

Chapter VI Transportation

Introduction

A safe and efficient transportation network is an essential component for the development of a prosperous community. Over the past several years, development trends in Henniker have been largely influenced by the location of New England College and US202/NH9. It is likely that these will continue to play a major role in the future development of Henniker and the central New Hampshire region.

This Transportation Chapter reaffirms a commitment to the preservation of the rural and open space character of Henniker and seeks to provide an integrated system of transportation for the 21st Century that will minimize traffic congestion, reduce vehicle-generated air pollution, and promote an attractive entry corridor and a vibrant, viable downtown business core. This Chapter promotes the concept of a safe, pedestrian-friendly Town and considerations for commuters, college students, as well as those with special needs.

Rural character and sense of place are important components to a high quality of life in Henniker. Henniker's rural atmosphere is defined by its recreational trails, rustic gravel roads, historic stone walls, and distinct downtown Village. Henniker residents enjoy and treasure the ability to walk throughout the Village and cross-country ski on the quiet back roads. These features are equally important in the fabric of the identity of the community and need to be protected and preserved. However, as development continues, many are concerned that Henniker's traditional rural atmosphere and unique sense of place will slowly erode as the Town becomes a "cut-through" to other communities. This Chapter hopes to identify these important transportation infrastructure resources and propose strategies to preserve and enhance them.

This Chapter favors alternative transportation modes and routes where appropriate, and supports the continued development of an intermodal transportation strategy for the integration of pedestrians, bicycles, buses, car-pools, and park-and-ride facilities. These will help reduce the number of single occupancy vehicles, while remaining sensitive to the needs of vehicular access to the downtown business district and college campus.

This Chapter favors adding traffic calming devices on some Town roads, both in the downtown area and outside the downtown, as necessary. This may include such methods as installing "roundabouts", reducing speed limits, or installing speed tables, while at the same time, keeping road aesthetics by honoring scenic environments and historic areas. To retain the residential character of existing neighborhoods, traffic calming measures plus signage for "residential traffic" may be an appropriate solution to the safety concerns voiced by residents.

Planning for future transportation needs should be carried out in a manner that not only accommodates anticipated future growth of the Town, College, and local businesses, but will also help insure that development will occur in a responsible manner. Through comprehensive planning and construction of identified roadway improvements, the Town will develop a

transportation network that will foster economic development and meet the needs of the community for the foreseeable future. Sound and thoughtful transportation planning is an essential part of guiding development in order to preserve valued features of the community and achieve and enhance community goals.

The purpose of this Chapter is to provide an inventory and assessment of Henniker's transportation network, detail sources of funding for projects, identify new alternative modes of transportation for the Town's population, and provide policy recommendations to improve the existing transportation network and achieve the overall community transportation goals.

Goals and Objectives

Goals and objectives in any plan are intended to provide a policy framework and direction to the plan. Goals are general statements of ideal conditions. Objectives describe desirable projects and programs that will help to achieve the goals. Strategies are steps that need to be taken in order to reach an objective.

Goal - To promote the improvement of public roads in Town; encourage a system of transportation that will meet the mobility needs of all local residents by providing for the efficient movement of people, goods, and services within Henniker and throughout the region; maintain a commitment to the rural and historic character of the community; and provide a well-maintained and safe transportation system that meets the functional and aesthetic needs of the community, in a cost-effective manner.

Objective - Provide a highway and street system that will allow the safe and efficient movement of people and goods throughout Henniker.

Strategies:

1. Establish a standard of 25 mph or less speed limit for densely developed residential neighborhoods in Town with a history of traffic accidents.
2. Minimize adverse traffic impacts of "through traffic" on residential streets wherever viable alternatives can be provided.
3. Identify and prioritize intersections that need improvement.
4. Use traffic-calming measures to reduce speed and to direct traffic around neighborhoods.

Objective - Improve the commuter habits and traffic patterns within the Henniker community.

Strategy:

1. Investigate sites for potential park-and-ride facilities to help reduce congestion on major roads through Town. Ensure that the character of the areas considered for such facilities can be protected through proper design.

2. Identify roads in Town that are used as "cut-through" routes through residential neighborhoods and discourage this practice by lowering the speed limit, increasing enforcement of traffic regulations, and/or installing traffic-calming measures in areas of concern.
3. A local bicycle network should be developed that would connect significant areas of Town and important places (i.e. schools, Town Hall, fire station) to the regional and state bicycle networks.

Objective - It is important to sustain and promote a safe walking core and bicycle system for Henniker and provide high quality walking places beyond the core of the Town. These would be part of a larger interactive network of safe and aesthetic walking paths and bike lanes as part of Henniker's transportation infrastructure.

Strategy:

1. Promote a pedestrian route system and "Share the Road" campaign to maximize healthful recreational and transportation opportunities in and around Henniker.
2. Henniker should support the creation of the state and regional bicycle networks that pass through Town.

Objective - Protect the rural character of Henniker's roads that are gravel and have scenic attributes.

Strategies:

1. Develop road and entrance standards for Henniker's more rural and scenic roads. These standards should be consistent with the character of these roadways, balancing scenic characteristics, safety, and sight lines.
2. New roads in rural areas should be consistent in design with the rural collector roads off which they are being built.
3. Consider roads in Henniker that may qualify as locally Scenic Roads, as defined by New Hampshire state statute, and peruse Scenic Road designation.

Objective - The Town should develop and fund a long-term road repair and replacement program.

Strategies:

1. Explore revenue generating options for transportation projects that can be used for local transportation projects or for local match funding for State and Federal projects.
2. Establish a road resurfacing and improvement schedule that is recommended to and endorsed by the Planning Board and the Board of Selectmen.

Objective - The Town should address safety, maintenance, and development concerns on Class V and Class VI roads, on a priority basis.

Strategies:

1. Shared drives should be encouraged, under the Subdivision Regulations, for new subdivisions along Class V roads in Henniker, to not only improve safety, but to keep the rural character of the area.
2. Class VI roads are important recreational assets, provide excellent walking opportunities, and should not be upgraded to Class V roads.
3. The Town should investigate the designation of Class VI roads, that meet certain criteria, to Class A trails.

Objective - The Town should evaluate the transportation impact of any proposed development that requires subdivision or site plan review and to recommend action in a timely manner.

Strategy:

1. As part of the Site Plan Regulations, require developers working in Town to provide parking for bicycles (e.g., bike racks), just as there are parking requirements for automobiles.
2. As part of the Site Plan Regulations, require developers working in Town to provide bicycle paths and bicycle lanes along the property to connect with existing or proposed lanes and/or trails, where appropriate.
3. As part of the Site Plan Regulations, require developers working in Town to provide for shared driveways and parking areas with neighboring buildings.
4. Require new developments to create and/or extend the existing sidewalk network, in appropriate areas, to create an incremental expansion of the Town's sidewalk network.
5. Implement a policy to permit cross-access easements for commercial lots abutting one another so a driver does not need to exit onto the road in order to get to the neighboring property.

Community Survey

A Master Plan Community Survey was distributed to all residential households and non-residential land owners in October 2000. Approximately 1,500 surveys were mailed out with 495 surveys being returned, resulting in a 33% response rate. The following three survey questions relate to the Transportation Chapter of the Master Plan.

How would you rate the current adequacy of the following services?

Municipal Services	Good	Fair	Poor	N/A
Road Maintenance	241	175	50	5
Snow Removal	329	100	19	20
Speed Limits	307	114	38	5
Sidewalks	168	194	74	25
Traffic Control (lights, signs, etc.)	206	164	72	14

While there is overall satisfaction with the municipal services being provided with regards to roads, there is a feeling among respondents that sidewalks and traffic controls have room for improvement.

How important is each of the following to your choice to live in Henniker?

	Very Important	Somewhat Important	Not Important
Commuting Distance to Work or Other Opportunities	239	138	72
Rural Quality	384	66	8
Small New England Village	378	63	19
Suburban Area	132	155	132
Town Services	193	193	51

An overwhelming majority of respondents indicated their reason for living in Henniker is the Town's rural quality and the feel of a small New England Village. The transportation system within a town largely shapes the rural quality and feel that residents value, as is the case in Henniker.

*Employment Data - Persons 16 years old or older
(please indicate the number of employed persons)*

Henniker	176	Salem	5	New London	3
Concord	132	Boston	5	Self-employed	2
Manchester	48	Keene	5	Sutton	2
Hillsborough	32	MA	5	Andover, MA	2
Contoocook	13	Various	4	Claremont	2
Nashua	11	Londonderry	4	E. Boston	2
Weare	11	Warner	3	Franklin	2
Bedford	9	Antrim	3	Hudson	2
Bow	9	Hanover	3	Lebanon	2
Hopkinton	8	Merrimack	3	NH	2
Hooksett	7	New Boston	3	Pembroke	2
Boscawen	5	Newport	3		

Of the survey respondents, 33% work within Henniker full-time. Concord is where 25% of the respondents work, which is not surprising given the large number of jobs located in Concord. Manchester (9%), Hillsborough (6%), and Hopkinton/Contoocook (4%) are the other major destinations of Henniker workers. Based on the above results, priority should be given to improving the transportation system to facilitate within Town traffic and getting workers to and from Concord efficiently and effectively.

State and Federal Classifications for Highways

Functional Highway Classifications

One 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. The five basic functional classifications are described below.

- 1) *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. Henniker does not have any Principal Arterial highways.
- 2) *Minor Arterial*: These roadways serve as long distance traffic movements and are secondary to primary arterial roadways in that minor arterial primarily serve as links between major population areas, or between distinct geographic and economic regions. NH 114, south of US202/NH9, is considered a minor arterial highway.
- 3) *Major Collectors*: These roadways differ from arterial roadways due to size and general service area. Collectors serve traffic in a specific area, whereas arterials generally serve traffic moving through an area. Thus, average trip lengths on collectors are shorter than trips on arterials. Furthermore, collectors gather traffic from local roads and streets and distribute them to the arterial. NH 114, south of Main Street, is considered a major collector highway.
- 4) *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. Maple Street is considered a Minor Collector.
- 5) *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. Tanglewood Drive and Western Avenue are examples of local roads.

State Aid Highway Classification

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. This classification system is broken into six categories (Class I through Class VI highways). See the **Highway Classification Map** for more detail.

- *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. Route 202/9 through Henniker is considered a Class I highway.
- *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 and are maintained and reconstructed by the State. The Town must maintain all unimproved sections of these roadways, where no state or federal moneys 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 US202/NH9 is a Class II Highway.
- *Class III, Recreational Roads*: This designation is assigned to all roads leading to, and within, state reservations designated by the New Hampshire Legislature. The NHDOT assumes all responsibility for construction and maintenance. Henniker does not have any Class III highways.
- *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 been completed by the State. Henniker does not have any Class IV Highways.
- *Class V, Rural Highways*: This classification consists of all traveled highways that the town or city has the duty to maintain regularly. Craney Pond Road, Hillside Drive, and Patterson Hill Road are examples of Class V roads in Henniker.
- *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 by the Town in suitable condition for travel for more than 5 years. Whitney Road is an example of a Class VI highway.

The following table shows the breakdown of the six different classes of roads, by mileage, in the Town of Henniker.

Henniker Roadway Mileage by Classification

Road Classification	Description	Miles 1998
Class I	Trunk Line Highway	17.1
Class II	State Aid Highway	1.7
Class III	Recreational Roads	0.0
Class IV	Urban Highways	0.0
Class V	Rural Highways	74.1
Class VI	Unmaintained Highways	20.1
Total		113.0

Source: NHDOT 1/1/98 Report

Current Traffic Conditions for Roads with Count Data

Since the 1980s, the New Hampshire Department of Transportation (NHDOT) has conducted annual or semi-annual traffic counts on State roadways in an effort to gauge the use of roadways by hourly, daily, weekly, and monthly increments. Most major roads in the community are monitored on a staggered basis, generally in 3-year increments.

As of 2000, NHDOT and the New Central New Hampshire Regional Planning Commission (CNHRPC) monitored traffic at 42 locations in Henniker. The table below shows the location of traffic counts done on Henniker roads and what the counts were. The **Road Count Location Map** gives a better understanding of where these counts were conducted in the community.

Traffic Counts for Henniker Roads

Route	Location	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Colby Crossing	Over Old RR Bed		20	30							
Commercial Street	South of Main Street							190			
Commercial Street	Over Contoocook River							200			
Craney Hill Road	South of Flanders Road							250			
Depot Hill Road	East of Patterson Hill Road							340			
Frenchs Pond Road	North of West Hopkinton Road							410			
Hillsborough Road	East of Liberty Hill Road							1,700			
Hillsborough Road	Over Contoocook River		830	750				810			
NH 114	Weare Town Line	2,500		2,100		2,600		2,700			
NH 114	South of Commercial Street				3,700				3,800		
NH 114	North of US 202 & NH 9		3,800	4,000				4,000			3,700
NH 114 (Maple Street)	N.of Old US 202 & NH 9 (Main St)	4,600		4,300				5,000	4,800		5,232
Old Concord Road	Hopkinton Town Line				1,200				1,400		
Old Concord Road	Over Amey Brook		2,300	2,000				2,000			2,000
Old Hillsborough Road	Over US 202 & NH 9		350	240				280			320
Old NH 114 (River Road)	Over Chase Brook							60			430
Patterson Hill Road	South of Depot Hill Road							190			

Traffic Counts for Henniker Roads (cont.)

Route	Location	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Patterson Hill Road	Over Contoocook River		100	130							
Ramsdell Road	Over Contoocook River		410	310							580
US 202 & NH 9	West of Colby Road										11,000
US 202 & NH 9	West of Hopkinton Road		8,900	11,000				10,000			10,000
Warner Road	Over Amey Brook		1,000	870	890				1,100		
Water Street	East of John Stark Highway							110			
West Hopkinton Road	East of Frencks Pond Road							420			
Bacon Road	Intersection w/ Davison/ Liberty Hill						652		590		
Craney Hill Road	Off Flanders						204				
Davison Road	West of NH 114						1,051		1,059		
Hall Avenue	North of Prospect Road				530				1,522		
Hall Avenue Extension	West of NH 114				640						
Liberty Hill Road	North of Entrance to Autodesk Co.								339		
NH 114	South of US 202 & NH 9			4,500						5,651	5,600
Old Concord Road	At Stone Falls Road			1,080							
Old Concord Road	At Highland Cemetery			2,370			2,153		1,860		
Old Hillsborough Road	West of Bacon Road				540						

Traffic Counts for Henniker Roads (cont.)

Route	Location	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Old Hillsborough Road	Western Ave to Bacon Hill Intersection						305		609		
Patterson Hill Road	At Bridge			150							
Patterson Hill Road	Western Avenue Side Approach			160							
River Road	East of NH 114										
Rush Road	North of Prospect Road								1,545		
Rush Road	South of Rush Sq Apts									1,701	
Tanglewood Road	At Foster Hill Road									277	
Tanglewood Road	At Warner Road									398	
Western Avenue	At Telephone Company			3,980						1,916	
Western Avenue	At Hall Avenue										

Source: 1991-2000 NHDOT and CNHRPC Traffic Counts

Issues, Goals, Recommendations

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

Goal: Utilize this data to begin to identify corridors that may become impacted in the future by current development trends.

Recommendations:

- ? In locations where traffic has increased significantly, land use trends and access management policies should be closely examined, adopted, and modified to best maintain and promote an efficient transportation network.
- ? Henniker should work with NHDOT and CNHRPC to identify and conduct traffic counts on roads of concern in the community on an annual basis.
- ? The Highway Superintendent should publish the traffic count data annually.

Commuting Patterns

The 1990 Census is a good source of information on commuting patterns in the central New Hampshire region. As can be seen below, in 1990, 55% of Henniker residents were commuting out of Town to work, while 252 people were commuting into Henniker for work.

The 1990 data can be compared to the 1980 commuting patterns, which were reported in the 1990 Census as well. Of those reporting in 1980, 48% commuted out of Henniker to work. From 1980 to 1990, there has been an approximate 7% increase in residents commuting out of Henniker for employment opportunities.

Commuting Patterns in Henniker and Neighboring Communities 1990 and 1980

1990 Data	Henniker	Hopkinton	Concord	Hillsborough	Warner	Weare
# Reporting	1,991	2,397	17,775	2,249	1,192	3,089
# Working in Town of Residence	903	615	12,159	1,019	309	593
#Commuting Out of Town	1,088	1,782	5,616	1,230	883	2,496
1980 Data	Henniker	Hopkinton	Concord	Hillsborough	Warner	Weare
# Reporting	1,221	1,648	13,490	N/A	825	N/A
# Working in Town of Residence	636	660	11,160	N/A	232	N/A
#Commuting Out of Town	585	988	2,330	N/A	593	N/A

Source: 1990 Census

1990 Commuting Patterns for Henniker and Neighboring Communities

Commuting To	Commuting From					
	Henniker	Concord	Hillsborough	Hopkinton	Warner	Weare
Henniker	903	-	151	38	18	45
Bedford	57	-	8	42	-	161
Weare	7	-	18	7	-	593
Hillsborough	103	-	1019	35	9	56
Concord	295	12159	152	1033	360	303
Bradford	31	-	35	0	16	-
Hopkinton	88	164	41	615	71	-
Bow	47	456	-	89	39	-
Hooksett	18	262	-	24	-	-
Pembroke	-	259	-	6	-	-
Manchester	186	1747	136	201	80	803
Nashua	37	353	19	27	27	115
Warner	0	21	-	6	309	-
Deering	43	-	42	8	-	39

Source: 1990 Census

When comparing the 1980 and 1990 Census data to the Master Plan survey data collected in 2000, the number of residents working in Henniker has decreased from 52% in 1980, 45% in 1990, to 33% in 2000. While 33% is still a significant number of people living and working in the community, more and more residents are looking outside of Henniker for work. Concord has probably seen the largest increase in workers from Henniker, 15% in 1990 and 25% in 2000.

Issues, Goals, Recommendations

Issue: Understanding the commuting patterns of the labor force in the community can assist in planning roadway improvements that will make important travel routes more efficient, safe, and promote sound economic growth.

Goal: Identify major commuter roads used to enter and exit the community and work to make them more efficient and safe.

Recommendations:

- Henniker should identify local residential roads, that are not suited for heavy commuter traffic, and work to minimize this "through traffic" wherever viable alternatives can be provided.
- Traffic counts should be reviewed and analyzed to identify roads that have shown an increase in traffic over the years.
- Henniker should continue to have yearly traffic counts done on roads that they feel are of concern.

Goal: Investigate alternative modes of transportation to move people to and from their place of employment that are not single occupancy vehicles.

Recommendations:

- Henniker, in conjunction with NHDOT, New England College, and major employers, should investigate the creation of a Park and Ride facility to help reduce congestion on Town roads.
- Henniker should encourage and promote the State and Regional bicycle and pedestrian networks.
- Henniker, in conjunction with CNHRPC, New England College, and major employers, should assess the public's interest in the expansion of public bus service into Henniker.

Goal: Create an infrastructure that allows people who work in Town to get to and from their place of employment in an economical, environmentally efficient, and timely manner.

Recommendations:

- A local bicycle and pedestrian network should be developed that allows residents to access major points of interest in Town safely and efficiently.
- Henniker should look into developing and supporting educational efforts to improve commuter habits and traffic patterns that occur within the community.
- Henniker should look into the feasibility of a "Town" bus/shuttle service that transports people within Town and the College, hitting the local "hot-spots" of interest for people to get to and from without using single-occupancy vehicles.

Access Management

Access management has become an increasingly important issue for new developments in rural and suburban communities. Access management works to do the following:

- 1) Limit the number of places vehicles are turning and entering the roadway
- 2) Reduce deceleration in travel lanes, thus promoting efficiency
- 3) Remove turning vehicles from travel lanes

By accomplishing these three major goals, access management prevents roadways from becoming snarled with congestion, thus helping to ensure roadways will meet transportation needs for years to come.

Issues, Goals, Recommendations

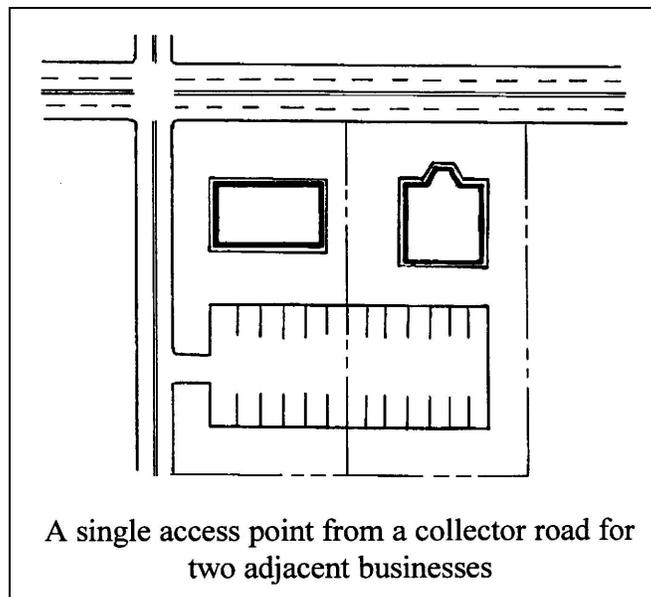
Issue: Areas along Route 114, north and south of the Downtown Village area, are considered to be prime commercial and/or industrial land in Henniker. Currently, the land within those important road corridors are zoned for commercial development. As the greater Concord area continues to be developed, pressure on these routes will continue to increase. Therefore, a balance needs to be established to help meet both the economic and transportation needs of the community regarding these important corridors.

Goal: The Henniker Site Plan Regulations contain very few requirements pertaining to access management of commercial sites. Access management techniques need to be employed in order to alleviate traffic congestion and inefficient systems currently in place. Amending the Site Plan and Subdivision Regulations will allow a more efficient, safe, and cohesive transportation system to be developed.

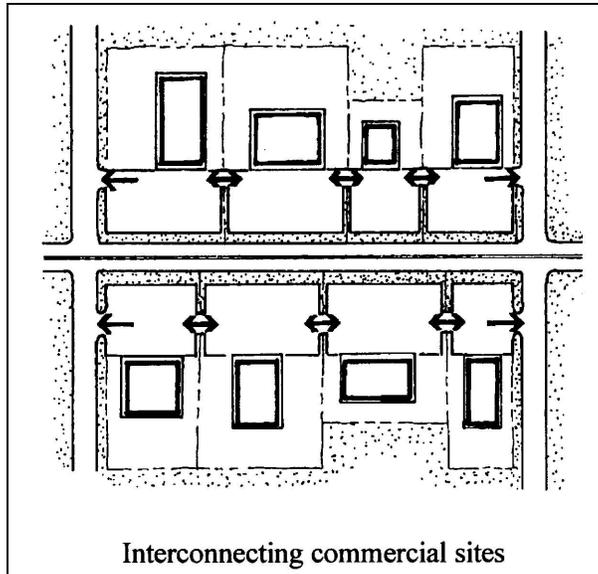
Recommendations:

- The Planning Board should review and consider the adoption of the following requirements into their Site Plan and Subdivision regulations.

SHARED ACCESS POINTS: All new site plans on heavily traveled roadways should 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.



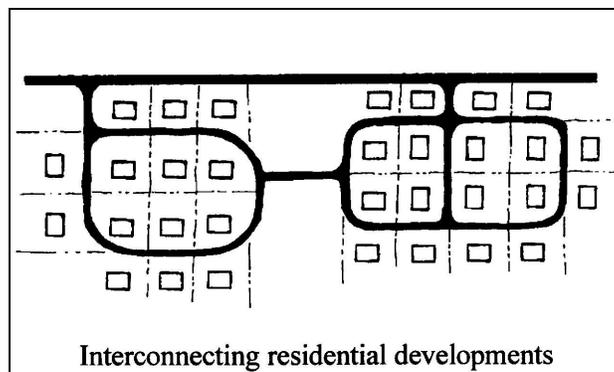
INTERCONNECT SITES: Developers should provide rights-of-way to connect commercial and multifamily sites, thus creating parallel access roads along major roadways, which will help to reduce congestion, and slow the need to expand highway capacity.



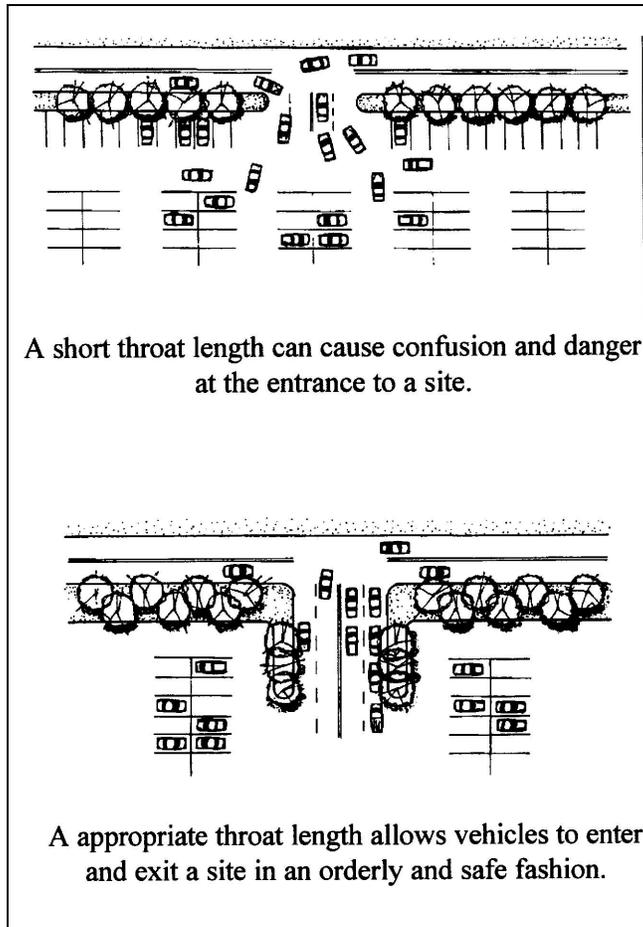
DISTANCE BETWEEN DRIVEWAYS: A minimum distance between commercial and multifamily driveways on major roadways should be set in order to better stream-line turning movements and improve safety.

NUMBER OF DRIVEWAYS PER LOT: The Planning Board should limit the number of driveways for parcels fronting major collector or arterial roadways. Furthermore, continuous, undefined driveways should be prohibited, as such driveways often confuse drivers and contribute to accidents.

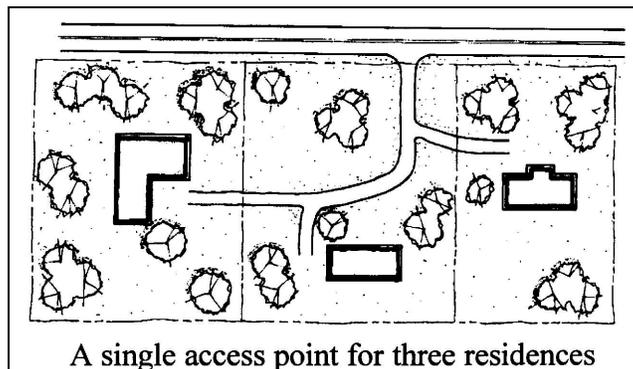
CONNECT ADJACENT ROADWAYS: Developers should design subdivisions to connect with other public roadways in other subdivisions.



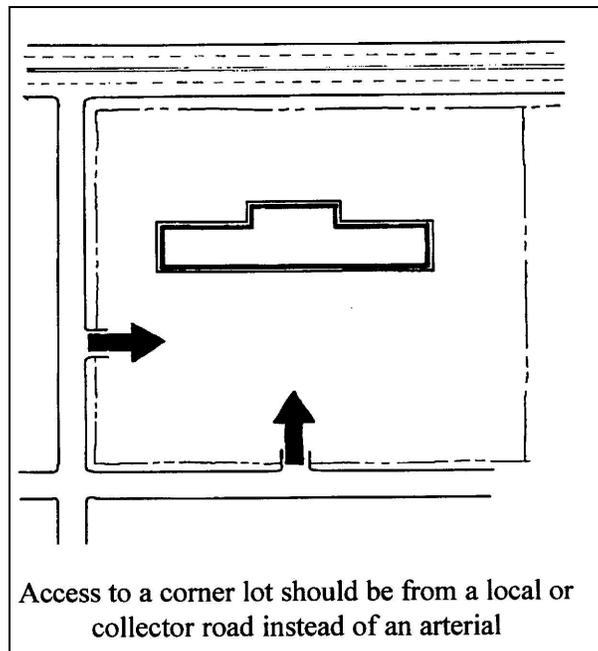
MINIMUM DRIVEWAY THROAT LENGTHS: A minimum driveway throat length should be defined for commercial and large multifamily developments in order to help better define internal traffic movements at those sites.



SHARED DRIVEWAYS: Shared driveways should be constructed for subdivisions and multi-family housing 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.



CORNER LOT ACCESS POINTS: All corner lots fronting a major road should be accessed from the adjacent local or collector road, not the major roadway. Again, this will reduce congestion and improve safety.



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. The primary purpose of sidewalks is to improve safety for pedestrians by separating them from the travel lanes of roadways. In addition to this, sidewalks can also serve as a source of recreation for residents, a non-motorized mode of travel, serve to beautify an area, or stimulate economic activity in rural and village settings.

Local pedestrian infrastructure improvements, for 2001 in Henniker, include adding eighteen new lamp posts and sidewalks along Bridge Street (NH114) from the Henniker Pharmacy to the Simon Center. This will allow a safer walkway from the Village to New England College to be created and encouraged. Another improvement will be to replace three lamp posts in the Community Park near the Masonic Building, which will again encourage a more safe and inviting pedestrian network.

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 town 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 are a form of traffic regulation and therefore, must be approved by the Board of Selectmen. There are currently fourteen crosswalks in Town, mainly located in the Downtown Village area. Crosswalks located on State roads must be

approved and installed by NHDOT, while the Town is responsible for those located on Town-owned and Town-maintained roads.

Many communities in the United States are now exploring ways to safely encourage pedestrians and other non-motorized modes of travel to share roads with motorized traffic. These measures, collectively called traffic calming, use the physical design of the roadway to prevent inappropriate automobile speeds. They are not intended for roads where the primary objective is to move traffic quickly through an area. Most often they are used in residential or downtown areas where residents see the road as part of their neighborhood and a place where walking, recreation, and social interaction can safely coexist with motorized traffic.

Traffic calming suggests road design techniques using active or physical controls (bumps, barriers, curves, rumble strips, etc.) and passive controls, such as signs and traffic regulations, to reduce speeds. Traffic calming measures foster safer and quieter streets that are more hospitable to cyclists, pedestrians, and joggers and enhance neighborhoods and downtown environments. The potential benefits of traffic calming include reduced traffic speeds, reduced traffic volumes - by discouraging "cut-through" traffic on residential streets - and often improved aesthetic quality of streets. An example of some traffic calming techniques include:

Speed Humps, Speed Tables, and Raised Crosswalks - All of these techniques involve raising the height of the pavement in a more subtle fashion than with a speed bump, allowing vehicles to pass over them at the intended speed of the road, but preventing excessive speeds and alerting drivers to the existence of non-motorized users.

Chicanes or Medians - These effectively narrow road width and slow down traffic by placing a physical impediment either in the middle of the road (median) or on the side of the road (chicane). These lend themselves to landscaping and improve the visual experience for all users of the road, as well as reducing speeds. Both techniques can provide additional safety for crossing pedestrians. Medians may serve as a refuge by allowing pedestrians to cross one lane of travel at a time, while chicanes provided at crosswalks (curb bulbs) reduce the overall distance from one side of the road to another and slow down traffic at those crossings.

Modern Roundabout - Not to be confused with a traditional high-speed rotary or traffic circle, this is an intersection treatment that forces motorized traffic to slow down to speeds under 25 mph in order to negotiate a center island that can be landscaped. Such speeds allow pedestrians to safely cross around the perimeter of the roundabout and cyclists to safely become a part of the circulating traffic.

Henniker does have some existing pedestrian infrastructure within Town, although it is sporadic. The **Pedestrian Infrastructure Map** shows existing crosswalks and sidewalks, recommended locations for crosswalks and sidewalks, and areas of Town that may benefit from traffic calming measures.

Issues, Goals, Recommendations

Issue: Residents of Henniker value the rural and country atmosphere of the Town, yet there is a threat to that atmosphere from the increasing numbers of cars on the road and their associated speed, especially in the residential neighborhoods and in the downtown.

Goal: To create a pedestrian infrastructure that would allow and facilitate safe, efficient, reliable, and continuous travel throughout Town.

Recommendations:

- Promote a pedestrian route system and "share the road" campaign to alert drivers of the location of sidewalks and crosswalks within the Town.
- Identify and prioritize areas with existing pedestrian facilities for regular maintenance and propose new areas for facilities that will extend and connect the existing infrastructure, if needed.
- Henniker should work with NHDOT regarding the placement and maintenance of crosswalks on State roads within Town.
- Use innovative methods to increase safety, which could include such things as raised crosswalks, striped or colored sidewalks, increased signage, or walking paths separated from the road by landscaping.
- The Police Department should increase their efforts on the education and enforcement of local and state pedestrian laws within Town.
- Henniker should research the posting of a Police Officer in the downtown area, during peak travel times, to ensure pedestrian safety and access.

Goal: To reduce the travel speed, as well as the volume, of motor vehicles on residential neighborhood roads within Town.

Recommendations:

- Investigate the use of appropriate traffic calming measures to discourage high speeds and to direct traffic around neighborhoods.
- Henniker should investigate establishing a standard of 25 mph or less in densely developed or rural residential neighborhoods that have seen a large increase in traffic and numerous motor vehicle accidents.
- Promote a pedestrian route system to maximize transportation opportunities in and around Henniker that would reduce the amount and necessity of automobile traffic.

Accident Data and Analysis

One of the most obvious methods of identifying where transportation improvements are needed is to analyze the location, frequency, and type of accidents that occur at various locations in the community. The list below, as well as the **Accident Location Map**, provides a quick picture of known automobile accident locations, which may be due, in part, to the conditions of the road. The list below contains the names of roads where accidents were reported and the number of accidents reported from January 1997 through December 2000.

Accidents in Henniker 1/01/97 - 12/31/00

Location	# of Accidents		Location	# of Accidents
Bacon Road	6		Liberty Hill Road	4
Bear Hill Road	1		Longview Drive	1
Bradford Road	6		Main Street	13
Bridge Street	12		Maple Street	12
Butter Road	2		NEC Service Road	1
Buxton Industrial Drive	1		Old Concord Road	19
Circle Street	1		Old Hillsborough Rd.	9
College Hill	2		Old Warner Road	1
Craney Hill	4		Old West Hopkinton	1
Craney Pond Road	1		Patterson Hill Road	3
Davison Road	1		Quaker Street	3
Depot Hill Road	10		Ramsdell Road	1
Dudley Pond Road	1		Ray Road	3
Evergreen Circle	1		River Road	1
Farrar Hill Road	3		Route 114	38
Flanders Road	3		Route US202/NH9	76
Foster Hill Road	6		Rush Road	7
French Pond	1		Shaker Hill Road	1
Gould Hill	1		Shore Drive	1
Gould Pond Road	5		Union Street	1
Gulf Road	8		West Main	1
Hall Avenue	4		Warner Road	6
Hemlock Corner	2		Weare Road/NH114	16
Hemlock Corner Loop	1		Western Avenue	39
Hillside Drive	1			

Source: Henniker Police Department, 2001

Issues, Goals, Recommendations

Issue: There were 342 reported accidents in Henniker from January 1997 - December 2000, some of which were due, in part, to the conditions of the road at that time.

Goal: To reduce the number of accidents in Town that may be caused by unsafe road conditions or poor transportation infrastructure.

Recommendations:

- Henniker should identify and prioritize intersections that need improvement because of safety issues.
- The Police Chief, Fire Chief, and Town Highway Superintendent should annually review accident locations and determine enhancements that could be made to improve safety. This list of enhancements should be submitted to the Town Highway Safety Committee, Planning Board, and Board of Selectmen for review and endorsement.
- The Police Department and Public Works Department should establish a system for the public filing of complaints/comments on the condition of roads, snow removal, icy conditions, intersections, and signage to better prioritize roads within Town that may require safety enhancements.
- The Town and the NH Department of Transportation should work together to evaluate adequacy and safety of the intersection of Western Avenue, Bridge Street, Maple Avenue, Rush Road, and Main Street.

Town Road Construction Standards

How streets are designed and built is a key part of well-planned, orderly growth. The design and construction of roads affects the visual quality of communities, public safety, and quality of life for years to come.

Different streets have different functions, thus requiring different designs. Road design standards should have built-in flexibility that fits with natural contours, that preserves natural features, and meets other community objectives. Rigid design standards can lead to over-designed roads, which encourage excessive vehicle speeds, and present a less attractive neighborhood streetscape. Sound road design considers topographic features, to assure proper road functions and to minimize impacts to vegetative and other natural features. Flexible street alignment and design standards allow new roads to fit well with the land, and preserve the natural features to the area as much as possible.

Residential street standards provide the basis for safe, efficient, and economical access to these areas. Safe residential streets are attained by specifying street geometrics that discourage excessive speeds and emphasize access. Residential houses are efficiently accessed with lower travel speeds on streets that are safer for bicyclists and pedestrians. The purpose of residential streets is to serve the land that abuts them. In doing so, residential streets should promote the safe and efficient movement of vehicular and pedestrian traffic and take into consideration land use, construction, and future maintenance.

The Town currently divides streets into three classifications. Descriptions of these classifications are listed below.

Class A - A Class V paved road that meets Town standards. The Town maintains these roads.

Class B - A Class V gravel road that meets Town standards. The Town maintains these roads.

Class C - A Class V gravel road that does not meet Town standards. The Town maintains these roads.

Although Henniker divides its streets into three classifications, there is still only a "one-size-fits-all" road design standard when new roads are to be built. Many communities are taking the position that smaller, "less built" roads, servicing residential areas help to preserve the residential "community feel" of a neighborhood, rather than a cut-through to other areas of Town. By allowing for smaller, narrower roads, that meet all necessary pedestrian, bicycle, and vehicular safety and transportation standards, Henniker can retain the small-town feel that it cherishes.

Provisions for flexible design requirements for Town roads will allow the Planning Board and developer the necessary flexibility to design, approve, and build roads that are at the appropriate scale. Keeping pavement and travel lanes to a minimum width, relative to a streets function, helps keep speed down, preserves a more appealing streetscape, reduces costs to the developer and Town, and allows the Town to retain its rural look and feel while accommodating growth.

Issues, Goals, Recommendations

Issues: The current Town Road Construction Standards are an approach that may not allow for the retention of the rural small-town feel in road construction or design that Henniker values.

Goal: To have town road construction standards that allow for and encourage a variety of road types that enhance the uniqueness of Henniker's current and future transportation infrastructure.

Recommendations:

- The Town Highway Superintendent and Highway Safety Committee should compare the existing Town Road standards to that of other Towns similar to Henniker and make recommendations for changes/modifications based on that review.
- The Planning Board should review and evaluate its current road standards as to its appropriateness.
- All streets, regardless of if they are public or private, should be built according to standards adopted by the Town, with flexibility allowed for certain cases.
- When reviewing road plans, the Planning Board should look at how the road design relates to the terrain and topographic features present at the site and require, where feasible, that the road follow these features.

- The design and planning of residential streets should follow natural contours and preserve natural features whenever practical; minimize traffic speed, volume, noise, congestion, and hazards to pedestrians; and minimize the amount of paved area to reduce storm water runoff, and thereby protecting water resources and reducing construction costs.
- Aesthetic and landscaping requirements should be researched by the Planning Board, in conjunction with the Highway Superintendent, and incorporated into the Town Road Construction standards.
- Henniker should research the idea of having new roads in rural areas be consistent in design with the rural collector roads that they are being built off of.
- Henniker should research the creation of pedestrian and wildlife underpasses, where appropriate and feasible, when roads/bridges are being built or reconstructed.
- Henniker should work with NHDOT and the local utility company to explore the idea of burying utility lines or staggering utility poles, when roads are reconstructed or built.
- Henniker should analyze the associated cost of the different types of roads currently in Town to ensure that the Town is balancing fiscal concerns with those of aesthetics, residential preference, and safety.

Private Roads

Private roads are roads that have been constructed but for various reasons, are not maintained by the Town or considered town-owned roads. The Town allows for the subdivision of land that is located on a Private Road, where the Town does seasonal maintenance, to be a minimum of ten acres. There is currently no specific Town adopted policy regarding private roads, their construction, maintenance, or the Town's acceptance of them.

The following is a list of private roads within the Town of Henniker. These can also be seen in the **Private Road and Class V Gravel Road Location Map**.

Atha's Way	Buxton Industrial Drive
Chelsea Court	Cinnamon's Reach
Eastside Road	Hemlock Lane
West Road	Westside Road
White Birch Road	Keyser Boat Road

Issues, Goals, Recommendations

Issue: The Town of Henniker has ten roads that are currently classified as private roads. Because these roads are private, the Town does not have any authority over their construction, maintenance, or quality. However, these roads are still part of the Town's transportation infrastructure.

Goal: To ensure the quality of all roads within the Town of Henniker, regardless of whether they are public or private.

Recommendations:

- Henniker should create a Private Roads Policy that would outline construction standards, maintenance, and conditions under which the Town would consider accepting an already existing private road as a Town road.
- The Highway Superintendent, Police Department, and Fire Department should work with the residents of private roads and annually review all private roads to make sure that they meet safety standards.
- Henniker should consider establishing a private roads policy that outlines road construction standards for new private roads.

Gravel and Scenic Roads

A major component of a Town's rural character are 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 in Henniker.

The Town of Henniker has a mix of paved and Class V gravel roads on which to travel. This diversity allows Henniker to retain its historic past while, to some extent, acknowledging growth and infrastructure needs. Land along Class V gravel roads that are maintained by the Town, but do not meet Town Class A or B road specifications, may be subdivided with a minimum lot size of ten acres. This provision helps to retain the rural atmosphere of the area.

Henniker, unlike many communities, has both Class V and Class VI gravel roads. The preservation of gravel roads will help to ensure that the Town honors its history and original design. The following list is of Class V roads in Henniker that are gravel or are a mix of gravel and paved. The **Private Road and Class V Gravel Road Location Map** shows the location of the Town's gravel/paved roads and gravel roads.

Gravel/Paved and Gravel Class V Roads

Baker Road	Bear Hill Road	Blanchard Drive
Bound Tree Road	Butter Road	Colby Hill Road
Colby Hill Extension	Colleague Pond Road	Craney Pond Road
Dodge Hill Road	Dudley Pond Road	Emery Hill Road
Emerson Way	Ezekiel Smith Road	Farrar Road
Faulkner Hill Road	Foster Hill Road	Fredman Colby Road
French Road	Gould Pond Road	Hemlock Corner Loop
Hope Road	Huntington Road	Liberty Hill Road
Line Hill Road	Locust Lane	Lone Pine Road
Lyman Road	Matthews Road	Morrison RoadMt.
Hunger Road	Newton Road	Patch Road
Patterson Hill Extension	Pearl Street	Peasley Road
Pike Street	Quaker Street	Rand Road
Robertson Road	Ryan Road	Shaker Hill Road
Temple Road	The Oaks	Warner Road

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, at any annual or special town meeting, by vote designate the road as a Scenic Road. A town may rescind its designation of a Scenic Road using the same procedure.

The effect that Scenic Road designation does have 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. However, this Planning Board requirement is full of exceptions. The Planning Board can 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 Highway Superintendent's opinion "pose an imminent threat." Moreover a public utility can cut the trees for the "prompt restoration of service" without anybody's permission (RSA 231:158, II). The Scenic Road law does not prohibit landowners from the cutting of trees or removal of stone walls (RSA 231:158, IV).

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 town 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.

The Town of Henniker, although it contains many roads with scenic attributes that would be good candidates for Scenic Road designation, does not currently have any designated Scenic Roads.

Issues, Goals, Recommendations

Issue: The diversity of roads in Henniker contributes to the Town's unique and historic atmosphere. Maintaining the gravel roads and roads with scenic attributes will further enhance the character of the community.

Goal: Protect and preserve the existing gravel roads within Town.

Recommendations:

- Henniker should encourage the rural quality of gravel roads by limiting the size and scope of development that can occur on and adjacent to the gravel roads, where deemed appropriate by the Planning Board.
- Gravel roads should be assessed as to their level of safety and traffic, by the Highway Superintendent, Police Chief, and Highway Safety Committee, before decisions are made whether or not to pave them.

- Henniker should consider the idea of returning some currently paved roads into gravel roads based on financial, safety, and aesthetic conditions and resident concerns.

Goal: Preserve roads in Town with scenic attributes.

Recommendations:

- Henniker should do outreach and education about the State Scenic Road Law and what such designation means.
- Henniker should consider identifying roads with scenic vistas and aesthetic qualities, such as stone walls, historic buildings, and farms. Research methods of protecting and preserving such areas.
- Henniker should annually research potential roads as candidates for Scenic Road designation.

Class VI Roads and Trails

Class VI roads are roads that are not maintained by the Town, may be subject to gates and bars, and are almost always gravel. A Class V road can become a Class VI road if the Town has not maintained it for five years or more. The Town of Henniker does not allow the subdivision of land on Class VI roads. The Town defers to RSA 674:41 regarding building on a Class VI road. Under RSA 674:41, 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.

Across the State, many communities are beginning to look at Class VI roads as candidates for designation as Class A Trails because they have little or no development associated with them, are scenic, have no inherent liability concerns, public access is already allowed, and they serve to connect large areas of open space, conservation, and/or agricultural lands. By reclassifying certain roadways that meet this criteria to Class A Trails, the community could be taking a step in creating a community-wide system of greenway trails. Unlike Class VI roads that the Town does not maintain, Towns, at their option, may conduct maintenance on Class A Trails. For more information on the conversion of Class VI roads to Class A Trails, see the *Open Space Trail System Plan for the Town of Henniker, New Hampshire, July 1999*.

It is important to stress that reclassification of Class VI roads to Class A Trails will not inhibit the access rights of landowners along the roadways. In the case of a Class A trail, landowners can continue to use the trail for vehicular access for forestry, agriculture, and access to existing buildings. However, under such classification, new building development as well as expansion, enlargement, or increased intensity of the use of any existing building or structure is prohibited

by New Hampshire Statute. The Town and owners of properties abutting Class VI roads are not liable for damages or injuries sustained to the users of the road or trail.

Class VI roads are an important component of a Town's transportation infrastructure because they personify the community's rural character and provide vast recreational opportunities. The **Class VI Road and Trail Location Map** will provide information as to where current trails exist, where Class VI Roads are located, and which Class VI Roads may be good candidates for Class A Trail designation. The Conservation, Preservation, and Open Space Chapter of the Master Plan contains information on Greenways and Trails as well.

Issues, Goals, Recommendations

Issues: Class VI roads are important cultural, historical, and recreational resources that need to be protected and preserved.

Goal: To encourage, support, and expand the Town's trail network.

Recommendations:

- Henniker, with the help of the Conservation Commission, should identify Class VI roads, as well as rail road beds, existing paths, and areas along the various water bodies in Town, that connect open space, forest, conservation, and/or agricultural land, that would help create a greenway trail network.
- Henniker should create a public education campaign that highlights the benefits of a Town greenway system.
- Investigate the location of railroad segments, with landowner permission, that could be used in the linking of existing and future greenway trails in the community.
- Identify for designation, as Class A Trails, some of the Class VI roads within Town by working with abutting landowners.
- The Town should work with abutting landowners to share maintenance and monitoring duties of formal trails or informal greenway networks that are on Class VI roads.
- The Town should follow-through with the recommendations outlined in the *Open Space Trail System Plan for the Town of Henniker, New Hampshire, July 1999*.

Goal: Discourage inappropriate and scattered and premature development along Class VI roads.

Recommendations:

- Henniker should adopt building policies for all Class VI roads. Any Class VI road policy the Planning Board adopts should distinguish between building on existing lots and creating new lots.
- The subdivision regulations should be clarified to ensure that any subdivision on a Class VI road will be deemed "scattered and premature" unless and until some provision is made, via a decision of the Selectmen, to improve the road.

- Henniker should encourage, through an overlay district in the zoning ordinance, agricultural and forestry operations on parcels of land that are solely accessed by a Class VI road.

Parking and Public Transportation

Parking and public transportation are usually the two issues that most towns spend the least time planning, studying, or regularly setting aside money for, yet they are the very issues that most residents will identify as areas in Town that need improvement.

In the 1998 Henniker Household and Business survey, many of the respondents said that they would like to see the development of public transportation service in Henniker. The support of public transportation expansion into Henniker was also discussed at the Community Profile Workshops in 1998. There is currently a volunteer Dial-A-Ride program in Town, however, this program does not meet all of the needs of residents in Town who wish to have public transportation available to them for employment or recreational trips.

Safe and adequate parking facilities, or the lack thereof, is one of the most voiced concerns facing the downtown area. The key to a vibrant downtown is to not only have a pedestrian infrastructure in place but to also have accessible and convenient parking available. Henniker has a thriving downtown to be proud of but there needs to be more of an emphasis placed on the creation and expansion of a parking infrastructure.

Overall parking capacity does not seem to be a significant problem for New England College, but the issue of its distribution on campus is often mentioned. Parking close to the campus core buildings is the primary concern and limited capacity is a problem during events. An effort has been placed on insuring that construction projects be designed in the future not to reduce the available parking supply, and opportunities should be found to increase it if feasible. There have been several sites suggested for parking lot improvement and expansion, the locations of which are listed below.

- * Center for Educational Innovation
- * Theater Complex
- * Athletic Fields
- * Athletic Complex
- * New Residential Hall Complex

The ability for all residents to move freely around Town encourages a greater sense of community, as well as fostering economic development and vitality.

Issues, Goals, Recommendations

Issue: The lack of adequate and safe parking facilities, as well as the ability of all residents to get around Town, can inhibit economic growth, reduce the sense of community, and weaken the overall comprehensive transportation infrastructure.

Goal: To ensure that transportation options and services are available to all residents of Henniker.

Recommendations:

- Henniker should investigate if there is a need and interest in creating regularly scheduled public transportation service into Henniker.
- Henniker should continue to support the Dial-A-Ride public transportation service currently being offered within Town by White Birch Community Center.
- Henniker should research the possibility and feasibility of implementing a ride-sharing, carpool, or shuttle program from Henniker to Concord, as well as surrounding towns. This would be especially beneficial if a Park-and-Ride is built in Henniker in the future.

Goal: To have adequate and safe parking areas in key locations in Town to encourage economic activity and ease of use and access to facilities and buildings.

Recommendations:

- Henniker should consider inventorying all existing parking areas within Town and ranking them as to their safety, adequacy, and usefulness. This inventory could also identify potential new parking spaces that could be created to enhance or replace existing parking areas.
- The Highway Superintendent, in conjunction with the Police Department, should create a method for recording resident complaints about unsafe public parking areas or those in need of maintenance.
- Henniker should make sure that its parking facilities throughout Town meet the Americans with Disabilities Act (ADA) requirements.
- Parking facilities should be adequately illuminated and landscaped to provide for an attractive infrastructure improvement.
- Henniker should undertake a supply and demand study to assess the current and future needs of public parking within Town.
- Henniker should research the reconfiguration of parking in the downtown area to encourage compact car parking or eliminating parking, in certain areas, because of safety concerns.
- The Planning Board should review the current parking regulations for adequacy.

Local Bicycle Infrastructure

Planning for a bicycle network requires a different approach from that of motorized transportation planning. Bicyclists have different needs from those of motorists, including wider shoulders, better traffic control at intersections, and stricter access management. Often, roadways are designed solely with motor vehicles in mind and Henniker is no exception to this. Henniker has a local ordinance that prohibits the riding of bicycles on sidewalks but without the proper bicycle infrastructure in place, those who wish to travel by bicycle are forced to do so illegally on the sidewalk or unsafely in the travel lanes.

Transportation decisions are usually made solely for those who can drive and have access to an automobile. This leaves out transportation options for those who can not or choose not to drive, those who choose not to own or can not afford to own reliable automobile transportation, and those who would prefer to combine recreation and exercise with transportation. Henniker is in a unique situation because of the presence of New England College and the associated number of young residents. Many college students do not have cars and rely on bicycles for transportation. With the anticipated growth of the College over the next few years, the number of bicycles and the demand for a safe and reliable infrastructure will increase.

By creating a local bicycle infrastructure, members of the community have the ability to travel within Town for employment, shopping, and recreational purposes without driving. The **Bicycle Infrastructure Map** shows the State and Regional bicycle networks, as well as the proposed local bicycle network here in Henniker.

Issues, Goals, Recommendations

Issue: As the concern over air quality, traffic congestion, and other issues increases, the need and desire for a well-maintained and safe bicycle route system will continue to grow from a luxury into a necessity.

Goal: Encourage the planning and development of a safe, accessible, and efficient regional and local bicycle route system for commuting and recreational purposes.

Recommendations:

- Henniker should adopt and support the statewide and regional bicycle networks and take all available steps to help implement them within Town.
- A local bicycle network should be developed that connects with the regional network and incorporates key locations within Town, such as the library, police station, schools, College buildings, etc.
- A local advisory committee should be developed to oversee the creation of this local network that includes representatives from the Police Department, Highway Safety Committee, New England College, White Birch Community Center, and the School System.
- Henniker should research funding options for creating and maintaining a local bicycle network.
- The Highway Department should consider widening, striping, and paving the shoulders of Town roads to accommodate bike lanes

Goal: Create an environment in which bicycling is an attractive alternative to motorized modes of traffic.

Recommendations:

- Henniker should work with the Police Departments, School Departments, and the College to promote and educate the public on bicycle safety and transportation.
- Henniker could encourage, through its Site Plan Regulations, the placement of bicycle racks at businesses and multi-family developments, where appropriate.

- Henniker should work with other groups and organizations to help promote public awareness, acceptance, and the possibility of bicycling as a viable mode of transportation in Henniker.
- Henniker should encourage the College to place bicycle racks at academic and residential buildings.

Bridge Network

Bridges are a key 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 19 bridges in the Town of Henniker.

The NHDOT maintains an inventory of all bridges in New Hampshire using Federal Sufficiency Ratings (FSR), a nationally accepted method for evaluating bridges. A FSR represents the relative overall effectiveness of a bridge as a modern day transportation facility. A FSR greater than 80 means that the bridge is in overall good condition. A bridge having an FSR between 50 and 80 is eligible for Federal bridge rehabilitation funding. A bridge with an FSR less than 50 is eligible for either Federal bridge replacement or rehabilitation funding.

Functionally Obsolete (FO) refers to a bridge with substandard deck width, under clearance, approach roadway alignment, or inadequate waterway. Structurally Deficient (SD) refers to a bridge with one or more deteriorated components whose condition is critical enough to reduce the safe load carrying capacity of the bridge.

The table below, as well as the **Bridge Network Map**, provides more detailed information on the nineteen bridges located in Henniker.

Henniker Bridge Network

Bridge	Feature Crossed	FSR	Obsolete or Structurally Deficient	Year Built	Owner
Old Hillsborough Road	Brook	69.4	-	1982	Town
US202/NH9	Brook	90.5	-	1974	State
Old Hillsborough Road	US202/NH9	98.0	-	1974	State
Old Hillsborough Road	US202/NH9	N/A	-	1974	State
Western Avenue	Contoocook River	78.1	FD	1933	Town
Western Avenue	Canal	46.1	SD	1929	Town
Patterson Hill Road	Contoocook River	21.8	SD	1913	Town
NH 114	Amey Brook	89.5	-	1951	State
US202/NH9	Liberty Hill Road	97.0	-	1974	State
NH 114	US202/NH9	95.0	-	1974	State
NH 114	US202/NH9	N/A	-	1974	State
NH 114	Contoocook River	69.7	FO	1939	State
Ransdell Road	Contoocook River	52.2	FO	1937	Town
US202/NH9	Rush Road	91.2	FO	1962	State
Warner Road	Amey Brook	89.3	-	1935	State
US202/NH9	Amey Brook	96.3	-	1962	State
Bennett Road	Chase Brook	83.6	-	1929	Town
Concord Road	Amey Brook	38.0	SD	1938	Town
Colby Crossing Road	Old RR Bed	32.0	SD	1930	Town

Source: NHDOT Mini Bridge List, 1997

Issues, Goals, Recommendations

Issue: The Bridge Network, which encompasses Town-owned and State-owned bridges, is an important and necessary component of the comprehensive transportation infrastructure.

Goal: To ensure a safe, reliable, and efficient system of bridges that will meet the transportation needs and goals of the Town.

Recommendations:

- Henniker should work with NHDOT to repair, replace, and/or upgrade bridges that have a FSR of less than 80.
- The Town Highway Superintendent should annually inspect the bridges in Town that are Town-owned and provide a status report to the Planning Board, Board of Selectmen, and NHDOT for their review.

New England College

New England College, unlike many colleges, does not have a campus separate from the Town. Instead, the campus has several areas of concentrated use scattered throughout the Town. The core of the New England College campus is located on the south side of the Contoocook River, across from the Town's commercial center on Main Street. The block to the west of Bridge Street is the central focus of campus life. To the east of Bridge Street are residence halls and academic program buildings.

The creation and maintenance of a pedestrian network on and around the College is a necessary component to reinforce the small-town atmosphere. Components of this network need to include landscaping, exterior signage, lighting, and continuous maintenance, all of which the College has identified as a necessary priority. A safe, secure, handicapped-accessible pedestrian network is important for effective campus circulation and to disguise the fact that the campus buildings are not all in one central location. Encouraging a pedestrian-friendly College also benefits the Town by exposing students, faculty, and staff to the Town and making them feel part of the community in which they work and reside.

Issues, Goals, Recommendations

Issue: New England College is a major part of the Town of Henniker and the integration and cooperation between the two is important in order to retain the picturesque small-town environment, while acknowledging future growth and the expansion of both.

Goal: To ensure that the transportation infrastructure in Town is enhanced by the presence of New England College.

Recommendations:

- The College should work with the Town to create and promote a car-pool program for its faculty, staff, and students to reduce the number of single occupancy vehicles in Town.
- The College, in coordination with the Town, should study the feasibility of creating a "park-and-ride" facility that would shuttle people from the facility to points of interest on campus or within the Town.
- The College should work to make its campus as pedestrian-friendly as possible through sidewalks, lighting, signage, and landscaping.

Pat's Peak Ski Area

Each year, more than 100,000 skiers, snowboarders, snowtubers, and summer visitors visit the Pat's Peak facility. Pat's Peak generates a tremendous amount of vehicle traffic for the Henniker area and is interested in making the experience as positive and smooth as possible.

Starting around the first week of December, Pat's Peak opens its ski slopes to the public and generates the following traffic patterns:

January and February - Midweek there are approximately 800 cars, on a rotating basis, throughout the day (9am - 9pm). The parking lot turns over about 1.5 times during the day, as most people use the facility for an average of five hours. There are also 30-50 motor coaches and school buses parked at the facility each day. Approximately 60% of the midweek business is in the form of mass transit.

Christmas Vacation Week, February Vacation Weeks (MA and NH), and Weekends in March and Early December – During these times, the ski area averages approximately 700-900 cars and 8-10 motor coaches/school buses each day.

Pat's Peak is a major entity in the Town of Henniker and the cooperation between the two is important in order to retain the picturesque small-town environment, while acknowledging future growth, demand for increased services, and the expansion of the Ski Area.

Issues, Goals, Recommendations

Issue: Pat's Peak is a major employment and recreation destination for people who travel through Henniker, especially in the winter months. Their continued success relies on the ability for people to easily get to and from the ski area in a safe and efficient manner.

Goal: To ensure that the continued operation and growth of the Ski Area will not negatively impact the transportation infrastructure in Town.

Recommendations:

- The Ski Area should coordinate with the Town to ensure that its operation complements the traffic patterns and transportation infrastructure.
- The Ski Area, in conjunction with the Town, should study the feasibility of creating a Park-and-Ride facility that would shuttle skiers from the facility to the ski area, thus reducing the number of cars traveling within Town to the same destinations.
- The Ski Area should investigate the possibility and desirability of creating and promoting a car-pool program for its employees.
- The Town, NHDOT, and the Ski Area should begin to talk about future improvements that may be necessary at the NH114 and Flanders Road intersection.

Projects in the State Transportation Improvement Program

The Transportation Improvement Program (TIP) functions to link the statewide transportation planning process with that of the Central NH Regional Planning Commission (CNHRPC) region and local municipalities. The program enables the needs and desires of both small and large municipalities to be discussed in an open forum and then be brought, in a refined form, to the appropriate State and Federal agencies for funding consideration. The TIP process provides a vital link between municipalities, the Region, and the State in the transportation planning process.

The TIP is a comprehensive program that involves municipalities, regional planning commissions, the NHDOT, the Governors Advisory Council on Intermodal Transportation (GACIT), the New Hampshire Governor and Legislature, and the Federal government. The regional TIP culminates in a document that contains proposed transportation projects in the central New Hampshire region that are recommended for inclusion into the New Hampshire 10 year Statewide Transportation Improvement Program (TIP). The TIP process typically starts at the regional planning commission level, although it is beneficial if the process is first introduced 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 commissions 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 TIP, adding their own input and special projects. The 10 year TIP then becomes the transportation project guide for the upcoming years.

In the 1993 NHDOT report on the Status of the 10-Year Transportation Improvement Plan, three projects were listed that impacted the Town of Henniker. These three projects are listed below.

Status of NH DOT 10-Year Transportation Improvement Plan

Project #	Improvement	Year	Project Estimate
10671	Replace Bridge over Contoocook River	1992, 1994, 1995	\$ 950,000
13096	Rt.114, leveling and doing a 1" overlay from NH 103 intersection to US 202 (approximately 6.3 miles)	2000	\$ 205,000
12892	Providing a pedestrian/bike path on Old Concord Road to access the athletic fields and Amey Brook Park	2000	\$ 1,350,000

The most recent Transportation Improvement Plan for the central New Hampshire region, which was submitted in April 2001, did not have any projects listed for the Town of Henniker.

Issues, Goals, Recommendations

Issue: The TIP serves as a funding source for major transportation projects across the State and the Town of Henniker has underutilized its ability to fund local transportation projects through the TIP.

Goal: To have more transportation projects proposed to and included in the TIP.

Recommendations:

- Henniker should be proactive and creative in seeking TIP funding.
- Henniker should work with CNHRPC to help create proposals to submit in the next funding cycle for the TIP.

- Henniker should consider establishing a local committee to help solicit ideas and create proposals for the TIP in conjunction with the Planning Board, Selectmen, and Town Administrator.
- Henniker should coordinate with major employers, New England College, and NHDOT to submit a proposal in the next TIP for a Park-and-Ride facility to be located in Henniker.

Road Management Plan

The Henniker Highway Department has a five-year road management plan that they use to help guide the activities of the Department and help plan for future activities. This five-year plan is intended for use as a guide for major highway improvements. It may become necessary to change or modify the plan for certain projects. Damaging storms, budget restrictions, or unexpected situations can have an impact on the timing of projects. Though projects in the five-year plan are important, they may not always be accomplished.

The process for developing the plan is as follows. All Town-owned and maintained roads are inventoried in a Roads Surface Management System (RSMS), which was developed by the University of New Hampshire. T2 Square is also utilized. This is an inventory of all road lengths, surface and drainage conditions, locations, traffic loads and counts, and topography. Winter maintenance of roads is also a good indicator of future projects in that a road in good condition is easier to maintain in snow and ice. The Highway Department monitors and updates this program annually to ensure that they are using the most reliable data in their decision-making process. After a final inspection of projects in the spring, the road management plan is submitted to the Board of Selectmen for their review and input.

The following is the list of proposed 2000-2001 road management activities in Henniker.

2000 - 2001 Proposed Highway Department Activities

Activity	2000	2001
Road Reconstruction	Tanglewood Drive, Old Mill Pond Circle, Evergreen Circle, Westwood Lane, Checkerberry Lane, Shore Drive	Quaker Street, Bear Hill Road
Surface Work	Old Concord Road, Gulf Road, Flanders Road, Foster Hill, Bennett Road, Longview Drive	Goss Drive, Fairview Avenue
Asphalt Sealing	Davison Road, Bacon Road, Pine Hill Road	N/A
New Gravel	N/A	Liberty Hill Road, Quaker Street, Huntington Road, Mount Hunger Road, Butter Road, Hall Avenue
Shimming	N/A	Old West Hopkinton Road, Gulf Road, Cote Hill Road

Source: Henniker Annual Town Report, 2000

Issues, Goals, Recommendations

Issues: The financing of and planning for transportation maintenance and improvements can be difficult to accomplish in small communities with limited resources.

Goal: Henniker should use a variety of financing options to reduce the burden on taxpayers for the financing of local transportation maintenance and improvements.

Recommendations:

- Henniker should research available funding options for maintenance and improvements to the transportation infrastructure.
- Henniker should work with regional, state, and federal agencies and programs to prepare a comprehensive transportation plan that includes funding availability for the desired projects and programs.

Goal: To have a more defined, active, and public role for the Highway Safety Committee.

Recommendations:

- The Highway Safety Committee should have an established number of members, a cross-section of representation from the community on the Committee, terms lengths for members, noticed and posted meeting times and meeting minutes, and members should be selected by the Town Highway Superintendent with review by the Planning Board and Selectmen.
- The Highway Safety Committee should be consulted when there is a subdivision application before the Planning Board, when the Town is considering upgrading a Class VI Road to a Class V Road, when the Town is considering accepting a Private Road as a Town Road, or when the Town is considering accepting an upgraded Class VI to Class V road that the Town did not undertake.

Goal: Henniker should have a comprehensive and up-to-date road management plan.

Recommendations:

- The Town Highway Superintendent, in conjunction with the Town Highway Safety Committee, should review and amend the 5-year plan on an annual basis.
- Before the Planning Board considers any subdivisions, they should consult with the Road Management Plan to ensure that the proposed plans are in accord with the Plan.

Common Transportation Mistakes, Myths, and Assumptions to Avoid

Myth: The sole purpose of streets is vehicle traffic.

If roads are only looked at for moving traffic and vehicle access then we end up designing streets fit only for cars. This is acceptable for the interstate, but not for streets whose main function is as a setting around which residential and business life is built.

Assumption: The aim of road design is to serve the interests of travelers.

The needs of people who want to travel quickly through Town are met well by the State highways. Local roads, on the other hand, are for the people who live in a Town. The more local a street is in the road "hierarchy", the more it should be designed around the rights and needs of the people of live and work along it - their safety and quality of life should come first.

Myth: Roads must be designed to meet traffic.

If a Town makes a commitment to upgrade a road to meet traffic projections, the Town is committing to a goal that says present trends are acceptable and should continue.

Mistake: Failure to recognize that road upgrades cause traffic.

Road "improvements" can be a vicious circle - upgrades attract development, causing more traffic, thus upping those "traffic trends", thus raising "future traffic projections", creating a push for even more upgrades, and so on. Traffic will eventually expand to fill available road space. If a town truly wants a local village or neighborhood road, build it to the minimum level for meeting the current local need.

Myth: Wider and straighter equals better.

Unexpected bad spots in the road that catch a driver off guard should be looked at if safety is in question. But if an entire stretch of road is "upgraded" all that will happen is that drivers on that road will drive faster and take more risks. Speed limit signs have proven the least effective way to slow people down and there is no evidence that accident rates go down due to overall road upgrades.

Mistake: Failure to include deliberate slow-down features in road design standards.

Slow-down design techniques could include: reduced road width; reduced straight-away length; reduced driver sight lines through curves in the road, both horizontal and vertical, especially those that honor "natural" topography; cul-de-sacs or shared driveways; and landscaped roundabouts.

Mistake: Design standards that ignore road landscaping.

Most site plan regulations include landscaping for a development itself, why not landscaping standards for roads? Trees clearly add to livability and a sense of neighborhood. But more than that, trees within the right-of-way contribute to a slower "psychological speed" or "feel" to a street, thus reducing speeds. Of course the cheapest and most natural landscaping is to conserve the existing trees when a road is built or altered.

Mistake: Ignoring the interests of bicyclists and pedestrians.

Good transportation planning should encourage walking and biking. These activities occur, and will continue to do so, whether or not proper consideration and accommodations have been made for them. Ignoring their use of the road may create safety hazards on the roadways for drivers, walkers, and bicyclists.

Mistake: Uniform and stringent road specifications.

Success at getting livable neighborhood streets requires not only managing those roads for slower speeds, but also managing other roads for taking through-traffic. Requiring every street to be built like a thoroughfare is a guarantee of failure at creating this livability. A road "hierarchy" should be created that matches roads to their function in order to have appropriate roads built for each level of the hierarchy. Low order in the hierarchy should not be thought of as low quality. On the contrary, if "quality" relates to the roads function within the overall system, narrower and cheaper is often better. Spell out the hierarchy and associated standards in the Towns regulations.

Strategies to Meet Transportation Needs

Transportation, which includes bicycle lanes, bridges, trails, as well as roads, is a very important part of the communities infrastructure. The creation, maintenance, and improvements of these systems is necessary for Henniker to meet the needs of its residents and provide a reliable transportation network. The following strategies should be reviewed by the Town as potential opportunities to meet the transportation goals set out in this chapter of the Master Plan.

Transportation Equity Act for the 21st Century (TEA 21): Enacted in June of 1998, this multi-billion dollar federal legislation authorizes the Federal Surface Transportation Programs for highways, highway safety, and transit for a six year period (1998-2003). Essentially, this act served to reauthorize and expand ISTEA, which expired in 1997. TEA-21 is the parent legislation that funds a variety of transportation programs including the Congestion Mitigation and Air Quality (CMAQ) Improvement Program and the Transportation Enhancement (TE) Program.

Federal Aid Bridge Replacement Funds: These funds are available for the replacement or rehabilitation of town-owned bridges over 20 feet in length. Matching funds are required and applications for funding are processed through the NHDOT municipal highways engineer.

Highway Block Grants: Annually, the State apportions funds to all cities and towns for the construction and maintenance of Class IV and V roadways. Apportionment "A" funds comprise not less than 12% of the State Highway budget and are allocated based upon one-half the total road mileage and one-half the total population as the municipality bears to the state total. Apportionment "B" funds are allocated in the sum of \$117 per mile of Class V road in the community. Block grant payment schedules are as follows: 30% in July, 30% in October, 20% in January, and 20% in April. Any unused funds may be carried over to the next fiscal year. Henniker received approximately \$130,000 of highway block grant money in 2001.

Transportation Enhancement Funds (TE): The Transportation Enhancements Program (TE) is another viable source for improving roads in communities. Funding for the TE program is slightly more than \$3 million dollars annually. These funds are provided in an 80/20 match, with the State paying for the majority of the project cost. Typical examples of projects eligible for TE funds include:

- Facilities for bicyclists and pedestrians;
- Safety and education activities for bicyclists and pedestrians;
- Acquisition of scenic easements and scenic or historic sites;
- Scenic or historic highway programs;
- Landscaping and other scenic beautification;
- Historic preservation;
- Rehabilitation and operation of historic transportation buildings, structures, and facilities;
- Preservation of abandoned railway corridors;
- Control and removal of outdoor advertising;
- Archaeological planning and research;
- Some types of environmental mitigation; and,
- Establishment of transportation museums.

State Bridge Aid: This program helps to supplement the cost to communities of bridge construction on Class II and V roads in the State. Funds are allocated by NHDOT in the order in which applications for assistance are received. The amount of aid a community may receive is based upon equalized assessed valuation and varies from two-thirds to seven-eighths of the total cost of the project.

Town Bridge Aid: Like the State Bridge Aid program, this program also helps communities construct or reconstruct bridges on Class V roads. The amount of aid is also based upon equalized assessed valuation and ranges from one-half to seven-eighths of the total cost of the project. All bridges constructed with these funds must be designed to support a load of at least 15 tons. As mandated by State Law, all bridges constructed with these funds on Class II roads must be maintained by the State, while all bridges constructed on Class V roads must be maintained by the Town. Any community that fails to maintain bridges installed under this program shall be forced to pay the entire cost of maintenance plus 10% to the State Treasurer.

Local Option Fee for Transportation Improvements: New Hampshire RSA 261:153 VI (a) grants municipalities the ability to institute a surcharge on all motor vehicle registrations for the purpose of a funding the construction or reconstruction of roads, bridges, public parking areas, sidewalks, and bicycle paths. Funds generated under this law may also be used as matching funds for state projects. The maximum amount of the surcharge permitted by law is \$5, with \$.50 allowed to be reserved for administering the program. Based upon the approximate number of motor vehicles registered in Henniker in 2000 (5,477 vehicles), this could yield \$24,645 annually in additional funding without increasing property taxes.

Impact Fees: Authorized by RSA 674:21, communities can adopt impact fee programs to offset the costs of expanding services and facilities communities must absorb when a new home or commercial unit is constructed in town. Unlike exaction's, impact fees are uniform fees administered by the building inspector and are collected for general impacts of the development, as opposed to exaction which are administered by the planning board and are collected for specific impacts unique to new site plans or subdivisions on Town roads. The amount of an impact fee is developed through a series of calculations. Impact fees are charged to new homes or commercial structures at the time a building permit is issued. When considering implementing an impact fee ordinance, it is important to understand that the impact fee system is adopted by amending the zoning ordinance. The law also requires that communities adopting impact fees must have a Capital Improvements Program (CIP). Lastly, State law also stipulates that all impact fees collected by a community must be used within 6 years from the date they were collected, or else they must be refunded to the current property owners of the structure for which the fee was initially collected.

Capital Reserve Funds: This is a popular method to set money aside for future road improvements. RSA 35V mandates that such accounts must be created by a warrant article at town meeting. The same warrant article should also stipulate how much money will be appropriated to open the fund, as well as identify what Town entity will be the agent to expend the funds. Once established, communities typically appropriate more funds annually to replenish the fund or be saved and thus earn interest that will be put towards large projects or expenditures in the future.

Summary

Bearing in mind the commitment to the preservation of the rural and open space aesthetic character of Henniker and the disruption to the quality of life that comes from vehicular congestion, this Chapter supports a principle that maximizes incentives for the use of alternative transportation modes and routes. This commitment takes the form of support for traffic demand management, traffic calming, narrower roads, slower speeds, preservation of the character of roads with scenic attributes, development of bike and pedestrian facilities, proper consideration of road networks as part of neighborhoods, and pedestrian paths and passageways. Movement in Henniker in all of these directions would result in the improvement of the transportation infrastructure and the protection and preservation of the open space and rural aesthetic character valued by the community.

The overall goal of the Chapter is to maintain a convenient and efficient transportation network to allow the safe transfer of goods and people throughout Henniker, while protecting the aesthetic and scenic qualities of roads within Town. The thrust of the work in the Transportation Chapter is an attempt to articulate a vision and a means by which that vision can be achieved for the Town.