CHAPTER VII
TRANSPORTATION

INTRODUCTION

The Town of Bradford is primarily rural in character with many large forested parcels of land still undeveloped. In February of 2004, a Community Survey was distributed to all land owners and postal patrons in the Town of Bradford to obtain local opinions on a range of issues facing the community. Of the 330 surveys completed by residents, 62.4% categorized the Small Town / Rural Atmosphere of Bradford as very important and an additional 26.3% categorized it as important.

In recent decades, the residential population of the Town of Bradford has grown dramatically. Situated to the north of Concord, adjacent to Sutton, Warner and Hillsborough, residents of Bradford mostly commute south toward Concord. Bradford is mainly a bedroom community, but also caters to tourism draw of Lake Massasecum and Lake Sunapee. Therefore, the main commuting corridors, NH Routes 103 and 114 are important to preserve as transportation corridors for these uses.

As Bradford continues to grow and the use and pressure on local and major roads intensifies, it will become increasingly important for the Town to explore options for maintaining a rural atmosphere. The characteristics of a road, the width, shoulder type, curvature, clear zone, etc. all contribute to the overall feel of the road. Roads that are traditionally found in rural New England areas are generally narrow with no shoulders, they have many curves, and they are dirt or gravel. Balancing those traditional characteristics with modern safety is a challenge. Compromises should be made to achieve a road that maintains a rural feel, but is safe for most travelers.

Land use in Bradford is primarily residential and trends indicate that this type of development will continue. New development can contribute to maintaining a rural atmosphere by constructing buildings and roads that are scaled and located most appropriately for the area. Different requirements for construction may help preserve the character of historic or scenic areas.

Overall, Bradford's transportation currently embodies many of the traits desired by those seeking a rural atmosphere. The challenge is to continue to preserve it as the community grows. The information and recommendations contained within this chapter can assist Bradford to accomplish that goal.

OBJECTIVES AND RECOMMENDATIONS

1. **To plan the future of Bradford's transportation system**

   a. Identify future transportation system priorities using the Road Surface Management System program through University of New Hampshire Technology Transfer Center. The UNH Technology Transfer Center provides technology, services, products, and education resources to municipal public works and highway departments. The Road Surface Management System helps users prepare multiyear maintenance plans.

   b. Develop a long range (ten year) road construction/maintenance program.

   c. Encourage the Police Department to track accident locations and types of accidents to help in evaluating the transportation system and intersections.

   d. Develop road standards that are appropriate for new rural developments, based on size of development, using the UNH Road Technical Standards as a guideline.

2. **To manage Bradford's growth**

   a. Include funding of the long range transportation plan in the capital improvements program.

   b. Discourage development on Class VI roadways.

   c. Request traffic counts from Central NH Regional Planning Commission on key roadways.

3. **To plan for future pedestrian, bicycle and transit systems**

   a. Develop a plan for upgrading existing sidewalks and constructing new sidewalks in strategic locations to link the sidewalk system together.

   b. Work with the School District to review existing and proposed school bus routes and plan for most effective system.

   c. Investigate possibilities of connecting Bradford to a public transit system.

4. **To ensure that the town has the infrastructure to maintain a quality transportation system**

   a. Renovate the existing or construct a new Town Highway facility.

   b. Provide support to the Road Agent through proper staffing and a Roads Committee.

COMMUNITY SURVEY RESULTS

In February 2004, a survey was distributed to all postal patrons, households and out of town property owners in Bradford. The Community Survey was designed by the Master Plan Steering Committee to facilitate a better understanding of the desires and feelings of the residents of Bradford. Transportation related questions were only a small piece of a survey covering everything from housing to natural features and provided some useful direction about resident's concerns.

In general the respondents indicated that they feel Bradford's roads are in fair to good condition (89.8%), and only 7.4% feel the roads are in poor condition. Although roads were perceived to be in good condition, 43.9% indicated that there are roads which need improvement. The most noted road that needed improvements was Center Road. Other top candidates for improvement were Breezy Hill Road and Forest Street.

Other road questions focused on diverse subjects such as the concept that developers should bear the cost of new subdivision roads (which was supported by 89.7% of the respondents), and the designation of scenic roads (which was favored by 64.6% of the respondents). The responses to the question about the need for more sidewalks in Town was split between 36.2% in favor, 39.6% opposed and 24.2% with no opinion.

COMMUNITY VISIONING RESULTS

On May 15, 2004, the Bradford Planning Board sponsored a community visioning session. The break-out session devoted to transportation discussed the strengths, weaknesses and hopes for the future of Bradford's transportation system. Strengths included a good snow removal team and good road crew. Weaknesses included lack of park and ride, lack of long range plan, new roads are not required to be paved, need to increase pay for the highway department, and lack of bus service.

The group also discussed many of the same issues discussed in the survey: the need to maintain the existing sidewalks and develop new sidewalks along Old Warner Road. Also, the need for a new highway facility building was discussed, as well as the need to pave new roadways.

BACKGROUND INFORMATION

Functional Highway Classifications

A method by which public roadways are classified, relevant to long-range planning of roadway improvements, is on the basis of primary function, type of service, or the roadway's relation to the community transportation system as a whole. These divisions are used to determine roadway design standards and to locate funds that may be used for needed roadway improvements. In order to be eligible for some types of improvement funds, highways must be a certain level of functional class. The five basic functional classifications are described below.

Principal Arterial

Principal arterial roadways form the basic framework of the State roadway system. They primarily function as the main routes for interstate commerce and traffic. In addition, they also link major geographic and urban areas to economic districts of the State. Ideally, access to these roads by abutting parcels is not permitted or is highly restricted.

Minor Arterial

These roadways serve as long distance traffic movements, and are secondary to primary arterials in that minor arterials tend to serve as links between major population areas or between distinct geographic and economic regions.

Major Collector

These roadways differ from arterials due to size and general service area. Collectors serve traffic in a specific area, whereas as arterials generally serve traffic moving through an area. Thus, average trip lengths on collectors are shorter than trips on arterial. Furthermore, collectors gather traffic from local roads and streets and distribute them to arterials.

Minor Collector

These roads provide access to smaller communities within a geographic area or economic region. They may link locally important trip generators, such as shopping centers to surrounding rural areas. They also serve as links between two or more major collectors.

Local Roads

These roads and streets are used primarily to provide access to adjacent properties. These roads have numerous turning movements in and out of abutting driveways and curb cuts.

State Aid Highway Classifications

Another system used to classify roadways in New Hampshire is the State Aid Highway Classification System. This system was created under the requirement set forth by RSA 229-231 to determine the responsibility for the reconstruction and maintenance of roadways located in the State. This system is also used to determine the eligibility of roads for State funding. Classifications are comprised of six categories (Class I through Class VI highways).

Class I, Trunk Line Highways
This classification consists of all existing and proposed highways on the primary state system, except all portions of such highways within the compact sections of communities, providing said sections are Class I highways. Examples nearby include Interstate 89. There are no Class I roads in Bradford.

Class II, State Aid Highways
This classification consists of all existing and proposed highways on the secondary state systems, except those in compact sections of cities and towns. All sections of these roadways must be improved to the satisfaction of the NHDOT Commissioner and are maintained and reconstructed by the State. The Town must maintain all unimproved sections of these roadways, where no state or federal monies have been expended, until they are improved to NHDOT satisfaction. All bridges maintained with state or federal funds shall be maintained by the State, while all other bridges shall be the responsibility of the municipality. Route 114 and Route 103 are Class II roads.

Class III, Recreational Roads
This designation is assigned to all roads leading to, and within, state reservations designated by the NH Legislature. The NHDOT assumes all responsibility for construction and maintenance. There are no Class III roads in Bradford.

Class IV, Urban Highways
This designation is assigned to all highways within the compact areas of municipalities listed in RSA 229:5, V. The compact section of any city or town shall be the territory within such city or town where the frontage on any highway, in the opinion of the DOT Commissioner, is mainly occupied by dwellings or buildings where business is conducted, throughout the year. No highway reclassification from Class I or II to Class IV shall take effect until all rehabilitation needed to return the highway surface to reputable condition has be completed by the State. There are no Class IV roads in Bradford.

Class V, Rural Highways
This classification consists of all traveled highways which the town or city has the duty to maintain regularly, paved or unpaved. There are many Class V roads in Bradford (see Table VII-1)

Class V, Seasonal Highways
This classification is called “highways to summer cottages” under RSA 231:80, although whether there are actually cottages located on the road is irrelevant. This highway is only required to be kept open and maintained between April 10 and December 10 (RSA 231:79), and is exempt from being maintained at other times.

Under RSA 231:24 the Town can also designate “winter roads”. The selectmen, upon petition, may, in any case where, in their judgment, the public good requires it, layout a public road exclusively for winter use, such public road to be open only from November 15 until April 1, and they shall assess the damages to the owners of land over which such road may pass in the form of yearly rentals. Hearings shall be had upon 7 days notice to landowners. In all other respects

such laying out shall be subject to the provisions for laying out a class V highway. There are several Class V Seasonal roads in Bradford (see Table VII-1)

Class VI, Unmaintained Highways

Roads under this category consist of all other public ways, including highways subject to gates and bars, and highways not maintained in suitable condition for travel for more than five (5) years. There are many Class VI roads in Bradford (see Table VII-1)

Table VII-1
Summary of Roads in Bradford by Classification

Road / Description	Class
Alder Plains Road	5-6
Bacon Road	5
Between Mountain Road	5
Bible Hill Road	5-6
Blaisdell Lake Road (part seasonal)	5
Breezy Hill Road	5
Carter Hill Road	6
Center Road	5
Cheney Road	5
Church Street	5
Cilley Lane	5
County Road	5-6
Craig Road	5
Cressy Road	5
Davis Road	5
Day Pond Road	5-6
Deer Valley Road	5-6
Dump Road	5
Dunfield Road	5-6
East Shore Road (part seasonal)	5
East Washington Road	5
Fairgrounds Road	5
Forest Street (part seasonal)	5
Fortune Road	5-6
French's Park Road (seasonal)	5
Gillingham Drive	5
Greenhouse Lane	5
High Street	5
Hogg Hill Road	5
Howlett Road	5
Jackson Road	6
Jewett Road (part seasonal)	5
Johnson Hill Road (part seasonal)	5
Jones Road	5

Road / Description	Class
Liberty Hill Road	6
Main Street	5
Marshall Hill Road	5
Massasecum Aveune (part seasonal)	5-6
Massasecum Lake Road	5
Melvin Mills Road	5-6
Oakdale Road	5
Old Fairgrounds Road	5
Old Mountain Road	6
Old Sutton Road	5
Old Warner Road	5
Pierce Road	5-6
Pleasant Valley Road	5
Pleasant View Road	5
Purrington Road	6
Ring Hill Road	5
Route 103	2
Rowe Mountain Road	5-6
Smith Road	6
Steele Road	5
Sunset Hill Road	5
Sunset Lane	5
Water Street	5
West Meadow Road	5
West Road	5
West Shore Lane	5
Woodview Heights Road	5-6

Traffic Counts

The New Hampshire Department of Transportation conducts traffic counts at hundreds of locations around the State on a three-year cycle. In many cases, counts at a specific location may go back ten or more years, providing a sense of how traffic has changed over the years. In addition to the State program, Central New Hampshire Regional Planning Commission (CNHRPC) conducts an annual municipal traffic counting program. This program enables municipalities to request traffic counts at a few specific locations in town. Between the counts collected by the NHDOT and the CNHRPC over the years, there exists a wealth of traffic count data for the Town of Bradford.

Table VII-2 displays counts collected by both the CNHRPC and the NHDOT over the past several years. The counts are displayed in two different formats. Figures that are shown as rounded numbers (e.g. 700) are Annual Average Weekday totals. These counts have been processed to show the average weekday traffic over an entire year and better represent typical vehicle volumes. Figures in the table that are not rounded (e.g. 1,057) are displayed as Average Weekday totals. These counts are directly from weeklong counts and are subject to seasonal and weekly traffic flow variations.

Regular monitoring of sites during peak months is critical in the planning process, as accurate projections are required for logical transportation and land use planning.

As the Town of Bradford is concerned about continued development and the impacts to the local transportation system, the Town should pursue regular requests for traffic counting from the CNHRPC. This will allow Bradford to monitor traffic on paved and unpaved roads and to quantify impacts from development.

Table VII-2
Traffic Counts, 1992-2002

Site Code	Road	Location	Y1992	Y1993	Y1994	Y1995	Y1996	Y1997	Y1998	Y1999	Y2000	Y2001	Y2002
053011	NH 103	West of NH 114			3800				4800			4600	
053050	NH 114	At Sutton TL						1412					1900
053073	NH 103	Newbury TL	3900					827					4000
053074	NH 103	East of NH 114			2600				3400				
053075	NH 114	North of NH 103					1700						
053076	NH 114	South of NH 103	3500				3500				3200		3000
053077	Breezy Hill Rd.	Warner River Bridge	140				150				120		160
053078	East Washington Rd.	Hoyt Brook	430				470				490		150
053079	NH 114	Warner TL		2700		2800	3000				2700		2800
053080	Brown Rd.	Newbury TL	40				50				60		70
053081	Fairgrounds Rd.	West Branch Brook	90				100				120		360
053082	Water St.	At W. Branch Brook									330		420
053083	Main St.	Over Lake Todd Outlet	1100										1200
053084	Jones Rd.	Over Hoyt Brook Rd.	200				280						350
053500	High Street	S of NH 103		0		0				0	0	0	358

Source: 2003 Traffic Volume Report, NHDOT

Tools to evaluate the need for future transportation improvements
One of the most useful and obvious methods of identifying where transportation improvements may be needed is to analyze the location, frequency, and type of accidents that occur at various locations in the community. In the future, the Town should track the location of key areas where accidents occur in Bradford. In reviewing accident data, the town can identify clear trends of the types of accidents occurring and plan to resolve them. Many factors may lead to drivers losing control of vehicles including speeds, road characteristics, animals, and weather conditions. Accident data serves as one tool in identifying potential hazardous intersections; however, it is only a piece of the overall picture. Local knowledge is key to understanding why intersections work the way they do and why some are more dangerous than others.

Another useful tool to identify where transportation improvements may be needed is to conduct speed analysis. The Bradford Police Department should be encouraged to conduct speed surveys of travelers in areas where residents indicate an issue with speeding may exist. The survey consists of an officer measuring the rate of speed of traffic.

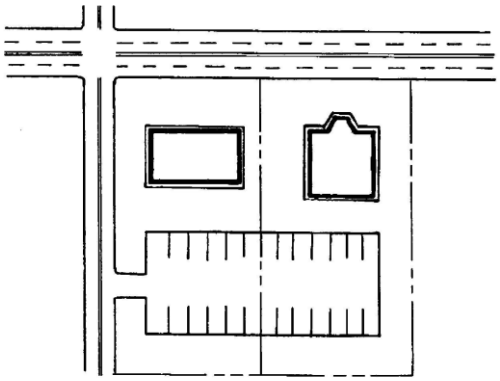
ACCESS MANAGEMENT

The goals of access management are to reduce congestion, increase safety, and implement coordinated land use and transportation plans. Often access management can be improved by focusing on smaller site improvements, like defined entryways and exits, shared driveways, and connections between adjacent subdivisions. These types of facilities are easiest to implement as part of a new development and are sometimes required by a municipality. Improvements to existing facilities can also greatly enhance the capacity and character of a roadway, but a more cooperative approach is required between the Town and the landowner to plan, fund, and complete the improvements.

Other opportunities exist to enhance access management by better coordinating planning efforts like a Master Plan, Zoning Ordinances, Subdivision Regulations, and impact fee ordinances. The Master Plan can set the stage for improvements by clearly identifying goals for the transportation network. Zoning Ordinances can further aid in the process by tailoring frontage requirements, lot sizes, signage and architectural standards, and possibly by identifying overlay districts. The Zoning Ordinance can also depart from the normal strip zoning along roadways and adopt a nodal approach. In the nodal approach, development is focused in denser areas along a roadway, with open space or less traffic-intensive development between nodes. Using Subdivision Regulations, a community can further improve access management by having provisions for shared driveways and connector roads between subdivisions.

Shared Access Points
All new site plans on heavily traveled roadways could have shared access points with abutting parcels. This will reduce the number of driveways (curb cuts) on major roadways, and improve traffic movement and safety conditions.

Figure VII-1
Shared Access Points

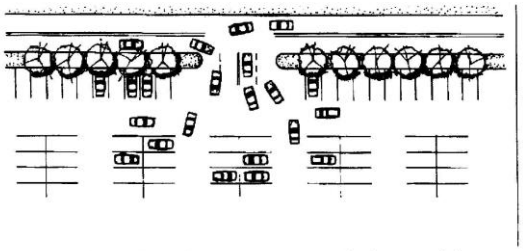


A single access point from a collector road for two adjacent businesses

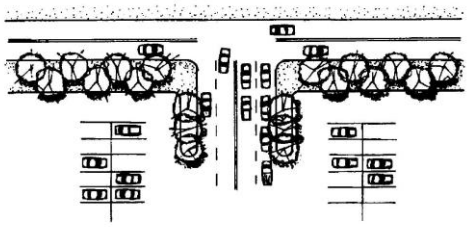
Minimum Driveway Throat Lengths

A minimum driveway throat length could be defined for commercial and large multi-family developments in order to help better define internal traffic movements at those sites.

Figure VII-2
Driveway Throat Lengths



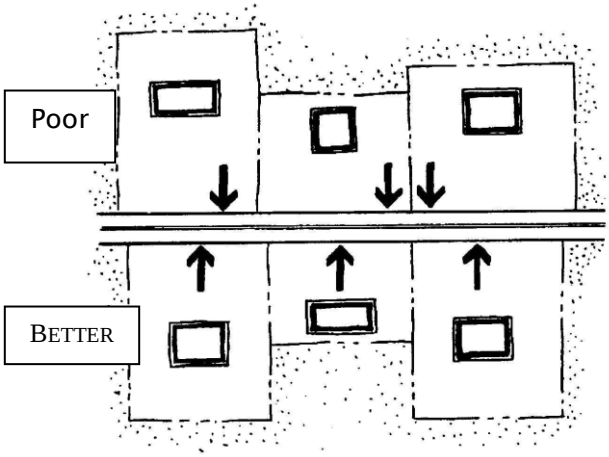
A short throat length can cause confusion and danger at the entrance to a site.



A appropriate throat length allows vehicles to enter and exit a site in an orderly and safe fashion.

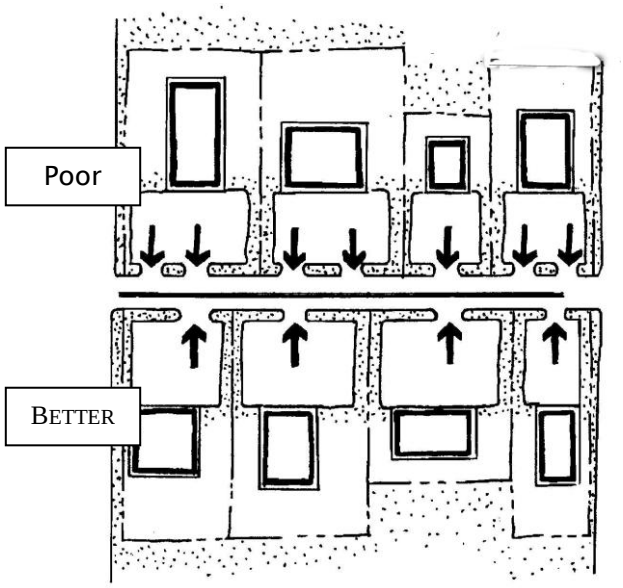
Distance Between Driveways
A minimum distance between driveways on major roadways could be set in order to better streamline turning movements and improve safety.

Figure VII-3
Distance Between Driveways



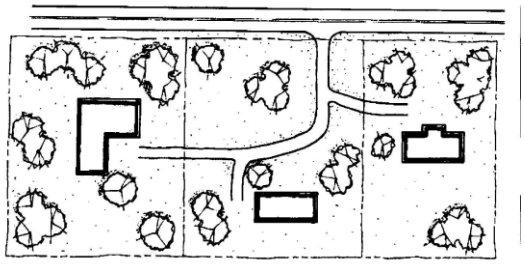
Number of Driveways Per Lot
The Planning Board should limit the number of driveways for parcels fronting major collector or arterial roadways. In addition, driveway entrances should be limited to maximum widths because continuous, undefined driveways often confuse drivers and contribute to accidents.

Figure VII-4
Number of Driveways Per Lot



Shared Driveways
Shared driveways should be constructed for subdivisions on major roadways. This would improve traffic flow and safety conditions of the roadway. The Planning Board, when reviewing developments proposing shared driveways, should require all proper easement and maintenance agreements to be incorporated into the deed of each parcel.

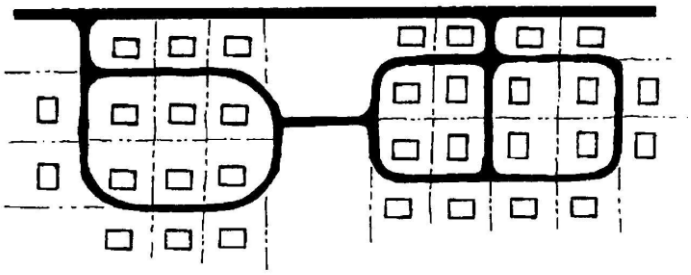
Figure VII-5
Shared Driveways



A single access point for three residences

Connect Adjacent Roadways
Developers could design subdivisions to connect with other public roadways in other subdivisions. Subdivision regulations should require that proposed roadway rights of way should be brought to the property line to facilitate future development of abutting land.

Figure VII-6
Connect Adjacent Roadways



Interconnecting residential developments

ALTERNATIVE TRANSPORTATION SYSTEMS

Pedestrian

Pedestrian Infrastructure

Pedestrian facilities, such as paved sidewalks and gravel walking paths, are critical features for roadways with high volumes of traffic or high speeds where pedestrian activities naturally occur or wish to be encouraged. The primary purpose of a sidewalk is to improve safety for pedestrians by separating them from the travel lanes of roadways. However, in many rural communities like Bradford, on-road walking is desirable and safe on many roads due to the low volumes traffic and relatively low speeds of vehicles.

The Selectmen are currently reviewing the existing sidewalk infrastructure, in particular, the rehabilitation of the Village District sidewalks. The Town of Bradford should consider working to secure funding for the construction of new sidewalks in the area along Old Warner Road and the Post Office. One of the goals of this would be to create a safer route for children attending the school and connections to create a comprehensive sidewalk system.

Pedestrian Safety

Speed limits have been the usual method of improving pedestrian safety and other non-motorized modes of travel. In both rural and urban areas, the minimum speed limit a municipality can impose is 25 miles per hour. Limits can be made lower at intersections (RSA 265:63, (a)) and in school zones (265:60, II (a)). Crosswalks on local streets are a form of traffic regulation and therefore must be approved by the Board of Selectmen. Crosswalks located on State roads must be installed and approved by NHDOT, but are maintained by the Town.

In the future, the Town of Bradford may desire to require sidewalks as part of new development or in conjunction with new municipal facilities or recreational areas.

Bicycle Infrastructure

The NHDOT published a series of regional bicycle maps in order to encourage use of alternative modes of transportation. The Statewide System was established to link commuting nodes throughout the State with one another; for example, connecting Bradford to Concord. Bradford is located on the Dartmouth/Lake Sunapee Region Map. East Washington Road, Center Road, West Road, Old Warner Road are identified as a Regional Route. Route 103 is identified as a Statewide Route.

In April, 2001, CNHRPC published the Regional Bicycle and Pedestrian Plan which identifies bicycle and pedestrian systems in order to encourage these modes of travel and recreation. This plan shows potential bicycle routes for Routes 114 and Route 103.

The overall system really serves two functions. The first is to guide bicyclists to use roadways that might be safer given speed, traffic volume and shoulder width. The second is to provide a source for local officials to reference when improving a roadway so that perhaps extra attention can be paid to the shoulder width and quality.

Private Roads
Private roads are roads that have been constructed but, for various reasons, are not Town-owned roads. Currently, the Town's policy regarding private roads, their construction, maintenance, or the Town's acceptance of them is limited. Emergency services also have concerns about their ability and duty to respond to calls for assistance from residents on private roads. Many communities do perform minimal maintenance and/or snow removal on private and Class VI roads, but the Town must understand and follow the State laws and case examples dealing with these activities.

In the NH case of *Clapp v. Town of Jaffery,* the Court supported the constitutional requirement that public funds be spent only for public purposes. The Court found that plowing of private roads would only be legal if the activity is secondary and incidental to the town and that those benefiting from the plowing reimburse the town so that no public funds are spent.

In 1994 the NH Legislature enacted RSA 231:59-a "Emergency Lanes" as a means for communities to provide snow removal and minimal maintenance to private and class VI roads. The RSA stipulates that for the town to undertake such maintenance, the road must be declared an "emergency lane". A public hearing must be held to declare any private road as such and notice be given to all those with an interest.

Class VI Roads
Municipal highways become known as Class VI roads if they are not maintained by the Town for five or more years, if they are voted as "discontinued subject to gates and bars" at Town Meeting, or, less commonly, if a strip of land which was not previously a roadway, is "laid out" subject to gates and bars under an old law. Regardless of the way a road became Class VI, the roads are not obligated to be maintained by the Town. Class VI roads "discontinued subject to gates and bars" at Town meeting (meaning the public still has the right-of-way) are different from roads that have been voted at Town Meeting as "discontinued" (meaning that the roadway is permanently no longer a public right-of-way).

State Statute addresses Class VI roads and any potential building along them in RSA 674:41. Under this RSA, section I(c), for any lot whose street access (frontage) is on a Class VI road, the issue of whether any building can be erected on that lot is left up to the "local governing body" (Town Selectmen) who may, after "review and comment" by the Planning Board, vote to authorize building along that particular Class VI road, or portion thereof. Without such a vote, all building is prohibited. Even if the Board of Selectmen does vote to authorize building, the law states that the municipality does not become responsible for road maintenance or for any damages resulting from the road's use. The purpose of RSA 674:41, I(c) is to prevent scattered and premature development.

Typically, Class VI roads are public rights-of-way that are used for recreational purposes, for through-travel, for driveway access, and for other uses such as agricultural and forestry activities. The Town is not liable for damages or injuries incurred while traveling on a Class VI road (RSA 231:93). In addition, the owners of the properties abutting the Class VI road are not liable for

damages or injuries sustained to users of the road, although they may choose to maintain the road for access to their property. A Class VI right-of-way is one of the best types of rights-of-way to consider for a recreational trail system: there are no inherent liability concerns, the pathway has been established, and public access is allowed.

Trails

Class A trails are considered full public trails subject to the restrictions imposed upon them at the time of designation; the Town permanently discontinues the road if it was a road to start with. The owners of abutting lands may use it for vehicular access to their property for existing, non-development uses. A Class B trail is identical to a Class A trail but disallows vehicular access by abutting landowners and would be more appropriate for a constructed trail. (RSA 231-A:1)

After acquiring permission from a landowner(s) and/or easement holder for use of a trail on their land, as well as agreeing on the specified restrictions, voters at Town Meeting can vote to designate any trail as a Class A or Class B trail. A trail can be so designated until the decision is rescinded or for a length of time as specified by the landowner(s).

In the case of designating a Class B trail on a Class VI road, the abutters need to be consulted and in some cases remunerated for any damages if the designation removes any of their prior access rights. In some cases, damages can also be sought by abutters for designation of a Class A trail. Generally, Class A trails are most appropriate for Class VI roads and former railroad rights-of-way (basically, pre-existing pathways) while Class B trails are most appropriate for constructed trails. (RSA 231-A:5)

The landowner(s), easement holder, the abutters, and Town agree upon what the trail will not be used for and these restrictions will be placed on the warrant article. Common restrictions include the prohibition of motorized vehicles on certain trails, or that a trail be used seasonally instead of year-round. The trail is then posted with the restrictions at the beginning and end of the trail, as well as at any trail junctions where the restrictions change. (RSA 231-A:1, 4, 5)

As long as the restrictions to a trail are clearly posted, any violation to the trails can be treated in the same manner as a traffic violation by local law enforcement. As most Police Departments cannot extend their resources to monitor all of the designated trails, often times the trail users, stewards, or abutters will report problems to the local law enforcement, who then would investigate the complaint. Although the rules of the designated trail are enforced by the Town, the trails themselves may or may not be maintained by the Town (RSA 231-A:4, RSA 265).

The Statutes provide many protective laws about liability, particularly where recreation is involved. Where users of designated trails are not charged a fee for the use of the trails, which will be the situation in the majority of cases, the liability of both the municipality and the landowner shall be limited, where the municipality/landowner will not be held responsible for personal injuries or property damages except where such damage is intentional. In addition, volunteers who maintain the trail, with prior recognition from the municipality as a volunteer of said trail, incur the same limited liability. The laws are the same for those trails that are not officially designated as Class A or B by the municipality. (RSA 212:34, 231-A:8, and 508:14)

Once a trail has been designated a Class A or B trail, it can be rescinded back to its original status in the same manner, by a vote at Town Meeting, as other road classifications can be changed. Where designated trails fall onto private property, the landowner(s) can at any time request that the designation be rescinded. The details are available in RSA 231-A:3.

Class VI roads and Class A & B trails are an important component of a Town's transportation infrastructure because they personify the community's rural character and provide vast recreational opportunities. Currently, ATVs are allowed on Class VI roads only by Selectmen's authority. There are not allowed on a Class V or better except to cross.

Snowmobile trails are maintained by the local associations, such as the Henniker Trail Travelers, Kearsarge Snail Trails, and the Lake Sunapee Association.

Parking

In most rural communities, public parking is typically very sparse throughout the community if it is available at all. In Bradford, the main location for events is the elementary school. During large events, demand for parking exceeds what is available at the school and vehicles overflow into the road. As necessary, the Town Hall uses the Church and Library parking lots across the street. In the future, expansions of the municipal area additional parking may be explored, however, on typical days the parking available meets the need. One problem that has been noted on Main Street is that individuals are parking on sidewalks or pedestrian ways. The Town will need to deal with this on individual properties as they are developed or redeveloped, or entertain a municipal ordinance prohibiting parking on pedestrian ways.

Parking is typically an element defined by the Zoning Ordinance and reviewed by the Planning Board during site plan review of commercial and multifamily site proposals. Bradford's parking is defined in Article III E. in the Zoning Ordinance. This section allows the Planning Board some flexibility to modify the requirements to meet the particular needs of each application.

Bridge Network
Bridges are a vital component of the highway system, as they connect road segments across streams, lakes, rivers, and other roads. Bridges are the most expensive sections of roads and the lack of adequate bridges creates transportation bottlenecks. Currently, there are a total of nine bridges that are red-listed in the Town of Bradford.

State owned and municipally owned bridges around the state are reviewed periodically by personnel from the New Hampshire Department of Transportation. During these reviews, the bridges are evaluated based on federal standards and guidelines. Any bridge that is shown to have structural deficiencies or other specific identifiers is placed on the "Red List". Every bridge on the Red List is inspected once (locally-owned) or twice (State-owned) annually to monitor any changes that may make the bridge unsafe.

Table VII-3 below provides more detailed information on the nine red-listed bridges in town. bridges in Town.

Table VII-3
Red-Listed Municipally Owned Bridges

Location	Crossing	Notes
West Road	Hoyt Brook	Built in 1950
Johnson Hill Road	West Branch Brook	Built in 1950
Bradford Center Road	West Branch Brook	Built in 1854, 1964
Jones Road	Hoyt Brook	Built in 1940
Breezy Hill Road	Warner River	Built in 1940
Blaisdell Lake Road	Stream	Built in 1950
Blaisdell Lake Road	Stream	Built in 1950
Breezy Hill Road	Melvin Brook	Built in 1950
Town Road	Warner River	Built in 1950

Source: NHDOT May 2004 Municipal Red List Bridge Summary

In addition to municipally owned bridges, there are many private bridges in Bradford over which the Town has no control.

Gravel and Scenic Roads
A major component of a Town's rural character can be its gravel and scenic roads. These roads help to retain a sense of history and rural quality that residents have indicated a strong desire to maintain within Bradford. Results from the Community Survey conducted at the beginning of the Master Plan process showed that 62.4% of respondents felt that Bradford's rural character was very important.

An option the Town may investigate to encourage the construction of roads that are appropriate for the anticipated use would be adopting flexible road design standards. Flexible road standards would allow the Town to allow the construction of different widths and types of roads based on the expected use of the road. For example, a low volume single family subdivision may only be required to build a shared single lane sixteen-foot gravel road while a residential subdivision over five lots may be required to build a twenty-two foot wide two lane paved road. Commercial or industrial uses may be subject to similar design standards based on the anticipated use and

vehicle types. In May of 2004, UNH Technology Transfer Center published Recommended Technical Standards for New Roads which set out some minimum technical standards. The Planning Board, in consultation with the Road Agent and Roads Committee should review this document to develop new road standards appropriate for varying levels of development.

Similar to constructing roads based on the anticipated level of use, Bradford could have different road construction requirements based on zoning or scenic designation. For example a road being constructed in a historic district may be required to have smaller lane widths and gravel shoulders. Guidelines could be established for scenic designated roads to limit the width of pavement when they are repaved or reconstructed. These options would serve as additional measures to help ensure that Bradford retains the rural atmosphere that most of its residents enjoy.

In New Hampshire, communities have the ability to protect the character of specific scenic roads by enacting the provisions of RSA 231:157 at annual Town Meeting. Any Class IV, V, or VI highway can be designated a Scenic Road using the procedure in RSA 231:157. Ten people who are either Town voters or who own land abutting the road (even though not voters) may petition. The voters of the Town may vote at any annual or special Town Meeting to designate the road as a Scenic Road. A municipality may rescind its designation of a scenic road using the same procedure.

The effect that Scenic Road designation has is to legally require a hearing, review and written permission by the Planning Board before the Town or a public utility can remove (or agree to the removal of) stone walls, or can cut and remove trees with a circumference of 15 inches, at 4 feet from the ground (basal height). However, the Planning Board requirement has many exceptions. For example, the Planning Board may be bypassed - and only Selectmen permission is needed - if the Highway Agent wishes to cut trees that have been declared a "nuisance" under RSA 231:145-146, or which, in the Road Agent's opinion, "pose an imminent threat." Moreover a public utility can cut the trees for the "prompt restoration of service" without the permission of any town representatives (RSA 231:158, II). The Town could also require that the road agent take additional steps to notify abutters and interested organizations before cutting trees on any local road.

The Scenic Road law does not prohibit landowners from cutting trees or removing stone walls (RSA 231:158, IV). The only sure way to prevent owners or abutters from cutting trees is for the Town to acquire title to the highway strip, or by taking tree rights under the "Tree Warden" law (RSA 231:154). The law on stone walls as boundary markers (RSA 472:6) applies the same to landowners, whether or not the road is designated a Scenic Road.

In recognition of the fact that State law itself is not very stringent, the New Hampshire Legislature added RSA 231:158, V, in 1991 which gives a municipality broad power to impose scenic road regulations that are different from, or in addition to, those contained in the State law. These additional regulations could include giving protection to smaller trees or by inserting criteria for the Planning Board to use in deciding whether to grant permission. Though some critics of the law believe it to be too weak, RSA 231:157 remains one of the few techniques available for the preservation of culturally important and scenic roads.

RECENT STATE AND LOCAL ROAD IMPROVEMENTS

State Improvements

The NH Department of Transportation and the State as a whole has adopted a long-range planning approach to the development and funding of transportation projects throughout the State. This process and resulting document is the statewide Transportation Improvement Program (TIP). A TIP is a comprehensive program that involves municipalities, regional planning commissions, the New Hampshire Department of Transportation, the Governor's Advisory Council on Intermodal Transportation (GACIT), the Governor and Legislature of New Hampshire, and the federal government.

The Ten Year Plan process typically starts at the regional planning commission level, although it is beneficial if the process is first initiated at the municipal level. All regional planning commissions within New Hampshire prepare a TIP every two years based on input from local municipalities, NHDOT, and each planning commission's Transportation Advisory Committee (TAC). The NHDOT then takes the regional TIPs and incorporates the projects with the highest level of support into the 10-Year Statewide Transportation Improvement Program (10-Year Plan), adding their own input and specific projects. From NHDOT, the GACIT, the Governor, and the Legislature review the 10-Year Plan. After final approval, the 10-Year STIP then becomes the transportation project guide for the upcoming years.

The New Hampshire Department of Environmental Services (NHDES) reviews the 10-Year Plan and provides comments to NHDOT. The Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Environmental Protection Agency (EPA) review the first three years of the 10-Year Plan. Upon review of the document, these agencies verify that the projects meet all of the federal regulations and approve them for implementation.

At this time, the only project in Bradford under the current 2005-2014 Ten Year Plan is the replacement of the Jones Road Bridge over Hoyt Brook, scheduled for construction in 2008.

Local Improvements

The Town of Bradford has a full time Road Agent appointed by the Board of Selectmen, who oversees local road improvements. Currently the Town votes each Town Meeting to construct road improvements with the input from the Roads Committee and Road Agent. In 2004, the Town voted for the following improvements:

- Ninety Eight Thousand Dollars ($98,000) for engineering and construction of the Jones Road Bridge ($73,000) and $25,000 for the design and engineering on a second bridge to be determined with the help of the Department of Transportation

- Forty Thousand Dollars ($40,000) for the continuation of the reconstruction of East Washington Road.

Local 10 Year Plan
One method of maintaining and improving existing roadway conditions is to develop a long range construction, maintenance/repair schedule for all roads in town plan funded through a capital improvements program. A basic form of the process is outlined below.

1. The Road Agent, with assistance from a Roads Committee, should review the conditions of all roadways The Road Surface Management System, established by UNH can assist in this endeavor.

2. The Roads Committee and Road Agent should then establish a priority list of roads that need major work or reconstruction and roads that need regular maintenance work. Based on priority and cost, the projects should be scheduled out over a 10 year period. The goal is to have a constant level of road projects scheduled out over the period so that there will be fewer spikes in the local tax rate.

3. The Ten Year Plan should be reviewed annually in the fall to ensure that the priorities are still appropriate.

4. Larger projects can then be planned for and funded through a capital reserve fund as laid out by a Capital Improvements Program.

Future Transportation System – Long Range Plan
The Town should develop a long range plan to examine all of the roadways for future improvements and designate which roads should be developed as arterial roads and which roads would not add to the transportation circulation system and should not be encouraged for development. This would allow the Town to plan for and encourage development along the proposed arterials and ensure that the transportation circulation within Town and connection to other Towns is preserved. Development on other roads would then be discouraged and remain undeveloped or with minimal development.

SUMMARY

In the coming years Bradford will have to balance the need for road upgrades and the desire to maintain Bradford's rural character. This chapter provides background on Bradford's current transportation network and guidance on how to further develop that network as development continues. By pursuing the objectives and recommendations of this chapter, the Planning Board can make Bradford's transportation system more efficient and effective while insuring that the rural atmosphere is preserved.

- Respectfully Submitted, Edythe Craig, Transportation Subcommittee Chair

MAPS

One map accompanies this chapter, the Transportation Map.