Chapter 7
Transportation & Circulation

Transportation and mobility are critical to Newburyport residents' quality of life in that the ability to safely and efficiently travel throughout the City whether by vehicle, on foot, or on bicycle, greatly impacts daily life. Newburyport is generally well-served by its transportation facilities which support trips for commerce, commuting, work, shopping, errands, education, healthcare, recreation, socializing, and many other purposes. Residents, workers, and visitors have the option to travel by a number of different modes, including private vehicle, public transportation such as a commuter train and regional buses, bicycling, walking, paratransit and taxicab. Similar to many other communities, the large majority of people rely upon private vehicles (e.g., about 80% commute by car according to census information) and a much smaller percentage use public transportation, walk, or bicycle. While Newburyport's transportation system is generally good, many improvements are needed to enhance existing facilities, as well as broaden the opportunities for and appeal and safety of alternative modes of transportation.

Newburyport has a thriving cultural and commercial downtown center as well as a business park. The City is located within a framework of easily accessible major transportation corridors including I-95 and I-495 plus Routes 1, 1A and 113. The local street system consists of a traditional urban grid in the older parts of the community and a more suburban style pattern of cul-de-sacs, shorter streets and dead-ends in the newer developments. Parking facilities in the downtown area are generally reaching capacity and how to address them has been the subject of some controversy for many years. Along with the infrastructure for automobiles, the City also provides opportunities for transit, bicycle and pedestrian circulation. Regional transit is served by an MBTA commuter rail station on Route 1 at the southern edge of town, and a commuter and intercity bus terminal adjacent to the park-and-ride facility off I-95 at Exit 57 (Route 113). There is an extensive network of sidewalks in the older urban grid which are in varying states of repair, and there are bicycle lanes and routes along High Street and Water Street. Recently the City has developed off-road multi-use pathways along the riverfront and the former rail corridors, with existing and future connections north and south as part of a regional greenway system including a bicycle/pedestrian connection across the Merrimack River via the new Whittier Bridge. While the Merrimack River and the Atlantic Ocean were historically critical routes for commerce and instrumental in shaping the development of Newburyport, the river and sea have been supplanted almost entirely by land-based transportation networks and given over to recreational enjoyment.

Since the 2001 Master Plan, the City has accomplished a number of transportation improvements, including: the first phase of the Clipper City Rail Trail in the North End; new pathways to and along the waterfront; a new downtown off-street paid-parking program; an upgraded Green Street surface parking lot downtown; a new roundabout at the intersection of Spofford, Moseley, and Merrimac streets; resurfacing many roads; new accessible curb cuts downtown and along High and Merrimac Streets; sidewalk installations and repairs; and the installation of bicycle lanes along High Street. The City initiated discussions regarding the need for a structured parking facility downtown over three decades ago. Eight years ago the City began working with the Merrimac Valley Regional Transit Authority to develop an intermodal facility/garage in the downtown area. The site has been approved and financing has been identified with Federal, State and City funds. Design for the facility is underway and the project is anticipated to break ground in 2017. The City is also making progress in working with the central waterfront stakeholders to dissolve the Newburyport Redevelopment Authority leading to an expansion of park space and improving/redeveloping the central waterfront's surface parking lots.

The City has worked in partnership with other entities to improve transportation facilities that are not owned and controlled by the City. Examples include the Merrimack Valley Planning Commission's comprehensive Road Safety Audit of the intersection of Route 1 and Merrimac, Summer and Winter Streets, and the design of the I-95/Whittier Bridge state mega-project. As only one community within a broad interconnected region, the City of Newburyport has a limited ability to improve federal and state owned roads, bridges, and intersections within the community, connections to other communities, and mass transit facilities serving the region.

Improved safety, accessibility, connectivity, and environmental awareness are important transportation priorities. The City would like to see the expansion of public transit service to meet the community's needs that is efficient, user-friendly, and environmentally sound. It aims to develop policies that would reduce dependency on the private automobile, better organize parking in the downtown, improve traffic flow on major streets, and slow down traffic in residential areas through the integration of traffic calming measures like narrowing roads, adding speed bumps, and constructing curb bump-outs. The City would also like to encourage more walking and biking by improving the pedestrian and bicycling infrastructure in Newburyport.

Section A: Existing Conditions

Commuting Patterns

A community's community profile is generally influenced by its location within the region, land use patterns and availability of transportation infrastructure and services. Newburyport's proximity to I-95, Route 1 and even to I-495 provides the community with easy and convenient access to the regional highway network.

Table TC-1: How Newburyport Residents Commute to Work

Mode Choice	2000 Census		2009-2013 ACS	
	Number	Percent	Number	Percent
Drove Alone	7,369	80.2%	6,439	72.7%
Carpool	610	6.6%	464	5.2%
Walked	274	3.0%	600	6.8%
Public Transportation	258	2.8%	461	5.2%
Work at Home	584	6.4%	735	8.3%
Other	91	1.0%	155	1.8%
Total Workers	9,186	100%	8,854	100%

Source: 2000 U.S. Census and U.S. Census Bureau, 2009-2013 5-Year American Community Survey

Table TC-2: Average Commuting Time for Newburyport Residents

Time Spent Commuting	2000 Census		2009-2013 ACS	
	Number	Percent	Number	Percent
Workers not working at home	8,602	100%	8,119	100%
Less than 5 minutes	485	5.6%	408	5.0%
5 to 9 minutes	1,374	16%	1,121	13.8%
10-14 minutes	1,116	13%	752	9.3%
15-19 minutes	585	6.8%	677	8.3%
20-24 minutes	487	5.7%	640	7.9%
25-29 minutes	513	6.0%	340	4.2%
30-34 minutes	992	11.5%	889	10.9%
35-39 minutes	285	3.3%	384	4.7%
40-44 minutes	447	5.2%	298	3.7%
45-59 minutes	1,111	12.9%	967	11.9%
60-89 minutes	896	10.4%	1,019	12.5%
90 or more minutes	311	3.6%	624	7.7%
Average travel time to work (minutes)	**29.9**		**33.3**	

Source: 2000 U.S. Census and U.S. Census Bureau, 2009-2013 5-Year American Community Survey

Roadways

There are a total of approximately 100 miles of roadway in Newburyport, of which approximately 70 percent are City-owned and maintained. Highways and local roadways are the basis of the City's infrastructure and vital to its economic growth and prosperity. Roadways are classified according to their function and purpose, in a hierarchy based on mobility and access, which is outlined in guidelines established by the Federal Highway Administration. Functional classification is based on a process by which the nation's network of streets and highways are ranked according to the type of service they provide. Functional class describes how travel is "channelized" within the roadway network, by defining the role that any road or street plays in serving the flow of trips through a community or region.

Table TC-3: Functional Classification of Roadways within Newburyport

	Interstate	Arterial	Collector	Local	Total
Roadway Centerline Mileage	6.33	19.71	3.59	71.26	100.89
Roadway Lane Mileage	23.33	40.01	6.47	99.96	169.77

Source: Roadway Inventory File, MassDOT, 2013

Interstate highways and principal arterials form the basic framework for the roadway network. The most mobile function classes, interstates and principal arterials, serve the primary role of being a major conduit for interstate travel and commerce. Additionally, they help link major geographic and economic regions and urban centers. Newburyport's principal arterials include:

- **Interstate 95**, constructed in the 1950s, extends in a general north to south direction within the City of Newburyport for approximately 3.18 miles. The highway, along with its bridges, is maintained by the State and has four travel lanes each way, narrowing down to three each way as it reaches the City border with Salisbury. The Interstate has one on- and one off-ramp in Newburyport at Route 113.
- **Route 1** also extends primarily north to south within the City, running essentially perpendicular to the downtown. In the mid-1930s, the highway's routing was taken off of City streets and was placed on a roadway that was constructed by the Massachusetts Department of Public Works, a predecessor of Mass DOT from a rotary intersection of State Street and the Newburyport Turnpike at the southern City limits to the Merrimack River crossing at the northern City limits. Mass DOT still owns and maintains the section of highway, which is four lanes with two lanes of travel in each direction separated by a center median.
- **Route 1A**, owned and maintained by the City, diverges from Route 1 in Boston to the south, traverses through the North Shore's coastal communities and then merges with Route 1 in Newburyport to the north. Within the city, Route 1A is carried on High Street, east of Winter Street and on Summer and Winter Streets. Route 1A rejoins and merges with Route 1 at the ramp intersections with Merrimac Street.
- **Route 113**, locally known as Storey Avenue, is an east/west state-owned roadway, 1.8 miles in length, which runs from the West Newbury town line at the Artichoke Reservoir crossing to the west to its intersection with Moseley and High Streets to the east. It passes over Route 95 at the approximate mid-point of the roadway. Route 113 widens from two lanes to four from the west as it approaches the ramps to Route 95. East of I-95, the four-lane road is designated as being part of the National Highway System (NHS) of roads.

Minor arterials also serve longer distance traffic movements, yet are considered secondary to urban principal arterials. They primarily serve as links between major population centers within or between distinct geographic and economic regions.

- **Low Street** provides a connection between Storey Avenue (Route 113), Route 1, and High Street (Route 1A). Low Street serves as an important alternative to High Street for traffic between downtown Newburyport, the Storey Avenue shopping centers and I-95 north.
- **Merrimac Street** is an east/west two lane roadway, 2.4 miles in length, which runs along the southern bank of the Merrimack River from Spofford Street near its river crossing at the Amesbury border to the west to Market Square in downtown to the east. The roadway connects the City of Amesbury, via the Chain Bridge – the only suspension bridge maintained by the Massachusetts DOT – and neighborhoods of Newburyport with the downtown.
- **Route 1** as it travels north of High Street is considered a minor arterial as vehicle trips on this section of roadway are made primarily between the City center and the Town of Salisbury.

Collector roadways differ from arterials by the size of their primary service areas. Collector roads are generally shorter and serve to gather vehicles from local roads and distribute them to arterials. In designated urban areas, such as Newburyport, there is no differentiation between major and minor collector roads. In Newburyport, there are 3.59 centerline miles of urban collector roadways. Examples include Water Street, State Street, Hale Street and Ferry Road.

Local roads are used primarily to provide access to adjacent properties. Often there are numerous turning movements and slower speeds, as vehicles use these roads to access residential areas. In Newburyport, there are 71.26 centerline miles designated as local roadways.

Roadway Maintenance and Snow Removal

The majority of roadways and sidewalks, except those previously noted, are maintained by the City through its Department of Public Services (DPS) Highway Division. The Parks Department maintains walkways, sidewalks, trails, and parking lots that fall under Parks Commission jurisdiction, including the Clipper City Rail Trail. The City will coordinate with the various utility companies so that when a road is scheduled to be repaved or a sidewalk be repaired, the utilities may perform their upgrades and repairs in advance of the City's work. As is the case when the State performs roadway repairs, there is a moratorium for a period of five years after a street or sidewalk has been repaved on digging it up for utility work; the exception to this being an emergency situation like water or gas leak.

The City, through its DPS staff and contractors, handles snow removal of all the roadways under its care and management. Snow removal in City parks, including the Clipper City Rail Trail, is managed by the Parks Department. Snow removal along sidewalks is predominantly the responsibility of the property owner adjacent to the sidewalk, with the notable exception of many downtown sidewalks the City has voluntarily kept clear of snow during the winter season to ensure the vitality of downtown businesses. This responsibility is dictated by Newburyport City Ordinances, Section 12-52. For more detailed information regarding maintenance of roadways and sidewalks, please see Chapter 10: Municipal Services & Facilities.

Transit and Ridesharing

Newburyport is home to an MBTA commuter rail station as well as a staffed commuter and intercity bus terminal off of I-95 that is open 24 hours a day with frequent service to both Boston's South Station and Logan Airport. There is also a Park and Ride lot adjacent to the bus terminal that is available for people wishing to

carpool or vanpool to work in addition to being a stop for commuter bus service and shuttles to Logan Airport. Anna Jaques Hospital and the Greater Newburyport Chamber of Commerce are MassRIDES partners; MassRides is a free program of the Massachusetts Department of Transportation (MassDOT) designed to help reduce traffic congestion and improve air quality and mobility. The Merrimack Valley Regional Transit Authority (MVRTA) offers bus transit service throughout the region with stops at various locations in Newburyport. The City in collaboration with MVRTA operates a Summer Shuttle on weekends from Memorial Day to Labor Day to transport visitors and residents from the train station to downtown to Plum Island beaches.

School Transportation

The Newburyport Public Schools contract with a private bus company for their transit needs. There are a total of 13 buses that carry 1,270 riders. The buses run on a 3-tier system, which means that one bus may make up to three different runs throughout the day. The Newburyport School Committee determines bus fees for each academic year. Students living more than two miles from school and those who qualify for free and reduced lunch do not pay bus fees.

In addition to the traditional school bus system of transporting children to school, Newburyport is a partner in the Massachusetts Safe Routes to School Program. This program is administered by the Massachusetts Department of Transportation and helps to reduce congestion, air pollution, and traffic congestion near schools, while increasing the health, safety and physical activity of elementary and middle school students through teaching children to start walking and bicycling more often to and from school. By being a partner in the program, Newburyport is able to receive technical assistance, implementation and marketing plans and evaluation programs. Additionally, the City receives educational materials targeted to students, parents and community leaders, promotional materials to announce the City's 'Safe Routes to School', training for stakeholders so that they may identify access challenges and design solutions and information on ways to qualify for infrastructure improvements to enhance safety along school routes.

Alternative Transportation Network

Newburyport has an extensive network of sidewalks, bicycle lanes and pathways and nature trails. Walking, hiking and biking are an integral part of community life and an increasingly viable alternative transportation choice. While the City has made a concerted effort to expand its sidewalk network, residents feel that a lack of sidewalks or gaps in the existing sidewalk network, poor maintenance and substandard pedestrian crossing locations create barriers to walking. The winter season presents additional challenges. While the City has an ordinance regulating sidewalk snow and ice removal (Newburyport City Ordinances, Section 12-52), residents generally comply with snow removal but enforcement of this ordinance is often lacking.

Accommodating bicyclists through on-road and off-road facilities such as bike lanes, bike paths and the use of wider roadway shoulders, encourages the use of cycling as a form of transportation and provides for a safer bicycling experience. Newburyport has made strides in creating safer environments for cyclists through the addition of bike lanes along High Street, the continued work on the Clipper City Rail Trail and incorporating the "Complete Streets" principles. There is no singular design for Complete Streets, but with the goal being to create active, pedestrian-friendly environments and encourage responsiveness to pedestrian, bicycle, and transit facilities in building and site design, a 'complete street' often includes sidewalks, bike lanes, special bus lanes, frequent and safe crossing opportunities, narrower travel lanes, and curb extensions. While there is continued improvement in this area, the community has strongly expressed its desire to make the City a safer place for cyclists and pedestrians.

Marine Transportation

Located along the Merrimack River, the City is a haven for recreational and commercial boaters during the spring, summer and fall months. With several private yacht clubs dotting the shores and a large public boardwalk with both temporary docking space for visitors and permanent space for several commercial and charter vessels, the River is often teaming with activity. There has long been discussion of establishing a water taxi service between Salisbury and Newburyport, including Plum Island; such a service would reduce the number of vehicles passing through the two communities to visit their beaches, restaurants and shops. While a water taxi has not yet been established, both private interests and the City continue to support this idea and will likely make strides toward the creation of this transportation option.

All of the water transportation activity is private, with the exception of harbormaster and Coast Guard vessels. The Newburyport Harbormaster oversees and regulates vessels on the river and responds to emergencies with his primary task being the management and safety on the waterways of Newburyport. To ensure boater safety, Harbormaster staff patrols the river and harbor enforcing State and local laws, manages the boat launch facility at Cashman Park and the docks along the waterfront, manages the lifeguards on Newburyport's public beaches, and provides a waste water pump out vessel.

In order to provide better service to the public and the boating community, the City recently constructed a new Harbormaster Visiting Boaters Facility on the central waterfront. This new 1,740 square foot facility features public restroom facilities, showers and facilities for visiting boaters, space for customer service and staff, and an office on the second level for the Harbormaster, which allows a raised vantage point to monitor the river.

Parking

Downtown Newburyport has several public parking lots in addition to on-street parking. There are approximately 740 parking spaces in the downtown that are available for short-term (15 minutes to 2 hours), medium term (four to eight hours) and long term (eight hours and more) parking. The spaces in the parking lots feature a pay-and-display system with the cost of $1.00 per hour. The downtown street parking is free although the City employs parking attendants to ensure that vehicles do not exceed the posted time limits. There are several streets in the downtown residential areas that are reserved for resident parking and monitored with a parking sticker program.

The City of Newburyport is currently bidding plans for construction of a downtown parking garage. When constructed, this facility will accommodate at least 200 vehicles (with potential future expansion), which will relieve some of the downtown parking pressures and also enable the City to remove a portion of the parking spaces on the waterfront and replace them with park space and public amenities. The facility will also serve as a bus stop for the MVRTA system and will feature bicycle parking.

Subdivision and Zoning Regulations

The Newburyport Planning Board's Rules and Regulations Governing the Subdivision of Land mandate minimum design and construction standards for new roadways and sidewalks. The Board may entertain waivers from these regulations so long as members believe that public safety is not at risk. The Board often weighs the potential risk to public safety versus the environmental benefits of accepting roadways that do not meet the minimum width dictated by the subdivision rules, or the elimination of a sidewalk on a new road in order to reduce the amount of impervious surface in a subdivision.

Section VII of the Newburyport Zoning Ordinance addresses parking. The City allows various parking options for both residential and non-residential uses. While the preference for residential uses is to provide the required parking on-site, there are some allowances for off-site parking within 300 feet of the property. Recently, the parking provisions for non-residential uses have been more controversial as downtown businesses are able to count the spaces in the nearby public parking lots toward their required parking count regardless of availability. The City currently allows non-residential uses to provide the necessary parking spaces either (1) on-site; (2) off-site within a private parking lot or structure within 300 feet of the use; (3) off-site within a municipal parking lot within 300 feet of the use; or (4) off-site within a municipal parking structure within 500 feet of the use (with permission from the City Council). This section of the Zoning Ordinance will need to be modified in the 2017 zoning rewrite project with a balance between allowing businesses to grow and succeed while also addressing the parking pressures of the downtown.

Section B: Traffic

Traffic Volume

The Merrimack Valley Planning Commission (MVPC) compiled a variety of traffic data charts, maps and counts for each of the fifteen communities in the Merrimack Valley region into its *2014 Traffic Volume Data Report*. In addition to MVPC relying on the traffic data in this report to help maintain its regional traffic model (the program used to project traffic demand in the region) and to determine if the region is meeting the requirements of the Clean Air Act, it is used by the Federal Highway Administration as part of their formula to allocate highway funding to the states. The report is also used by private sector firms as they make business location decisions, by local officials to gauge the effects of traffic on local roads and neighborhoods and by state officials to assist them in the development and implementation of the management systems.

The report features traffic count data from 105 locations throughout the fifteen region community and, in addition to this individual traffic count information, presents a ten-year history of all traffic counts conducted throughout the Merrimack Valley. All of the traffic volume information is presented as Average Daily Traffic (ADT). The ADT results from traffic counts taken for a consecutive 48-hour period and averaged out over the two-day time frame. However, because of uncontrollable factors (i.e. mechanical failure, weather, etc.), the ADT may also be taken from a 24-hour count period.

The information presented in **Table TC-4** provides a snapshot of how Newburyport's traffic counts compare to the other communities in the region; the "Traffic Volume – Month" column represents the ADT for the location and the month in 2014 in which the data was collected.

Table TC-4: Top 25 Volume Locations for 2014

Rank	Community	Route/Street	Location	Traffic Volume – Month
1	Amesbury	110/Macy Street	East of I-495	31,731-May
2	Newburyport	113 / Storey Avenue	East of Route I-95	30,519-June
3	Haverhill	125/Plaistow Road	NHSL (South of Cragie Avenue)	26,443-August
4	Andover	28/North Main Street	South of Route 133	21,745-September
5	Newburyport	113 / Storey Avenue	East of Low Street	21,553-June
6	Salisbury	1/Bridge Road	At Newburyport border	20,196-July
7	Newburyport	113/Storey Avenue	East of Noble Street	19,896-June
8	North Andover	125/Chickering Road	North of Andover Street	19,049-October
9	Georgetown	133/East Main Street	East of Route I-95	18,038-July
10	Amesbury	Evans Place	Newburyport border	17,925-September
11	Newburyport	113/High Street	East of Rawson Avenue	17,903-July
12	North Andover	Johnson Street	South of Andover Street	17,762-September
13	Methuen	110/Haverhill Street	East of Route 113 / Lowell Street	16,875-September
14	Groveland	97/Salem Street	Georgetown border	16,001-June
15	Rowley	1A/Main Street	Ipswich border	15,354-August
16	Lawrence	Water Street	West of Route 28	14,875-July
17	Groveland	97/Salem Street	Georgetown border	14,668-August
18	Lawrence	Essex Street	West of Route 28	14,146-May
19	Andover	133/Lowell Street	East of Argilla Road	13,949-September
20	Rowley	1/Newburyport Tpk.	Ipswich border	13,692-August
21	Methuen	113/Pleasant Valley Street	West of Route I-495	13,582-June
22	North Andover	125/Chickering Road	South of Prescott Street	13,429-June
23	Lawrence	28 / Broadway	Methuen border	13,386-September
24	Newburyport	Low Street	West of Bashaw Way	13,336-April
25	Haverhill	Monument Street	North of Route 97	12,720-May

Source: "Traffic Volume Report", MVPC, 2014

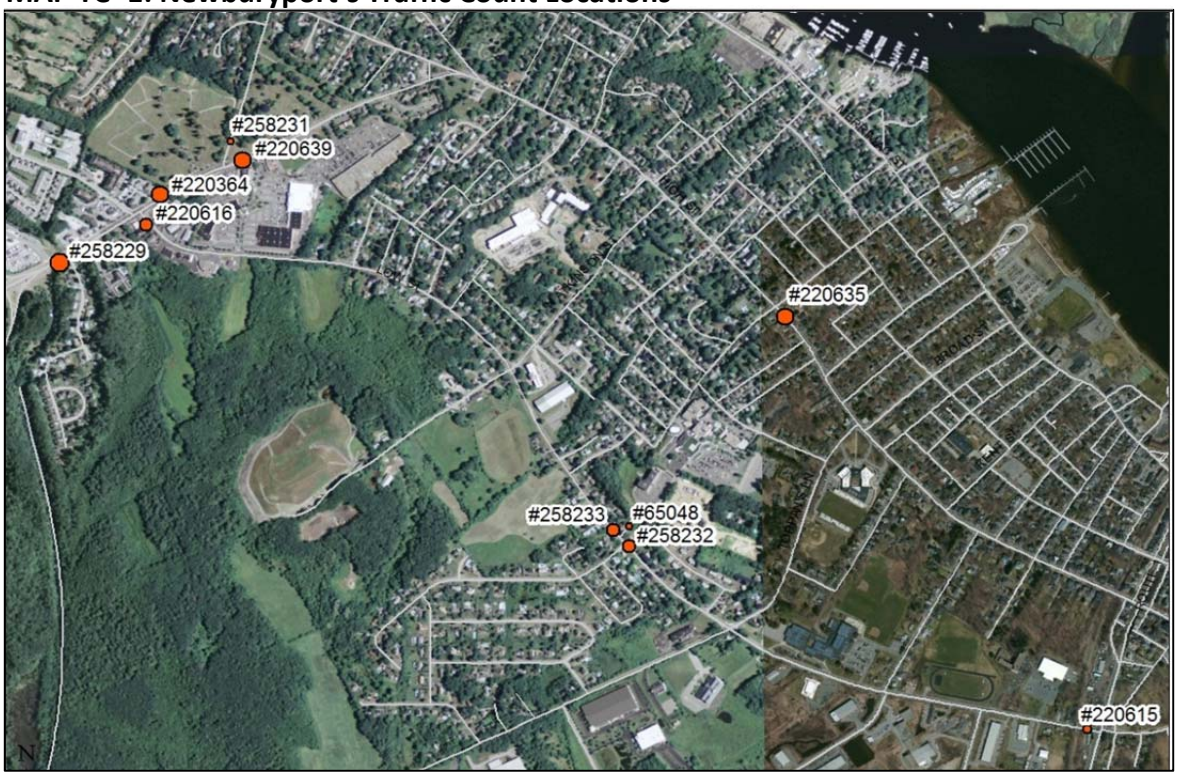
MVPC performed traffic counts for several Newburyport locations, in addition to those listed above. The findings are summarized in **Table TC-5**. As mentioned earlier, the traffic counts occurred over a 48-hour time period beginning on the date listed in the table.

Table TC-5: Summary of Newburyport's 2014 Traffic Count Data

ID Number	Route/Street	Date	Location	Total ADT
258229	Route 113 / Storey Avenue	June 18, 2014	**East of Route I-95**	**30,519**
			Eastbound	15,693
			Westbound	14,826
220364	Route 113 / Storey Avenue	June 18, 2014	**East of Low Street**	**21,553**
			Eastbound	11,273
			Westbound	10,280
220639	Route 113 / Storey Avenue	June 18, 2014	**East of Noble Street**	**19,896**
			Eastbound	10,173
			Westbound	9,723
220635	Route 113 / High Street	July 23, 2014	**East of Rawson Street**	**17,903**
			Eastbound	8,535
			Westbound	9,368
65048	Bashaw Way	April 15, 2014	**North of Low Street**	**3,164**
			Northbound	1,549
			Southbound	1,615
220616	Low Street	June 23, 2014	**East of Route 113/Storey Avenue**	**11,986**
			Eastbound	6,055
			Westbound	5,931
258232	Low Street	April 15, 2014	**East of Coltin Drive**	**12,400**
			Eastbound	6,153
			Westbound	6,247
220615	Low Street	May 12, 2014	**West of Route 1/Newburyport Tpke**	**9,342**
			Eastbound	4,510
			Westbound	4,832
258233	Low Street	April 15, 2014	**West of Bashaw Way**	**13,336**
			Eastbound	6,528
			Westbound	6,808
258231	Noble Street	June 23, 2014	**North of Route 113/Storey Avenue**	**5,370**
			Northbound	3,201
			Southbound	2,196

Source: "Traffic Volume Report", MVPC, 2014

MAP TC- 1: Newburyport's Traffic Count Locations



Critical Traffic Areas

City boards, departments, committees and staff have identified several locations that appear to have significant traffic problems. Such locations include areas with existing congestion or safety concerns, or geometric design issues. **Map TC-2** below shows the location of these areas that are discussed in detail as follows.

- **Downtown Newburyport**. The City's historic downtown business district contains a mix of business, residential, institutional and government uses. Located at the confluence of Merrimac, Water and State Streets, large volumes of traffic, including pedestrian traffic, pass through the downtown each day. The intersection of Green and Merrimac Streets tends to be a high traffic area, especially with vehicles entering the area from the parking lot across the street and the presence of a pedestrian crossing light. Congestion at both of these downtown intersections is evident during peak hours, especially during the summer tourist season. However, despite the large numbers of vehicles observed passing through the area each day, this is not considered a high crash location for either vehicle-on-vehicle or vehicle-on-pedestrian.

- **Storey Avenue**. Also known as Route 113, Storey Avenue is likely the most congested roadway in the City due to its access from I-95 and direct route into the downtown area, its concentrated retail and commercial development, and its current configuration of traffic patterns and signalized intersections, especially at the Low Street intersection and the Ferry Road/Moseley Avenue (i.e. "Three Roads") intersection. In addition to observing large volumes of vehicular traffic throughout the day, vehicles were observed in long queues at the signalized intersections for streets, various retail plazas and stand-alone commercial businesses.

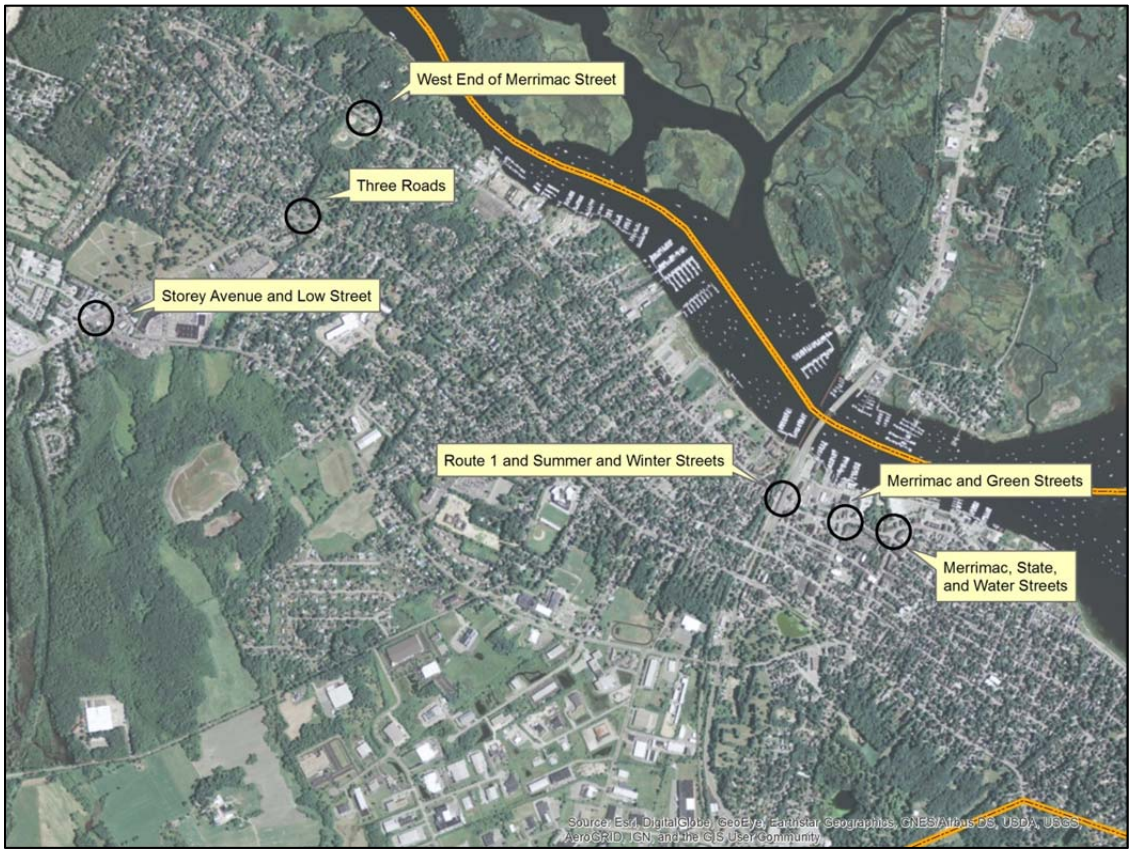
As properties are developed along the Storey Avenue right-of-way, traffic and roadway improvements that necessitate coordination with the Massachusetts DOT are included in various local permitting decisions. Improvements may include adding bicycle lanes, resignalizing intersections to promote more efficient movement of vehicles, removing extraneous signage and adding or removing street trees.

- **Merrimac, Winter and Summer Streets.** As Route 1 travels between Newburyport and Salisbury its north and south on- and off-ramps terminate at Merrimac Street creating a 150 foot intersection with several lanes of traffic turning onto and off of Route 1 in addition to the vehicular traffic traveling east and west along Merrimac Street. The northbound off-ramp along Summer Street culminates in three lanes as it reaches Merrimac Street: one to go eastward toward downtown, one to go westward toward the north end and the third that goes straight across Merrimac Street and back onto Route 1 north. The same configuration occurs on the opposite side for the southbound off-ramp onto Winter Street.

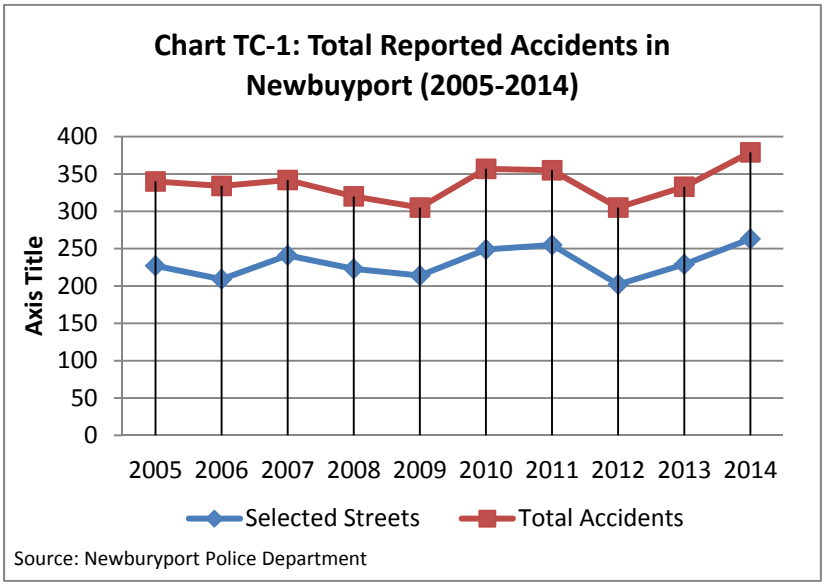
  The Newburyport Police Department has long recognized the need to reconfigure and possibly signalize this area to improve safety and efficiency. The determination as to what improvements need and should be made is within the jurisdiction of the Massachusetts DOT since it owns and maintains Route 1, Winter and Summer Streets.

- **Route 1 Traffic Circle.** A major gateway into the City from the south, the Route 1 Traffic Circle is a large, two-lane rotary with three major entry points and several minor driveways off of it that provide direct access commercial businesses. While not a generator of significant vehicular accidents as compared to the other listed critical traffic areas, this area has long been scrutinized and studied as to ways to improve traffic patterns, circulation and safety. The intersection of State and Parker Streets on the northern side of the circle immediately before they feed into the rotary is awkward and dangerous, with a pedestrian fatality occurring here in late 2016. There has also been much discussion at the local level of studying the circle to determine whether reducing the travel lanes along both north- and southbound Route 1 to one lane is feasible. Another valid discussion is the movement of pedestrians around and through the area. Many MBTA users will often cross Route 1 to get to and from the train depot even though there are no crosswalks or pedestrian lights. Safe passage of both vehicles and pedestrians through the traffic circle is currently under discussion with MA DOT with the first priority to address safe pedestrian crossing.
- **Western End of Merrimac Street.** This is a heavily-traveled portion of Merrimac Street that connects the western end of the City to the downtown area. An area of particular concern along this stretch of road is near the baseball fields at Lower Atkinson Park, known as Pioneer Fields. Narrow sidewalks, excessive vehicular speed, poorly located and demarcated crosswalks, and unclear entry and exit points to the parking area. Potential improvements to increase safety for both vehicles and pedestrians include: improved signage for crosswalks and speed limits, sidewalk reconstruction, additional road striping to demarcate the travel lane versus the pedestrian area, and reconfiguring the field's parking area so that there is more off-street parking. This roadway is a City-owned street, which means local funds and the DPS could make these improvements.

MAP TC- 2: Critical Traffic Areas



Vehicular Safety



Source: Newburyport Police Department

According to Newburyport Police Department accident reports from 2005 to 2014, the instances of reported vehicular accidents have remained fairly consistent despite the continued commercial and residential growth in the City that brings in more people and more vehicles each year.

Of all of the streets where reported accidents occurred, there were several that seemed to consistently amass the most accidents throughout the ten-year time span. Whether they are located in the downtown or serve as major thoroughfares, these ten streets together account for between 60% and 70% of all accidents in any given year.

These selected streets include:

Green Street	Low Street	Pleasant Street	Rte. 1 Traffic Cir.	Storey Avenue
High Street	Merrimac Street	Route 1	State Street	Water Street

Transportation Improvement Plan

Based on regulations promulgated by MA DOT, any transportation project funded through the Federal Highway Administration or the Federal Transit Administration must be listed in the appropriate region's Transportation Improvement Program (TIP). In the Merrimack Valley Region 2014 TIP, which lists projects slated for Fiscal Years 2015 through 2018, the following projects were listed for Newburyport:

Table TC-6: Newburyport Projects on the FY 2015-2018 TIP

Highway High Priority Projects	**Status**
Amesbury/Newburyport – Rehabilitation of I-95 Whittier Bridge	Under construction
Transit Projects for Bus and Bus-Related Facilities and Clean Fuels Grant Program	**Status**
Design and construct intermodal facility	Project under design
Statewide Transportation Enhancements	
Clipper City Rail Trail along the City Branch (Phase II)	Washington Street bridge over Route 1
Route 113 bridge (High Street) over railroad	Route 1 traffic circle reconfiguration
Maintenance and related work on I-95 – Newburyport and other surrounding communities	Intersection improvements – Route 1 and Merrimac Street
Route 1A bridge (High Street) over Route 1	

Source: Merrimack Valley Metropolitan Planning Organization, Final FY 2015-2018, Transportation Improvement Program

Section C: Newburyport's Transportation & Circulation Goals

A primary goal for the City is developing a more balanced and diverse transportation network. In particular, Newburyport is committed to making alternative modes of transportation more viable, attractive and safe, and to facilitate a discernible shift in the number of people travelling by some means other than private car. Driving automobiles will likely remain the dominant mode for the foreseeable future, as private vehicles are typically perceived as the most convenient (quick, comfortable, easy, cheap, etc.) way to travel within a small community such as Newburyport. However, a noticeable "mode shift" could partially address congested roads and parking lots, community health, perceived danger for school-children and others, and fossil fuel consumption and climate change.

The City has identified the following primary transportation goals. Please see the following pages for a more complete listing of the associated objectives and actions, as well as potential priority levels, responsibility, and timeframes.

- Improve roadway infrastructure and enhance vehicular circulation.
- Improve public parking facilities and management.
- Promote walkability and pedestrian safety.
- Promote bicycle use throughout the City as a viable transportation mode.
- Improve public transportation services including local transit service from the City's rail and bus facilities.
- Adapt the City's transportation system to address climate change and sustainability.
- Adopt a Complete Streets Policy to become eligible for MA DOT technical assistance and grant programs.

The comprehensive scope of transportation improvements articulated in this Master Plan's goals, objectives, and actions is unlikely to be fully addressed within the 10-15 year planning horizon of the plan. Limited funding and competing priorities, limited staff and capacity, political controversy, and lack of City control will work against some of these aspirations. However, many of these improvements are within reach, and the framework provides a map of the community we would like to become.

Goal T-1: Improve roadway infrastructure and enhance vehicular circulation throughout City.

Like most other Massachusetts communities, Newburyport must balance its roadway infrastructure needs with countless other municipal necessities. Objectives and Actions include developing a coordinated plan for transportation improvements, integrating provisions for maintenance and improvement, and incorporating the planting of trees where possible whenever roadwork is performed. Newburyport should undertake a variety of initiatives to enhance its access to transportation funding. These may include applying for additional federal and state funds, engaging in lobbying activities and instituting local policy changes in order to generate additional transportation revenues for the City.

Goal T-2: Improve public parking facilities and management.

Newburyport is a regional center for employment and tourism. Parking facilities for personal vehicles, especially in the downtown, will continue to be a necessary form of infrastructure. Objectives and Actions for this Goal include improving the City's current parking facilities, creating new facilities, including a parking garage structure, and consolidating parking management under one department or authority.

Goal T-3: Promote walkability and pedestrian safety throughout the City.

Communities that promote walking and pedestrian safety can reap significant social, environmental and health benefits that are often not available in predominantly auto-oriented places. Safe, convenience, and comfortable trails, sidewalks and walkways provide opportunities for exercise, help people meet and socialize, give children and others who do not drive mobility options, and commuting via non-motorized transportation. With the option to walk available to all residents, shoppers and workers, communities can reduce the number of vehicles on the roadways, thereby reducing traffic congestion, air pollution and the need for excessively large parking facilities.

Goal T-4: Promote bicycle use throughout the City as a viable alternative mode of transportation.

Accommodating bicyclists through on- and off-road facilities such as bike lanes, bike paths and wider roadway shoulders, encourages the use of bicycling as a form of transportation and provides for a safer bicycling experience. During community meetings, residents noted that the City needs to provide additional facilities for both cycling and walking. Bicyclists using roadways can be more exposed to injuries (and more severe injuries) than car occupants. Some of them, children for instance, are also less aware of the safety concern. Adult bicycling safety on the major roads depends on both car and bicycle operator alertness and attention to traffic laws. In particular, establishing wayfinding signage, dedicating safe bicycle pathways and developing a comprehensive bicycle master plan are top priorities.

Goal T-5: Improve public transit and shuttle services.

Newburyport has the benefit of being on the commuter rail system and a staffed commuter and intercity bus terminal open 24 hours a day serving South Station in Boston and Logan Airport, plus a Park and Ride lot

adjacent to the bus terminal. Also a shuttle bus system that carries residents and visitors to, from and around the City. Greater frequency of shuttle services and routes that extend throughout the community and its integration with the intercity rail and bus facilities are essential to ensuring the widespread use of public transportation. Newburyport's coastal location also naturally lends itself to a water shuttle service that can take people from the City to neighboring communities and to Plum Island.

Goal T-6: Promote and model sustainability.

Promoting alternatives to automobiles will encourage healthy lifestyles and help alleviate congestion within Newburyport while cutting down on air pollution. While promoting alternative transportation options will go a long way toward becoming a more sustainable community, the City should also seek to incorporate electric and hybrid vehicles in its municipal fleet, encourage the use of alternative energy vehicles by providing charging stations and dedicated parking spaces for efficient cars and also explore a car sharing service at both the commuter rail station and in the downtown parking lots.