

TRANSPORTATION

1.0 Historical Perspective:

When Hampstead was settled in colonial times, transportation was an important concern because of the town's proximity to the seacoast. In his book "History of Hampstead, New Hampshire", Maurice Randall described the first roadway in Hampstead as a very wide path that led through Sandown, Chester, and towards the sea. That roadway was built to haul lumber to the coast for building British naval ships. Many of these colonial roads or paths, were closed by the mid 1900's. Some of these roadways have been incorporated into the town's conservation trail system, including the section by Kelly Brook between Central and East Roads.

Roads that have been lost to antiquity include; The Old County Road, which led to the Town Pound (closed 1949). Putnam Road, a postal route to the Atkinson, which ran southwest from Emerson Ave. to East Road (closed 1935). Historical roadways in Hampstead that still serve the community are NH State Routes 121, 121A and 111.

Around 1870, Route 121 was greatly improved to enhance access to the West Hampstead Railroad Depot. The railroad was the primary mode of transportation for goods and people to the markets in Boston. The rail station was closed in 1934 when automobiles became the primary source of transportation. Route 111 was built in 1957 and originally spanned from Route 121 to 121A, where it turned south into Danville and traveled to the coast.

Roadway maintenance was originally provided by a highway tax in the 1800's. The tax could be paid by a person committing to fix or clear the roads. In the 1890's, a town road agent was elected for each of the three districts; Hampstead Center, East Hampstead, and West Hampstead. Starting in 1926 and continuing today, a single road agent was elected and took over roadway responsibility for the whole town. The annual highway department budget and monies for maintenance equipment is voted on the town ballot.

2.0 Transportation Today's Perspective:

The Town of Hampstead is "a bedroom community" surrounded by the towns of Atkinson, Plaistow, Kingston, Danville, Sandown, and Derry. The main Transportation infrastructure inside the town consists of three state highways used for local and through traffic. Route 111 is one of the state's primary east /west highways which runs from the seacoast in North Hampton, NH west to Hollis, NH and the Massachusetts border. Routes 121 and 121A run north to south from Auburn to Atkinson and Chester to Plaistow, respectively.

The transportation system has a tremendous impact on the physical settlement patterns of a region, and in New Hampshire, that has been defined almost solely by the extent of the roadway network. Traditionally, the State of New Hampshire has placed the greatest emphasis on expansion of, and improvements to, the roadway network. This is reflected in the well-developed system of state and local roads that provide access to a significant portion of the land in the region. There are however, some deficiencies in that network that have become more apparent as population growth has pushed development further and further from town centers, placing larger traffic burdens on secondary state highways and local roads.

Even though the regional routes of NH State Routes 28 and 125 and interregional routes of Interstate-93 (I-93) and I-495 don't run through Hampstead they still impact our roadways with their volume of traffic as people commute or travel to different regions.

3.0 Interregional Routes

Interstate 93: The State of New Hampshire DOT has programmed funds to widen I-93, with construction underway as of 2007. The current program calls for adding two lanes in each direction the whole length of the corridor from the border with Massachusetts to the I-293 interchange in Manchester, NH. All of the interchanges will be reconstructed and upgraded, as well as some of the segments of the highway will be relocated. The project also includes significant investment in bus service and Park and Ride facilities along the corridor, and space is being provided in the median for a future light rail system or other rapid transit. Coordination of effort will be necessary to avoid reversing the current situation and creating a bottleneck on the southern side of the border as Massachusetts is planning improvements of its own. The Rockingham Metropolitan Planning Organization (MPO) has participated in a study developed by the Merrimack Valley Planning Commission to explore necessary improvements on that side of the state border.

In 2006, the Average Daily Traffic (ADT) ranged from approximately 110,000 vehicles at the NH-MA state line to approximately 72,000 at the Derry-Windham town line.

The I-93 widening will start at Exit 1 and continue north through Exit 3 and includes constructing 4 lanes in each direction, reconfiguration and reconstruction of all bridges and interchanges (work is on-going now as of 2008). The plans call for the development of Park and Rides at Exits 2, 4 and 5, transit service along the corridor, and technical assistance to communities expected to be impacted by growth due to the project. Plans also include extending the widening north to Manchester (3 lanes in each direction), however limited funding has put this portion of the project on hold at this time.

NH 125: This roadway carries traffic to and from I-495 in Haverhill, MA through Plaistow, Kingston, Brentwood and Epping. NH 125 provides a north-south connection between 495 and NH 101 at Exit 9 in Epping, and further north to US Routes 4 and 16 (Spaulding Turnpike) in Rochester and eventually into the State of Maine. Except for a short section near the Massachusetts border which is four lanes and a section around the 101 interchange in Epping, NH 125 is currently a two lane roadway with Average Daily Traffic (ADT) that range from 22,000 (2006) vehicles at the border with Massachusetts, to approximately 13,000 in Kingston, and increase back up to 24,000 vehicles per day north of the NH 101 interchange in Epping. There are planned modifications to this roadway from Plaistow to Kingston making it a two-lane road in both directions along that stretch of road. This change is to accommodate the growth in the region resulting from commercial and residential expansion.

Interstate 495: I-495 is a route, which follows a northeast to southwest path through the center of the Merrimack Valley Region – the Massachusetts portion of the NH-MA Lawrence/Haverhill Urbanized Area. The highway forms an “outer belt” around the Boston Metropolitan area. Although entirely within Massachusetts, I-495 provides access to other highways in the area such as Routes 97 and 125, and creates an east-west connection between I-93 and I-95.

4.0 Regional Routes

NH 28: State Route 28 provides a parallel route to I-93 in Salem and Windham and on to Manchester, NH. This is a heavily traveled roadway through the region with significant retail and other commercial development, particularly in Salem. Traffic volumes through much of Salem are in the range of 23,000-25,000 vehicles per day, which tapers off to around 18,000 vehicles at the Windham town line and reduces further to around 12,000 vehicles per day at the Derry town line.

NH 111: State Route 111 provides a secondary east-west route through the RPC region to Windham and continuing across New Hampshire that parallels NH 101 to the north and I-495 to the south. The roadway has two distinct regions of heavy activity located around I-93 in the west, and Exeter and NH 101 in the east. The roadway starts as a low volume (5000 vehicles per day) facility at NH 1A in North Hampton and continues westward connecting with NH 101 where traffic volumes have doubled to 10,000 vehicles per day. Traffic levels double again as it continues through downtown Exeter (19,000 vehicles per day), but drop off again through Kingston where it connects to NH 125. From Kingston it continues through Danville, Hampstead, Atkinson, Salem and Windham steadily increasing in volume from around 7,700 vehicles per day to 23,000 near Interstate 93 in Windham (2005). From Windham the roadway continues through Pelham to Nashua and Massachusetts.

RT 111 in Hampstead is a major commuting corridor through the town. Additionally land use along this roadway in Hampstead is the primary location of commercial zoned property for the community. As economic development continues along this corridor in Hampstead and in adjacent towns of Atkinson, Salem, and Derry, it could have a serious negative impact on traffic congestion and on commuters traveling from or through Hampstead to I-93 Exit 3.

Flooding on RT 111 near the Atkinson town line at Hog Hill Pond has closed the road for a few days in recent years resulting in detours through town roads.

NH 121: Route (named **Main Street** *north of Emerson* / **Stage Road** *south of Emerson*) is a two-lane roadway running between Atkinson (from the Massachusetts border) to Auburn. This road provides commuter access to NH 111, Hampstead Road (to Derry), and Depot Road (to Sandown). Traffic volume (ADT) is 8,600 vehicles per day at the Atkinson/Hampstead town line. As residential growth continues in Atkinson, Sandown, southern part of Chester, and Hampstead, NH 121 is becoming increasingly important as a commuter route into the large employment centers in the Merrimack Valley and the Boston Metropolitan area. In fact, traffic on this roadway is growing at an average annual rate that is close to 5%, which reflects the growth occurring in the region.

NH 121A: Route 121A (named **East Main Street** *south of 111* / **Sandown Rd** *north of 111*) is a two lane road running from Plaistow and ending at NH 102 in Chester. An ADT count on East Main Street, south of NH 111 shows an increase in traffic from 7,300 in 2002 to 8,500 in 2006. Traffic pattern studies in Hampstead show NH 121A to have the highest level of traffic congestion in the town. This road provides commuter access to NH 125 in Plaistow leading to I-495 and as well as access to retail stores in East Hampstead.

5.0 Significant Town Roads

Within the confines of the Town of Hampstead there are several significant roadways that provide access to the Town Centers, Shops, Regional Routes, Neighboring Communities as well as other destinations within the town. The list below is a brief selection of those major roadways (excluding those noted above), followed by some statistics regarding traffic volumes in the town:

- Depot Road
- Kent Farm Road
- East Road
- West Road
- Emerson Ave
- Central Street
- Brown Hill Road
- Derry Road
- North Salem Road

**NH DOT Bureau of Planning, Traffic Section
Hampstead, NH - Traffic Volume Report
May 25, 2007**

Annual Average Daily Traffic				
<u>Location</u>	<u>1999</u>	<u>2000</u>	<u>2002</u>	<u>2005</u>
NH 121 (Walnut Hill) South of Mills Shore Dr.	*	8700	8900	9000
NH 111 West of NH 121	*	14000	13000	13000
NH 111 (Old Danville Rd) at Danville TL	*	10000	11000	11000
NH 121A (East Main St.) South of NH 111	7300	*	7300	8500
NH 111 East of East Rd.	*	14000	15000	14000
NH 121 (Walnut Hill) South of West Rd./Emerson Ave.	5400	*	7300	6000

Annual Average Daily Traffic is the total volume of traffic at the given location for a 24 hour period representing an average day for the year.

- * Denotes data not available for the given year. Years missing/not displayed did not have traffic count data available.

(Source: <http://www.nh.gov/dot/transportationplanning/traffic/reports/hampstead.pdf>)

Many of the accidents in town are caused by driver inattentiveness more than poorly constructed intersections. Studies have shown that having multiple signs to warn drivers of upcoming stops signs or lights don't always get peoples attention.

West Rd. has numerous accidents because it has sharp curves and is used as a cut through to avoid the traffic light at Route 121 and Route 111.

6.0 Highway Classification

Municipal roads and highways are generally maintained and described according to an administrative classification system and a functional classification system. The administrative classification system defines governmental responsibilities for construction and maintenance purposes. The functional classification system is based on the role of a given road in terms of the amount of traffic it carries and the type of area it serves.

Utilizing the Administrative Classification system highways under state maintenance and control include Class I, II, and III highways. Class IV, V and VI highways are under the jurisdiction of municipalities.

The descriptions below, based on information contained in *New Hampshire Department of Transportation Bureau of Municipal Highways*, detail the various administrative classes.

Class I, Trunk Line Highways, consist of all existing or proposed highways on the primary state highway system, excepting all portions of such highways within the compact sections of cities and towns. The state assumes full control and pays costs of construction, reconstruction and maintenance of its sections; the cities and towns under Class IV highways control the portions in compact areas. **Hampstead has no Class I highways.**

Class II, State Aid Highways, consist of all existing or proposed highways on the secondary state highway system, excepting portions of such highways within the compact sections of cities and towns, which are classified as Class IV highways.

All sections improved to the satisfaction of the commissioner are maintained and reconstructed by the State. The city or town in which they are located must maintain all unimproved sections, where no state and local funds have been expended. Until improved to the satisfaction of the Commissioner of Transportation.

All bridges improved to state standards on Class II highways are maintained by the State. The city or town shall maintain all other bridges on the Class II system until such improvement is made. Bridge Aid funds may be utilized to effect such improvements. **Hampstead's Class II highways consist of: Routes 111, 121 and 121A, East Rd., East Derry Rd.**

Class III, Recreational Roads, consist of all such roads leading to, and within, state reservations designated by the Legislature. The state highway department assumes full control of reconstruction and maintenance of such roads.

Class III-a, Boating Access Highway, shall consist of new boating access highways from any existing highway to any public water in this state. All Class III-a highways shall be limited access facilities as defined in RSA 230:44. Class III-a highways shall be subject to the layout, design, construction, and maintenance provisions of RSA 230:45-47 and all other provisions relative to limited access facilities, except that the Executive Director of the Fish and Game Department shall have the same authority for Class III-a highways that is delegated to the Commissioner of the Department of Transportation for limited access facilities. No access shall be granted to an abutter for any Class III-a highway. A Class III-a highway may be laid out subject to gates and bars or restricted to the accommodation of persons on foot, or certain vehicles, or both, if Federal funds are not used. The Executive Director of Fish and Game may petition the Governor and Council to discontinue any Class III-a highway.

Class IV, Town and City Streets, consist of all highways within the compact sections of cities and towns. Extensions of Class I (excluding turnpikes and interstate portions) and Class II highways through these areas are included in this classification. Municipalities with compacts are listed in RSA 229:5.

Class V, Rural Highways, consist of all other traveled highways which the city or town has the duty to maintain regularly. **These are listed as the town roads on appendix 1.**

Class V, Rural Highways, Non-Town Maintained, consist of private roads which are not maintained by the town. **These are listed as private roads in appendix 1.**

Class VI, Unmaintained Highways, consist of all other existing public ways, including highways discontinued as open highways, and made subject to gates and bars, and highways not maintained and repaired in suitable condition for travel thereon for five (5) successive years or more. However, if a city or town accepts from the state a Class V highway established to provide a property owner or property owners with highway access to such property because of a taking under RSA 230:14, then notwithstanding RSA 229:5, VII, such a highway shall not lapse to Class VI status due to failure of the city or town to maintain and repair it for five (5) successive years, and the municipality's duty of maintenance shall not terminate, except with the written consent of the property owner or property owners. Hampstead has two of these Class VI Unmaintained Highways; **Kings Pond Rd. & Whitcher Rd.**

Scenic Roads are special town designations of Class IV, V and VI highways where cutting or removal of a tree, or disturbance of a stonewall must go through the hearing process and written approval of local officials. (See RSA 231:157). **Hampstead does not have any designated scenic roads.**

**Hampstead Road Network Classification
Comparative Data from 1992 Hampstead Master Plan**

<u>Class</u>	<u>Description</u>	<u>1992 Miles</u>	<u>1992 % of Network</u>	<u>*2007 Miles</u>	<u>2007 % of Network</u>
Class II	State aid highway	15.31	36%	13.2	17%
Class V	Rural highway-town roads	25.14	58%	55.5	70%
Class VI	Non-town maintained roads	2.46	6%	10.2	13%
	Total Roads	42.91	100%	78.9	100%

* = See Appendix 1 for comprehensive road inventory created by Road Agent in 2007.

The 2006 Hampstead Community Priorities Survey indicated residents felt Hampstead roads are in good condition and the speed limits are adequate and enforced. The majority of respondents believe traffic volume is good and traffic lights are satisfactory.

7.0 Road Management & Issues Under Consideration

Source: Town of Hampstead Highway Agent Handbook September 24, 1990

The town of Hampstead has an elected Road Agent. The term of office for the agent is for 3 years. The responsibilities of the Road Agent includes coordinating, supervising and personally performing summer and winter road maintenance and public work projects; the maintenance of the Town's highway equipment; road work planning, budget preparation and control and "Road Status Report". The Road Agent exercises considerable judgment in determining daily work priorities, use of equipment and manpower utilization.

The Road Agent works under the general supervision of the Board of Selectmen who provides policy guidance and general work priorities. Examples of seasonal road management tasks under the direction of the Road Agent include; Spring - pot holes and drainage, Summer – hot top, reconstruction and bush clearing, Fall – clearing drainage area for debris, Winter – Snow plowing and Ice treatment.

The current Road Agent has indicated certain roads in town require repairs greater than normal wear due to the lack of an adequate foundation when originally constructed. This inadequacy has required a substantial number of spot repairs and will continue to drain resources until those roads are rebuilt to the appropriate standard. Examples of roads that require rebuilding include Emerson Ave and Brown Hill Rd. Both Kent Farm Rd. and Central St. have been rebuilt to correct this inadequacy.

8.0 Sponsor-A- Highway - Roadway Beautification/Clean-ups

Individuals or groups can sign up to participate in the Sponsor-A-Highway program in Hampstead.

The Conservation Commission usually has a clean-up day to pickup litter along state and town roads that coincides with Earth Day in April. Citizens are encouraged to work with the highway department and pick up trash along town and private roadways during clean-up day and the rest of year.

9.0 Increased Emphasis on Pavement Preservation

With the goal of extending pavement life, the NHDOT is continuing to expand its Pavement Preservation Program by experimenting with preventative maintenance treatments such as chip seals and micro-surfacing. As part of this effort, the annual crack seal program was expanded in FY 2007 to include approximately 93 miles of I-93 as well as 50 miles of state-maintained highways. The Pavement Management Section (Materials and Research Bureau) advertised 10 resurfacing contracts totaling \$15 million.

NH Department of Transportation 2007 Annual Report

10.0 Roundabouts Become Part of the State Transportation System

With roundabouts growing in popularity across the country, the first two state-built roundabouts opened in early June 2007 in Meredith (US 3/NH 106) and Plymouth (US 3/NH 175A). Others are under construction in Keene (NH 101) and Rye (NH 1A). The NHDOT is working closely with communities and responding to their interests when considering whether to build a roundabout. The advantages of a roundabout include slower speeds (minor accidents), saving lives (76% fewer injuries), improving the traffic capacity 30-50%, reducing pollution and fuel use, saving money (signals, lights, electricity), allowing for U-Turns and a better level of service for a longer period of time.

Some of Hampstead's intersection might benefit from roundabouts. Potential intersections for roundabouts are Rt. 121 and Emerson Avenue and Rt 121A in the center of East Hampstead village.

11.0 Documenting Stone Culverts Across New Hampshire

In response to damages to numerous culverts of historical significance during major flooding events, the NH Bureau of Environment initiated a statewide stone culvert survey. These stone culverts are links in the drainage systems along the state's highway systems and are viewed as significant assets to the State of New Hampshire. Many of these stone culverts are eligible for the National Register of Historic Places. The goal of the fieldwork was not just to survey pristine examples of stone culverts, but also to establish an understanding of how these stone structures fair under flood conditions and to begin to establish an understanding of the construction and change in these structures over time. This study is ongoing and when additional research is collected and analyzed it will be shared with local road agents and other interested groups.

Hampstead has stone culverts around town. Stone culverts tend to clog easier than pipes as they are rough and debris collects inside. The highway department is responsible for unclogging and repairing culverts. There are times when repairing stone culverts are not feasible and they are replaced.

12.0 Traffic Congestion

NHDOT's 2007-2016 Ten Year Plan on traffic congestion shows as of 2004, traffic through Hampstead on routes 111 and 121 is considered moderate. Route 121A is shown as congested through Hampstead declining to a moderate traffic flow at the Sandown and Danville town lines. Appendix 2 is a map displaying these findings.

The Hampstead Police Department expects traffic volume to increase on Route 111 when the bypass connects to I-93. The Police will deploy more patrols on the roads to keep traffic within the speed limits to mitigate traffic risks.

13.0 Commuters

Many of the region's residents commute south to Massachusetts for employment. This, combined with trips from Massachusetts to take advantage of commercial and recreational opportunities in New Hampshire, has led to significant demand for north-south travel through the region. These trends have produced significant impacts on the traffic in many of the north-south corridors in southern New Hampshire, and specifically Interstate 93 and Route 125 in this region. Other regional roadways, such as Routes 97, 108, and 121 have been impacted as well, although to a lesser extent. Problems with capacity in these corridors seem to be the most severe at or near the border with Massachusetts, in part because this is where traffic volumes are the greatest. On I-93, traffic enters or leaves New Hampshire in the southern part of Salem at volumes greater than 110,000 vehicles per day. Similarly, both routes 121 and 121A, along with the traffic from Route 125, all converge near the border with Massachusetts where ADT reaches its highest volume at about 23,000 vehicles per day.

As mentioned earlier, RT 111 in Hampstead is a major East/West commuting corridor through the town. Additionally land use along this roadway in Hampstead is the primary location of commercial zoned property for the community. As economic development continues along this corridor in Hampstead and adjacent towns, it could have an impact on traffic congestion and commuting to and from Hampstead.

Information from the U.S. Census Bureau (Hampstead Community Profile)
Town of Hampstead Commuting Data

COMMUTING TO WORK (*US Census Bureau*)

Workers 16 years and over:

Drove alone, car/truck/van	88.6%
Carpooled, car/truck/van	6.2%
Public transportation	0.4%
Walked	0.8%
Other means	0.2%
Worked at home	3.8%

Mean Travel Time to Work **32.9 minutes**

Percent of Working Residents:

Working in community of residence	14%
Commuting to another NH community	42%
Commuting out-of-state	44%

Hampstead is one of the 26 towns and cities, which will be impacted by the expansion of I-93 described earlier in this master plan section. It is anticipated that with the highway expansion Hampstead will experience traffic effects from that project.

The Hampstead Planning Board's 2006 Report to the Town indicates the board's concern with increased traffic in Hampstead from regional growth impacts;

"Our neighbors to the north, Chester, Sandown, and Danville, are growing much faster and these developments will impact Hampstead primarily in greater traffic. We are keeping an eye on this situation and also participating, with other towns in the region, in planning sponsored by the state to evaluate the potential impact of a planned widening of Interstate 93 from Salem to Manchester."

14.0 Crash Rates

NHDOT's 2003 crash rate data on routes 121, 111 and 121A show a low rate of accidents based on police reports in 2003. The map displayed on Appendix 3 is an extract of a state map for the Hampstead area.

15.0 Dangerous Intersections

Safety

Prior Master Plan's for Hampstead listed several dangerous intersections in town. Of the six intersections mentioned in the Last (1992) Master Plan, the town has installed traffic lights at one of them as an improvement since that time. The town has also installed another set of lights at the intersection of Route 111 and East Road as well as at Emerson Ave and Route 111.

<u>Dangerous Intersection Location</u>	<u>2007 Number of Accidents</u>
Route 121A and Brown Hill Road	2
Route 111 and Hazel Drive	1
Emerson Avenue and East Road	1
Webber Road and Central Street	1
Route 121A and Central Street	1
Route 111 and Danville Road	5
121 & Emerson Ave/West Rd (Sign Island)	5
Derry Road & 121 (Four Corners)	4

The Chief of Police has indicated that some of these intersections have poor visibility. However, in his view, the primary cause of most accidents is driver inattention or impatience.

At this time there are not any projects in place for these intersections. Most are on State roads, with State jurisdiction.

During the period between 1993 and 1999, there were approximately 15,000 traffic accidents in the Rockingham Planning Commission region. There is generally a trend that shows the number of accidents increasing between 1993 and 1999.

Looking at the number of accidents related to the primary state highways in the area, it can be seen that the most heavily traveled roadways are also the ones on which the most accidents occur. This however does not mean that the rate of accidents on these roadways is higher, just that there is more traffic and more accidents.

In terms of the different types of accidents that occurring in the region, over 71% include a collision with another moving vehicle. Another 17% involve colliding with a fixed object such as a telephone pole, tree, or building. The remaining 12% of accidents include everything from striking an animal (1.9%), pedestrian (0.88%), or bicyclist (0.54%) to falling objects (0.32%), off road vehicle accidents (0.03%), and fires (0.01%).

In terms of the general location of the accidents, about one-third (32.4%) are at or related to an intersection, while another 46.5% occur along the roadway or at a driveway access point. Another 13% occur in a driveway or parking lot, and the rest (about 8%) occur at other locations.

16.0 Highway Safety Committee

The Highway Safety Committee is made up of individuals from the police department, fire department, highway department, and volunteer private citizens. They meet on an as needed basis. If a citizen has a safety complaint they contact the Selectmen who will pass the issue on to the committee. Most issues are neighborhood speed related topics.

17.0 Alternate Forms of Transportation

The country's growing dependence on the private automobile has had tremendous impact on our daily lives. The low cost of owning and operating an automobile in the U.S. relative to other countries has increased personal mobility, thus allowing individuals greater freedom in choosing where to live, work, and shop. That freedom, however, has come with costs. The explosion in private automobile ownership and usage has had a pronounced effect on land use patterns, influencing everything from the layout of neighborhoods to the design of fast food restaurants.

Much of the development that has taken place is tailored to automobile users, and more often than not at the expense of other modes of travel, such as public transit, walking and bicycling. Personal mobility is difficult for people who cannot afford an automobile, or for those who are not able to drive because of their age or physical condition. In addition, environmental impacts have become more obvious because of increases in the number of vehicles on the roads and vehicle miles traveled (VMT) in the region; as well as decreases in average fuel efficiency with the popularity of SUVs, mini-vans, and pickup trucks. The result is a dramatic increase in pollutants emitted by vehicles and congestion created by the lack of sufficient roadway systems to handle the increasing number of automobiles on the roads. Even aside from these environmental costs, few people take into account the full direct cost of driving a single occupant vehicle in making our commute decisions.

The American Automobile Association (AAA) estimates the average cost of driving a new car in 2007 at 52.2 cents per mile, including fuel, maintenance, finance charges insurance, and depreciation.

Public transportation clearly plays an important role in addressing the mobility, traffic and air quality issues this region is facing. It represents a more efficient use of the existing roadway network, by carrying passengers that might otherwise be driving their own vehicles. A successful public transportation system can remove a significant number of vehicles from the roadways, thus reducing harmful emissions. Public transportation also offers many social benefits by providing a service to those who do not drive themselves, due to personal choice, age, income or disability.

However, there are many factors that present challenges to public transportation.

The land use patterns that have emerged in this auto-dominated society (i.e., relatively low residential density and separation of land uses) are often incompatible with traditional public transportation, which operate best in an area with high population/development densities and mixed land uses.

Hampstead's alternate form of transportation includes CART (Cooperation Alliance for Regional Transportation) and the Park & Ride at Route 121 and Route 111. Other transportation options are located in nearby towns.

The 2006 Hampstead Community Priorities Survey showed that a large number of respondents think sidewalks and bike paths are warranted. When questioned about local bus service it was determined that not as many people found it was necessary.

How would you rate the NEED for these <u>NEW</u> facilities or services?	VERY NEEDED	SOMEWHAT NEEDED	NO OPINION	NOT VERY NEEDED	NOT NEEDED
Sidewalks	125	132	53	84	138
Bike Paths	127	184	101	51	67
Local Bus Service	52	137	115	98	130

17.1 Sidewalks / Bike Paths

The new Irongate community off West Rd in Hampstead Center has installed paved sidewalks from this new development up West Rd to Main St. There is currently a sidewalk on the corner of West Rd. and Main St. across from the Memorial Gym.

The State of NH is encouraging students to walk or ride bicycles to school is the goal of Safe Routes to School (SRTS) Program. This program is designed for children in kindergarten through eighth grade, including students with disabilities, who live within approximately two miles of school. The Bureau of Planning and Community Assistance works with local schools, municipalities, Regional Planning Commissions, and advocacy organizations to implement the federally funded national initiative. Applications from 35 schools in 16 cities and towns have been submitted seeking more than \$926,000 in reimbursement SRTS funding.

The roads around Hampstead Central School and Hampstead Middle School do not have sidewalks so the students are bused to school even if they live close to these schools.

Through some of the Federal programs the town could evaluate establishing a Hampstead Center School Pathway. This would be a walking/bike path between the two schools. There is a mowed strip of field that runs behind St. Anne's Church that is used by the students on field trips between the schools. This provides access from one school to another in case of emergency. This mowed path should be evaluated to become a more permanent structure / asset to the community. As a matter of reference the neighboring town of Londonderry has added a paved path between their schools.

There are designated bike paths along several roads that run through Hampstead. They can be viewed via the web on the following hyperlink: <http://www.nh.gov/dot/nhbikeped/> There are other Transportation Enhancement Programs with federal funding are available to encourage towns to create and expand the use of Bike Paths and Walkways.

For example the 1992 Intermodal Surface Transportation Efficiency Act (ISTEA) (<http://www.nh.gov/dot/public/reports.htm>) called for a 10-percent share of all Surface Transportation Program funds to be used for transportation enhancement activities. The intent of the program is to develop and reinforce "livable communities" by funding projects that preserve the historic culture of the transportation system, and/or, enhance the operation of the system for its users.

The Transportation Enhancement Program continues and has expanded under the current Transportation Equity Act for the 21st Century, or TEA-21.

Projects that are eligible include the following categories:

- * Historic Preservation
- * Landscaping and other scenic beautification
- * Scenic or historic highway programs, including tourist or visitor's facilities
- * Pedestrian or Bicycle Facilities-Sidewalks, trails, storage facilities, promotional activities, safety education, etc.
- * Preservation of abandoned railway corridors

Towns can apply for funding from this program. Federal funds will pay up to 80% of the cost of the project, with the applicant being responsible to provide matching funds. Participating towns are encouraged to work with surrounding communities on these projects.

17.2 Park and Rides

NHDOT provides Park & Ride in a number of locations including Hampstead. Regional Park & Rides are note below:

Hampstead Park & Ride Route 121 and Route 111

Hampstead's Park & Ride Lot offers a lighted area, 104 parking spaces, bike racks, and a covered shelter but it does not offer public transportation.

The Hampstead Police Department in the past, has had problems with vagrants sleeping in their cars at night in this lot.

It's possible that this Park & Ride would be more beneficial if a bus stop were introduced to this location.

Plaistow Park & Ride Westville Road off NH 125

Amenities include parking spaces, bike racks and intercity bus service to Boston. The Coach Company is responsible for this service and can be contacted at www.coachco.com

Salem Park & Ride/ Bus Terminal Exit 2 off I-93

Approximately 470 spaces will be available with a full service bus terminal. Completion is expected with the bus terminal in the fall of 2008

Windham Park & Ride Route 111, just west of I-93, Exit 3

Offer lighted area with 150 spaces, bike racks, covered shelter but this location does not offer public transportation. NHDOT anticipates a new park and ride with bus service to be completed in 2013.

Londonderry Park & Ride/ Bus Terminal Exit 4 off I-93

This park and ride offers a lighted lot with 471 parking spaces, bus shelter, bike racks, and public transportation. Concord Coach provides bus service alternatives from Londonderry to Boston's South Station.

17.3 Van Service

CART (Cooperative Alliance for Regional Transportation)

CART is designed to: 1) coordinate the efforts of a range of existing agencies providing van service to senior citizens, individuals with disabilities, and others in need of transportation in the region; and 2) expand the level of service available by accessing federal transit funds available to the region which have not been tapped previously. CART is structured as a regional brokerage system intended to improve the efficiency of existing transportation services by centralizing scheduling and dispatching of vehicles

CART is a shared-ride service that is available to any resident of the nine service towns (Chester, Danville, Derry, *Hampstead*, Londonderry, Plaistow, Salem, Sandown, and Windham) including seniors and others in the community who need transportation. Wheelchair lift-equipped vehicles are available to accommodate the needs of individuals with disabilities. The cost to ride CART is \$2 for a one-way trip. These trips can be anywhere in the nine town area. They also include trips outside of the region to Caritas Holy Family Hospital, Lawrence General Hospital, Catholic Medical Center, Elliot Hospital, and Dartmouth-Hitchcock in Manchester. <http://www.cart-rides.org/>

CART Statistics for 2007

	<u>No. of Trips</u>	<u>Percent</u>
Hampstead*	1,138	9%
CART System Total	12,914	100%
Details of Hampstead:		
Medical Purpose	604	53%
Work Purpose	116	10%
Social Purpose	135	12%
Shopping Purpose	203	18%
Other Purpose	80	7%
Hampstead Total	1,138	100%

* = Hampstead as a community in 2007 had the highest percentage of trips by a member town serviced by the CART System.

17.4 Trains

MBTA

www.mbta.com

The MBTA (Massachusetts Bay Transportation Authority) is a commuter rail that has a stop located at 1 Washington St., Haverhill, MA. This train takes commuters into North Station in Boston. Parking is available for a fee.

Recently it has been reported that the MBTA is looking to extend the Haverhill-to-Boston commuter rail line closer to New Hampshire, possibly even setting up a stop in Plaistow. This extension is being investigated/discussed currently without a time certain for decision.

Amtrak Downeaster Portland-Boston Rail

www.thedowneaster.com

The Downeaster runs from Portland, ME to Boston with several stops along the way including Haverhill, MA. The Haverhill station is located on Washington Street at Railroad Square. Limited free parking is available.

18.0 Recommendations

Maintain and Improve Road Infrastructure

- Work with surrounding towns and RPC on regional traffic committee to help keep traffic congestion under control. Road agent should continue to work with Danville, Kingston and Atkinson on road maintenance issues having common interest.
- Continue to pursue Federal Block Grant Funding as well as any State Funds or Matching Grants to improve/maintain infrastructure.
- Work with the State of NH to address the flooding issue on State HW RT 111 in Hampstead.
- The road agent should work with an engineer to develop a plan for a sustainable preventative road maintenance program.

Implement Safety Improvements

- Focus on Infrastructure improvements to enhance the safety of residents, commuters, and tourists through the town. Measures should include redesign/rebuild dangerous intersections, providing for safe parking at town facilities and increasing safety awareness in the community.
- The town should work with NHDOT to evaluate either a 4 way stop, traffic light, or other alternative safety measure (i.e. roundabout) at the intersections of RT 121 and Depot Road in West Hampstead and RT 121 and Emerson Avenue in Hampstead Center.
- Parking and safety concerns should be addressed at town facilities. Specifically parking at the fields at Ordway Park, Depot Road, Holiday Lane and Ells Road town beach area should be improved/increased.
- The town should consider request to NHDOT to lower speed limit to 30 MPH on RT 121 in the Village of West Hampstead and 30 MPH on RT 121A in the Village of East Hampstead from Sandown town line to RT 111 intersection.

Minimize Litter Along Roads

- The Road Agent should create an inventory of the “sponsor a highway” patrons and periodically verify if those groups/individuals are still active in the program.
- The Town should encourage clean up the roadways at various times during the year using a variety of groups such as; prisoners, individuals doing community service projects, etc.

Develop Geodatabase and Maps of Local Road Infrastructure

- The town should map all culverts for the highway department maintenance and preservation procedures.

Minimize Traffic Congestion due to Future Development

- Economic projects along RT 111 in commercially zoned areas should work to minimize traffic congestion and promote public safety resulting from development driven traffic changes.
- The town should work with the Towns of Danville, Atkinson, Salem, and Derry which have commercial zone areas along the RT 111 corridor to develop plan on commercial development to minimize impact traffic congestion due the future development on this major commuting highway.
- The town should consider purchasing land at the intersection of RT 121A and 111 in East Hampstead in consideration for future improvements to this intersection as a result of the expected growth in the region.
- Promote Park & Rides to help encourage commuters to share rides, encourage a local bus line to establish a stop in Hampstead.
- “Gateway” Intersections in the town on significant roadways in Commercially Zoned areas, should limit development and maintain Green space (i.e. one of the four corners in an intersection) to alleviate congestion and preserve the character of Hampstead.

Install Bike Paths/Sidewalks in Selected Areas

- The town should evaluate establishing a Hampstead Center School Pathway between the Central and Middle Schools and possibly to the trail head of the Conservation Trails near the Town Highway Dept. garage.
- The town should consider widening road shoulders for bike paths or gravel-based sidewalks to encourage walking and/or bike riding in selected areas of town such as Hampstead Center and East Hampstead village.
- Town should request new crosswalk markings across RT 121 at Don Markets, from Tel Nor Camp to Shop Pond Park, and at RT 121 and Emerson Avenue and also on Depot Road where the Rockingham Multi-Purpose Trail crosses the road.

Material used in this chapter has been collected and in some instances copied from the following sources:

Source: 2007-2026 Long Range Transportation Plan compiled by Rockingham Planning Commission <http://www.rpc-nh.org/PDFs/docs/Long-Range-Plan/Chapter5-Highways-2007.pdf>;
<http://www.rpc-nh.org/PDFs/docs/Long-Range-Plan/Chapter8-Transit-2007>

INSERT APPENDIX A HERE

APPENDIX B – Traffic Congestion (Extract out of State Map)

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QuickTime™ and a
decompressor
are needed to see this picture.

APPENDIX C – Crash Rates (Extract out of State Map)

CRASH RATE**Map Based on 2003 Data**

Accident rates shown on this map were based on all of the locatable accidents reported by police officers in 2003. Accident rates are based on the number of accidents and traffic volumes along a length of road. This rate information can be used to identify areas of concern for further study. Accident causes, including vehicle, human, and roadway factors, would need to be determined for those areas of concern before accurate determinations can be made as to the proper way to improve safety.

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