have been completed by VTrans and work has recently begun, to be completed in October 2013.

**Table VIII - 1
Existing Road System**

Road Class	Road names	Condition	Linear Miles
State/Federal Highways	U.S. Route 2	paved	6.2
	Route 232	paved	0.4
	TOTAL		6.6
Class 2 Highways	State Aid Hwy #1 (Route 215)	paved	6.8
	State Aid Hwy #2 (South Walden Rd)	paved	3.9
	State Aid Hwy #3 (West Hill Pond Rd/ Cabot Rd)	gravel	2.9
	State Aid Hwy #4 (Danville Hill Rd)	gravel	3.5
	TOTAL		17.1
Class 3 Highways	Various roads	gravel	
	TOTAL		41.2
Class 4 Highways and Trails	Various roads	varies	7.4
	Legal trails	varies	4.5
	TOTAL		11.9

Cabot is continuing work on culvert replacement throughout the town. Since the last Town Plan in 2003, an inventory of culverts has been completed. Another culvert inventory is scheduled in 2012. Culverts are being inspected, upgraded, and added as necessary to ensure that erosion problems are minimized.

Classes of Town Highways

Class 2 Town highways are primarily the responsibility of the Town. The state is responsible for center line pavement markings if the Town notifies the Vermont Agency of Transportation (VTrans) of the need to replace them. Any designation of a highway as a Class 2 must be approved by VTrans.

Class 3 Town highways are the responsibility of the Town. The minimum standard for class 3 highway is a roadway that is passable under normal conditions year-round, including maintenance of sufficient surface and base, adequate drainage and sufficient width to provide winter maintenance. If a class 3 highway is not maintained to this standard, it may be deemed “Not Up To Standard” and subject to removal of state aid for the affected road mileage.

Class 4 Town highways include pent roads (public roads that may be gated by permission of the governing body). The Town’s responsibility for these roads is limited to maintenance of drainage structures (bridges and culverts). Legal trails, designated through legal proceedings, are not Class 4 town highways.

Residents can petition the Town to request that a road be reclassified. The Town’s governing body may also act on its own motion without a petition. Before taking action on reclassification, a hearing must be held on the proposal, and a decision should be made by the governing body within 60 days after the hearing.

Existing Pedestrian Facilities

In Cabot Village, a sidewalk extends on the northwest side of Main Street (Rt. 215 North) from the Masonic Hall to just before the intersection of Main Street with Elm Street. On the southeast side of Main Street a second sidewalk exists in front of the Willey Building. Two crosswalks are identified in the upper portion of Main Street with signs and pavement markings, and a third crosswalk is marked in front of the Cabot Creamery.

Public Transportation

The Green Mountain Transit Agency and Rural Community Transportation, Inc. provide weekday commuter service along Route 2 from St. Johnsbury to Montpelier with regular stops in Danville, Marshfield, Plainfield, and East Montpelier. Busses will stop for passengers in other locations when it is safe to do so. There are currently no scheduled stops on Route 2 in Cabot, the two closest stops being the Danville Park & Ride and the Old Schoolhouse Common in Marshfield.

Commuting

Table VIII – 2 below shows recent five-year estimates for vehicle use, carpooling and use of public transportation by working Cabot residents, as compared to workers throughout Washington County.

A significantly greater percentage of workers in Cabot worked from home as compared to workers throughout Washington County (18% vs. 7.9%). No workers in Cabot used public transportation to travel to work, although a slightly greater percentage carpooled in Cabot than county-wide (10.2% vs. 9.7%). The majority of Cabot workers (65%) drove alone to work. That figure county-wide was 74.8%.

The Census Bureau’s 5-year estimates indicate that a sizable percentage of Cabot workers – about 25% - walk to work or work at home. County-wide, only about 15% of workers walked or used non-motorized means to get to work, or worked from home; statewide, this figure was only 14%.

Table VIII – 2

COMMUTING TO WORK

	Cabot		Washington County	
	Number	Percent	Number	Percent
Workers 16 years and over	665	100%	32,091	100%
Car, truck, or van -- drove alone	432	65.0%	23,989	74.8%
Car, truck, or van -- carpooled	68	10.2%	3,119	9.7%
Public transportation (excluding taxicab)	0	0.0%	247	0.8%
Walked	45	6.8%	1,999	6.2%
Other means	0	0.0%	197	0.6%
Worked at home	120	18.0%	2,540	7.9%
Mean travel time to work (minutes)	26.0	---	21.2	---

Source: 2005-2009 American Community Survey 5-Year Estimates

Recreational trail system

The Cabot Recreation Committee maintains a winter trail system for use by non-motorized travel (e.g., snowshoers, cross country skiers) by agreement with private property owners. The trail system provides access to scenic resources and open space as well as a connection to the center of Town. Portions of the winter trail are also available for use other times of year. The “Old Center Loop” is a four-season trail which starts and ends behind the Willey building, and extends up to Old Center Road. A portion of this loop which extends along Glinka Road is also a VAST (Vermont Association of Snow Travelers) trail and permits snow machines. This loop connects to a trail system extending to Dubray Road. There is also a winter trail system located in the western section of Town extending from Beaver Brook Farm to Woodbury Road. (See Recreation section of Plan for more information.) In addition to its recreational value, the trail system, particularly the section that provides connection to the center of Town, has the potential to increase local economic activity.

Signage

Other than the crosswalk signs, there are few other traffic signs in the downtown area. The Federal Highway Administration’s (FHWA) Manual on Uniform Traffic Control Devices (MUTCD) establishes uniformity and standards for traffic signs on public roads. Recently adopted language requires all agencies, large and small, to adopt a sign maintenance program to help meet new minimum retroreflectivity requirements for traffic signs. By January 2012, all agencies should have a sign maintenance program established that can regularly address the new minimum requirements.

Existing Policy, Programs, Resources and Funding

Local Regulations.

The Town has adopted road and bridge standards pertaining to the construction of all new roads in Town, even if the road is not proposed to be conveyed to the Town. These standards specify the surface and drainage requirements and erosion control measures required during road construction. The standards do not currently specify road width or other design standards.

Existing local regulations pertaining to use of town highways include the requirement for loggers to pay a \$500 refundable deposit for a log landing within the public right-of-way, to cover any road damage caused by truck and equipment traffic. In addition, permits are required for the construction of new driveways.

State Policies.

VTrans programs that are intended to support the use of bicycling and walking as a viable means of transportation include the “Bicycle and Pedestrian Program” and the “Safe Routes to School Program”. In 2002 VTrans adopted the Pedestrian and Bicycle Facility Planning and Design Manual which provides guidance on the design of infrastructure for pedestrians and cyclists, and in 2008 published the Vermont Pedestrian and Bicycle Policy Plan to promote bicycling and walking as an integral part of the overall transportation network in Vermont. In order to aid in the estimation of costs for infrastructure improvements related to bicycle and pedestrian facilities, VTrans has also published the Report on Shared-Use Path and Sidewalk Unit Costs, last updated in November 2010. This report provides basic unit cost (per foot) information for bicycle and pedestrian facilities and basic bid costs for items commonly included on such projects.

The goals of the “Safe Routes to School Program,” which is a national program coordinated by VTrans, include improving the physical environment to increase the ability to walk and bicycle to and from school; increasing the number of children walking and biking to school and thereby improving childhood health and reducing childhood obesity; reducing fuel consumption and pollution; and enhancing community accessibility and involvement by fostering partnerships among schools, local municipalities, parents, and other community organizations, including non-profits.

One source of funding for infrastructure improvements is through the “Transportation Enhancements Program” administered by VTrans. Funds can be used for improvements such as new sidewalks, bike paths, and even historic preservation and environmental mitigation. The goal is to aid in the creation of a multi-modal and environmentally sustainable transportation system that encourages non-motorized use and enhances historic landscapes and a human scale of development.

Funding Sources.

A source of funding available specifically for trails systems is the Recreation Trails Program (RTP), a federal assistance program of the Federal Highway Administration that provides funding for the development and maintenance of recreation trails, trailside amenities, and trailhead facilities. Both motorized and non-motorized trail projects may qualify for assistance. The program is administered at the state level through the Vermont Agency of Natural Resources, Department of Forests, Parks and Recreation, in cooperation with the VTrans.

Municipal Planning Grants are also available to fund a variety of projects, including capital improvement plans for transportation. The Central Vermont Regional Planning Commission offers assistance to communities like Cabot seeking grant funds for transportation infrastructure improvements.

State Programs.

Vermont's Ancient Road legislation (Act 178), passed in 2006, was initiated by disputes over the legal status of so-called ancient roads because of problems for the real estate industry – primarily establishing clear title to land and disputes over legal access. The law establishes a timeline during which a municipality has the opportunity to act to either establish certain ancient roads as Town Roads, or let them be discontinued and allow ownership to revert to the landowner whose land the road traverses. State statutes concerning Town Highways and the Laying Out, Discontinuing and Reclassifying of Highways, defines under what conditions a Town road would revert to an “unidentified corridor” by July 1, 2010; and how that unidentified corridor, if no further action is taken by the municipality to reclaim the road by July 1, 2015, is discontinued. Once unidentified corridors come into existence, any usage of the corridor is limited to the uses of the decade proceeding January 1, 2006. Therefore, if a road only existed on paper, having been unused for many decades or even centuries, a new path could not be cut and new uses start that did not conform to the way the road was used from 1996 to 2006.

State Aid for Town Highways

State aid to town highways is based on the mileage of Class 1, 2 and 3 Town highways. The state appropriation is apportioned among the different classes of roads, with 6% going to Class 1 roads, 44% going to Class 2 roads, and 50% going to Class 3 roads. The planned use of these funds, as well as local funds (which must be at least \$300 per mile of roadway), must be detailed to the state in an annual Town Plan for the maintenance and construction of all highways under the Town's control for the following year.

C. Planning Considerations

Safety

Traffic speed on class 2 highways and back roads are a safety concern, particularly on narrow roads with no shoulders. In the Village, signage, traffic calming infrastructure, and/or better enforcement of the speed limit would improve pedestrian safety. The extension of sidewalks on the southeast side of Main Street, in front of the Cabot School, would improve safety. Signs should identify a school zone with a posted the speed limit of 25 MPH.

A recent traffic study was conducted in Cabot village addressing traffic volume and speed. Northbound peak traffic occurred between 2:00 and 3:00 p.m.; 33% of vehicles travelled in excess of 30 MPH and highest recorded speeds were 50-55 MPH. Southbound peak traffic occurred between 5:00 and 6:00 p.m.; 40% of vehicles travelled in excess of 30 MPH with highest recorded speeds in excess of 75 MPH. The highest volume of speeding traffic occurred in both directions in the mid-afternoon hours.

Signage

Existing and new signage will need to meet current standards for retroreflectivity. A sign maintenance schedule will need to be in place by 2012 to comply with federal standards, and all specified signs will need to be replaced by 2015.

Access/connectivity

Bike and pedestrian access by children to the recreation fields in both upper and lower Cabot Village is not adequate, and poses a safety concern. In particular, the bridge near the intersection of Route 215 and South Walden Road that must be traversed to reach the recreational fields from the Cabot School is too narrow to provide for safe pedestrian or bicycle access.

Given that almost 50% of fossil fuel use in Vermont is attributed to transportation, non-motorized transportation such as walking and biking should be encouraged in town planning considerations.

Road Standards

The lack of standards that specify road width and other design considerations in the construction of new roads and access driveways in Town has been problematic. At issue are concerns regarding access by emergency vehicles, and minimizing impervious surfaces and clearing of natural vegetation to avoid excessive storm water runoff. Road standards that assure safe access, minimize impacts to the environment, and preserve the historic characteristic of the town need to be developed and adopted by the Town.

Clarification is needed regarding the permitted use of Class 4 Roads (such as use by ATVs) and to specify the maintenance that the Town will provide (such as maintenance of bridges and culverts).

Scenic Roads

The State has a program for designation of scenic roads (19 V.S.A. Section 2502) that the Town may be able to take advantage of. Designation as a scenic road ensures that the scenic qualities of the road are preserved or enhanced.

Parking

Village parking for businesses, residential, and community functions is limited. The school also faces parking pressures. One of the land use goals identified in this Town Plan is to encourage additional residential and commercial development in the village centers. Additional parking facilities, in conjunction with pedestrian linkages and traffic calming measures, should be planned to accommodate such growth.

Since it is difficult for businesses seeking to expand in the Village center to provide on-site parking, and since on-site parking can often be disruptive to the safe flow of pedestrian traffic, the use of a “fee in lieu of parking” program should be investigated, whereby business owners provide a fee per space to a local public parking fund used for the development and maintenance of a public parking area. A public parking lot may also serve as a satellite “park and ride” lot for public transportation, and/or to facilitate carpooling.

Factors to be considered in the location, size and design of a public parking area include:

- Variations in parking need during different times of day
- Connection of parking lot with sidewalks
- Provision of accessible spaces
- Landscaping to protect streetscape and provide buffer to absorb storm water runoff
- Design that is conducive to maintenance, including snow removal
- Separation of bike parking area from car parking area by use of a buffer, for safety reasons.

Public Transportation

Expanded access to public transportation could benefit Cabot residents who commute to work, reducing the number of commuters driving alone. The feasibility of extending public transportation up Route 215 to Cabot Village should be explored.

Town Garage

The Town garage and salt shed is located on a small lot in a densely populated residential area, and is within the federally-designated “Special Flood Hazard Area” (see Map 2 in Appendix B). A new location for the Town garage should be secured. Guidelines for choosing a new location for the Town garage include adequate access for road maintenance equipment, and sand and salt storage areas with adequate separation distance from sensitive environmental features.

Training

The Town should take full advantage of training and assistance provided by State and regional agencies such as the Vermont Local Roads Program on issues such as erosion control, road drainage improvements, tree and brush removal, and best practices for road maintenance, including roads adjacent to environmentally sensitive areas.

Capital Improvement Program

A long-range plan for the improvement and maintenance of the Town's transportation infrastructure, including the re-location of the Town garage, should be included in the development of a Capital Improvement Program and budget to implement the program. (See also "Community Utilities, Facilities and Services" section of Plan.)

C. Goals and Implementation Strategies

Goal	Implementation Strategy	Key implementer(s)	Future Measures of Progress
<p>VIII.1 Establish safe routes between residential and commercial/ civic/recreational uses in the downtown village area, thereby making it more pedestrian and business-friendly.</p>	<p>VIII.1 (a) Create a Village Vitalization Plan that addresses pedestrian access, parking, and traffic calming infrastructure in the village downtown area to provide for increased connectivity between residential and commercial/ civic uses/recreational uses.</p> <p>VIII.1 (b) Develop a capital improvement plan (CIP) and budget with estimated costs, based on the above master plan.</p> <p>VIII.1 (c) Seek grant funds to accomplish infrastructure improvements.</p> <p>VIII.1 (d) Develop standards for new construction to assure pedestrian connectivity, and integrate into zoning regulations.</p>	<p>Planning Commission/ Selectboard/Ad hoc Committee appointed by Selectboard</p> <p>Planning Commission/ Selectboard</p> <p>Planning Commission/ Selectboard</p> <p>Planning Commission</p>	<p>Creation of Master Plan</p> <p>CIP developed</p> <p>Applications made</p> <p>Zoning regulations drafted</p>
<p>VIII.2 Improve non-motorized access from rural areas of Town to the downtown village areas.</p>	<p>VIII.2 (a) Maintain and expand four-season trail system through the creation of a master plan and supported through grant funds.</p> <p>VIII.2 (b) Identify locations for bicycle routes throughout Town and undertake infrastructure improvements to improve safety.</p> <p>VIII.2 (c) Create and implement plans for the improvement of the bridge on Main Street at the intersection of Rt. 215 and Walden Road in order to make it safe for bicycle and pedestrian use.</p>	<p>Planning Commission/ Recreation Committee</p> <p>Planning Commission/ Consulting engineer/ Selectboard</p> <p>Planning Commission/ Consulting engineer/ Selectboard</p>	<p>Master plan for trails created</p> <p>Improvements planned</p> <p>Improvements planned</p>
<p>VIII.3 Maintain Town road system, and provide for adequate maintenance facilities (i.e., Town Garage), and retain scenic qualities.</p>	<p>VIII.3 (a) Investigate and adopt comprehensive standards applicable to the construction of new roads and access driveways..</p>	<p>Town Selectboard/ Planning Commission/ Fire Department</p>	<p>Standards adopted</p>

Goal	Implementation Strategy	Key implementer(s)	Future Measures of Progress
	<p>VIII.3 (b) Develop a capital improvement program that provides for the routine maintenance of the town road system and transportation infrastructure and equipment.</p> <p>VIII.3 (c) Explore designation of scenic roads or byways</p>	<p>Planning Commission/ Selectboard</p> <p>Planning Commission/ VTrans</p>	<p>CIP developed</p> <p>Inventory completed of scenic roads with potential for designation</p>
<p>VIII.4 Improve safety on existing roadways.</p>	<p>VIII.4 (a) Evaluate adequacy of existing road signage throughout Town and improve as necessary to comply with MUTCD.</p> <p>VIII.4 (b) Evaluate and enforce speed limits.</p>	<p>Selectboard/Road Commissioner/Ad hoc committee appointed by Select Board Selectboard</p>	<p>School zone posted; additional signage added as necessary</p> <p>Speeding is reduced</p>
<p>VIII.5 Retain the traffic flow efficiency of Route 2 as a valuable interregional travel route, while maintaining its scenic qualities.</p>	<p>VIII.5 (a) Review land use regulations, including zoning and new subdivision regulations, for opportunities to incorporate best practices for access management as recommended by VTrans.</p>	<p>Planning Commission</p>	<p>Regulations reviewed and revised if needed</p>
<p>VIII.6 Better utilize existing public transportation system and reduce the distance and number of single-occupant vehicle trips.</p>	<p>VIII.6 (a) Explore the feasibility of establishing a park & ride lot in an appropriate location.</p> <p>VIII.6 (b) Follow up with GMTA on possibility of extending service up Route 215.</p>	<p>Planning Commission/ Selectboard</p> <p>Planning Commission/ Selectboard</p>	<p>Park and Ride lot explored</p> <p>Number of commuting workers utilizing public transportation is > 0</p>
<p>VIII.7 Expand parking in the Village to improve downtown accessibility.</p>	<p>VIII.7 (a) Investigate off site public parking locations.</p> <p>VIII.7 (b) Investigate financing options such as fee in lieu of parking programs.</p>	<p>Planning Commission /Selectboard/ local businesses</p> <p>Planning Commission/ Selectboard/local businesses</p>	<p>Off-site options identified.</p> <p>Funding mechanisms defined</p>