Upper Valley Lake Sunapee Regional Planning Commission

NH 120 Claremont-Lebanon/Hanover Transit Planning Services

DRAFT - Technical Memo 1

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Chapter 1 - Introduction

The Upper Valley Lake Sunapee Regional Planning Commission (UVLSRPC), a not-for-profit, voluntary association of 27 municipalities in western New Hampshire, is collaborating with the Community Alliance Transportation Services (CATS), a public transit service of the Community Alliance of Human Services (CAHS), to conduct a study of the feasibility of transit services along the New Hampshire Route 120 Corridor, between Claremont in the south and the Lebanon/Hanover area in the north. To assist in this study, UVLSRPC retained s study team comprised of Nelson\Nygaard Consulting Associates and Smart Mobility to prepare a transit feasibility study for the Corridor.

The study area for this analysis includes sixteen towns, most of which are in New Hampshire and several in Vermont. The five towns through which NH 120 runs are Claremont, Cornish, Plainfield, Lebanon, and Hanover, and the eleven additional towns that serve as a catchment area, including Newport, Croydon, Grantham, Enfield, and Canaan in New Hampshire, and Weathersfield, Windsor, West Windsor, Hartland, Hartford, and Norwich in Vermont. This area covers approximately 650 square miles, and has a population of more than 82,000 people.

This technical memo, the first in a series, reports on the results of the service area profile and the availability of existing services. It reflects an extensive outreach effort that involves interviewing community stakeholders, consulting with regional employers, and surveying area employees.

Chapter 2 - Community Profile

An essential aspect to planning and designing effective public transportation service is understanding the predominant markets for travel and the populations that are most in need of travel options. While people travel for a variety of reasons, most trips are made between home and work, and home and services, e.g., shopping, medical clinics and hospitals, community or social services, and to visit friends and family. In this chapter, we look to demographic data to understand where people live (trip origins) and at the location of major destinations and places of employment to understand where people travel (trip destinations). The following section highlights the spatial distribution of the sixteen-town NH 120 area demographics and land uses, with a focus on demographic groups and activity centers most frequently associated with public transportation use. The results of this analysis are incorporated into the needs assessment.

Overview of the NH 120 Corridor

The sixteen-town NH 120 area straddles the Connecticut River Valley and includes both New Hampshire and Vermont, with towns from Grafton and Sullivan Counties in New Hampshire and Windsor County in Vermont. The towns in New Hampshire all fall within the Upper Valley Lake Sunapee Regional Planning Commission service area, while the towns in Vermont are divided between the South Windsor County Regional Planning Commission and the Two Rivers-Ottauquechee Regional Commission. There are two main demographic centers within the study area, Claremont in the south, with approximately 12,970 residents; and Lebanon and Hanover

in the north with a combined population of 23,938 (see Table 2-1).[1] These areas also have the highest population densities (see Table 2-1), although population densities are higher in the Lebanon area than other communities in the study area. Both Claremont and the Lebanon/Hanover area serve as anchors for employment, services, and residential communities at opposite ends of NH 120. Hartford and Windsor in Vermont also serve as activities west of NH 120.

Table 2-1: Growth Rates in Study Area by Town

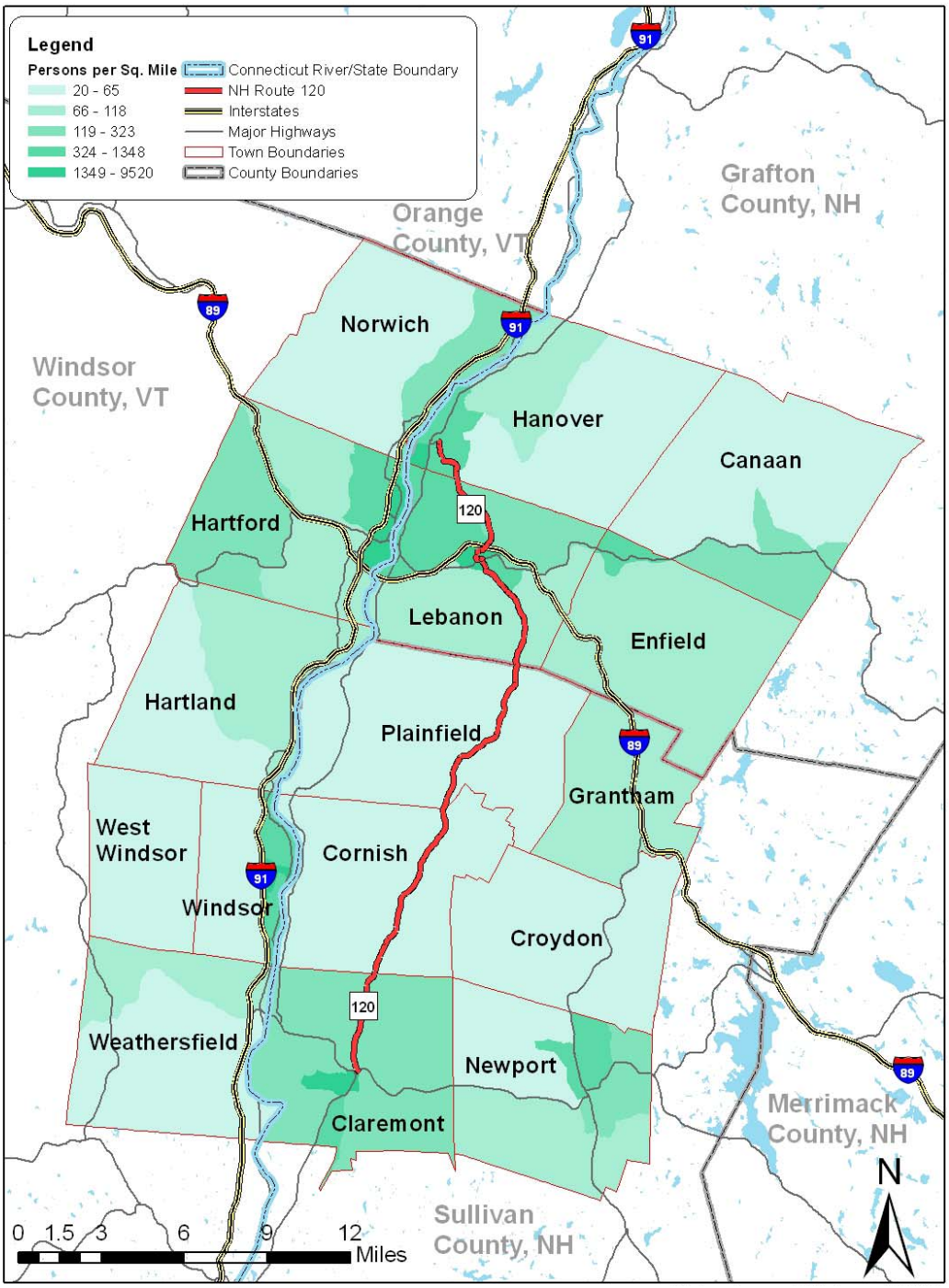
Town Name	2000 Census	2009 Estimated Population	Growth Rate
Claremont	13,151	12,970	-1.38%
Cornish	1,661	1,768	6.44%
Plainfield	2,241	2,446	9.15%
Lebanon	12,568	12,896	2.61%
Hanover	10,850	11,042	1.77%
Newport	6,269	6,531	4.18%
Croydon	661	724	9.53%
Grantham	2,167	2,538	17.12%
Enfield	4,618	4,850	5.02%
Canaan	3,319	3,592	8.23%
New Hampshire Total	57,505	59,357	3.22%
Weathersfield	2,788	2,856	2.44%
West Windsor	1,067	1,091	2.25%
Windsor	3,756	3,596	-4.26%
Hartland	3,223	3,033	-5.90%
Hartford	10,367	10,677	2.99%
Norwich	3,544	3,516	-0.79%
Vermont Total	24,745	24,769	.10%

Source: US Census – 2000 Census and American Community Survey

Growth in the study area has remained fairly steady; only Claremont in New Hampshire experienced a slight decrease in population between 2000 and 2009, while three towns in Vermont experienced a very small to moderate decrease within the same time period. In general, the study area has undergone an approximately 3% growth since 2000. Figure 2-1 shows the population density in the study area, with parts of Claremont, Lebanon, and Hanover having the highest population densities in New Hampshire, and both Windsor and Hartford having the highest population densities in Vermont. Other parts of the study area with higher than average densities include parts of Newport and Enfield, as well as western Lebanon and a southern sliver of Claremont.

[1] US Census – American Community Survey

Figure 2-1 NH 120 Corridor: Population Density



Study Area Demographics

The market for public transportation users is typically divided into two primary groups:

- "Choice" riders who have adequate resources and abilities to operate a private vehicle but choose to use transit because it offers them comparable convenience and/or because of other personal lifestyle and value choices; and
- Transit dependent riders who use public transportation services because they lack the resources to own or maintain a private vehicle, or are unable to operate a private vehicle. Transit dependent individuals are typically characterized by age (older adults aged 65 or more), disability status, income, and households without a vehicle.

While both of these markets are important for public transportation services, each has distinct service needs, preferences, and priorities. Our broad assumption is that there are no definitive demographic characteristics that are linked with choice riders, because for these travelers, using public transportation is a choice. Instead, we understand choice rider travel patterns by looking at the overall demand for travel, which is largely influenced by the location of employment and activity/service centers.

Transit dependent riders, on the other hand, are more easily identified by demographic characteristics that typically indicate challenges associated with operating a private vehicle, such as age, abilities, and income. For purposes of this analysis, we examine the proportion of older adults, persons with disabilities, and persons with low income throughout the study area. The following analysis highlights the spatial distribution of these populations across the county and maps each target population as a number of persons per square mile (see Table 2-2 and Figure 2-2 through Figure 2-5). Data is presented on the Census block group level and is drawn from Census 2000 data.

Our analysis of the market for both choice and transit dependent riders suggests that, relatively speaking, communities with the highest potential demand for transit include:

- The communities along the NH 120 Corridor, which are primarily rural in nature with low population densities overall.
- Within the region, however, the cities of Claremont and Lebanon, as well as the town of Hanover, all have a relatively high concentration of employment, services, and transit dependent populations.
- Claremont and Lebanon als have the highest concentration and numbers of older adults, persons with disabiltiies and persons with low incomes.
- Part of the towns of Enfield and Newport in New Hampshire and Windsor and Hartford in Vermont have relatively high concentrations of transit dependent populations, especially older adults, persons with disabilities, and persons with low incomes.
- The northern part of Weathersfield in Vermont also demonstrates above average levels of transit need.

Table 2-2 Transit Dependent Population Data by Town

		Older Adults		Persons with Disabilities		Persons with Low Income	
Town Name	2000 Census	Persons	Percentage	Persons	Percentage	Persons	Percentage
Claremont	13,151	2,217	17%	2,780	21%	2,470	19%
Cornish	1,661	202	12%	222	13%	124	7%
Plainfield	2,241	228	10%	236	11%	149	7%
Lebanon	12,568	1,799	14%	1,822	14%	1,903	15%
Hanover	10,850	1,476	14%	761	7%	785	7%
Newport	6,269	961	15%	1,430	23%	1,364	22%
Croydon	661	107	16%	149	23%	94	14%
Grantham	2,167	445	21%	172	8%	113	5%
Enfield	4,618	502	11%	683	15%	473	10%
Canaan	3,319	322	10%	428	13%	431	13%
New Hampshire Total	57,505	8,259	14%	8,683	15%	7,906	14%
Weathersfield	2,788	455	16%	503	18%	437	16%
West Windsor	1,067	166	16%	158	15%	101	9%
Windsor	3,756	271	7%	579	15%	676	18%
Hartland	3,223	380	12%	461	14%	250	8%
Hartford	10,367	1,519	15%	1,653	16%	1,554	15%
Norwich	3,544	389	11%	351	10%	227	6%
Vermont Total	24,745	3,180	13%	3,705	15%	3,245	13%

Source: US Census – 2000 Census

Older Adults

The distribution of older adults in the study area is primarily concentrated in the major population centers, including Claremont, Lebanon, and Hanover (Figure 2-2). In Claremont, the area at the start of NH 120 shows a high concentration of older adults, and similarly, the area adjacent to NH 120 in Lebanon also has a high density. There are, however, pockets with high densities of older adults, including a part of Newport and Enfield, as well Windsor between I-91 and the Connecticut River, and parts of Hartford, just across the state line from New Hampshire.

Persons with Disabilities

As shown in **Figure 2-3**, the density of persons with disabilities reflects population density, with the highest densities in Claremont and Lebanon. Parts of Hartford and Windsor, close to the state boundary, again have high densities of persons with disabilities, as does the southwestern corner of Hanover. A larger geographic area than the distribution of older adults in Newport has a high density of persons with disabilities.

Persons with Low Income

For purposes of this analysis, persons with low income are defined as a household with a median income at 150 percent or less than the poverty level[2] (US Census 2000 Summary File 3, Table P88). This population, as shown in **Figure 2-4**, is concentrated in high densities in Lebanon, again with a particular pocket of persons with low income adjacent to NH 120. Western Hanover, eastern Norwich, and northeastern Hartford also demonstrate high densities of people with low income. In the south, Claremont as a whole has a high density of such persons, with a concentration close to the start of NH 120. The northeastern part of Newport, like the area with a high density of persons with disabilities, also shows a high density of persons with low income. Windsor, between I-91 and the Connecticut River, shares a high density of persons with low income.

Composite Needs Index

Figure 2-5 depicts a composite of the three populations described above: older adults, persons with disabilities, and persons with low income. To create this map, the populations were added and normalized by square miles within each block group. Though there is some overlap between populations (for example, older adults who also have a disability), this map indicates density of need in the area. As with the individual transit dependent groups, the areas with the highest density of need are Claremont, Lebanon, and a small part of Windsor and Hartford between I-91 and the state boundary. Parts of Newport, Hanover, and Enfield also exhibit Medium-High needs.

[2] Federal poverty levels differ based on household size. Data included in the map, therefore, represent the proportion of the population that is below the poverty level for their individual household characteristics. For reference sake, in 2000, the poverty level for a family of four with two children under the ages of 18 was $17,463; 150% of this would be $26,195.

Figure 2-2 NH 120 Corridor: Older Adults (65+) per Square Mile

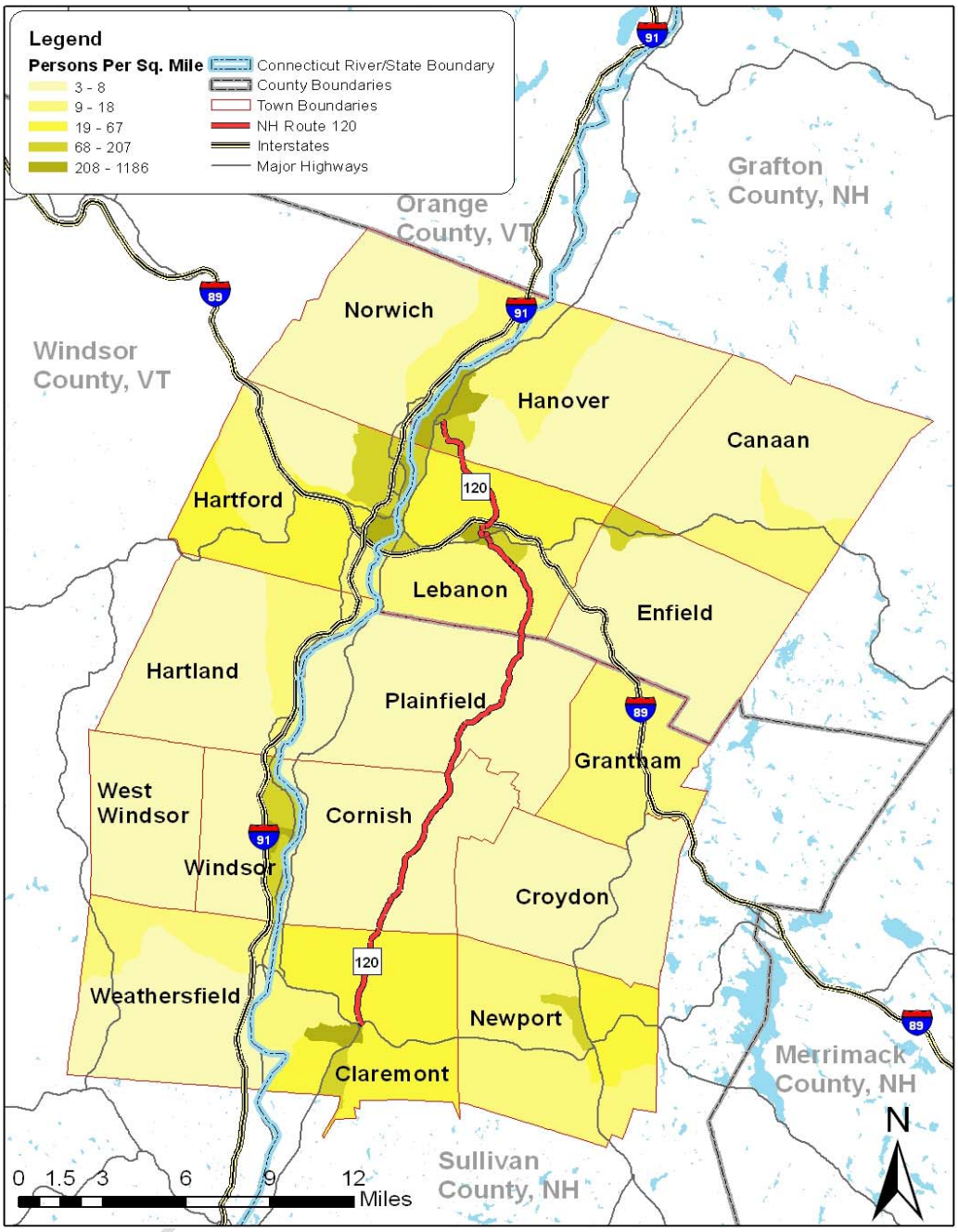


Figure 2-3 NH 120 Corridor: Persons with Disabilities per Square Mile

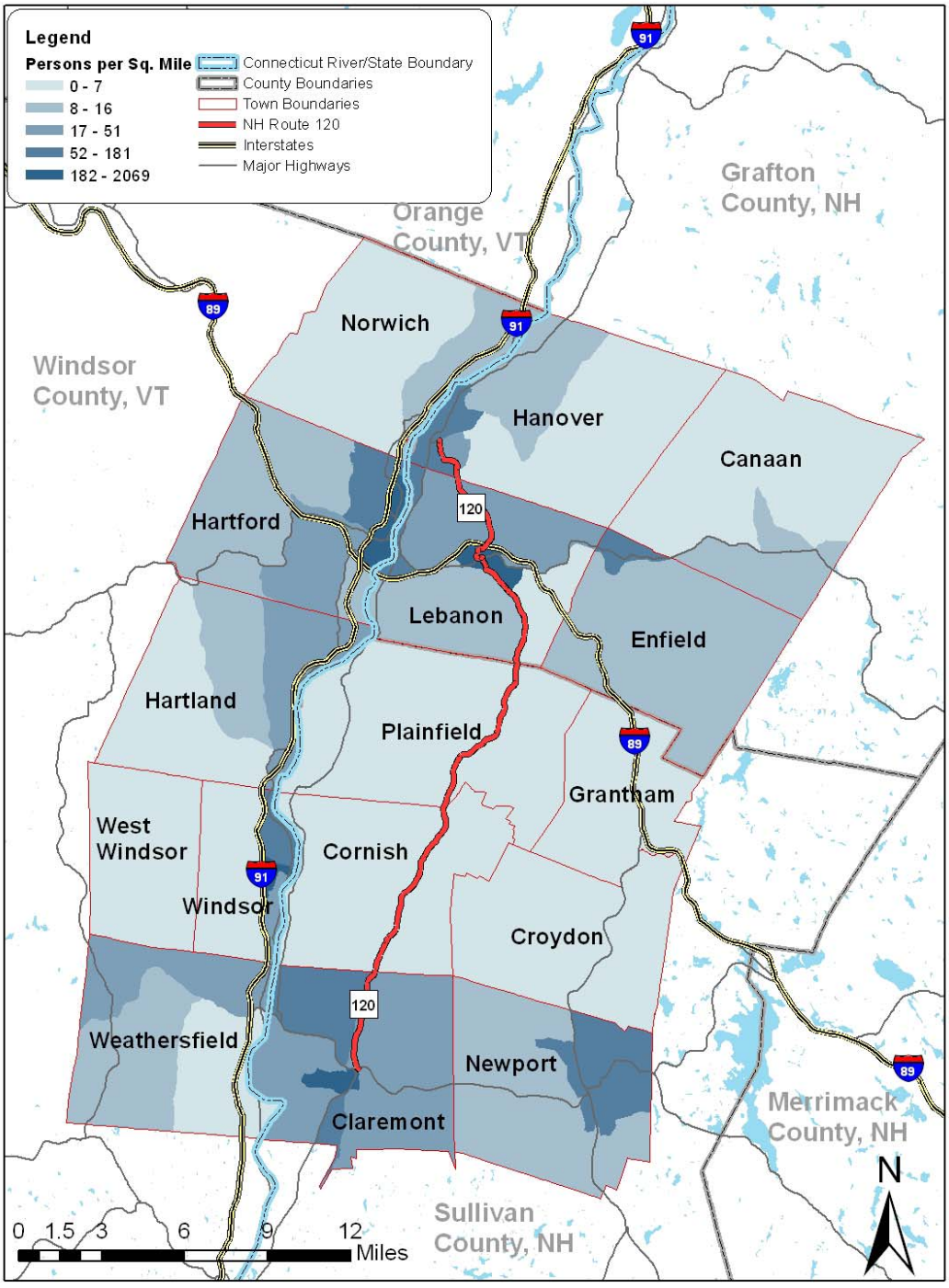


Figure 2-4 NH 120 Corridor: Persons with Low Income per Square Mile

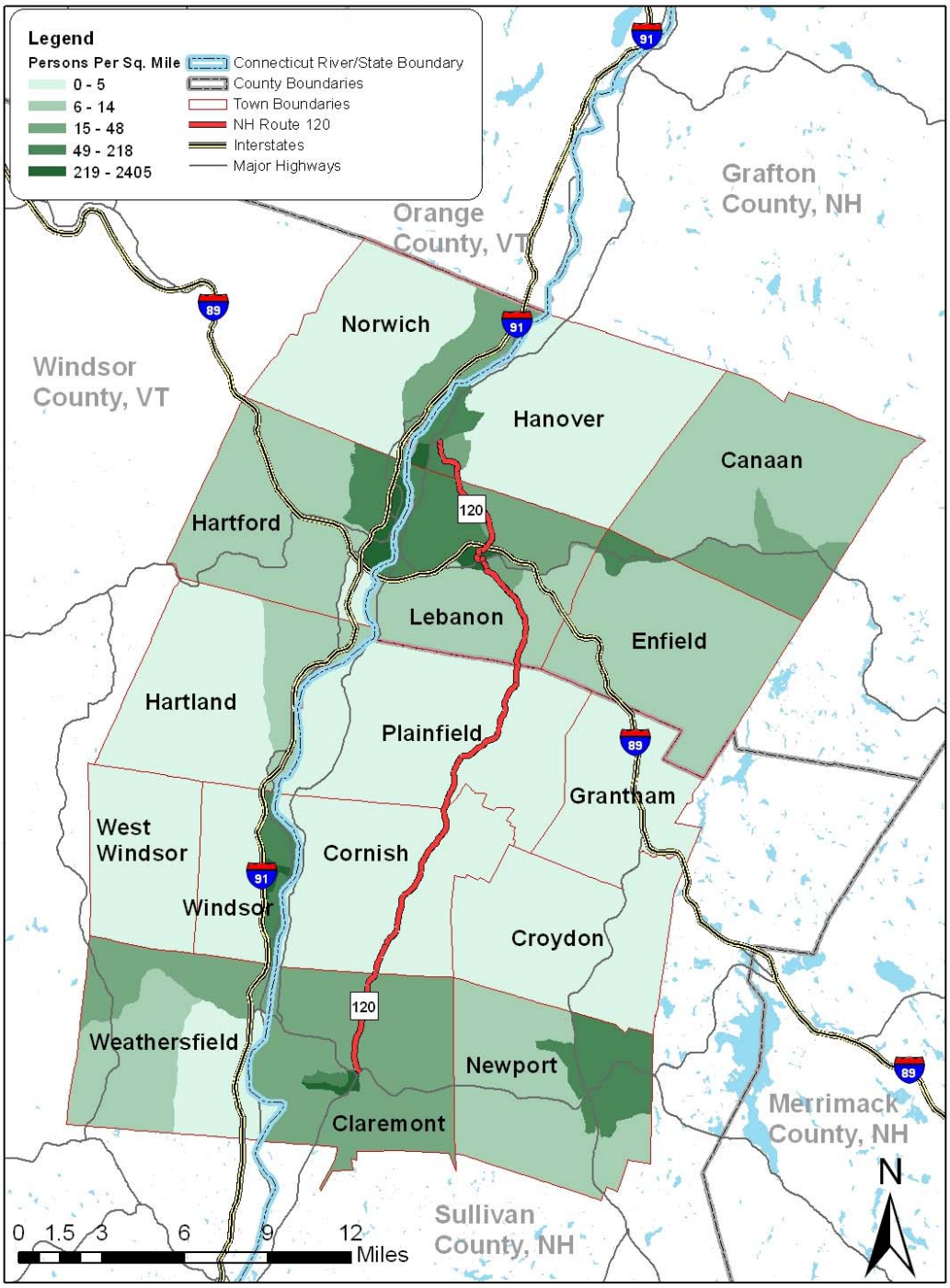
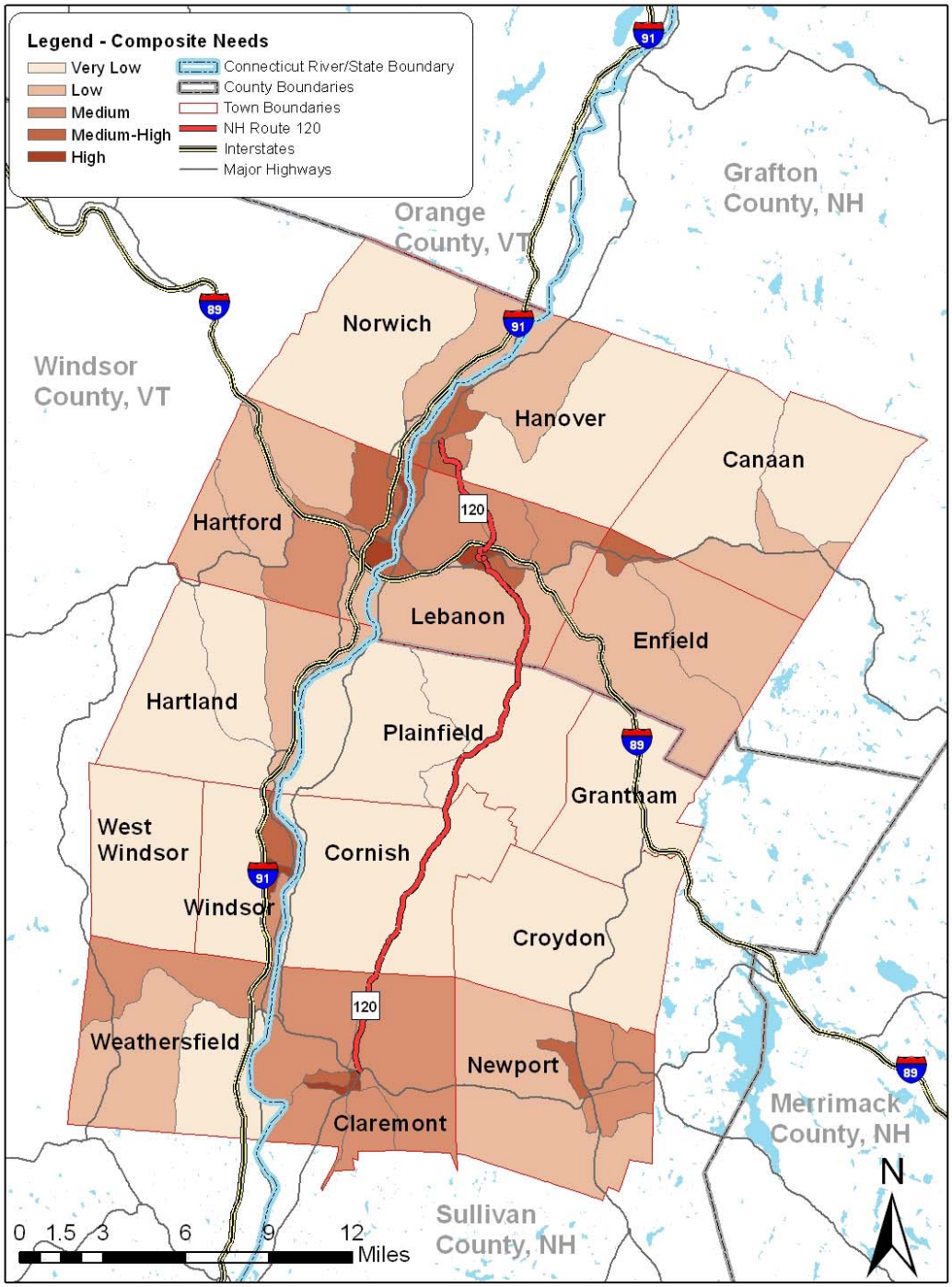


Figure 2-5 NH 120 Corridor: Transit Dependent Composite Needs Index



Employment, Land Uses and Major Destinations

Transportation infrastructure is almost always closely aligned with trip generators such as employment, shopping, and service centers. Areas with higher populations and employment densities are more easily served by public transportation, in part because high density areas have a larger market for travel. In rural areas, public transportation can also be successful by providing connections between village and town centers and employment or service sites, such as hospitals and shopping malls.

Employment and Employment Density

In addition to population density, the location and density of employment is a key factor in determining where and how transit service should be developed. Figure 2-6 shows that the highest densities of employers are in Claremont, Lebanon, and Hanover. As with the findings for the transit dependent population, the eastern parts of Windsor and Hartford also demonstrate high densities of employees. Newport also has a higher than average employment density, for the area.

The employment density patterns generally correspond to the locations of major employers. Hanover, home to Dartmouth College, a major regional employer which supports a variety of secondary employers, shows one of the highest densities for employment within the study area. Its counterpart, to the south, is Claremont, with a matching high density of workers in its downtown area.

There is also a high density of workers in Lebanon. Dartmouth Hitchcock Medical Center, just south of the Hanover-Lebanon border, also is a major regional employer. Similarly, other major employers are close to the Hanover-Lebanon border in the Mt. Etna Corridor, including Hypertherm, Fuji/Dimatix, and others in a variety of industries.

Activity Centers and Destinations

Along the NH 120 Corridor, the primary centers for employment, retail, and other activities are primarily located in Lebanon, and Hanover, with the majority of activity centers custered around teh I-89 and I-91 interchange, as well as NH 120 and where NH 120 meets I-91. Other clusters of activity centers are visible in Newport and along I-91 in Windsor, Vermont. Within the Corridor, but somewhat apart from the population centers are several important destinations, including Valley Regional Hospital, Kimball Union Academy, and River Valley Community College.

Figure 2-6 Major Employers and Employment Density

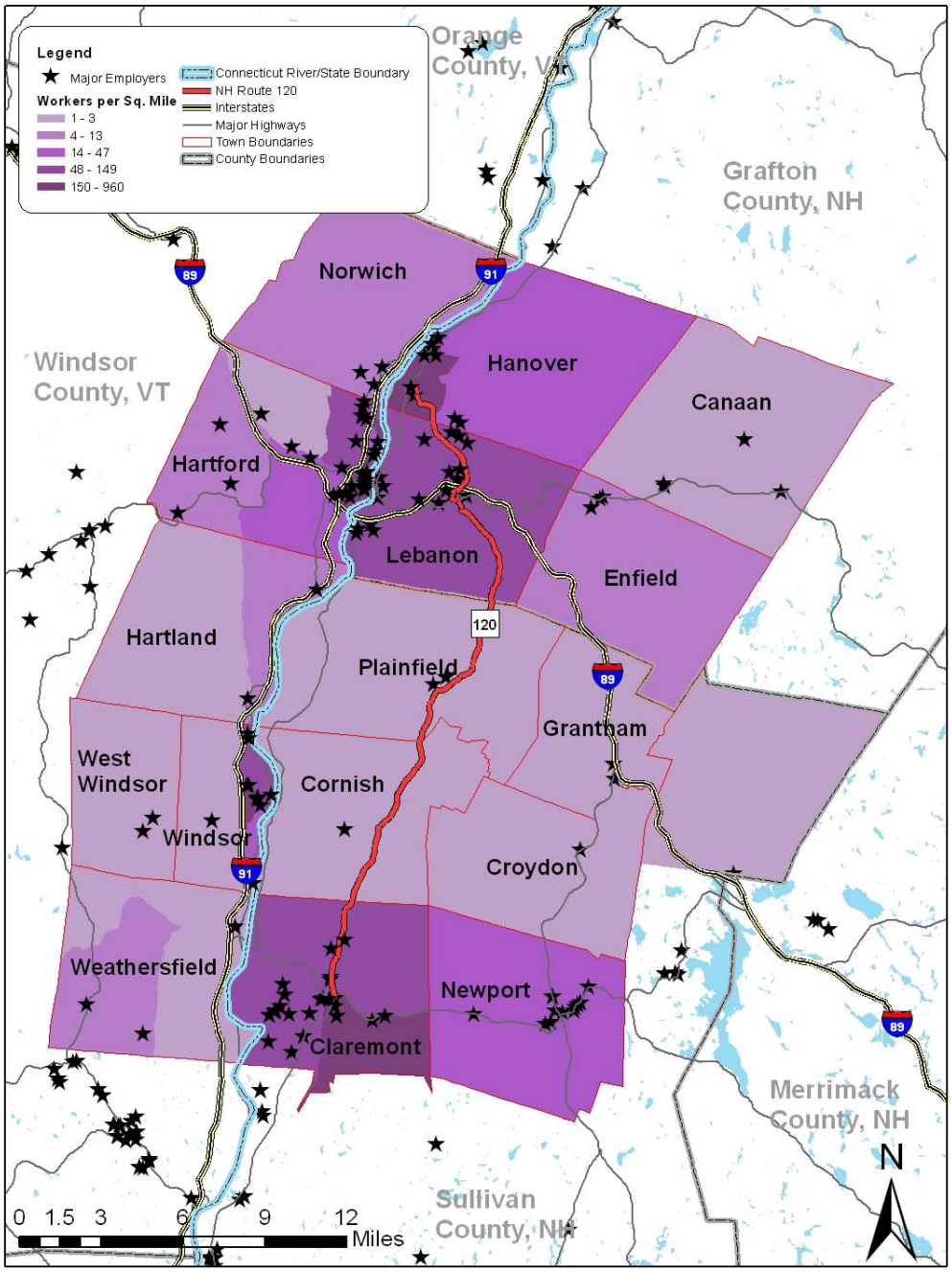
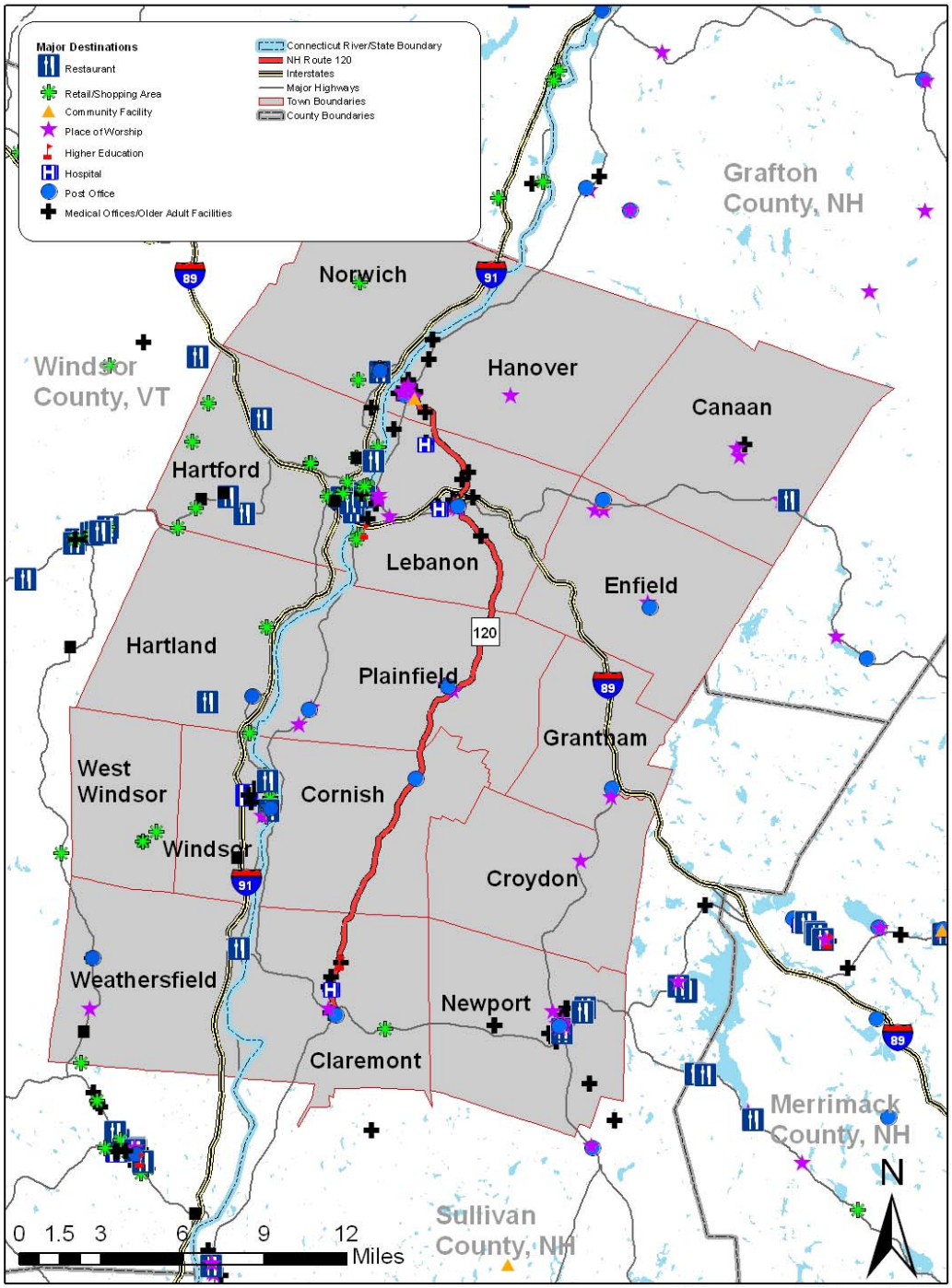


Figure 2-7 NH 120 Corridor: Activity Centers and Destinations



Chapter 3 - Existing Transportation Services

As we consider and evaluate the potential for transit service along Route 120, it is important to take into account the transportation resources currently available in the study area and examine how these services meet the region's needs and could potentially enhance what will be available along Route 120. There are a variety of transportation services available in particular areas and/or to particular populations. This chapter identifies and describes the existing services.

Public Transportation Services

For purposes of this study, public transportation is defined as any service that can be used by any member of the public willing to pay a fare. Thus, private taxi companies or shuttle services, which may have high fares, are still considered public because they are available to anyone. Using this definition, there are a variety of providers with service in the Route 120 study area. The region is fairly unusual in that it has a high concentration of services. Most of the available services, while public, are specialized; they are commuter services specifically designed to bring commuters from outlying communities, especially from communities in Vermont, into the Hanover/Lebannon area. Many of these commuter services provide connections to Advance Transit, while others offer direct connections to the major employers, namely Dartmouth-Hitchcock Medical Center (DHMC). A description of these services is provided in the following text, summarized in Table 3-1 and mapped in Figure 3-1. Individual fixed route service maps are provided in Appendix A.

Community Alliance Transportation Services

Community Alliance Transportation Services (CATS) are transportation services provided by the Community Alliance of Human Services, based in Sullivan County. CATS provides fixed route service connecting Charlestown, Claremont, Newport, Sunapee, and Unity, beginning at 6:30 am and continuing until 5:00 pm, Monday through Friday (with the exception of major holidays). In addition, CATS provides curb-to-curb demand response service in and between Claremont, Unity, and Charlestown for older adults and persons with disabilities.

Advance Transit

Advance Transit (AT) operates a fare-free transportation system in eastern Vermont and western New Hampshire. Communities served include the towns of Hanover, Norwich, Wilder, Hartford Village, White River Junction, Lebanon, and West Lebanon, as well as Dartmouth College and the DHMC. Major transfer points are in West Lebanon, Lebanon, and at Vail/Dartmouth Medical School. Advance Transit operates five routes and two shuttles, as well as ADA complementary paratransit service, with curb-to-curb transport for qualified passengers with disabilities. All Advance Transit buses have equipment to accommodate wheelchairs on-board, making the fixed route service more accessible to a wider audience. AT operates service Monday through Friday, with most routes starting around 6:00 am and ending between 6:00 and 7:00 pm, with the exception of the Dartmouth/Hanover Shuttle, which operates later into the evening.

Stagecoach Transportation Services

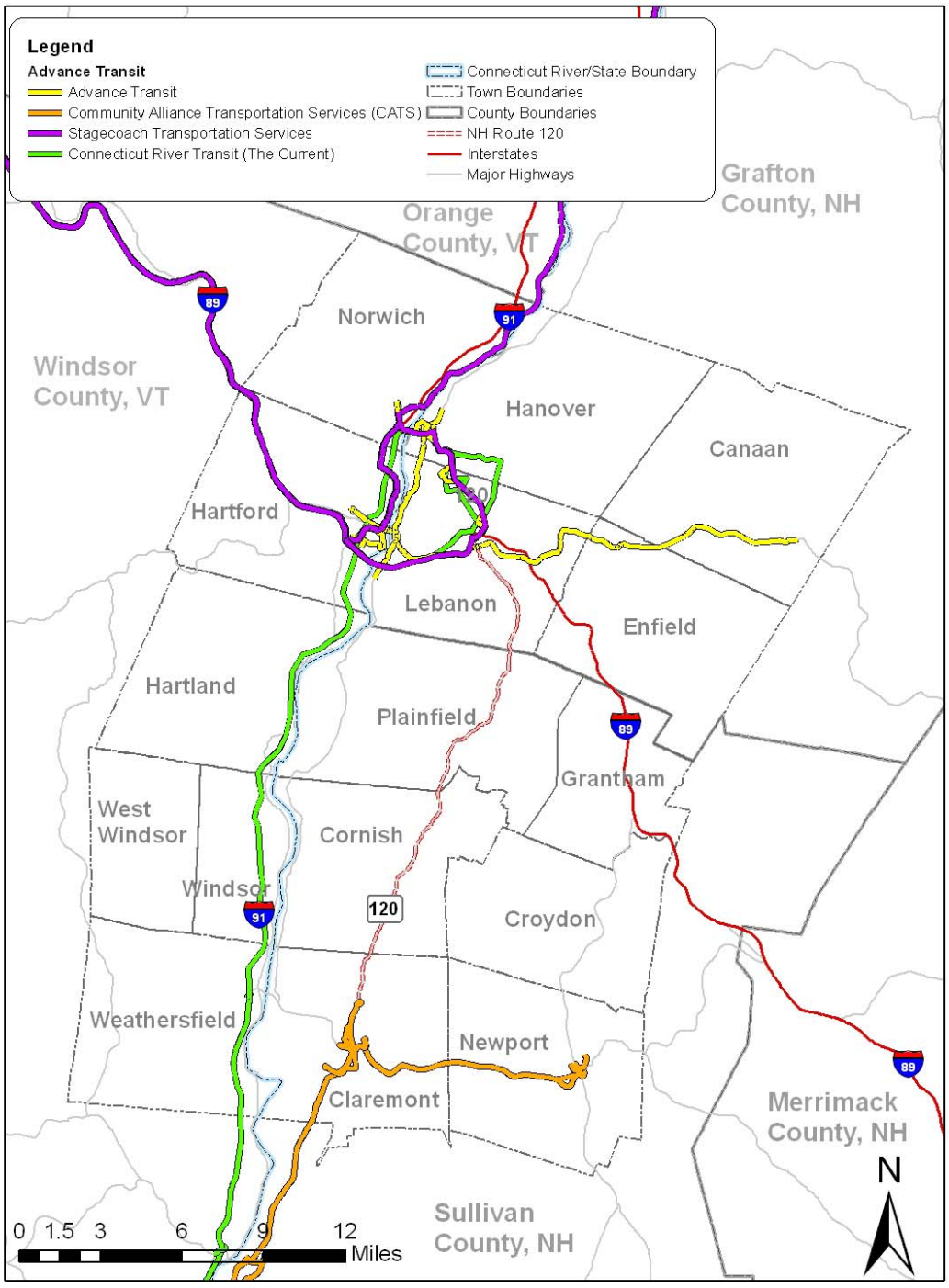
Stagecoach Transportation Services (Stagecoach) operates service between Randolph, Vermont and the Lebanon/Hanover area through "The 89er," which serves Dartmouth College, DHMC, and the VA Hospital. Stagecoach also runs "the River Route" from Wells River to the Lebanon/Hanover area with stops at the DHMC, the VA Hospital, and Hanover. Both routes operate during peak periods only, Monday through Friday, beginning at 5:25 am and finishing at 6:45 pm. The routes connect with AT and charge $3.50 for a one-way adult cash fare. Additionally, Stagecoach runs the West Lebanon deviated fixed route on the 2nd Friday of the month and every Saturday, from towns in Vermont to West Lebanon for shopping trips. It also provides Medicaid transportation and offers the Ticket to Ride program, subsidizing the cost of rides for those who cannot afford them.

Connecticut River Transit

Connecticut River Transit (CRT), also known as The Current, provides five commuter routes that service the Lebanon/Hanover area. All routes begin at the I-91 Exit 6 Park and Ride in Vermont and go up Interstate 91 to Lebanon and Hanover, with one departure in the morning and one return at night. Route 70, the DHMC 12 Hour Shift Commuter, has stops at DHMC, Centerra Park, and Dartmouth College, among others, and operates from Sunday evening to Saturday morning.

Routes 71 and 72 also stop at DHMC, Colburn Hill, and Centerra Park, while Routes 73 and 74 have stops at Dartmouth College, and Fuji-Dimatix, with Route 74 continuing to the VA Hospital. Routes 71-74 operate Monday through Friday only. Fares are by donation only, with a suggested donation of $3.00 for a one-way trip.

Figure 3-1 Public Transit Services in the Study Area



Specialized Transportation Services

In addition to public transportation, there are a handful of specialized transportation services that are primarily available to special population groups, including older adults, persons with disabilities, and clients of human service programs. Each of these services is described individually in the following text and summarized in Table 3-1. The Grafton-Coös and Sullivan County Community Transportation Services Directories provided much of the information for this section.

Grafton County Senior Citzens Council

The Grafton County Senior Citizens Council (GCSCC) provides demand response transportation services to older adults and individuals with a disability traveling in Grafton County. Services are primariliy oriented to clients traveling to/from GCSCC programs but they will also provide and/or arrange essential transportation to ensure people have transportation to medical appointments and other critical services. In general, the level of service offered by GCSCC is very high, with drivers often greeting passengers at their door and escorting them to the door of their destination (as necessary). No fares are charged to the passengers, but donations are accepted.

Communities served in the study area are Lebanon, West Lebanon, Hanover, Plainfield, and Enfield. This center has three lift-equipped buses, which operate Monday through Friday, 8:00 am to 4:00 pm.

Statewide Transportation Services

There are a handful of statewide organizations that fund or provide transportation services. Most of these services are available only to older adults, individuals with disabilities, and/or particular sub-sets of the population. Services vary by organization; some of the larger organizations contract with private transportation operators to provide transportation, while other organizations rely on volunteer drivers for service. All of the organizations listed will provide service to individuals living in the study area; however, few are located in the study area.

- **Easter Seals New Hampshire** organized the Transportation Resource and Access Coordination (TRAC) initiative that provides transportation for Medicaid transportation, special needs students, and veterans statewide. The service operates according to contracts with eight for-profit transportation providers and taxi companies. Individuals who need transportation contact the transportation call-in center and the dispatcher will coordinate their needs with the appropriate provider. Depending on an individual's needs, the trip may be billed to Medicaid, a school district, or other social service program.
- **Granite State Independent Living (GSIL)** provides transportation to older adults and individuals with low incomes on a fee-for-service basis. Rides must be pre-approved and are available 24 hours a day, seven days per week based on the availability of drivers. GSIL Services are funded by the state, private donations, and other sources.
- **American Cancer Society of New Hampshire** has a network of volunteer drivers who provide transportation for individuals needing a ride to and from cancer treatments. Volunteer drivers are available Monday through Friday.

- **Disabled American Veterans (DAV)** also manages a network of volunteer drivers who drive sick and disabled veterans to and from Veterans Administration medical facilities for treatments. Veterans needing transportation can call the DAV and schedule a ride to their medical appointments.

There are also several non-profit and community organizations that provide services to clients or particular populations. These organizations and their target passengers are:

- Kearsage Area Council on Aging (Older Adults)
- Northern Human Services (Behavioral Health or Developmental Disability Services Clients)
- Pathways of River Valley (Clients of Developmental Disability and Brain Injury Services)
- Sullivan County Healthcare (Residents of the County Nursing Home)
- West Central Behavioral Health (Clients of Mental Health Services)

Other specialized transportation services include non-emergency medical transportation, typically in the form of medically-focused taxis. The providers in the study area are:

- Golden Cross Ambulance
- Med Coach (a national service)
- North Country Medi-Van
- People Movers/Big Yellow Taxi (also provides general taxi service)

The Upper Valley Ride Share provides transportation demand management services, including ridematching.

Table 3-1 Overview of Available Transportation Services

Public Transit	Service Type	Service Area	Operating Hours	Service Features
Community Alliance Transportation Services	Fixed Route Demand Response	Claremont, Newport, Charlestown, Sunapee, Unity	Monday – Friday 6:30 am – 5:00 pm	One-way Newport-Claremont: $2.00; One-way "in-town" ride: $1.00; Town to town: $4.00 one way Dial-A-Ride services: Claremont, Unity and Charlestown Dial-A-Ride: $2.00 one-way in town
Advance Transit	Fixed Route and ADA Para-transit Service	Lebanon, Hanover, Enfield, Canaan, NH; Hartford and Norwich, VT	Monday – Friday 6:00 am - 6:00/7:00 pm	General Public, Wheelchair accessible Fare Free
Stagecoach Transportation Services	Fixed Route	Wells River, VT - Lebanon, NH	Monday – Friday 5:25 am – 6:45 pm	One-way: $3.50
Connecticut River Transit	Fixed Route	I-91 Corridor from Exit 6 to White River Junction, VT, Hanover and Lebanon, NH	Routes 71-74 Monday – Friday 5:25 am – 6:20 pm Route 70 Sunday – Saturday 5:35 am – 8:55 pm	No fare, but suggested donation of $3.00 Route 70 12-Hour Shift Commuter Route operates on weekend as well as weekdays
Transportation Available to the Public	**Service Type**	**Service Area**	**Operating Hours**	**Service Features**
Apex Car Service	Demand Responsive	Hanover, Lebanon, Upper Valley	Flexible	Tour groups, Sightseeing charters, Town Car, and Courier Services Fare depends upon service requested
CNC Cab Company	Long Distance Cab	Claremont	Flexible	Traditional Taxi Service (non-accessible) One-way in town: $5; Fare varies by destination
Dartmouth Coach	Long Distance Transportation	Hanover/Lebanon to New London, NH, Boston, Logan Airport; Stamford, CT and New York, NY	5:00 am to 12:00 midnight	8 daily departures to Boston (approximately every 2 hours); 1 daily departure to New York City; Both have stops along way Fares range from $28 for New London – South Station to $74.50 from Hanover/Lebanon – New York
Greyhound	Long Distance Transportation	Service from Hanover to other NH cities and throughout US/Canada	3 Departures daily (4:35 am to 10:55 pm)	Fare is approximately $40 one-way (Hanover to Boston)
People Movers/Big Yellow Taxi	Demand Responsive	Upper Valley, Local or Long Distance	Available 24/7	Taxi Services, Non-Emergency Medical Transports; Wheelchair accessible Fares or charges vary by destination
P & P Twin State Taxi	Sedan Taxi Services	Lebanon, NH Local/ Long Distance	Flexible	Charges $2.75 per mile

Specialized Transportation	Service Type	Service Area	Operating Hours	Service Features
American Cancer Society	Demand Responsive	Statewide	Depending upon available volunteers	Rides to and from cancer centers; Available statewide; No fare
Easter Seals Special Transit Service	Demand Response	Statewide	Flexible	Door-to-door transportation with assistance for older adults and individuals with special needs and disabilities Fares or charges vary by destination
Golden Cross Ambulance	Demand Response	Lower Grafton County	Flexible	Medical transports 24/7; local or long distance; wheelchair van or ambulance Fares or charges vary by destination
Grafton County Senior Citizens Council	Demand Response	Grafton County	8:00 am to 4:00 am Monday-Friday (24 hour advance notice)	Door-to-door transportation for Older Adults and Persons with Disabilities Donations accepted
Granite State Independent Living	Demand Response	Statewide	Flexible	$1.75/mile and $20/hour charge Transportation Reimbursement Program to reimburse mileage of driver who takes qualified rider Persons with disabilities when public transportation is unavailable
Kearsarge Area Council on Aging	Demand Responsive	Grantham	Flexible	No-cost local and long-distance (Concord, Hanover, Claremont) transportation to residents living within the nine towns served by COA and who are 55 years old and older; No fare required; (Other towns served outside study area - Andover, Danbury, Newbury, New London, Sunapee, Springfield, Sutton, and Wilmot)
Med Coach	Long Distance Patient Transfer	Nationwide	Flexible	Charges determined by distance and services needed
North Country Medi-Van	Demand Responsive	NH, VT, ME, and MA	24 hours a day/7 days per week	Serves local and long distance medical and non-medical trips for individuals with disabilities; Primarily serves Medicaid clients; $2/mile
Northern Human Services (NHS)	Demand Responsive	Grafton County	Flexible	Transportation services for clients receiving behavioral health or developmental disability services and substance abuse treatment and prevention; Wheelchair accessible; Also serves Coös and Carroll Counties
Pathways of River Valley	Demand Responsive	Sullivan and Lower Grafton Counties	Flexible	Community non-profit agency supporting people with developmental disabilities and brain injuries; Wheelchair accessible Transportation provided for clients
Sullivan County Healthcare	Resident Transportation	Sullivan County	Flexible	Services for residents of the County Nursing Home and Rehabilitation Center
Veterans Administration/Disabled American Veterans	Client Transportation	Statewide	Flexible	Free transportation services for veterans to medical health facilities

West Central Behavioral Health	Client Transportation	Lower Grafton and Sullivan Counties	Flexible	Transportation available for community mental health services for adults & children clients; Charges vary by destination and programs
Non-Transportation Services	Service Type	Service Area	Operating Hours	Service Features
Upper Valley Ride Share	Carpool Matching Program	Grafton County	NA	No cost to register

Chapter 4 - Inventory of Plans and Studies

NH 120 has been identified in a variety of studies as a priority for transit service. The Corridor's increased growth, contributing to its role as an employment and economic center for the region, and the accompanying traffic congestion, are the primary reasons for recommending transit service in this area. Table 4-1 shows the plans and studies, starting with the most recent plan.

On the state level, NH 120 was listed in the New Hampshire Long Range Transportation Plan 2010-2030. On a regional level, NH 120 was the subject of a corridor study by the UVLSRPC in 2007, which analyzed future land use and associated trip generation along the roadway. In planning for a more intensive use of land along NH 120, the report recommends transit service as a means of managing increased travel in that area. The Regional Transportation Plan (2004) also analyzes problem intersections that are contributing to congestion along NH 120, as well as peak periods in which traffic in the area is particularly high.

County coordination plans explore the issues confronting transit-dependent populations, and cite the need for access to the employment opportunities and medical offices in Lebanon. Local plans including those for Lebanon and Hanover, also identify congestion problems, as well as a need for public transit to connect parts the region.

Table 4-1 Inventory of Plans and Studies

Document Name	Document Sponsor/Author	Date	Summary of Findings
NH Long Range Transportation Plan 2010-2030	NH DOT	July 2010	Listed in Recent Planning Initiatives • NH 120 Corridor Management Plan – Lebanon
Draft Lebanon Master Plan, Chapter 9: Transportation	City of Lebanon	May 2010	• Cites commuter traffic congestion on Route 120 • New transit route needed: linking Upper Valley with Precision Valley of Springfield via Route 120
Community Alliance of Health Services Transportation – Short Range Transit Operations Plan	LSC Transportation Consultants, Inc.	Sept. 3, 2008	• Recommended Hanover Connection ▪ Route deviation service with scheduled transfers with Claremont services o But believed it will have low ridership ▪ Primary purpose: medical related services o Opportunities for shopping, educational, and human service trips ▪ Data from hospitals- helpful to determine origins of patients and employees, but unavailable at time ▪ Recommended to connect with local services: Red Cross ▪ Anticipated annual cost - $70,000 with one vehicle
Sullivan County Public Transit-Human Services Coordination Plan Final Draft	Upper Valley Lake Sunapee Regional Planning Commission	May 2008	• Recognizes need for improved access to employers and medical resources in Lebanon, reliance solely upon volunteer drivers currently • Transit options for 2nd and 3rd shift workers
Southern Grafton County Public Transit-Human Services Coordination Plan	Upper Valley Lake Sunapee Regional Planning Commission	March 2008	• No explicit mention of Route 120, but does find: ▪ Senior populations consistent/slightly lower than average, but proportion of senior centers slightly higher ▪ Percentage of citizens with disabilities slightly lower than state average ▪ Nine of ten largest employers in Lebanon-Hanover ▪ Poverty and autoless households rates are higher than state average
Route 120 Corridor Study Phase I Interim Report	Upper Valley Lake Sunapee Regional Planning Commission	Sept. 2007	• Analyzes future land use and infrastructure needs for Route 120 • Study area of 4.6 miles from NH 120/Hanover Street in Lebanon to Route 120/Lebanon Street in Hanover • Provides analysis of land use impacts on corridor for both Hanover and Lebanon • Increase of 65% annual daily traffic between 1995 and 2005 on Route 120 (1 mile south of Lebanon/Hanover line) • Traffic Volume increased 54% on Mt. Support Rd. and 29% on Greensboro Rd. – two important nearby roads • Various Build-out scenarios are explored and find: ▪ Residential Trip Generation= 8.1 trips per day/housing unit ▪ 5.17 trips/employee/day (DHMC or MC District Development) ▪ 4.04 trips/employee/day (Other non-residential development) • Significant increase in traffic volumes from 2006 to 2025; 64% increase under smaller development plan; 79% increase for more intensive development plan • Recommends investment in public transit and transportation demand management as a means of mitigating future travel demands

Lebanon Master Plan, Chapter 9: Transportation	City of Lebanon	Adopted June 20, 2006	• Cites commuter traffic congestion on Route 120 • Average Daily Traffic Volumes have increased substantially on Route 120 at several locations • No official park and ride lots in Lebanon; but lots in Grantham and Enfield will help • Some large employers considering satellite lots • Suggests that more park and ride lots on Route 120 would be helpful for transit: Exit 18 of I-89 • Recommends: ▪ Implementation of access management for Route 120 ▪ Corridor plan for Route 120 ▪ Continue working with Hanover on Route 120 Issues ▪ DOT project- Add southbound land from Lahaye Drive to Etna Route on Route 120
Upper Valley Lake Sunapee Regional Transportation Plan	Upper Valley Lake Sunapee Regional Planning Commission	Feb. 5, 2004	Need for Transit based on: • Access management concerns ▪ Development and use regulations • Poor intersection performance ▪ Etna Road, Lebanon ▪ Heater Road, Lebanon ▪ I-89 Exit 18 Ramps, Lebanon ▪ Hanover Street, Lebanon • Areas/times of concern: I-89 Exit 18/NH 120 – rush hour • New commercial developments • Future plans: ▪ Connector from I-91 in Wilder to NH 120 near DHMC ▪ Bike/Ped Plans
Hanover Master Plan, Chapter 12: Transportation		Adopted July 29, 2003	• 1994 Survey found decrease in need for public transit (48% of respondents; down from 73%), probably due to expansion of Advance Transit • 1999 Guiding Growth survey: “Most respondents were quite concerned about the large and growing volume of traffic, and the attendant noise, speed and congestion” • Cites need for Route 120 Corridor Study • Notes congestion during peak periods on NH 120 • Significant Increase of Average Daily Traffic Volumes from 1990-2001 and generally Moderate to Poor Level of Service during similar time period • Developments near and off of Route 120 (ex. Greensboro Road), can increase percentage of turning movements and increase traffic volumes • Route 120 to Route 10 in Hanover – Part of Regional Bikeway system • Recommends: ▪ Direct access to Centerra North from Route 120 via Centerra Parkway ▪ Regional cooperation on public transit ▪ Discussions with stakeholders for new parkway from Route 120 to Route 10, I-91 or I-89
Sullivan County Economic Development Strategy	Comprehensive Economic Development Strategy Committee	Undated	• Report does not mention NH 120 directly, but discusses the lack of public transportation to the Hanover/Lebanon area as a primary constraint to economic growth • The Report describes improved inter and intra Sullivan County transit to benefit the region’s workforce

Chapter 5 - Stakeholder, Employer and Employee Input

An important resource for understanding how transit services might best be designed is listening to members of the community. Individuals who work, live, and travel in the study area often have a unique and valuable perspective not only on the region's priorities, but also what might work best and what might not work at all. To collect these opinions and include them as part of the public transportation feasibility analysis, the study team conducted a number of outreach efforts. These efforts included interviews with community stakeholders and area employers as well as a survey of employees. The objective was to be better understand travel patterns, regional priorities, and community needs.

Stakeholder Interviews

For purposes of this study, stakeholders are considered individuals with an interest in public transportation service between the Claremont and Lebanon/Hanover areas. The Study Steering Committee helped identify a long list of stakeholders and from this list, the study team identified a shorter list of individuals to be included in the study. Stakeholders were chosen in order to collect a broad set of opinions and represent a range of geographic interests and community perspectives. A list of stakeholders interviewed can be found in Appendix B. The input from stakeholders is organized by the potential markets that could be served, as well as constraints that they identified.

Potential Markets

Commuters from Claremont to Hanover/Lebanon

The need for transit service along the Route 120 Corridor is closely tied with the supply of affordable workforce housing. While the Hanover/Lebanon area has relatively low unemployment, housing is in short supply, and increasing numbers of workers are commuting from farther and farther away. Several commuter bus services have started in recent years to address this need, but Claremont remains a big gap in the commuter system. With gas prices increasing, the cost of commuting from Claremont is becoming a burden. Some employers have been offering limited forms of travel demand management, due to parking shortages at Dartmouth College and DHMC.

Commuters from the Route 120 Corridor into Claremont

There are some longer distance commuters along Route 120 from Hanover/Lebanon into Claremont who might use the bus, although the number is quite a bit smaller than the northbound commuters. A potential significant population of southbound commuters would be students attending the River Valley Community College, which serves many students from the Hanover/Lebanon area. Many of the younger RVCC students do not have access to a car, so transit would be particularly beneficial.

Non-Emergency Medical Services Transportation

Some medical services require travel to Lebanon, such as DHMC or Alice Peck Day Memorial Hospital (APD), or Hartford (VA Hospital). For non-emergency situations, a public transit service connecting Claremont to these services would be useful. These are currently served by volunteer drivers.

Low Income Population without Vehicles

Residents along the Corridor without a car or access to one would be able to use transit to access employment and/or services. However, many live in more dispersed locations, so there would still be challenges to get from their homes to the transit route.

Plainfield and Cornish Residents

There are several potential markets in these communities, which have similar needs and opportunities:

- **Older Adults** - Older adults may find the bus useful to seek medical or other services that are somewhat concentrated in Lebanon, including DHMC and APD. The area generally has an aging population, so this is a growing group.
- **Students** - Not all towns and communities in New Hampshire have a local, or in some cases, an assigned regional high school. These communities are known as "choice communities" because students can choose to attend any of the area schools, including private schools, such as Kimball Union Academy. There are several choice communities in the study area, including Cornish and Plainfield. While a school bus is provided for school hours, students participating in activities after school at Lebanon or Hanover High School could use public transportation to get back home.
- **Commuters** - Some residents who commute to work might use the transit service, as the higher fuel prices have sparked more interest in carpooling. Some residents who do not have an automobile would likely find transit service a great asset, though the dispersed development pattern in these communities means that most people would still need to drive to the transit stop. Most commuters have jobs north on Route 120, but some also commute south to Claremont.

Constraints to Transit Service

Stakeholders also noted a variety of constraints or challenges that would face potential public transportation services. Concerns about potential new services include:

- **Schedule** - Many commuters and students could only use the service if it was compatible with their work or school schedule.
- **Stop Locations -** Worksites, schools, and medical services in all the three destination communities (Claremont, Lebanon, and Hanover) are quite dispersed and not concentrated in a single location, nor even along the Route 120 Corridor. Serving all of these important uses will require many stops.
- **Convenience -** In order for choice commuters to ride the bus (i.e. those with a car available), the service will need to be efficient, and provide direct service to the employment sites with minimal deviations.
- **Parking -** For choice riders, there will need to be reasonably convenient parking available. For commuters, service would need to be convenient to their worksite. Park and Ride lots may be available or feasible to expand in Cornish and Plainfield, but parking in Claremont, Lebanon, and Hanover is more constrained, and could be a barrier to use.

- **Cost -** Some businesses and institutions that will see benefits from the transit service would be able to offer some support. The towns and cities along the Corridor are all facing stressful financial times, so financial support for transit service may not be possible. Suggestions for funding included: employer sponsorship (either direct contribution, or purchasing/subsidizing employees' bus pass purchase), municipal contributions, student fees, and fares.
- **Awareness -** Because this area has been with limited or no transit service, there is a lack of awareness of the potential benefits and utility of public transit, which could serve to limit both ridership and community support for funding.

Employer Survey

In addition to talking with stakeholders, the study team also conducted telephone interviews with area employers. This survey was conducted with ten of the region's largest employers. A list of the employers contacted is included as Appendix C. Key findings from the survey are summarized in the following text.

Employer Size

There was a large range of the size of employers interviewed. Manufacturing and business-to-business sales were the largest employers, with two manufacturing locations employing around 200, and a business-to-business sales location employing approximately 300. The smallest was also manufacturing, at 25. Only one location, a hotel/restaurant, indicated seasonal fluctuation, with about 35 in the winter and about 60 in the summer.

Modes for Commuting

All employers reported that the majority of workers commuted via automobile. At some locations, nearly all or all employees drove alone. At the same time, most employers did indicate that there was a small number of getting dropped off or carpooling. One location indicated that 40% walk, and many employers had one or two employees who walked or rode a bicycle to work. One manufacturing location indicated that a substantial portion of their laborers take transit.

Challenges in Getting to Work

Five employers cited no challenges in getting to work. Of those that did cite challenges, all except one were financial in nature. Four of the five cited the rising cost of gas, and two talked about how costs were changing behavior: one employer, the price of gas has led to 40% walking, and for another, it is leading to more carpooling.

Potential Employee Use

A slight majority of employers felt their employees would utilize a public transportation system to get to work. Of employers who believed their employees would use transit, all except one said demand responsive transportation would be best for their employees. One manufacturing facility, where workers must be at work on time, felt fixed route service would be more reliable, and therefore a better fit.

One company said that its labor staff (which makes up 60% or their workforce) feels that they have to drive alone to the work site in order to transport and monitor their tools. An attempted carpooling program was not able to overcome this preference. When gas prices were high, workers talked about leaving thier cars at the office, taking transit to work, and then driving in their individual vehicles from the office to the work site.

Potential Customer Use

Half of the employers said that they don't have many or any customers who come on-site. Of the five that have customers, three said demand responsive transportation would be preferable, while none preferred fixed route. One Claremont employer expressed some disatisfaction with the current transit offering in the town.

One hotel said that there would be demand among customers, many of whom are business people who drive to the hotel, but who use taxis to go for a drink at night. Weekend guests might use demand responsive transportation to see scenic Route 12A scenic route to Windsor/Woodstock. For their needs, therefore, service would have to stretch into the evenings and weekends.

Two companies said they do not believe their customers would take transit. One store said their customers do not plan their days around them, so they tend to drive. A manufacturing location said that their out-of-town customers stay at a hotel in the same complex, and the hotel has a free shuttle.

Financial Support for System

While all employers said that a decision regarding a financial contribution would have to be made at a higher level, all indicated that they would entertain the possibility of a financial contribution, but two said financial contributions were unlikely. One that said financial contributions were unlikely said they would help spread the word.

One company said they were likely to contribute by way of direct financial contributions, subsidizing and selling passes to employees and advertising. One said they might subsidize employees and advertise, while one said they were likely to advertise, and one might subsidize workers should they use transit. Four simply said "maybe" when asked if they might contribute.

Area Employee Survey

The study area has already been the subject of surveys regarding employees and their commuting patterns. The Vital Communities/Upper Valley Transportation Management Association is in the process of gathering this data for many of the major employers in Lebanon and Hanover through its Smart Commute Survey. Coordinating with the Vital Communities/Upper Valley TMA and in conjunction with the employer survey as a part of this study, a survey of NH 120 area employees (NH 120 Survey) was distributed by the consultant team. Participants included individuals who work in retail, hospitality, and construction industries, as well as law enforcement and local government. More than half the respondents live in Claremont, while the rest generally live in other nearby cities and towns, including Lebanon, Unity, Sunapee, Grantham, and Plainfield. Forty-three responses to this survey were received.

The NH 120 Survey results have been analyzed alongside the results from the Smart Commute Survey and a survey administered to Dartmouth College on-campus and downtown Hanover employees. A second Dartmouth College survey, one for off-campus employees, primarily at Centerra and DHMC, focused on connections between campus and off-campus offices, and is referenced as relevant.

The Smart Commute Survey includes results from Dartmouth Hitchcock Medical Center, Hypertherm, and Kendal at Hanover, a retirement community on Route 10, just north of NH 120.

Respondent Characteristics

The vast majority of the NH 120 Survey respondents are full-time workers, working five days a week, while 12% work more than five days a week. Among DHMC respondents, 65% work five days a week, while almost 15% work 4 days a week, and 12% work 3 days a week. Among Dartmouth College at Hanover employees, nearly 74% work 5 days a week, with 15% working more than 5 days a week.

Citing the previous work day's travel mode to work, more than 90% of respondents to the NH 120 Survey drive alone to work, with 83.1% at DHMC, nearly 90% of Hypertherm, and 88% of Kendal's employees indicating the same. Of Dartmouth College on-campus employees, nearly 68% drive alone. Dartmouth College on-campus employees are unique in having a relatively high carpool and public transit utilization rate, at 12.4% and 7% respectively. While off-campus employees do not often travel to the main campus (40% said less than once per month), nearly 63% said that they drive alone when making that trip.

Current Travel Patterns

Survey participants overwhelmingly cited a morning arrival time, with 88% of NH 120 Survey respondents citing an arrival time between 6:00 and 8:30 AM. Seventy-four percent of DHMC employees arrive during that same window, 71% percent at both Hypertherm and Kendal. Dartmouth College on-campus employees have a later arrival schedule, with 15% arriving between 8:30-9:00 am. Table 5-1 shows the morning travel patterns, with time window having the highest percentage of arrivals in bold.

Table 5-1 Morning Arrival Times

Arrival Time at Work (AM)	NH 120 Survey	DHMC	Hypertherm	Kendal at Hanover	Dartmouth College (on-campus)
6:00-6:30	7.1%	4.7%	4.6%	1.7%	1.5%
6:30-7:00	9.5%	17.4%	11.6%	10%	3.0%
7:00-7:30	21.4%	15.2%	17.8%	20%	12.1%
7:30-8:00	14.3%	**25.5%**	18.1%	**26.7%**	23.%
8:00-8:30	**35.7%**	15.9%	**23.9%**	15%	**25.7%**

Almost 75% of NH 120 Survey participants said that their job requires that they be at work at a particular time, with a majority (65%) at DHMC, 44% at Hypertherm, and 71% at Kendal. Of on-campus Dartmouth College employees, 41% have scheduled or required work hours.

The afternoon is the primary time for departures, with most falling in the range of 3:00 PM to 6:00 PM (Table 5-2).

Table 5-2 Afternoon Departure Times

Departure Time from Work (PM)	NH 120 Survey	DHMC	Hypertherm	Kendal at Hanover	Dartmouth College (on-campus)
3:00-3:30	11.9%	1.8%	3.9%	0%	2.4%
3:30-4:00	2.4%	6.5%	15.4%	15%	2.2%
4:00-4:30	16.7%	9.6%	9.3%	13.3%	13.1%
4:30-5:00	0%	12.4%	19.3%	30%	20.7%
5:00-5:30	38.1%	25.8%	21.2%	11.7%	22.2%
5:30-6:00	11.9%	9.6%	8.5%	1.7%	13.9%
6:00-6:30	2.4%	6.1%	3.5%	3.3%	9.3%
6:30-7:00	0%	3.4%	1.2%	1.7%	3.1%

On average, NH 120 Survey respondents travel eighteen minutes to get to work. Table 5-3 shows a breakdown of the travel times to work for respondents.

Table 5-3 Travel Time to Work

Travel Time (Minutes)	NH 120 Survey	DHMC	Hypertherm	Kendal at Hanover	Dartmouth College (on-campus)
10-15	12.2%	9.3%	12.2%	7.5%	12.2%
15-20	17.1%	14.6%	14.3%	5.7%	12.6%
20-30	19.5%	25.9%	19.7%	26.4%	17.1%
30-40	9.8%	18.2%	18.1%	20.8%	11.6%
40-50	4.9%	14.7%	14.7%	20.8%	6.3%

In considering travel patterns in the last month, most NH 120 Survey participants indicate that they drive alone to work five days a week, with a very small number saying that they are dropped off at work less than one day a week. None of those respondents use public transit, while one walks to work more than five days a week, and three others either bike or walk less than one day a week.

Within the other surveys, 7.5% of DHMC, 1.2% Hypertherm, and 6.7% Kendal participants used public transit. For each of these surveys, being dropped off and carpooling are the next most popular modes after driving alone, generally with 10% each of participants for those modes.

Incentives for Using Public Transit

Across all surveys (with the exception of the Dartmouth College, which did not ask the same question), adding a route/stop near the participant's home was the most popular response to incentivize increased transit use, with 23% of the NH 120 Survey, 41% of DHMC, 40% of Hypertherm, and 44% of Kendal. The second most popular response was also the same for each survey, indicating that "nothing will encourage [the respondent] to take transit to work," with 18.9% for the NH 120 Survey, 29% DHMC, 34% for Hypertherm, and 33% for Kendal.

When responding to the statement, "I am willing to take public transit to work more frequently," almost 50% of DHMC participants agree or strongly agree, with 41% for Hypertherm, and 35% for Kendal.

Potential Destinations

Primary destinations mentioned by NH 120 Survey respondents if public transit were available along NH 120 include DHMC, Hanover, Lebanon, Claremont, Plainfield, and the Centerra business park area.

Primary Shifts

Exploring the shifts and general work hours in the study area can provide some insight into times of increased demand. Based on the data gathered through the Employer Survey and Smart Commute Survey, a sample of area employers have the following shifts, indicating a strong gravitation to traditional workday schedules, with some smaller second and third shifts (Table 5-4).

Table 5-4 Daytime Work Shifts for Study Area Employers

Employers	Daytime Work Shifts	Estimated Employees Working on Each Shift
2 Employers	6:00 am - 2:00/3:00 pm	65
1 Employer	6:30 am - 4:00 pm	185
5 Employers 1 Additional Employer	7:00/7:30 am - 3:00/3:30/4:30 pm 7:00/8:00 am - 3:30/4:00 pm (Flexible)	212
2 Employers 2 Additional Employers	8:00/8:30 am - 5:00 pm Same general hours but flexible	447
1 Employer	11:00 am - 6:00 pm	42
1 Employer	4:00 pm - 9:30 pm	42
5 Employers	3:00 pm – 11:00 pm/12:00/12:30 am	180
3 Employers	10:30/11:00 pm - 7:00 am	9

Chapter 6 - Preliminary Findings and Needs Assessment

Taking into account the community profile, stakeholder and employer comments, and survey results, the study team identified a set of preliminary findings and key community transportation needs. This data is preliminary because data is still being collected and processed. Findings to date suggest the following needs:

- Demographic and employment data suggests the communities with the greatest proportional need for transportation are Claremont and Lebanon, with some need in Hanover, as well as Enfield and Newport. The areas with the most employment, services and activities are Claremont, Lebanon, and Hanover.
- Claremont, Lebanon, and Hanover have the highest concentrations and absolute numbers of population overall, as well as older adults, and persons with disabilities. Persons with low incomes are less concentrated in Hanover, however, and more concentrated in communities at the southern end of the Corridor.
- Older adults have a high need for travel and are one of the largest population groups that have limited access to private automobiles. There are several organizations providing some level of service for this group, but the need is growing as the population ages.
- Persons with disabilities also have a high need for travel. This is particularly true for persons with disabilities who do not or cannot drive, but have the same travel needs as their counter-parts who can drive. There are both statewide and local organizations that provide service, but the local service is often client-based.
- Employment connections from Claremont to Lebanon/Hanover are critical, as evidenced by both the concentration of major employers and the input of stakeholders. There is clearly a need for northbound, employment-related transit service.
- Existing public transit covers its service area well, with a fairly high concentration of services around Lebanon and Hanover. There is also another cluster of transit services in Claremont and Newport. The lack of service connecting Claremont and Lebanon is striking when viewed from a regional perspective.
- Previous plans and studies indicate a need for both employment-related transit service on NH 120 to address traffic congestion as well as service to hospitals and medical offices along and near the Corridor.
- While southbound service from Lebanon/Hanover is less in demand, it could be structured to meet the needs of students attending River Valley Community College.
- Residents within the NH 120 Corridor, particularly older adults, students, and some commuters, have a need for stops between the population centers at the ends of the Route.
- For transit service to be successful along Route 120, there must be a focus on public education regarding the need for and benefits of such service.

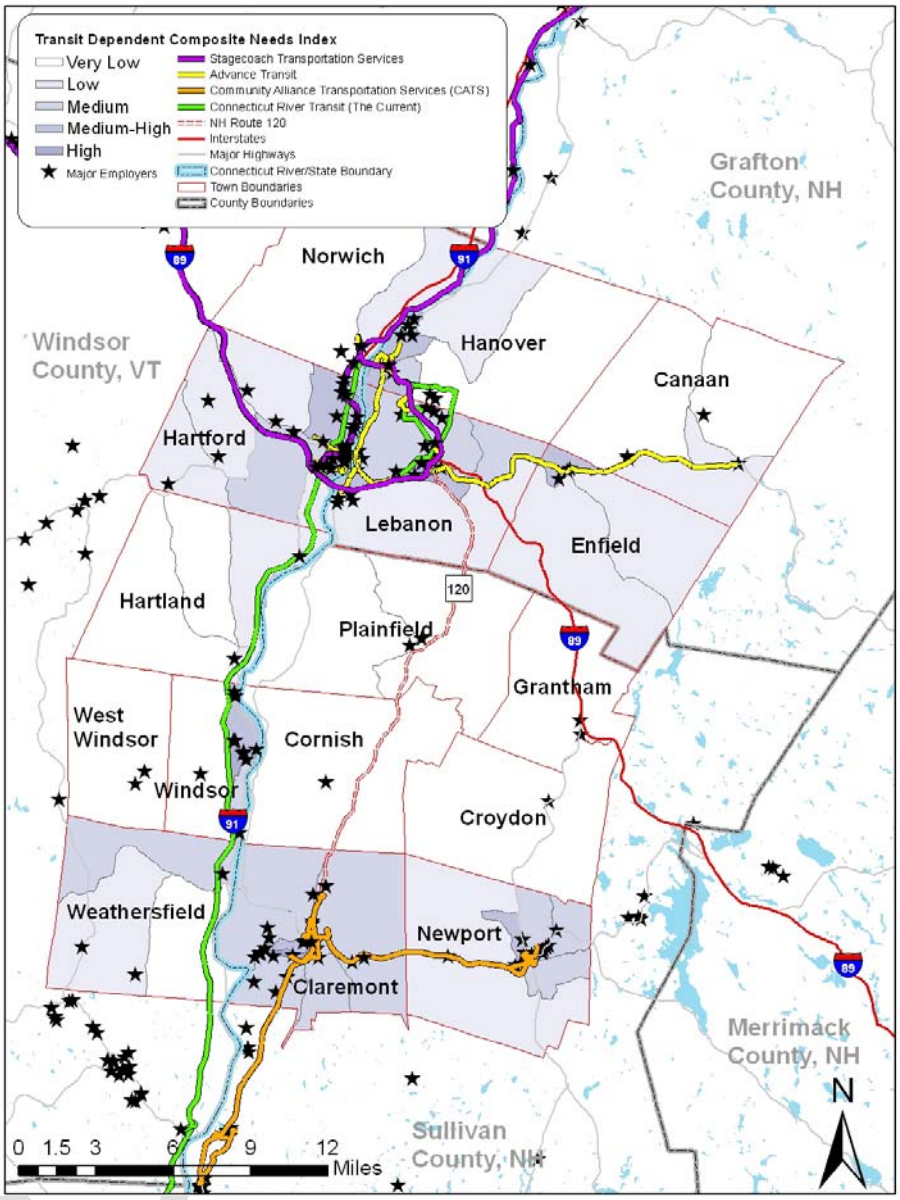
- Most surveyed employers feel that demand-responsive service would be more effective for their employees and customers.
- Commuting patterns, as provided in the employee survey responses, indicate there is clear morning/afternoon windows in which transit service could be beneficial.

Based on the shift data from employers and from the responses of employees, two windows of time become clear as the times of highest demand for service. In the morning, the time from 7:30 to 8:30 am is indicated as the arrival time for highest proportion of employees. For manufacturers, the start of scheduled shifts is slightly earlier, at 7:00 am. In the afternoon, employees of manufacturers generally leave earlier, at 3:00 pm, but most respondents to the NH 120 and Smart Commute Survey depart between 4:30 and 5:30 pm.

As these potential service times become evident, so too do directional travel flows. Based again on the stakeholder and employer interviews, as well as the responses to surveys, there appears to be a strong northward travel direction along NH 120 in the morning, and a return south in the afternoon. If transit along the Route 120 Corridor is to serve primarily the needs of a commuting population, these peak periods of arrival and departure, as well as the direction of travel, indicate a good starting point for the scheduling of service.

Similarly, looking at the existing transit service, it is clear that the missing link in public transportation provision is a connection from Claremont to Lebanon/Hanover (Figure 6-1). When adding both major employer locations and the transit dependent composite needs index to the map, picture is even sharper, indicating strong need for transit service, as well as many employers, in and around the population centers in the NH 120 Corridor.

Figure 6-1 Transit Dependent Index, Major Employers, and Current Transit Services



Appendix A - Fixed Route Service Maps

Figure A-1 Community Alliance Transportation Services (CATS) System Map

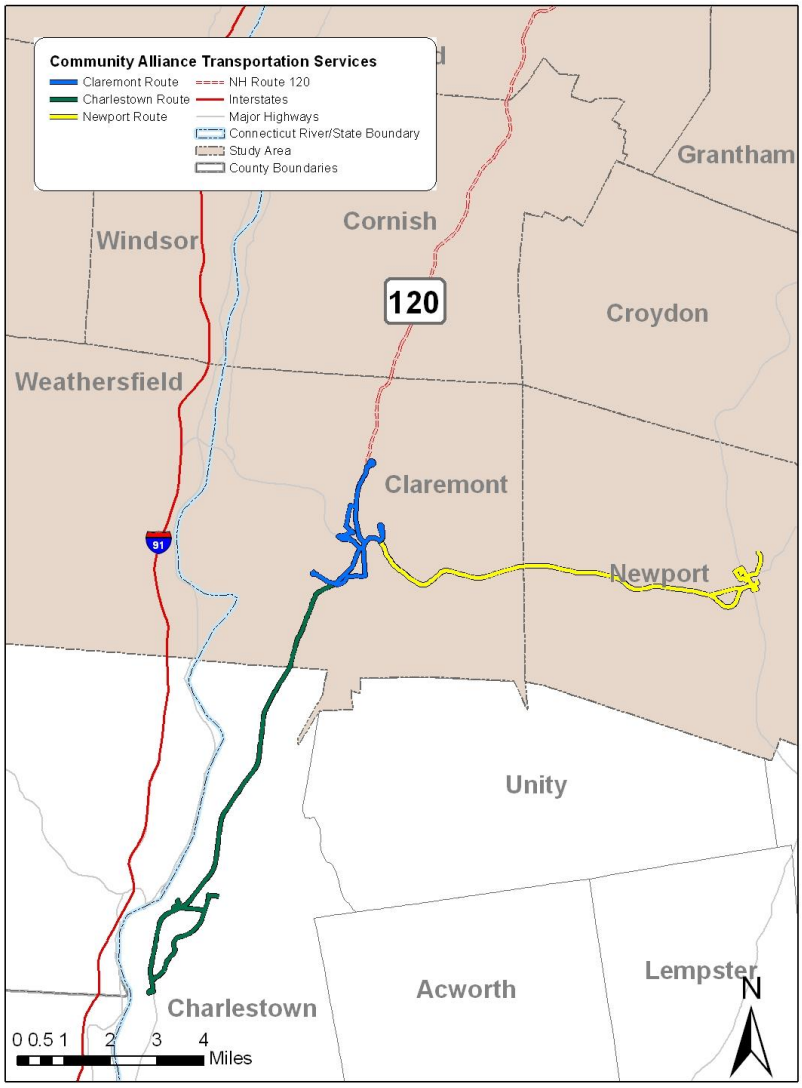


Figure A-2 Advance Transit System Map

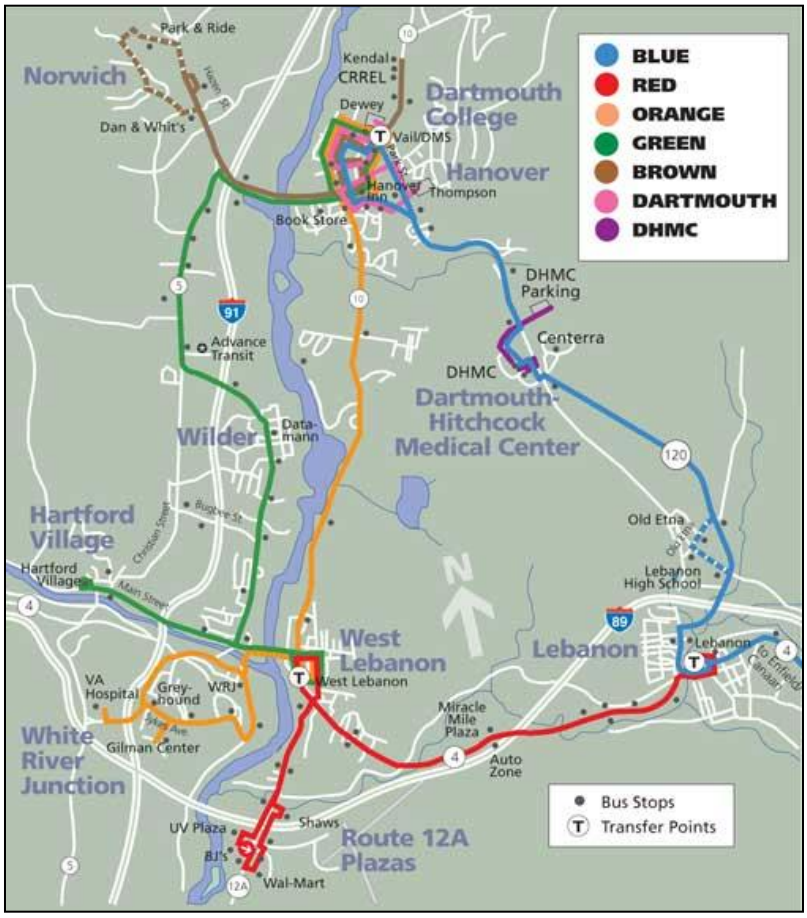


Figure A-3 Stagecoach System Map

Figure A-4 Stagecoach 89er Commuter Route

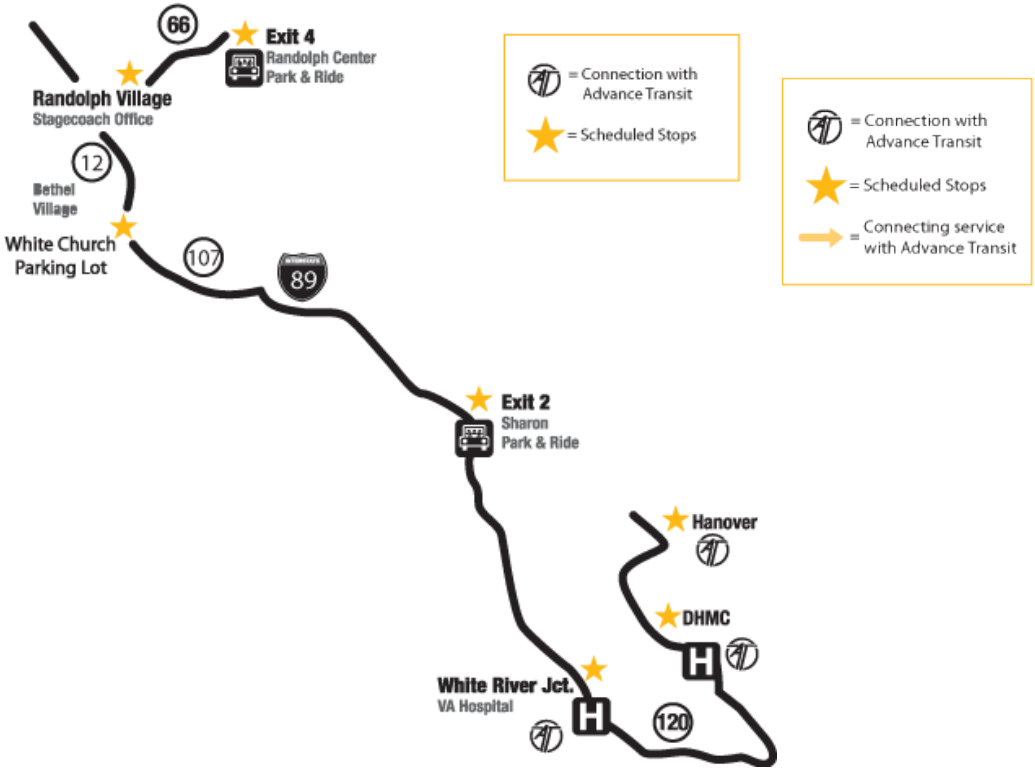


Figure A-5 River Route Commuter Route

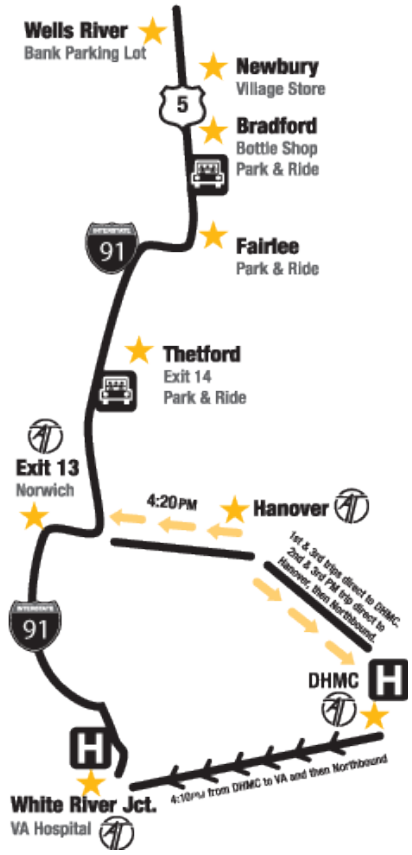
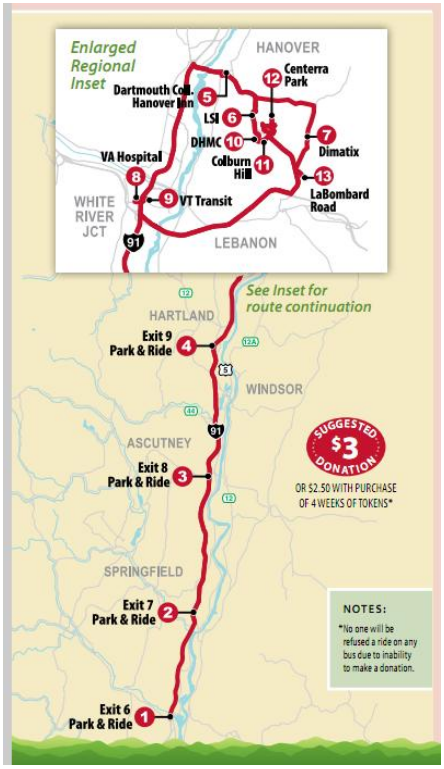


Figure A-6 Connecticut River Transit NH Routes



Appendix B - Stakeholders Interviewed

Name	Affiliation
Jonathan Edwards	Hanover Planning Department
Kim Vacca	Red River Computer, Claremont
Barbara Brill	Community Transportation Services, Claremont
Bill Lipfert	Town of Cornish Planning Board
Van Chesnut	Advance Transit
Joanna Whitcomb	Dartmouth College
Dan Dahmen	Dartmouth Hitchcock Medical Center
Stacey Chiocchio	Hypertherm
Jim Gray	Kimball Union Academy
Stephen Halleran	Plainfield Town Manager
Susan Berry	Upper Valley Rideshare
David Brooks	Lebanon Planning Department
Valerie Maher	River Valley Community College, Claremont
Nancy Merrill	Claremont Planning Department

Appendix C - Employers Interviewed

Employer Name
Astronics Luminescent Systems, Inc.
Common Man
Crown Point Cabinetry
Elmwood Nursing Home
Fuji-Dimatix
Hannaford Brothers
Lowe's
Mikros
Teleatlas/TomTom
Trumbull Nelson Construction