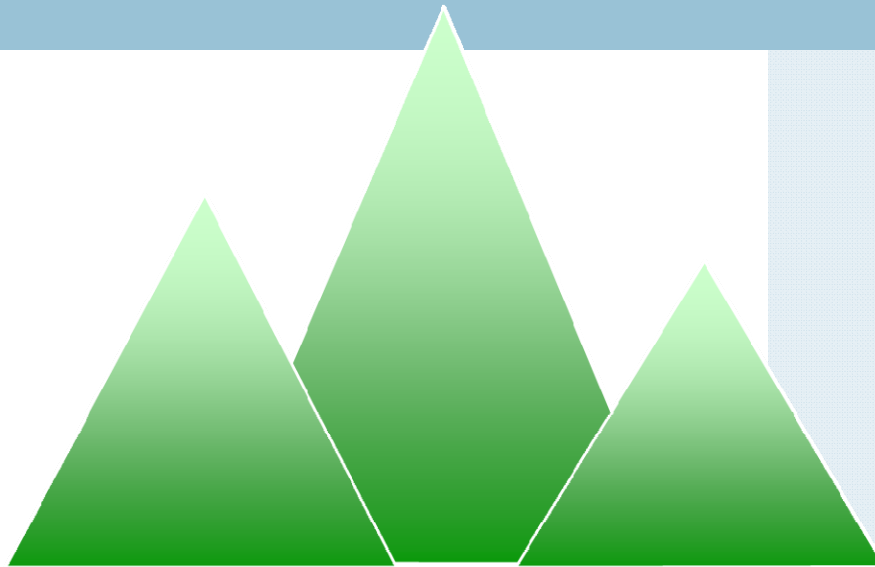




MONTACHUSETT REGIONAL PLANNING COMMISSION

Walkability Report

2012



For the town of
Groton

September 2012

Walkability Study For Groton, MA



Main Street, Groton

Prepared for the town of Groton

Prepared in cooperation with the Massachusetts Department of Transportation and the U.S. Department of Transportation. The views and opinions of the Montachusett Regional Planning Commission expressed herein do not necessarily state or reflect those of the Massachusetts Department of Transportation or the U.S. Department of Transportation.

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I. EXECUTIVE SUMMARY

The purpose of this report is to assist the town of Groton with a Walkability Study. Walkability is a measure of how friendly an area is for walking. There are many factors that influence walkability such as the presence of sidewalks or footpaths, roadway and traffic conditions and safety, accessibility for all users, etc. A walkable community not only benefits people by providing increased accessibility for walkers, it also has been known to provide health benefits for its residents, increased social interaction, reduction in crime, an increased sense of pride and volunteerism.

A study area was developed, which incorporated critical infrastructure locations provided by the Groton Planning Department, within the downtown area and a 1000' buffer was placed around those locations. Data that was collected within the study area included traffic volume, speed and classification counts, turning movement counts, sidewalks and related sign inventory as well as public input.

The residents and business owners were invited to participate in a walking audit where they had the opportunity to walk as a group within the study area and provide their personal experiences and thoughts regarding how walkable they felt the town is. Topic areas included sidewalks, roadways, crosswalks, trails, parks and public gathering spots, shade trees and benches, parking and local attractions. All comments and feedback are provided throughout the document as well as a more detailed attachment is provided at the conclusion of the report.

Based on the data collected, a recommendations section was included. These recommendations comprised of sidewalk maintenance and connections, traffic calming measures for speeding and crosswalk locations, improved roadway striping for school zones, additional and improved parking, and town policy changes that will incorporate walkability.

II. INTRODUCTION

A walkable community is one that allows residents access to major community elements that are generally within a 10 minute walking distance. Those community elements may include shopping centers, town hall, library, post office, and the senior center. The term “Walkability” refers to how friendly an area is to walking. Factors that make a community walkable include street connectivity and design, pedestrian features, access for all roadway users (vehicles and pedestrians), desirable streetscapes, and pedestrian safety features. Being a walkable community doesn’t necessarily refer to only transportation features; aspects like socialization and walking for exercise can also play a part.

This report will outline the process of how the town of Groton was evaluated for walkability as well as providing some recommendations to help boost pedestrian friendliness within the study area.

III. STUDY PROCESS

A. Study Area

The study area for this report was determined by the Town of Groton’s Planning Department and MRPC staff. This area is located within the Groton center and included key community elements such as town hall, public safety building, elementary schools, parks, religious facilities, library, post office, senior center, shopping centers, banks, restaurants, etc. A 1,000 foot buffer was placed around these locations (see Map Figure 1). This selected area was broad enough to incorporate all the key locations and have it be realistic for walkers.

B. Walking Audit

Once the study area was established, the MRPC and the Groton Planning Department led a walking audit of the study area in downtown Groton on April 21, 2012 (see flyer and handout in Appendix A). The walking audit was conducted to provide an assessment of walkability within the study area. Participants met in the town hall, broke up into two groups and walked two designated routes. (See Map Figure 2 and route descriptions below)



Photo provided by Nashoba Publishing

Routes

1. This route traveled behind the Town Hall, down Station Avenue and up Court Street, crossed over Route 119 to Hollis Road where it traveled north to Legion Common then west along School Street where it traveled south along Route 119 back to Town Hall.
2. This route traveled south from Town Hall along Route 119, turned west down Broadmeadow Road, south onto Playground Road where it continued south down Route 119 and stopped at the Lawrence Academy athletic fields. This route covered both sides of Route 119 within the stretch from Town Hall to the athletic fields.

During the walkability audit participants were asked to observe the following:

- Sidewalks – Are there sidewalks within the study area? Is the width/condition acceptable (at least 4 feet wide)? Do they have handicap access ramps at each crossing and crosswalk? Are there large cracks, bumps, dips, etc. present?
- Roadways – Are the current roadways in good condition? Is speeding a problem? Are large trucks an issue? Are drivers able to see pedestrians in crosswalks – is there adequate sight distance?
- Crosswalks – Are the current crosswalks adequate? Do you feel safe while crossing at the crosswalks? Are vehicles parked closer than 10 feet to the crosswalks? Are there “no parking” zones near crosswalks? Is the striping on the crosswalk visible?
- Trails – Are the trails in the area accessible to the study area? Are there guide signs to help people navigate to those trails and trail parking areas?
- Parks/Public Gathering spots – Are these located nearby? Are they accessible? Is the number of parks/gathering spots adequate for the area?
- Shade Trees/Benches – Are there sufficient areas to take a rest? Will you be walking in the sun most of the time or are their shaded areas to cool off in the summer?
- Parking – Is there ample parking available within the study area? Are parked cars a problem within the study area? Are their guide signs to show where the parking areas are?
- Attractions – What are the local attractions or key destinations that you walked pasted (ex. library, parks, shops)? Is there a local attraction guide or signs for visitors?

Other questions to consider were:

1. What are the positive aspects of your walking route?
2. Would this walk be adequate for a young child, elderly person, or a disabled person?
3. What would make this area more walkable for all users?

4. What would encourage more walking in the area? What is missing?
5. What are the concerns regarding walking within the study area?
6. Are the neighborhoods in the area considered mixed income? Is there a variety of housing types in the area?
7. Did you see other people out walking within the study area?

After the walking audit was conducted, participants were asked to provide feedback, both positive and negative, based on their walking experiences. All comments made by the participants have been documented and included in this report in Appendix B.

Summary of Findings Based Upon Input

The following summarizes a sample of the responses that participants developed regarding the positives and negatives of walkability for the Groton study area based on the observation topics mentioned above.

Sidewalks - Overall, most of the major roadways downtown have sidewalks (and they're plowed in the winter!). However, there could be improvements made to the areas in front of Town Hall and roads that connect to major attractions such as the rail trail, parks, common areas, etc. There also lacks a sidewalk connection south to the Post Office, CVS and Johnson's Dairy Bar, and north to Mill Run Plaza. This potential improvement ranked #1 by participants.



Playground Road – no sidewalk



Sidewalk in front of Town Hall



Mill Run Plaza – no connecting sidewalk to downtown



Post office/CVS – pedestrian walking along roadway

Roadways – Route 119 is in good condition although there is a problem with speeding and distracted drivers. The intersection of Broadmeadow and Main Street was mentioned as being unsafe for both drivers and pedestrians. The stretch of road in front of the Library was mentioned as one of the most dangerous areas to cross the street due to a blind curve and speeding.



Main/Broadmeadow Intersection



Main St - Blind Curve at Library

Crosswalks - There are a high number of curb cuts throughout Route 119 which creates a dangerous situation for pedestrians. Cars parked too close to the crosswalks create a sight distance problem for both drivers and pedestrians. Bump outs and raised crosswalks were recommended to make pedestrians more visible and for slowing vehicles down.

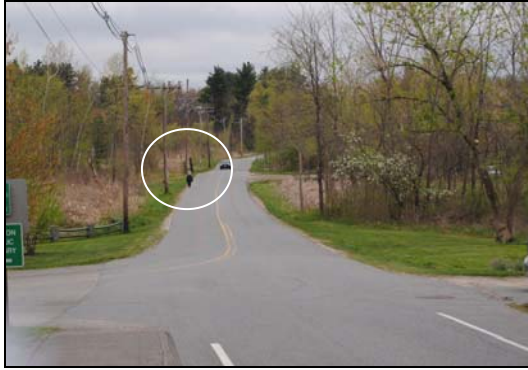


Walkers going around a vehicle exiting onto Route 119 from Dunkin Donuts.



Vehicles parked close to the crosswalk on Route 119

Trails – The Nashua River Rail Trail was mentioned several times as a positive aspect of the Groton town center. Many people use the trail for recreating as well as commuting. This trail provides a major connection to the Ayer town center as well as the town of Pepperell and into New Hampshire. There are multiple trail access points within the study area although sidewalks are missing at most of them.



Broadmeadow Road – no connection to the Rail Trail,
Pedestrian walking along roadway



Station Avenue/Court Street trail access

Parks/Public Gathering Spots- The playground located on Playground Road was mentioned as a major gathering spot for children and parents. This location is also dangerous due to a lack of sidewalks and vehicles that cut through even though there is a sign that states the roadway as “Not Thru to Traffic”. The Legion Common is also a popular gathering spot that would benefit from having additional sidewalks.



Entering Playground Road



Legion Common-no sidewalk on this side of street

Shade Trees/Benches – One of the positive comments mentioned was the abundance of flower gardens and foliage along the routes that make the area more aesthetically pleasing. There are also many shade trees located along Main Street and the surrounding areas.



Shade Trees along Route 119



Resting area outside of Legion Hall

Parking – It was noted that there is not adequate parking available within the study area. A designated municipal lot with parking signs would be beneficial. Vehicles parking along Route 119 are not always safe but painting designated parking spaces in this area would be helpful.

Attractions – Most people felt that there were an abundance of attractions and shops in the area. Many local businesses, restaurants, cafes and parks already exist. The study area is also located in the historic district.



Local establishments along Route 119

C. Data Collection

1. Traffic Volume Data:

The following traffic volumes were conducted as part of the MRPC's yearly count program. See Appendix C for more detailed data.

Location	Traffic Volume (Vehicles per Day)	Year of Count	Peak Morning/ Afternoon Hours
Broadmeadow Rd. west of Main Street (Rt. 119/225)	1,060	2012	10:00am/4:00pm
Boston Rd (Rt. 119/225) east of Lovers Lane	14,600	2012	6:00am/4:00pm
Hollis St north of Main St (Rt. 119/225)	4,000	2012	8:00am/5:00pm
Lowell Rd (Rt. 40) east of Main St (Rt. 119/225)	4,800	2012	8:00am/5:00pm
Main Street (Rt. 119/225) north of Lowell Rd (Rt. 40)	15,800	2012	7:00am/4:00pm
Main Street (Rt. 119/225) south of Lowell Rd (Rt. 40)	15,300	2012	6:00am/3:00pm
Pleasant Street west of Main Street (Rt. 119/225)	3,000	2012	8:00am/4:00pm
Playground Road south of Main Street (Rt. 119/225)	500	2012	10:00am/2:00pm
Main Street (Rt. 119/225) north of Pleasant Street	13,200	2010	7:00am/5:00pm

Traffic volumes along Route 119/225 vary from 15,800 at the center of town, 14,600 further east and 13,200 to the west. This roadway is a major connector from Townsend to the west, which also includes traffic coming from New Hampshire, to Routes 2 and 495. Route 40 is a major connector to Route 3 and averages 4,400 vehicles per day. The side streets vary from just under 5,000 to only 500 vehicles per day. These streets are generally for local traffic.

2. Turning Movement Counts:

Turning Movement counts were conducted at specified intersections within the study area during the morning and afternoon peak hours. The peak hour times of 7:00-9:00AM and 4:00-6:00PM were used for each location. (See Appendix D for full turning movement counts) The highest peak hour, which was the PM peak hour, was used when determining the level of service.

From the TMC data collected, a Level of Service (LOS) analysis was conducted. The LOS of a roadway traffic facility represents the quality of traffic flow and is used to assess the operation of that traffic facility. LOS analyses are based on the methods in the *Highway Capacity Manual (2010)* (HCM). LOS is defined differently for each type of traffic facility, such as an unsignalized intersection, signalized intersection, two-lane road, or multi-lane road. For intersections, the LOS criteria are defined by the average amount of delay experienced by a vehicle at the intersection due to the traffic controls (i.e., signs or signals). Usually each approach is assessed independently, since the LOS of the major and minor approaches may differ greatly. Table 1 summarized the LOS average control delay criteria for intersections controlled by STOP signs and those controlled by traffic signals.

Table 1 - Average Control Delay

LOS	Average Control Delay (seconds per vehicle)	
	Stop-Controlled	Signalized
A	≤10.0	≤10.0
B	10.1 - 15.0	10.1 - 20.0
C	15.1 - 25.0	20.1 - 35.0
D	25.1 - 35.0	35.1 - 55.0
E	35.1 - 50.0	55.1 - 80.0
F	>50.0	>80.0

The following LOS descriptions apply to intersections:

- **LOS A** describes operations with little or no delay due to very low major street traffic with many acceptable gaps and traffic flows easily.
- **LOS B** describes operations where stopped vehicles experience short traffic delays but there are still many acceptable gaps in the major street traffic.
- **LOS C** describes operations where stopped vehicles experience average traffic delays due to less frequent acceptable gaps in the major street traffic.

- **LOS D** describes operations where stopped vehicles experience long traffic delays due to a limited number of acceptable gaps in the major street traffic.
- **LOS E** describes operations where stopped vehicles experience very long traffic delays due to a very small number of acceptable gaps in the major street traffic. This level is considered by many agencies to be the limit of acceptable delay.
- **LOS F** describes operations where stopped vehicles experience extreme traffic delays due to virtually no acceptable gaps in the major street traffic. This level, considered to be unacceptable to most drivers, often occurs with **oversaturation**, that is, when arrival flow rates exceed the capacity of the intersection.

*Table 2 - 2012 Peak Hour Turning Movement Volumes and LOS
(vehicles per hour)*

Intersection at Main Street (Rt. 119) and Broadmeadow Rd. / Lowell Road (Rt. 40)						
<i>Approach</i>	<i>Left Turn</i>	<i>Through</i>	<i>Right Turn</i>	<i>Pedestrians</i>	<i>Total</i>	<i>LOS</i>
Main Street – Southbound	219	461	24	0	704	F
Main Street – Northbound	60	1138	113	2	1311	D
Lowell Road - Westbound	56	31	231	9	327	A
Broadmeadow Road-Eastbound	0	2	0	0	2	-

The Main Street and Broadmeadow intersection LOS shows that the intersection is very congested during peak times and traffic traveling southbound along Main Street have a difficult time turning left onto Route 40 (this movement contributes to 30% of vehicles traveling through this intersection). Both directions of Rt. 119 have a high number of left turns which causes vehicles to have a difficult time traveling through the intersection.

Intersection at Main Street (Rt. 119) and Pleasant Street						
<i>Approach</i>	<i>Left Turn</i>	<i>Through</i>	<i>Right Turn</i>	<i>Pedestrians</i>	<i>Total</i>	<i>LOS</i>
Main Street – Southbound	7	661	25	0	693	B
Main Street – Northbound	153	1488	3	0	1644	B
Pleasant St - Eastbound	12	4	117	2	135	E

Analysis at this intersection was complicated since it's a skewed design where the traffic taking a right from Pleasant Street is almost yielding onto Main Street and the left turns from the same direction are more challenging. There is a significantly higher volume of traffic traveling through this intersection compared to the other intersections in this study but luckily there is a smaller number of cars turning left from the side street. This is due to cars taking Elm Street to the north as a short cut in order to take a left onto Main Street.

Intersection at Main Street (Rt. 119) and Elm Street (Rt. 111/225)						
<i>Approach</i>	<i>Left Turn</i>	<i>Through</i>	<i>Right Turn</i>	<i>Pedestrians</i>	<i>Total</i>	<i>LOS</i>
Main Street – Southbound	1	265	64	1	331	A
Main Street – Northbound	15	742	27	0	784	A
Legion St – Westbound	0	0	0	0	0	-
Elm St - Eastbound	59	47	15	1	122	E

This intersection scored well for Route 111/119 since there was a very low number of left turning vehicles. Legion Street is a one-way road that travels northeast away from the intersection, therefore not having a LOS grade. But Elm Street serves as a major cut through to Route 111/119 northbound, avoiding the intersection of Main Street and Pleasant Street just to the south. Therefore, there are a large number of left turns at this location causing the LOS to be an E.

3. Traffic Speed Data:

Generally when determining the speed limit for a roadway the 85th percentile speed is used. This is considered the speed at or below which most drivers feel safe driving. See Appendix E for more detailed speed count information. The speed data that was collected was done so during the last week of school before summer break. This could affect the speeds during school hours which we used as between 7:00am and 3:00pm.

Main Street (Rt. 119) north of Lowell Road (Rt. 40)

	Speed Range (MPH)							
	1-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50+
% of Vehicles in 24 hrs	15.1%	19.5%	31%	26.9%	7%	0.6%	0%	0%
% of Vehicles during school hrs	15.5%	22.4%	34.7%	23.1%	3.9%	0.2%	0%	0%

Speed Limit on Main Street: 25mph (southbound) 30 mph (northbound).
85th Percentile Speed – 28 mph

Speeds along this stretch of roadway were generally adequate which is probably due to the congestion that occurs along Main Street and at the Main Street/Lowell Street intersection. Traffic tends to travel at or just below the posted speed limit.

Main Street (Rt. 119) south of Lowell Rd (Rt. 40)

	Speed Range (MPH)							
	1-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50+
% of Vehicles in 24 hrs	7.6%	1.1%	3.7%	28.9%	47.5%	10.5%	0.6%	0.1%
% of Vehicles during school hrs	8.5%	1.0%	5.1%	33.3%	45.1%	6.6%	0.3%	0%

Speed Limit on Main Street: 30 mph
85th Percentile Speed –34 mph.

Vehicle speeds at this location are much greater than they were on the other side of the intersection. This could be due to the fact that this area is far less dense and has fewer cars parked along the roadway. People tend to feel safer traveling faster when there are less visible obstacles along the roadway. This location was also noted in our walk audit to be one of the most dangerous crosswalk locations. Speeding is definitely a factor here.

Boston Road (Rt. 119/225) east of Lovers Lane

	Speed Range (MPH)							
	1-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50+
% of Vehicles in 24 hrs	4.1%	3.1%	5%	8.4%	31.5%	39.5%	7.9%	0.4%
% of Vehicles during school hrs	5.3%	4.5%	6.5%	10.5%	34.6%	32.2%	6.1%	0.3%

Speed Limit on Main Street (Rt. 13): 35 mph (southbound) 30 mph (northbound)
85th Percentile Speed – 39 mph

At this location the traffic is averaging over the posted speed limits. This stretch of roadway is fairly straight and the roadway is relatively wide which is conducive to speeding. One issue is that there are no sidewalks along this roadway so pedestrians that walk along the street are at higher risk of injury from the speeding vehicles. Another issue is customers pulling in and out of the shopping plaza have a higher risk for injury if a crash were to occur.

4. Traffic Classification Data:

- Classification data is based on the FHWA Vehicle Classification Scheme F (see Appendix C for a graphical representation of the classes)

Main Street (Rt. 119) north of Lowell Road (Rt. 40)

	Classification									
	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double +	Not Classified
% of Vehicles in 24 hrs	1.2%	73.9%	12.8%	0.2%	1.7%	0.5%	0.1%	0.7%	0.4%	8.5%

Summary: 1.5% of heavy vehicles (3 axle or more).

Main Street (Rt. 119) south of Lowell Rd (Rt. 40)

	Classification									
	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double +	Not Classified
% of Vehicles in 24 hrs	1.4%	68.8%	17.3%	0.6%	3.0%	0.5%	0.1%	0.9%	1.3%	7.1%

Summary: 1.9% of heavy vehicles (3 axle or more).

Boston Road (Rt. 119/225) east of Lovers Lane

	Classification									
	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double +	Not Classified
% of Vehicles in 24 hrs	1.3%	73.8%	15.9%	0.4%	3.1%	0.4%	0%	0.6%	0.5%	3.9%

Summary: 1.5% of heavy vehicles (3 axle or more).

For all three of the locations it's not a surprise that cars are the primary vehicle out on the roadways. This does show that the trucks that travel southbound along Main street may turn left onto Route 40 which would make the truck count lower on the south side of the intersection.

5. Crash History

The MRPC has accident data available from the Massachusetts Department of Transportation (MassDOT) for the years of 2007-2009. All recorded crashes in the study area were mapped in Figure 3. For the town of Groton there were 152 total crashes recorded within the study area. Of those 152 reported crashes, zero were reported as fatal injury crashes, 35 were considered non-fatal injury crashes, 111 were considered property damage only, six were considered unknown/severity unspecified. None of the crashes were with a cyclist or pedestrian. (Map Figure 3).

As shown on the map, there are clearly an abundance of crashes that occurred along Route 119, there doesn't appear to be an area that shows to be largely problematic. Although the more severe accidents seem to be along the southern section of roadway where there also seems to be higher speeds.

6. Inventory of Road Facilities

This inventory incorporated all roadways (local streets, collectors, arterials, and highways) and any pedestrian-related infrastructure that may exist. Data that was collected included sidewalks, crosswalks, and signage. (See Map Figure 4)

Sidewalks are probably one of the most important aspects of a walkable community. In most downtown areas, simply walking along the side of the road with traffic is far too dangerous for most pedestrians. Since the average daily traffic through downtown Groton is 15,800 vehicles it is imperative that sidewalks exist and are in good condition to accommodate pedestrians of all ages and abilities.

MRPC staff rated each existing sidewalk as good, fair and poor. Locations that did not currently have a sidewalk were also inventoried.

Sidewalk analysis was based on the following-

1. Adequate Width

All existing sidewalks were observed and analyzed to see if there is an adequate width to accommodate all roadway users The Americans with Disabilities Act (ADA) requires that sidewalks be at least five feet in width.

2. Obstructions

Obstructions that were observed in this study included utility poles, drainage culverts, fire hydrants, vegetation, signs, etc. These items were noted if they obstructed more than 25% of the width of the sidewalk and would be impassible by a wheelchair.

3. Sidewalk Ramps/Handicap Access

Sidewalk ramps make a nice smooth transition from the sidewalk onto the street or parking area. These ramps are required to meet the American with Disabilities Act (ADA) standards. This information can be found in the Federal Highway Administration (FHWA) publication, “Designing Sidewalks and Trails for Access, Part I of II, Review of Existing Guidelines and Practices” chapter 4. (<http://www.fhwa.dot.gov/environment/sidewalks/chap4a.htm>)

4. Sidewalk Surface

The sidewalk surface condition was determined by the percentage of cracking that occurred on the sidewalk, the smoothness (bumps, dips, depressions) of the sidewalk and the amount of loose pavement, gravel or sand located on the sidewalk.

The overall Sidewalk Condition Map (Map Figure 3) was created based on all of the safety factors listed above and was then divided up into three categories:

Good - Sidewalks that were considered good had safety factors that equaled less than 25% of the entire sidewalk area.

Fair - Sidewalks that were considered fair had safety factors that equaled between 25%-50% of the entire sidewalk area.

Poor – Sidewalks that were considered poor had safety factors that were greater than 50% of the entire sidewalk area.

Within the study area there were sidewalks on 35.5% of the roadways. The condition of those sidewalks was broken down as follows:

Good - 84.4%

Fair - 0%

Poor - 15.6%

There are many miles of sidewalks within the study area and a large percentage of them are in excellent condition.

D. Recommendations

When streets and town centers are designed only for cars, they become barriers for pedestrians of all abilities, who cannot get from point A to point B safely. As a result, many people end up in their cars, missing out on opportunities for much needed fresh air, socialization and physical activity.

Based upon the data collected and the analysis conducted, the following recommendations resulted: (Numbered recommendations can be referenced as examples on map Figure 5)

Sidewalks

- Repair all damaged, cracked, chipped and uneven portions of the existing sidewalks (see Figure 4).
- Continue to maintain existing sidewalks, keeping them free of debris, vegetation, snow, etc.
- Add sidewalks that would make connections with key areas of town that were mentioned during the walk audit (see Figure 5).
- Mandate sidewalks in all developments, and bicycle lanes where appropriate.

Crosswalks

- Consider traffic calming techniques such as road narrowing or adding bump outs at major crosswalk locations along Main Street - #1.
- Place “No Parking” signs for areas within 10 feet of a crosswalk or driveway.
- Keep striping visible - #2.

Roadways

- Provide designated parking spaces along Main Street - #3.
- Consider turning lanes along Main Street for dangerous areas (ie. Intersection at Lowell/Broadmeadow Road, CVS/Post Office, Mill Run Plaza) - #4.
- Consider Bike Lanes along Route 119 - #5.
- Clear away vegetation and obstructions to allow improved sight distance at all intersections and driveway entrances and exits (ex. Playground Rd at Main St)
- Add/improve stripping and signage within the school zones to improve safety for children walking to school - #6.
- Warning signs look great and should continue to be placed and maintained in the school area to warn all drivers of pedestrians, cyclists and children. Placement of all regulatory and guidance signs should conform to guidelines established by Massachusetts Department of Transportation (MassDOT) – Highway Division and the “Manual on Uniform Traffic Control Devices” (MUTCD).
- Continue to monitor and regulate speeding along Route 119.

Other

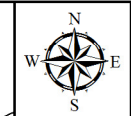
- Provide and maintain additional lighting along Main Street.

- Encourage major businesses to put out trash barrels outside their buildings or consider having the town put barrels out at various locations.
- Study the placement of parking for future businesses along Main Street (parking lots in the rear of the buildings or designated parking lots).
- Municipal parking lot locations should be considered.
- Changes to town policy that would be geared toward a more walkable community (ex. When repairing or repaving an existing roadway, consider adding a sidewalk or bike lane simultaneously). More information regarding this can be found on the Complete Streets website (www.completestreets.org).

MAP FIGURES

Figure 1A

Groton, MA:
Walkability Study
Base Map with Critical Infrastructure



Legend

- ★ Critical Infrastructure
- Walkability Study Area
- Roadways**
 - US & State Routes
 - Other Roads
- RailLines**
 - Active RailLines
- Trail Inventory Status**
 - Existing Formal
- Water**
 - Streams & Rivers
 - Intermittent Stream
 - Lakes, Ponds & Reservoirs

DATA SOURCES: MassGIS, MassDOT and the MRPC.
DISCLAIMER: The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.

PREPARED BY:
Montachusett Regional Planning Commission
GIS Department, September 2012
1427R Water Street
Fitchburg, MA 01420
Phone: 978-345-7376
E-mail: mrpc@mrpc.org

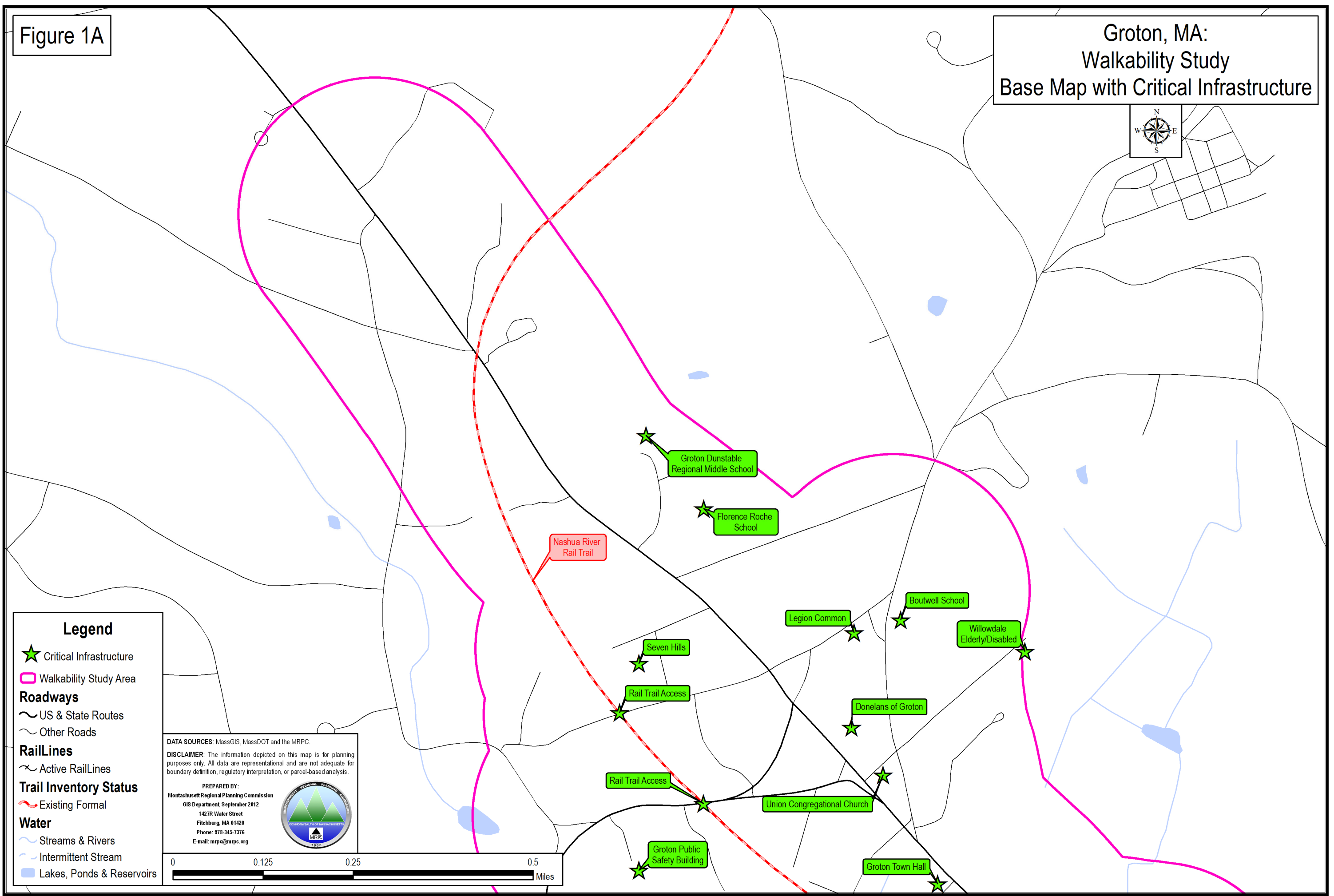
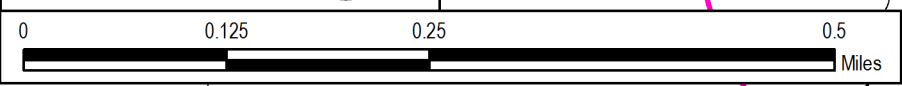


Figure 1B

Groton, MA:
Walkability Study
Base Map with Critical Infrastructure



Legend

- ★ Critical Infrastructure
- Walkability Study Area
- Roadways**
 - US & State Routes
 - Other Roads
- RailLines**
 - Active RailLines
- Trail Inventory Status**
 - Existing Formal
- Water**
 - Streams & Rivers
 - Intermittent Stream
 - Lakes, Ponds & Reservoirs

DATA SOURCES: MassGIS, MassDOT and the MRPC.
DISCLAIMER: The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.

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Montachusett Regional Planning Commission
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1427R Water Street
Fitchburg, MA 01420
Phone: 978-345-7376
E-mail: mrpc@mrpc.org

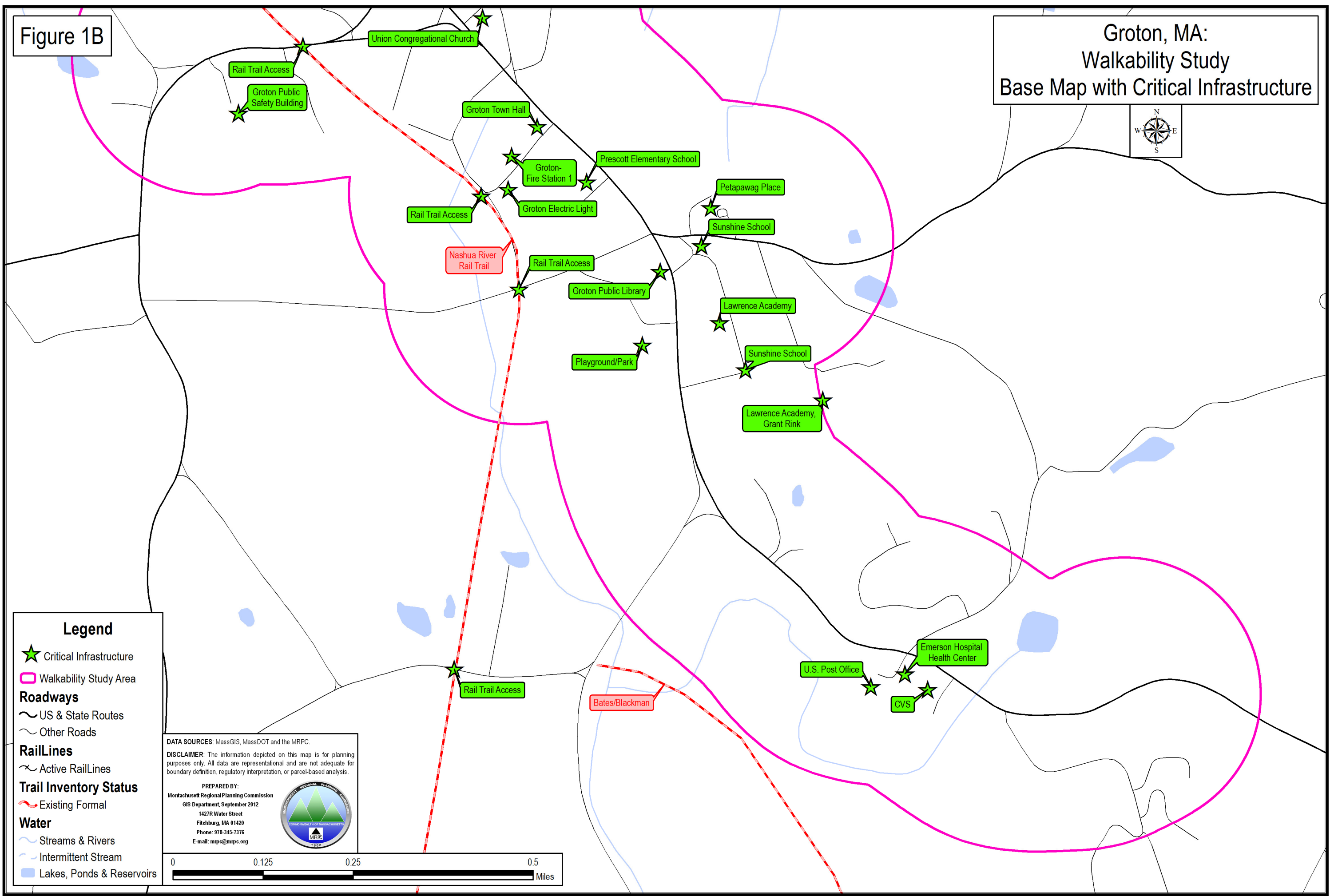
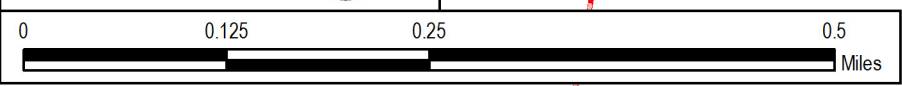


Figure 2

Groton, MA:
Walkability Study
Base Map with Walking Routes



Legend

- Walkability Study Area
- Roadways**
 - US & State Routes
 - Other Roads
- RailLines**
 - Active RailLines
- Walking Routes**
 - Route #1
 - Route #2

DATA SOURCES: MassGIS, MassDOT and the MRPC.

DISCLAIMER: The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.

PREPARED BY:
Montachusett Regional Planning Commission
GIS Department, September 2012
R1427 Water Street
Fitchburg, MA 01420
Phone: 978-345-7376
E-mail: mrpc@mrpc.org

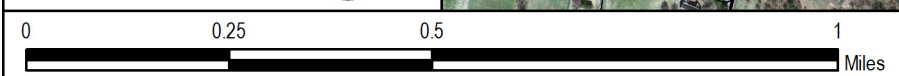
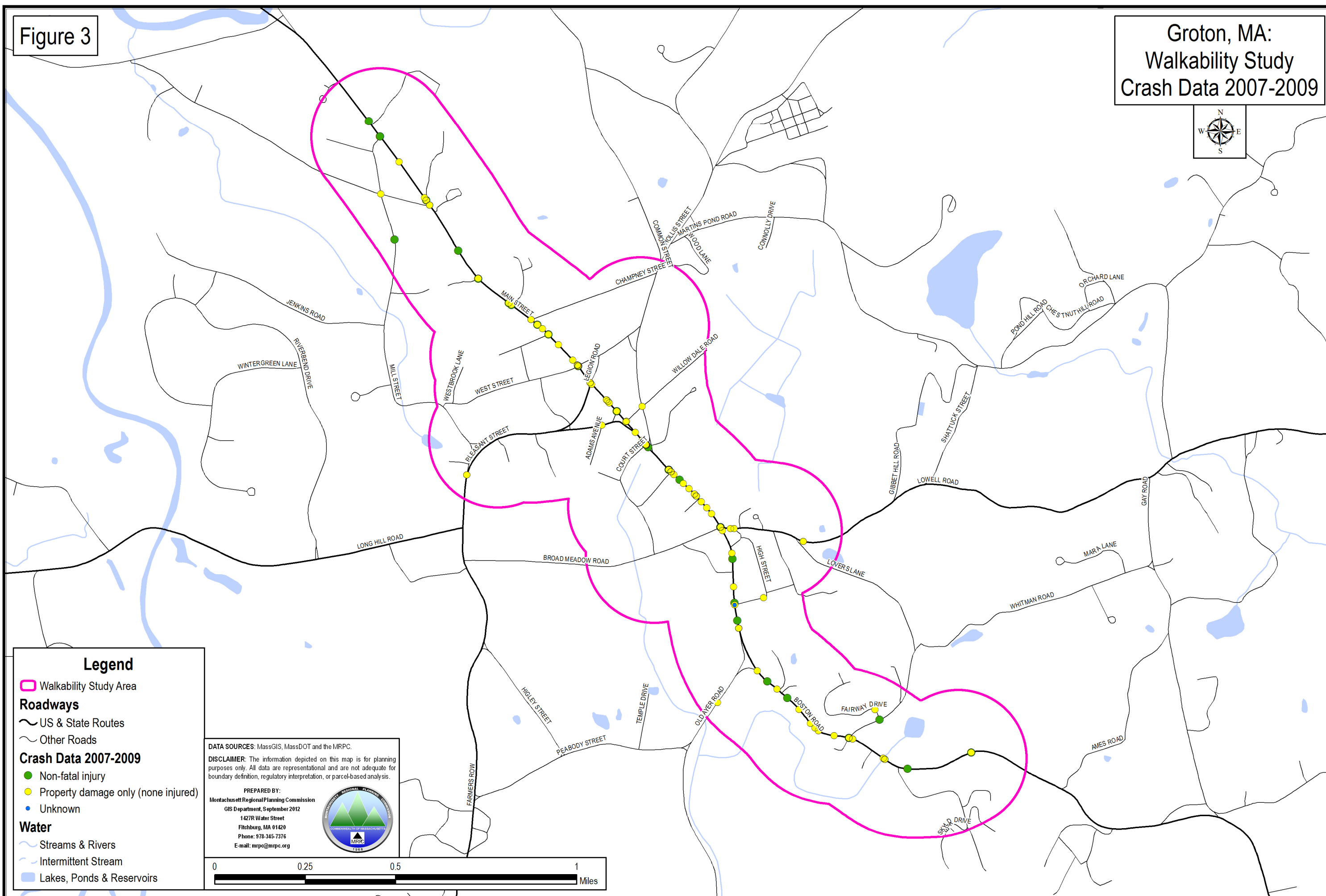
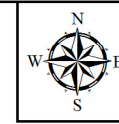


Figure 3

Groton, MA:
Walkability Study
Crash Data 2007-2009



Legend

Walkability Study Area

Roadways

US & State Routes

Other Roads

Crash Data 2007-2009

Non-fatal injury

Property damage only (none injured)

Unknown

Water

Streams & Rivers

Intermittent Stream

Lakes, Ponds & Reservoirs

DATA SOURCES: MassGIS, MassDOT and the MRPC.

DISCLAIMER: The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.

PREPARED BY:
Montachusett Regional Planning Commission
GIS Department, September 2012
1427R Water Street
Fitchburg, MA 01420
Phone: 978-345-7376
E-mail: mrpc@mrpc.org

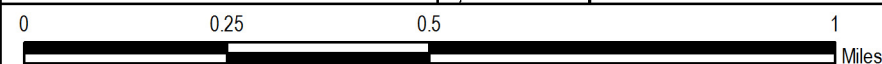
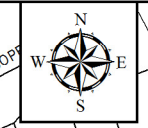


Figure 4A

Groton, MA: Walkability Study Inventory of Road Facilities



Legend

1000' Buffer

Roadways

US & State Routes

Other Roads

RailLines

Active RailLines

Road Signage by Type

Bikes

Crosswalk

Pedestrian Crossing

School Zone

Slow Children

Speed Limit

Sidewalk Condition

Good

Fair

Poor

Water

Streams & Rivers

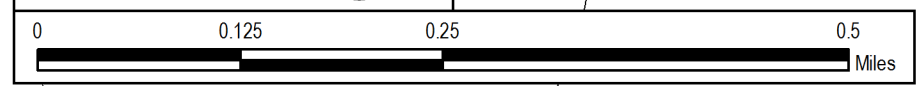
Intermittent Stream

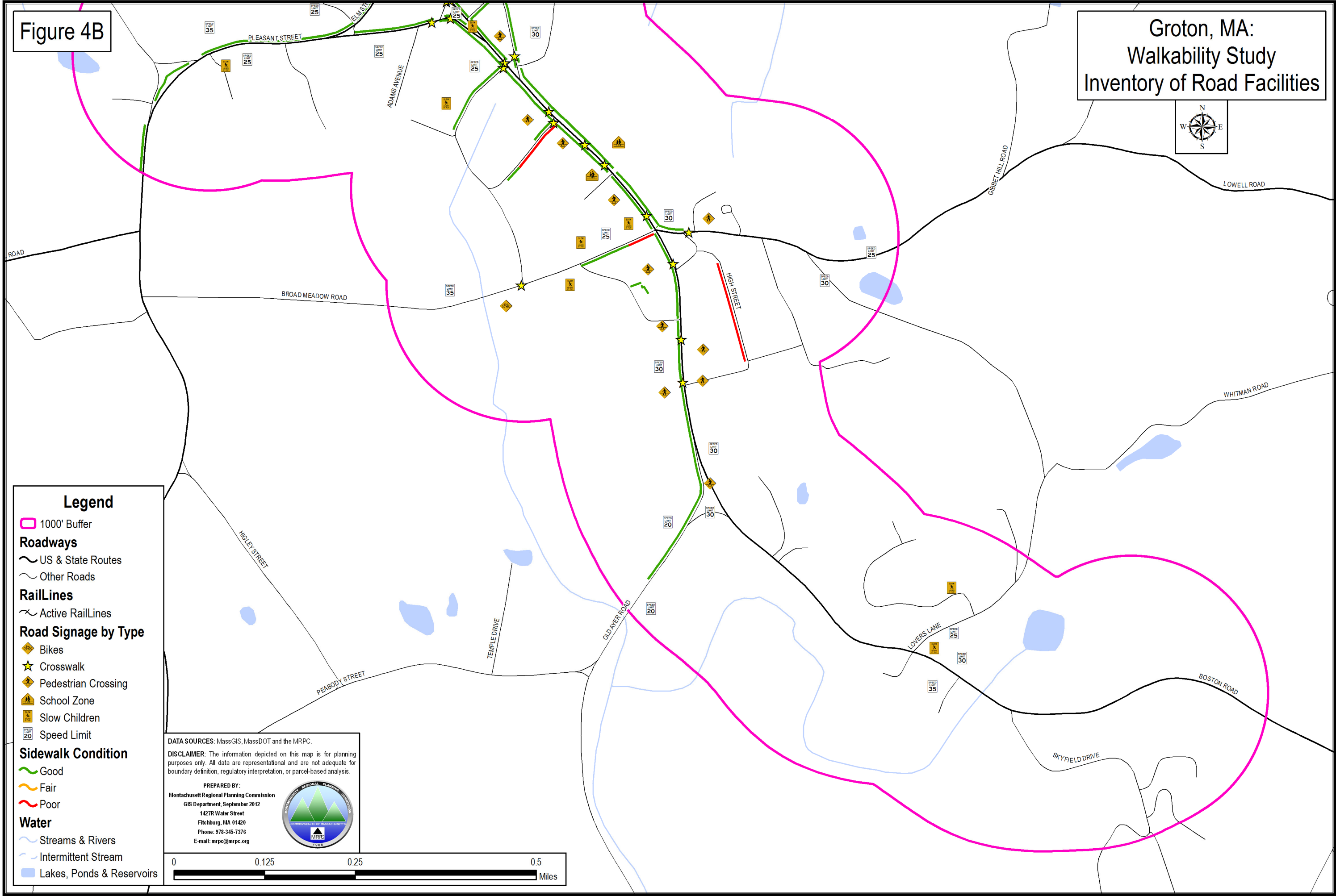
Lakes, Ponds & Reservoirs

DATA SOURCES: MassGIS, MassDOT and the MRPC.

DISCLAIMER: The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.

PREPARED BY:
Montachusett Regional Planning Commission
GIS Department, September 2012
1427R Water Street
Fitchburg, MA 01420
Phone: 978-345-7376
E-mail: mrpc@mrpc.org

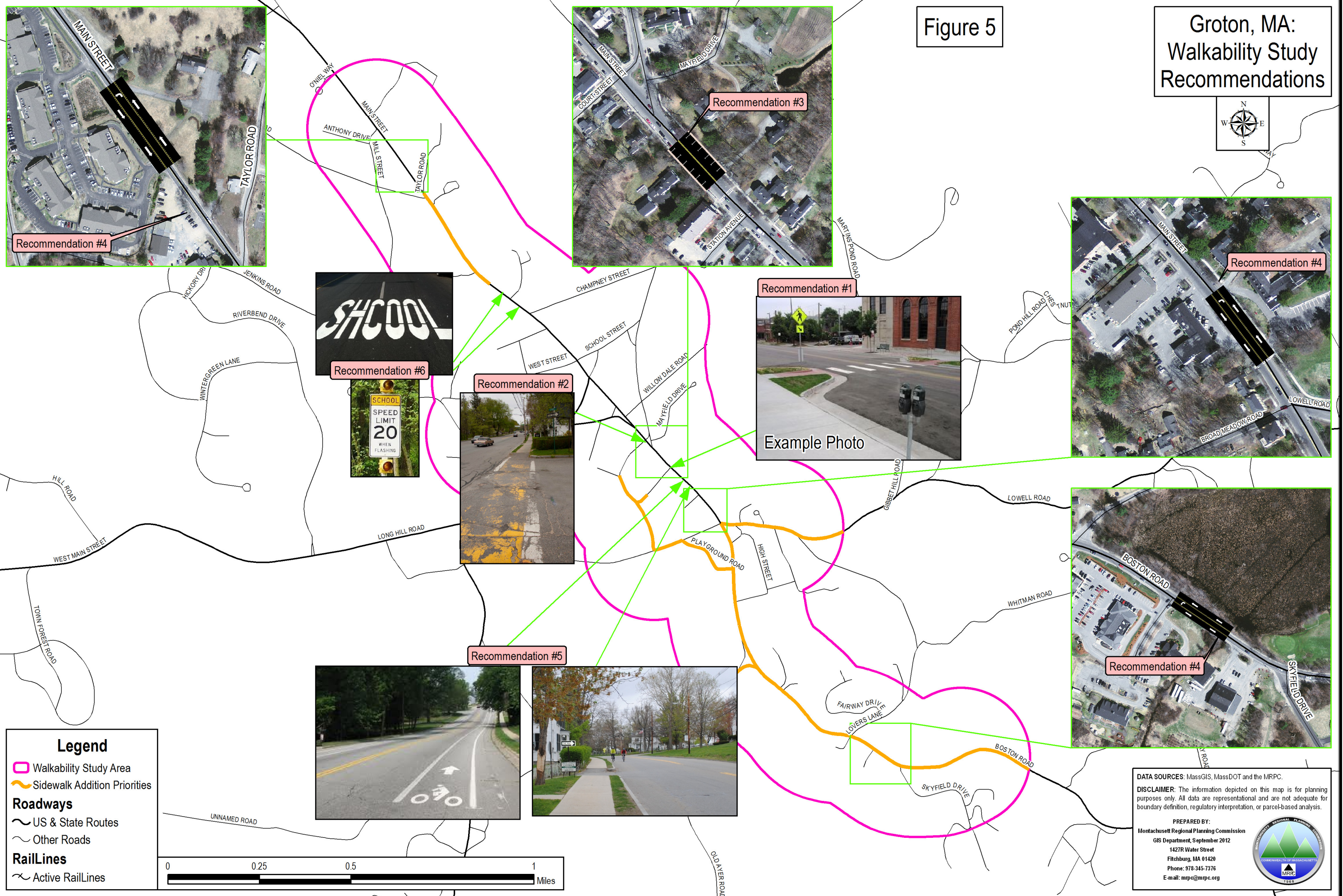




Groton, MA: Walkability Study Recommendations



Figure 5



Legend

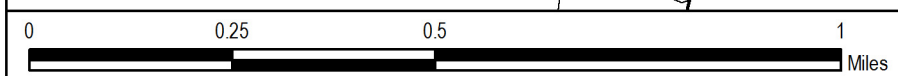
- Walkability Study Area
- Sidewalk Addition Priorities

Roadways

- US & State Routes
- Other Roads

RailLines

- Active RailLines



DATA SOURCES: MassGIS, MassDOT and the MRPC.

DISCLAIMER: The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.

PREPARED BY:
 Montachusett Regional Planning Commission
 GIS Department, September 2012
 1427R Water Street
 Fitchburg, MA 01420
 Phone: 978-345-7376
 E-mail: mrpc@mrpc.org

APPENDIX A – Walking Audit Flyer and Handout

WALK GROTON!

Are you interested in making Groton a more Walkable community? Come join us as we “Walk Groton” on April 21st and learn how you can help!



When: APRIL 21, 9:00 AM *(Rain Date 4/22)* **Where: GROTON TOWN HALL**

By walking the streets of downtown Groton we can identify positive and negative aspects affecting pedestrian travel and prioritizing specific solutions that will increase safety and accessibility for pedestrians. Potential solutions could include addressing missing sidewalk links, intersections, crosswalks, signage and traffic calming. Come let us know how Groton can be more pedestrian friendly!

Agenda

9:00-9:15 – Introduction & project overview

9:15-10:45 – Walking audit

11:00-11:45 – Review findings, come up with possible solutions, wrap up

**All Groton residents, business owners, public officials,
young & old! All are welcome!**



Montachusett Regional Planning Commission

What to look for while conducting a Walkability Audit:

Sidewalks – Are there sidewalks within the study area? Is the width/condition acceptable (at least 4 feet wide)? Do they have handicap access ramps at each crossing & crosswalk? Are there large cracks, bumps, dips, etc. present?

Roadways – Are the current roadways in good condition? Is speeding a problem? Are large trucks an issue? Are drivers able to see pedestrians in crosswalks – is there adequate sight distance?

Crosswalks – Are the current crosswalks adequate? Do you feel safe while crossing at the crosswalks? Are vehicles parked closer than 10 feet to the crosswalks? Are there no parking zones near crosswalks? Is the striping on the crosswalk visible?

Trails – Are the trails in the area accessible to the study area? Are there guide signs to help people navigate to those trails & trail parking areas?

Parks/Public Gathering spots – Are these located nearby? Are they accessible? Is the number of parks/gathering spots adequate for the area?

Shade Trees/Benches – Are there sufficient areas to take a rest? Will you be walking in the sun most of the time or are there shaded areas to cool off in the summer?

Parking – Is there ample parking available within the study area? Are parked cars a problem within the study area? Are there guide signs to show where the parking areas are?

Attractions – What are the local attractions or key destinations that you walked by? (ex. library, parks, shops) Is there a local attraction guide or signs for visitors?

Other questions to consider-

1. What are the positive aspects of your walking route?
2. Would this walk be adequate for a young child, elderly person, or a disabled person?
3. What would make this area more walkable for all users?
4. What would encourage more walking in the area? What's missing?
5. What are the concerns regarding walking within the study area?
6. Are the neighborhoods in the area considered mixed income? Is there a variety of housing types in the area?
7. Did you see other people out walking within the study area?

APPENDIX B – Walking Audit Comments

Groton Walkability Notes

Positives-

(Numbers 1-7 are listed by priority from the stars on the poster board)

1. Good places to go – businesses, food, recreation, etc
2. There ARE sidewalks – most of the study area has a sidewalk that's in good condition
3. There are historic buildings/areas in the town center
4. Many gardens/foilage along walking routes – aesthetically pleasing
5. The sidewalks are plowed in the winter
6. There are many rail trail access points
7. The town center includes a good mix in housing/income
8. The crosswalks are painted and visible
9. The sidewalk widths were adequate
10. There is an abundance of stores/shops
11. The existing sidewalks are relatively flat and easy to walk on
12. Good playground/Library access

Negatives & Issues-

(Numbers 1- 15 are listed by priority from the stars on the poster board)

1. Missing sidewalk along Route 119 to CVS/Johnson's
2. Missing sidewalk along Route 119 to Mill Run Plaza
3. Advanced warning signs are needed to show speed limits, designated town center/residential areas, crosswalks, parking, etc.
4. The speed limit on Route 119 is too high – the roadway is narrow due to on street parking
5. Parking too close to crosswalks – no buffer
6. Broadmeadow & Main St – dangerous intersection
7. Water station to refill water bottles (other than the water fountain at town hall)
8. Rail trail is not marked (Broadmeadow Road in particular)
9. Sidewalks needed along Route 40 to Gibbet Hill
10. Entering/Exiting vehicles from plazas (ex. Dunkin Donuts) – too many curb cuts & conflict points
11. Bump outs along crosswalks may help slow vehicles

12. Sidewalks needed along Groton Common
13. Speeding is a problem through the town center
14. Distracted drivers/pedestrians
15. Municipal parking lot needed
16. Sidewalks needed on Willowdale Road to the Willowdale Elderly facility
17. Drivers are passing other drivers who are stopped for pedestrians
18. U-Turns on Route 119
19. Sidewalks across driveways
20. Sight distance problems (ex. Coming out of Playground Road)
21. Lacking sidewalk connectivity along side streets
22. Potential college locating in Groton may add to number of walkers
23. Dangerous stretch of road in front of Library (blind turn)
24. Groton School/Lawrence Academy students walking
25. School St & Legion Road lack curbing
26. Should put utilities underground/beautify the area
27. Cars parked on roadside create blind spots
28. Pedestrians assume drivers see them
29. Speeding on Broadmeadow –used as a cut through & intersects with Rail Trail but no advance warning signs exist.
30. Poor lighting at crosswalks
31. No trash barrels available within the study area
32. Mixed crosswalk types, not consistent
33. Parking spaces along Route 119 are not marked
34. Lack of consistent sidewalks/curbing
35. Not all crosswalks have curbed sidewalks on each side
36. Raised crosswalks might help with visibility and slow down traffic

APPENDIX C – Traffic Volume Counts

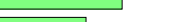
Montachusett Regional Planning Commission

Community: Groton
 Street: Broadmeadow Road
 Location: W. of Main Street (Rt 119)
 Functional Class: U-5

1427R Water Street
 Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 1152012444
 Station ID:

Latitude: 0' 0.000 Undefined

Start Time	Mon 18-Jun-12	Tue	Wed	Thu	Fri	Average Day	Sat	Sun	Week Average
12:00 AM	13	8	*	*	*	10	*	*	10 
01:00	4	3	*	*	*	4	*	*	4 
02:00	4	2	*	*	*	3	*	*	3 
03:00	1	2	*	*	*	2	*	*	2 
04:00	0	0	*	*	*	0	*	*	0
05:00	2	5	*	*	*	4	*	*	4 
06:00	15	9	*	*	*	12	*	*	12 
07:00	24	28	*	*	*	26	*	*	26 
08:00	49	37	*	*	*	43	*	*	43 
09:00	45	45	*	*	*	45	*	*	45 
10:00	87	87	*	*	*	87	*	*	87 
11:00	85	85	*	*	*	85	*	*	85 
12:00 PM	72	94	*	*	*	83	*	*	83 
01:00	64	82	*	*	*	73	*	*	73 
02:00	82	93	*	*	*	88	*	*	88 
03:00	92	95	*	*	*	94	*	*	94 
04:00	124	134	*	*	*	129	*	*	129 
05:00	121	134	*	*	*	128	*	*	128 
06:00	119	108	*	*	*	114	*	*	114 
07:00	72	89	*	*	*	80	*	*	80 
08:00	51	63	*	*	*	57	*	*	57 
09:00	43	64	*	*	*	54	*	*	54 
10:00	23	37	*	*	*	30	*	*	30 
11:00	21	23	*	*	*	22	*	*	22 
Total	1213	1327	0	0	0	1273	0	0	1273
% Avg. WkDay	95.3%	104.2%	0.0%	0.0%	0.0%	100.0%			
% Avg. Week	95.3%	104.2%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak	10:00	10:00				10:00			10:00
Vol.	87	87				87			87
PM Peak	16:00	16:00				16:00			16:00
Vol.	124	134				129			129
Total	1213	1327	0	0	0	1273	0	0	1273
ADT		ADT 1,297			AADT 1,297				

Montachusett Regional Planning Commission

Page 1

Community: Groton
Street: Boston Road
Location: E. of Lovers Lane
Functional Class:U-3

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 11520124302
Station ID:

Latitude: 0' 0.000 Undefined

Start Time	18-Jun-12 Mon	East	West	Combined Total	
12:00 AM		9	21	30	■
01:00		7	9	16	■
02:00		12	9	21	■
03:00		72	10	82	■
04:00		389	25	414	■
05:00		974	118	1092	■
06:00		1060	218	1278	■
07:00		952	291	1243	■
08:00		639	336	975	■
09:00		469	327	796	■
10:00		410	398	808	■
11:00		423	411	834	■
12:00 PM		402	432	834	■
01:00		387	437	824	■
02:00		439	631	1070	■
03:00		411	849	1260	■
04:00		403	986	1389	■
05:00		295	903	1198	■
06:00		264	476	740	■
07:00		204	323	527	■
08:00		135	229	364	■
09:00		66	118	184	■
10:00		27	83	110	■
11:00		24	46	70	■
Total		8473	7686		
Percent		52.4%	47.6%		

Montachusett Regional Planning Commission

Page 2

Community: Groton
Street: Boston Road
Location: E. of Lovers Lane
Functional Class:U-3

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 11520124302
Station ID:

Latitude: 0' 0.000 Undefined

Start Time	19-Jun-12 Tue	East	West	Combined Total	
12:00 AM		7	25	32	■
01:00		4	19	23	■
02:00		18	13	31	■
03:00		71	7	78	■
04:00		398	25	423	■
05:00		945	132	1077	■
06:00		1087	257	1344	■
07:00		952	291	1243	■
08:00		639	336	975	■
09:00		469	327	796	■
10:00		430	357	787	■
11:00		439	394	833	■
12:00 PM		448	402	850	■
01:00		417	473	890	■
02:00		423	630	1053	■
03:00		391	842	1233	■
04:00		372	884	1256	■
05:00		300	937	1237	■
06:00		235	556	791	■
07:00		184	323	507	■
08:00		150	263	413	■
09:00		76	154	230	■
10:00		36	106	142	■
11:00		18	67	85	■
Total		8509	7820		
Percent		52.1%	47.9%		
Grand Total		16982	15506		
Percentage		52.3%	47.7%		
ADT		ADT 16,152		AADT 16,152	

Montachusett Regional Planning Commission

Page 1

Community: Groton
 Street: Hollis Road
 Location: N. of Main Street (Rt 119)
 Functional Class: U-5

1427R Water Street
 Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 1152012452
 Station ID:

Latitude: 0' 0.000 Undefined

Start Time	18-Jun-12 Mon	South	North	Combined Total	
12:00 AM		8	29	37	
01:00		5	11	16	
02:00		1	3	4	
03:00		3	2	5	
04:00		5	1	6	
05:00		33	5	38	
06:00		118	15	133	
07:00		179	46	225	
08:00		234	78	312	
09:00		194	85	279	
10:00		140	105	245	
11:00		124	98	222	
12:00 PM		123	129	252	
01:00		131	147	278	
02:00		140	157	297	
03:00		124	189	313	
04:00		125	243	368	
05:00		137	246	383	
06:00		106	240	346	
07:00		98	217	315	
08:00		60	125	185	
09:00		36	91	127	
10:00		26	47	73	
11:00		12	28	40	
Total		2162	2337		
Percent		48.1%	51.9%		
Grand Total		2162	2337		
Percentage		48.1%	51.9%		
ADT		ADT 2,719		AADT 2,719	

Montachusett Regional Planning Commission

Page 1

Community: Groton
Street: Lowell Road
Location: E. of Main Street (Rt 119)
Functional Class: U-3

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 1152012453
Station ID:

Latitude: 0° 0.000 Undefined

Start Time	18-Jun-12 Mon	West	East	Combined Total	
12:00 AM		19	23	42	
01:00		5	9	14	
02:00		1	8	9	
03:00		3	1	4	
04:00		7	1	8	
05:00		52	14	66	
06:00		130	63	193	
07:00		218	105	323	
08:00		219	158	377	
09:00		189	150	339	
10:00		137	123	260	
11:00		132	118	250	
12:00 PM		138	150	288	
01:00		134	155	289	
02:00		150	151	301	
03:00		159	171	330	
04:00		195	280	475	
05:00		221	283	504	
06:00		193	218	411	
07:00		148	153	301	
08:00		84	146	230	
09:00		85	110	195	
10:00		40	78	118	
11:00		19	34	53	
Total		2678	2702		
Percent		49.8%	50.2%		

Montachusett Regional Planning Commission

Page 2

Community: Groton
Street: Lowell Road
Location: E. of Main Street (Rt 119)
Functional Class: U-3

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 1152012453
Station ID:

Latitude: 0° 0.000 Undefined

Start Time	19-Jun-12 Tue	West	East	Combined Total	
12:00 AM		13	12	25	■
01:00		5	9	14	■
02:00		1	6	7	■
03:00		3	0	3	■
04:00		9	3	12	■
05:00		49	19	68	■
06:00		134	56	190	■
07:00		215	119	334	■
08:00		207	158	365	■
09:00		189	150	339	■
10:00		137	123	260	■
11:00		132	118	250	■
12:00 PM		155	148	303	■
01:00		158	131	289	■
02:00		175	171	346	■
03:00		151	195	346	■
04:00		217	251	468	■
05:00		219	235	454	■
06:00		193	182	375	■
07:00		146	179	325	■
08:00		130	115	245	■
09:00		89	103	192	■
10:00		42	77	119	■
11:00		31	31	62	■
Total		2800	2591		
Percent		51.9%	48.1%		
Grand Total		5478	5293		
Percentage		50.9%	49.1%		
ADT		ADT 5,392		AADT 5,392	

Montachusett Regional Planning Commission

Page 1

Community: Groton
 Street: Main St (Rt. 119/225)
 Location: N. of Lowell Rd (Rt. 40)
 Functional Class: U-3

1427R Water Street
 Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 1152012463
 Station ID:

Latitude: 0° 0.000 Undefined

Start Time	18-Jun-12 Mon	North	South	Combined Total	
12:00 AM		78	33	111	
01:00		32	16	48	
02:00		11	7	18	
03:00		15	21	36	
04:00		14	84	98	
05:00		38	461	499	
06:00		134	1048	1182	
07:00		216	1082	1298	
08:00		264	967	1231	
09:00		370	697	1067	
10:00		389	521	910	
11:00		450	490	940	
12:00 PM		482	531	1013	
01:00		505	514	1019	
02:00		547	489	1036	
03:00		595	464	1059	
04:00		801	405	1206	
05:00		750	381	1131	
06:00		884	315	1199	
07:00		562	365	927	
08:00		422	234	656	
09:00		275	180	455	
10:00		157	99	256	
11:00		101	42	143	
Total		8092	9446		
Percent		46.1%	53.9%		
Grand Total		8092	9446		
Percentage		46.1%	53.9%		
ADT		ADT 17,754		AADT 17,754	

Montachusett Regional Planning Commission

Page 1

Community: Groton
 Street: Main St (Rt. 119/225)
 Location: S. of Lowell Rd (Rt. 40)
 Functional Class: U-3

1427R Water Street
 Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 1152012442
 Station ID:

Latitude: 0° 0.000 Undefined

Start Time	18-Jun-12 Mon	North	South	Combined Total	
12:00 AM		20	10	30	■
01:00		13	11	24	■
02:00		11	26	37	■
03:00		19	126	145	■
04:00		56	630	686	■
05:00		167	1057	1224	■
06:00		272	980	1252	■
07:00		375	792	1167	■
08:00		404	535	939	■
09:00		410	446	856	■
10:00		499	444	943	■
11:00		467	447	914	■
12:00 PM		516	430	946	■
01:00		573	427	1000	■
02:00		791	423	1214	■
03:00		954	398	1352	■
04:00		995	325	1320	■
05:00		815	270	1085	■
06:00		455	260	715	■
07:00		343	180	523	■
08:00		207	119	326	■
09:00		101	61	162	■
10:00		89	30	119	■
11:00		49	15	64	■
Total		8601	8442		
Percent		50.5%	49.5%		
Grand Total		8601	8442		
Percentage		50.5%	49.5%		
ADT		ADT 17,221		AADT 17,221	

Montachusett Regional Planning Commission

Page 1

Community: Groton
Street: Playground Road
Location: S. of Main Street (Rt 119)
Functional Class: U-0

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 11520124303
Station ID:

Latitude: 0' 0.000 Undefined

Start Time	18-Jun-12 Mon	East		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		1	12		
12:15		0	10		
12:30		0	10		
12:45		0	8	1	40
01:00		0	12		
01:15		0	8		
01:30		0	12		
01:45		0	9	0	41
02:00		0	15		
02:15		0	11		
02:30		1	19		
02:45		0	16	1	61
03:00		0	10		
03:15		0	22		
03:30		0	13		
03:45		0	19	0	64
04:00		0	17		
04:15		1	17		
04:30		0	17		
04:45		1	12	2	63
05:00		4	19		
05:15		0	9		
05:30		0	11		
05:45		2	1	6	40
06:00		3	6		
06:15		0	7		
06:30		5	5		
06:45		3	5	11	23
07:00		1	8		
07:15		4	3		
07:30		11	5		
07:45		8	7	24	23
08:00		6	3		
08:15		5	2		
08:30		5	10		
08:45		4	6	20	21
09:00		15	2		
09:15		9	0		
09:30		7	0		
09:45		13	1	44	3
10:00		9	1		
10:15		5	0		
10:30		7	0		
10:45		10	0	31	1
11:00		5	1		
11:15		10	0		
11:30		5	0		
11:45		9	0	29	1
Total		169	381		
Percent		30.7%	69.3%		
Grand Total		169	381		
Percent		30.7%	69.3%		
ADT		ADT 602		AADT 602	

Montachusett Regional Planning Commission

Page 1

Community: Groton
Street: Pleasant Street
Location: W. of Main Street (Rt 119)
Functional Class: U-3

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 1152012472
Station ID:

Latitude: 0° 0.000 Undefined

Start Time	25-Jun-12 Mon	West	East	Combined Total	
12:00 AM		15	3	18	■
01:00		11	8	19	■
02:00		1	1	2	■
03:00		0	2	2	■
04:00		0	9	9	■
05:00		5	24	29	■
06:00		11	82	93	■
07:00		61	118	179	■
08:00		85	160	245	■
09:00		85	154	239	■
10:00		92	131	223	■
11:00		82	98	180	■
12:00 PM		81	119	200	■
01:00		90	93	183	■
02:00		75	102	177	■
03:00		84	104	188	■
04:00		140	143	283	■
05:00		124	126	250	■
06:00		146	100	246	■
07:00		95	87	182	■
08:00		46	48	94	■
09:00		47	40	87	■
10:00		27	18	45	■
11:00		15	9	24	■
Total		1418	1779		
Percent		44.4%	55.6%		

Montachusett Regional Planning Commission

Page 2

Community: Groton
Street: Pleasant Street
Location: W. of Main Street (Rt 119)
Functional Class: U-3

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 1152012472
Station ID:

Latitude: 0° 0.000 Undefined

Start Time	26-Jun-12 Tue	West	East	Combined Total	
12:00 AM		11	8	19	■
01:00		2	4	6	■
02:00		1	2	3	■
03:00		2	1	3	■
04:00		0	4	4	■
05:00		5	15	20	■
06:00		14	76	90	■
07:00		55	113	168	■
08:00		96	165	261	■
09:00		98	161	259	■
10:00		79	128	207	■
11:00		65	121	186	■
12:00 PM		74	118	192	■
01:00		97	134	231	■
02:00		101	117	218	■
03:00		109	125	234	■
04:00		138	144	282	■
05:00		139	131	270	■
06:00		136	140	276	■
07:00		122	98	220	■
08:00		62	61	123	■
09:00		72	35	107	■
10:00		33	27	60	■
11:00		17	24	41	■
Total		1528	1952		
Percent		43.9%	56.1%		
Grand Total		2946	3731		
Percentage		44.1%	55.9%		
ADT		ADT 3,480		AADT 3,480	

APPENDIX D – Turning Movement Counts

Montachusett Regional Planning Commission

R1427 Water Street

Fitchburg, MA 01420

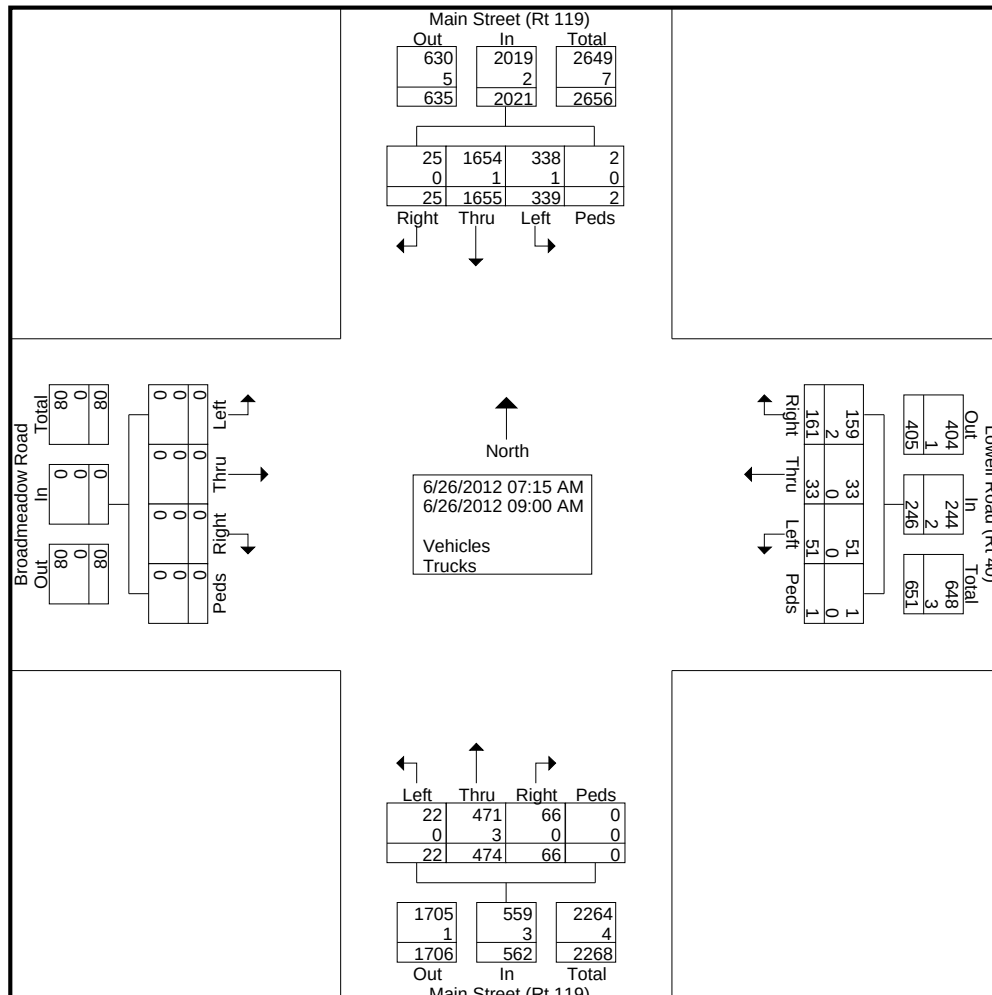
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton
Street: Main Street (119 & 225)
Location: Lowell Road (Rt 40)
Functional Class: U-3

File Name : 115-2012-3730 AM
Site Code : 00003730
Start Date : 6/26/2012
Page No : 1

Groups Printed- Vehicles - Trucks

	Main Street (Rt 119) From North					Lowell Road (Rt 40) From East					Main Street (Rt 119) From South					Broadmeadow Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:15 AM	4	233	42	0	279	17	5	2	0	24	5	42	0	0	47	0	0	0	0	0	350
07:30 AM	1	231	42	0	274	11	4	2	0	17	2	43	1	0	46	0	0	0	0	0	337
07:45 AM	4	207	49	0	260	21	3	4	0	28	9	53	2	0	64	0	0	0	0	0	352
Total	9	671	133	0	813	49	12	8	0	69	16	138	3	0	157	0	0	0	0	0	1039
08:00 AM	2	223	39	1	265	21	5	12	0	38	7	60	7	0	74	0	0	0	0	0	377
08:15 AM	2	185	37	0	224	21	4	7	1	33	10	58	1	0	69	0	0	0	0	0	326
08:30 AM	4	156	33	1	194	24	5	4	0	33	8	58	2	0	68	0	0	0	0	0	295
08:45 AM	2	219	51	0	272	24	5	8	0	37	10	85	3	0	98	0	0	0	0	0	407
Total	10	783	160	2	955	90	19	31	1	141	35	261	13	0	309	0	0	0	0	0	1405
09:00 AM	6	201	46	0	253	22	2	12	0	36	15	75	6	0	96	0	0	0	0	0	385
Grand Total	25	1655	339	2	2021	161	33	51	1	246	66	474	22	0	562	0	0	0	0	0	2829
Apprch %	1.2	81.9	16.8	0.1		65.4	13.4	20.7	0.4		11.7	84.3	3.9	0		0	0	0	0		
Total %	0.9	58.5	12	0.1	71.4	5.7	1.2	1.8	0	8.7	2.3	16.8	0.8	0	19.9	0	0	0	0	0	
Vehicles	25	1654	338	2	2019	159	33	51	1	244	66	471	22	0	559	0	0	0	0	0	2822
% Vehicles	100	99.9	99.7	100	99.9	98.8	100	100	100	99.2	100	99.4	100	0	99.5	0	0	0	0	0	99.8
Trucks	0	1	1	0	2	2	0	0	0	2	0	3	0	0	3	0	0	0	0	0	7
% Trucks	0	0.1	0.3	0	0.1	1.2	0	0	0	0.8	0	0.6	0	0	0.5	0	0	0	0	0	0.2



Montachusett Regional Planning Commission

R1427 Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton
Street: Main Street (119 & 225)
Location: Lowell Road (Rt 40)
Functional Class: U-3

File Name : 115-2012-3730 AM
Site Code : 00003730
Start Date : 6/26/2012
Page No : 2

	Main Street (Rt 119) From North					Lowell Road (Rt 40) From East					Main Street (Rt 119) From South					Broadmeadow Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 09:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	4	233	42	0	279	17	5	2	0	24	5	42	0	0	47	0	0	0	0	0	350
07:30 AM	1	231	42	0	274	11	4	2	0	17	2	43	1	0	46	0	0	0	0	0	337
07:45 AM	4	207	49	0	260	21	3	4	0	28	9	53	2	0	64	0	0	0	0	0	352
08:00 AM	2	223	39	1	265	21	5	12	0	38	7	60	7	0	74	0	0	0	0	0	377
Total Volume	11	894	172	1	1078	70	17	20	0	107	23	198	10	0	231	0	0	0	0	0	1416
% App. Total	1	82.9	16	0.1		65.4	15.9	18.7	0		10	85.7	4.3	0		0	0	0	0		
PHF	.688	.959	.878	.250	.966	.833	.850	.417	.000	.704	.639	.825	.357	.000	.780	.000	.000	.000	.000	.000	.939

Montachusett Regional Planning Commission

R1427 Water Street

Fitchburg, MA 01420

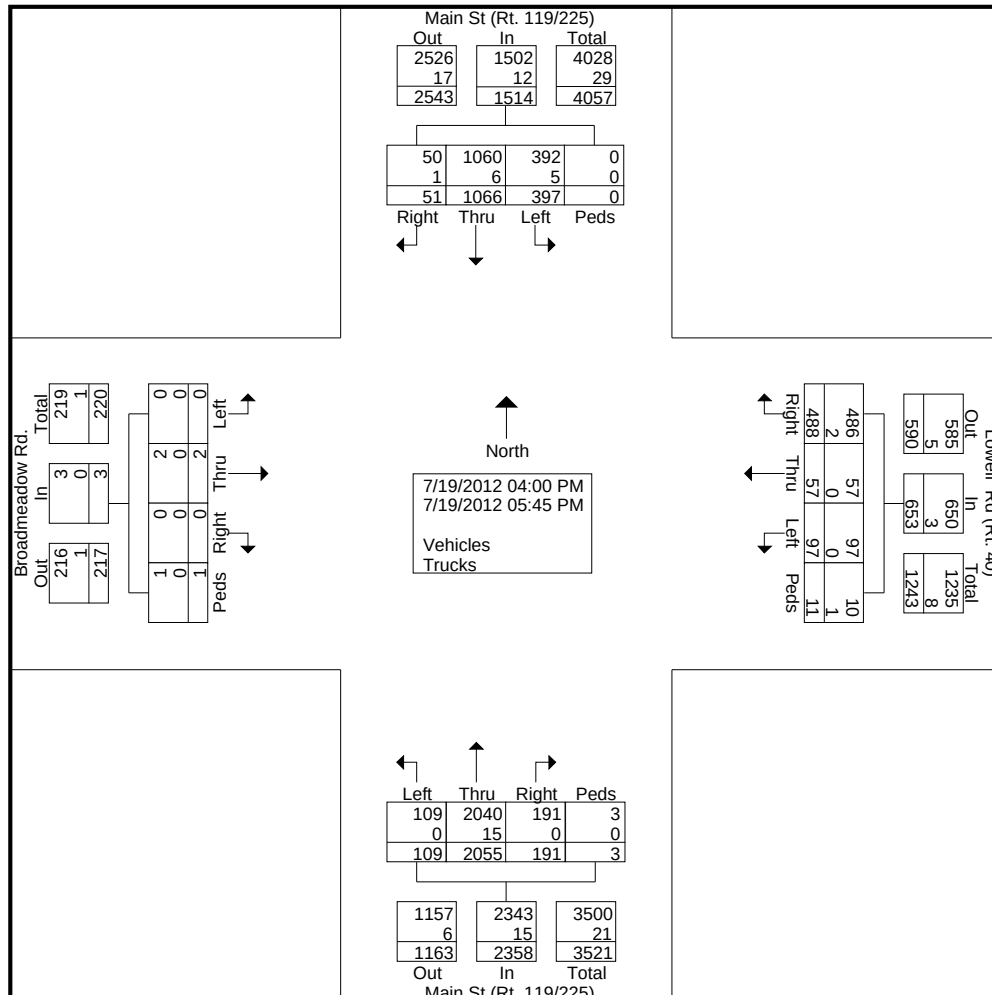
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton
Street: Main Street (Rt. 119/225)
Location: At Lowell Rd (Rt. 40)
Functional Class:U-3

File Name : 115-2012-3730 PM
Site Code : 00003730
Start Date : 7/19/2012
Page No : 1

Groups Printed- Vehicles - Trucks

	Main St (Rt. 119/225) From North					Lowell Rd (Rt. 40) From East					Main St (Rt. 119/225) From South					Broadmeadow Rd. From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	11	141	41	0	193	68	11	14	2	95	18	215	21	0	254	0	0	0	0	0	542
04:15 PM	5	203	32	0	240	70	7	7	0	84	11	205	7	0	223	0	0	0	1	1	548
04:30 PM	6	121	43	0	170	59	2	16	0	77	20	221	12	0	253	0	0	0	0	0	500
04:45 PM	5	140	62	0	207	60	6	4	0	70	29	276	9	1	315	0	0	0	0	0	592
Total	27	605	178	0	810	257	26	41	2	326	78	917	49	1	1045	0	0	0	1	1	2182
05:00 PM	4	116	55	0	175	66	9	14	8	97	18	285	9	0	312	0	0	0	0	0	584
05:15 PM	8	114	54	0	176	64	5	11	1	81	24	271	14	0	309	0	0	0	0	0	566
05:30 PM	7	111	46	0	164	54	9	11	0	74	38	295	21	2	356	0	0	0	0	0	594
05:45 PM	5	120	64	0	189	47	8	20	0	75	33	287	16	0	336	0	2	0	0	2	602
Total	24	461	219	0	704	231	31	56	9	327	113	1138	60	2	1313	0	2	0	0	2	2346
Grand Total	51	1066	397	0	1514	488	57	97	11	653	191	2055	109	3	2358	0	2	0	1	3	4528
Apprch %	3.4	70.4	26.2	0		74.7	8.7	14.9	1.7		8.1	87.2	4.6	0.1		0	66.7	0	33.3		
Total %	1.1	23.5	8.8	0	33.4	10.8	1.3	2.1	0.2	14.4	4.2	45.4	2.4	0.1	52.1	0	0	0	0	0.1	
Vehicles	50	1060	392	0	1502	486	57	97	10	650	191	2040	109	3	2343	0	2	0	1	3	4498
% Vehicles	98	99.4	98.7	0	99.2	99.6	100	100	90.9	99.5	100	99.3	100	100	99.4	0	100	0	100	100	99.3
Trucks	1	6	5	0	12	2	0	0	1	3	0	15	0	0	15	0	0	0	0	0	30
% Trucks	2	0.6	1.3	0	0.8	0.4	0	0	9.1	0.5	0	0.7	0	0	0.6	0	0	0	0	0	0.7



Montachusett Regional Planning Commission

R1427 Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton
Street: Main Street (Rt. 119/225)
Location: At Lowell Rd (Rt. 40)
Functional Class:U-3

File Name : 115-2012-3730 PM
Site Code : 00003730
Start Date : 7/19/2012
Page No : 2

	Main St (Rt. 119/225) From North					Lowell Rd (Rt. 40) From East					Main St (Rt. 119/225) From South					Broadmeadow Rd. From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	4	116	55	0	175	66	9	14	8	97	18	285	9	0	312	0	0	0	0	0	584
05:15 PM	8	114	54	0	176	64	5	11	1	81	24	271	14	0	309	0	0	0	0	0	566
05:30 PM	7	111	46	0	164	54	9	11	0	74	38	295	21	2	356	0	0	0	0	0	594
05:45 PM	5	120	64	0	189	47	8	20	0	75	33	287	16	0	336	0	2	0	0	2	602
Total Volume	24	461	219	0	704	231	31	56	9	327	113	1138	60	2	1313	0	2	0	0	2	2346
% App. Total	3.4	65.5	31.1	0		70.6	9.5	17.1	2.8		8.6	86.7	4.6	0.2		0	100	0	0		
PHF	.750	.960	.855	.000	.931	.875	.861	.700	.281	.843	.743	.964	.714	.250	.922	.000	.250	.000	.000	.250	.974

Montachusett Regional Planning Commission

R1427 Water Street

Fitchburg, MA 01420

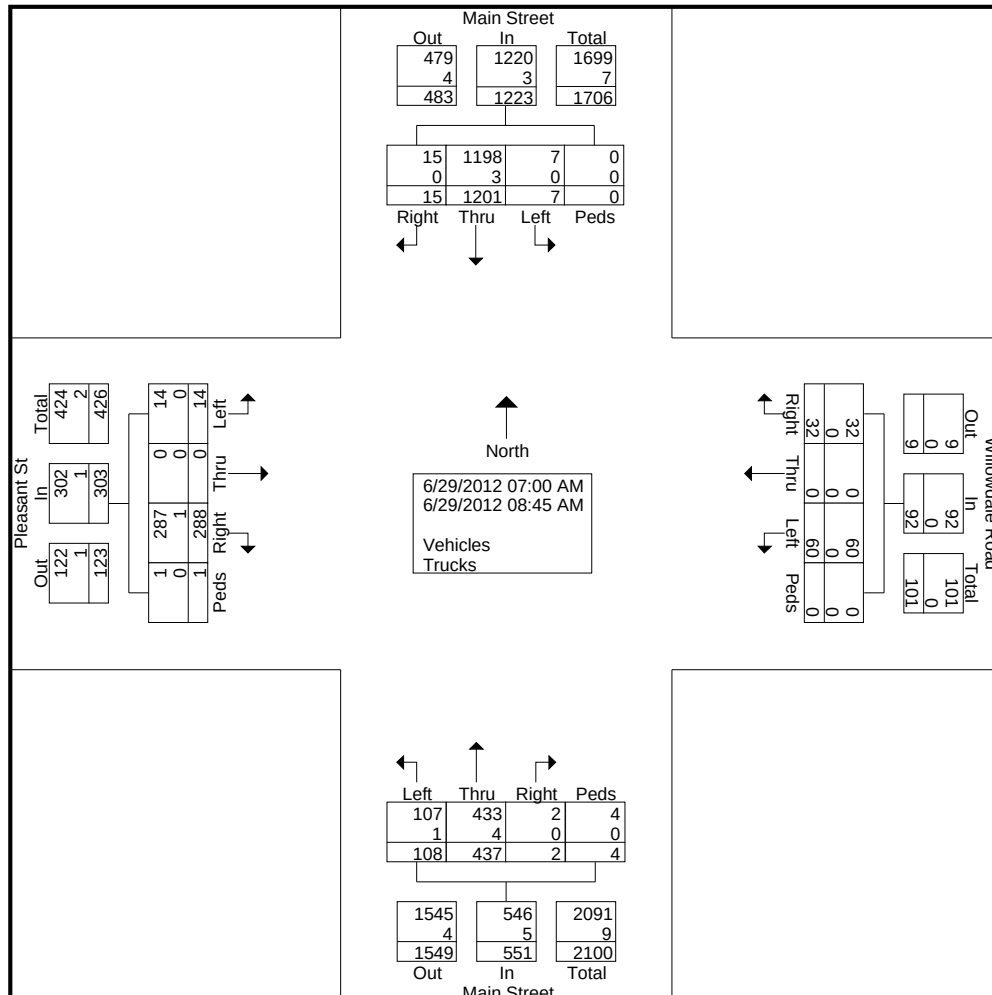
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton
Street: Main St (Rt. 111/119/225)
Location: At Pleasant St
Functional Class: U-3

File Name : 115-2012-4304 AM
Site Code : 00004304
Start Date : 6/29/2012
Page No : 1

Groups Printed- Vehicles - Trucks

	Main Street From North					Willowdale Road From East					Main Street From South					Pleasant St From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	1	158	1	0	160	6	0	6	0	12	0	44	6	0	50	32	0	0	0	32	254
07:15 AM	0	140	0	0	140	6	0	9	0	15	0	59	10	0	69	28	0	1	0	29	253
07:30 AM	3	152	0	0	155	4	0	4	0	8	0	45	17	0	62	34	0	1	0	35	260
07:45 AM	1	171	1	0	173	6	0	9	0	15	0	61	16	2	79	42	0	2	0	44	311
Total	5	621	2	0	628	22	0	28	0	50	0	209	49	2	260	136	0	4	0	140	1078
08:00 AM	1	171	0	0	172	3	0	11	0	14	0	53	13	0	66	37	0	3	1	41	293
08:15 AM	2	152	1	0	155	2	0	5	0	7	0	65	13	1	79	33	0	4	0	37	278
08:30 AM	3	123	4	0	130	3	0	7	0	10	1	41	11	1	54	41	0	3	0	44	238
08:45 AM	4	134	0	0	138	2	0	9	0	11	1	69	22	0	92	41	0	0	0	41	282
Total	10	580	5	0	595	10	0	32	0	42	2	228	59	2	291	152	0	10	1	163	1091
Grand Total	15	1201	7	0	1223	32	0	60	0	92	2	437	108	4	551	288	0	14	1	303	2169
Apprch %	1.2	98.2	0.6	0		34.8	0	65.2	0		0.4	79.3	19.6	0.7		95	0	4.6	0.3		
Total %	0.7	55.4	0.3	0	56.4	1.5	0	2.8	0	4.2	0.1	20.1	5	0.2	25.4	13.3	0	0.6	0	14	
Vehicles	15	1198	7	0	1220	32	0	60	0	92	2	433	107	4	546	287	0	14	1	302	2160
% Vehicles	100	99.8	100	0	99.8	100	0	100	0	100	100	99.1	99.1	100	99.1	99.7	0	100	100	99.7	99.6
Trucks	0	3	0	0	3	0	0	0	0	0	0	4	1	0	5	1	0	0	0	1	9
% Trucks	0	0.2	0	0	0.2	0	0	0	0	0	0	0.9	0.9	0	0.9	0.3	0	0	0	0.3	0.4



Montachusett Regional Planning Commission

R1427 Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton
Street: Main St (Rt. 111/119/225)
Location: At Pleasant St
Functional Class: U-3

File Name : 115-2012-4304 AM
Site Code : 00004304
Start Date : 6/29/2012
Page No : 2

	Main Street From North					Willowdale Road From East					Main Street From South					Pleasant St From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	3	152	0	0	155	4	0	4	0	8	0	45	17	0	62	34	0	1	0	35	260
07:45 AM	1	171	1	0	173	6	0	9	0	15	0	61	16	2	79	42	0	2	0	44	311
08:00 AM	1	171	0	0	172	3	0	11	0	14	0	53	13	0	66	37	0	3	1	41	293
08:15 AM	2	152	1	0	155	2	0	5	0	7	0	65	13	1	79	33	0	4	0	37	278
Total Volume	7	646	2	0	655	15	0	29	0	44	0	224	59	3	286	146	0	10	1	157	1142
% App. Total	1.1	98.6	0.3	0		34.1	0	65.9	0		0	78.3	20.6	1		93	0	6.4	0.6		
PHF	.583	.944	.500	.000	.947	.625	.000	.659	.000	.733	.000	.862	.868	.375	.905	.869	.000	.625	.250	.892	.918

Montachusett Regional Planning Commission

R1427 Water Street

Fitchburg, MA 01420

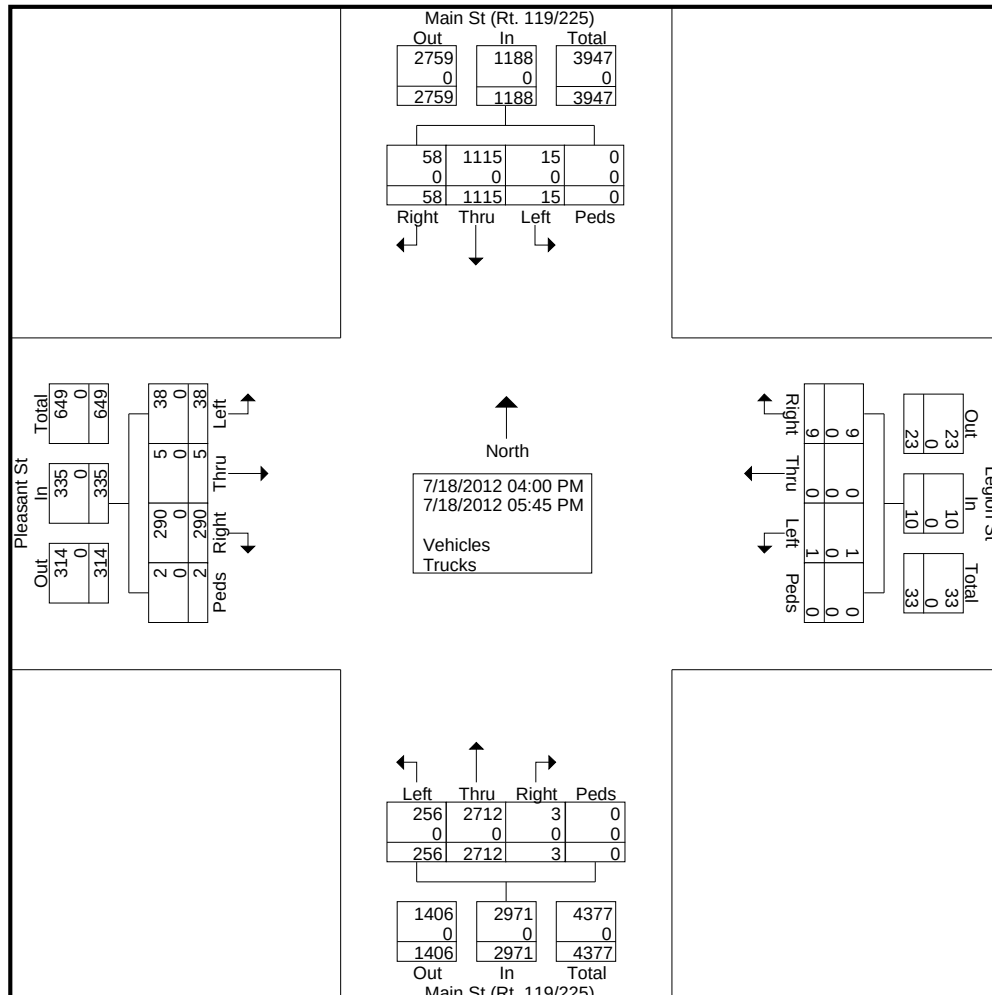
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton
Street: Main St (Rt. 119/225)
Location: at Pleasant St
Functional Class:U-3

File Name : 115-2012-4304 PM
Site Code : 00004304
Start Date : 7/18/2012
Page No : 1

Groups Printed- Vehicles - Trucks

	Main St (Rt. 119/225) From North					Legion St From East					Main St (Rt. 119/225) From South					Pleasant St From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	0	106	4	0	110	2	0	0	0	2	0	300	40	0	340	52	0	2	0	54	506
04:15 PM	6	130	4	0	140	3	0	1	0	4	0	314	25	0	339	52	0	3	0	55	538
04:30 PM	9	137	0	0	146	2	0	0	0	2	0	201	34	0	235	43	0	15	0	58	441
04:45 PM	12	237	3	0	252	0	0	0	0	0	1	347	36	0	384	50	3	7	0	60	696
Total	27	610	11	0	648	7	0	1	0	8	1	1162	135	0	1298	197	3	27	0	227	2181
05:00 PM	8	191	0	0	199	0	0	0	0	0	0	333	25	0	358	12	0	0	0	12	569
05:15 PM	1	114	2	0	117	2	0	0	0	2	0	386	30	0	416	24	0	1	1	26	561
05:30 PM	4	119	2	0	125	0	0	0	0	0	2	422	62	0	486	31	1	4	1	37	648
05:45 PM	18	81	0	0	99	0	0	0	0	0	0	409	4	0	413	26	1	6	0	33	545
Total	31	505	4	0	540	2	0	0	0	2	2	1550	121	0	1673	93	2	11	2	108	2323
Grand Total	58	1115	15	0	1188	9	0	1	0	10	3	2712	256	0	2971	290	5	38	2	335	4504
Apprch %	4.9	93.9	1.3	0		90	0	10	0		0.1	91.3	8.6	0		86.6	1.5	11.3	0.6		
Total %	1.3	24.8	0.3	0	26.4	0.2	0	0	0	0.2	0.1	60.2	5.7	0	66	6.4	0.1	0.8	0	7.4	
Vehicles	58	1115	15	0	1188	9	0	1	0	10	3	2712	256	0	2971	290	5	38	2	335	4504
% Vehicles	100	100	100	0	100	100	0	100	0	100	100	100	100	0	100	100	100	100	100	100	100
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Montachusett Regional Planning Commission

R1427 Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton
Street: Main St (Rt. 119/225)
Location: at Pleasant St
Functional Class:U-3

File Name : 115-2012-4304 PM
Site Code : 00004304
Start Date : 7/18/2012
Page No : 2

	Main St (Rt. 119/225) From North					Legion St From East					Main St (Rt. 119/225) From South					Pleasant St From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	12	237	3	0	252	0	0	0	0	0	1	347	36	0	384	50	3	7	0	60	696
05:00 PM	8	191	0	0	199	0	0	0	0	0	0	333	25	0	358	12	0	0	0	12	569
05:15 PM	1	114	2	0	117	2	0	0	0	2	0	386	30	0	416	24	0	1	1	26	561
05:30 PM	4	119	2	0	125	0	0	0	0	0	2	422	62	0	486	31	1	4	1	37	648
Total Volume	25	661	7	0	693	2	0	0	0	2	3	1488	153	0	1644	117	4	12	2	135	2474
% App. Total	3.6	95.4	1	0		100	0	0	0		0.2	90.5	9.3	0		86.7	3	8.9	1.5		
PHF	.521	.697	.583	.000	.688	.250	.000	.000	.000	.250	.375	.882	.617	.000	.846	.585	.333	.429	.500	.563	.889

Montachusett Regional Planning Commission

R1427 Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton

Street: Main Street

Location: Elm Street & Legion Road

Functional Class: U-3

File Name : 115-2012-4305 AM

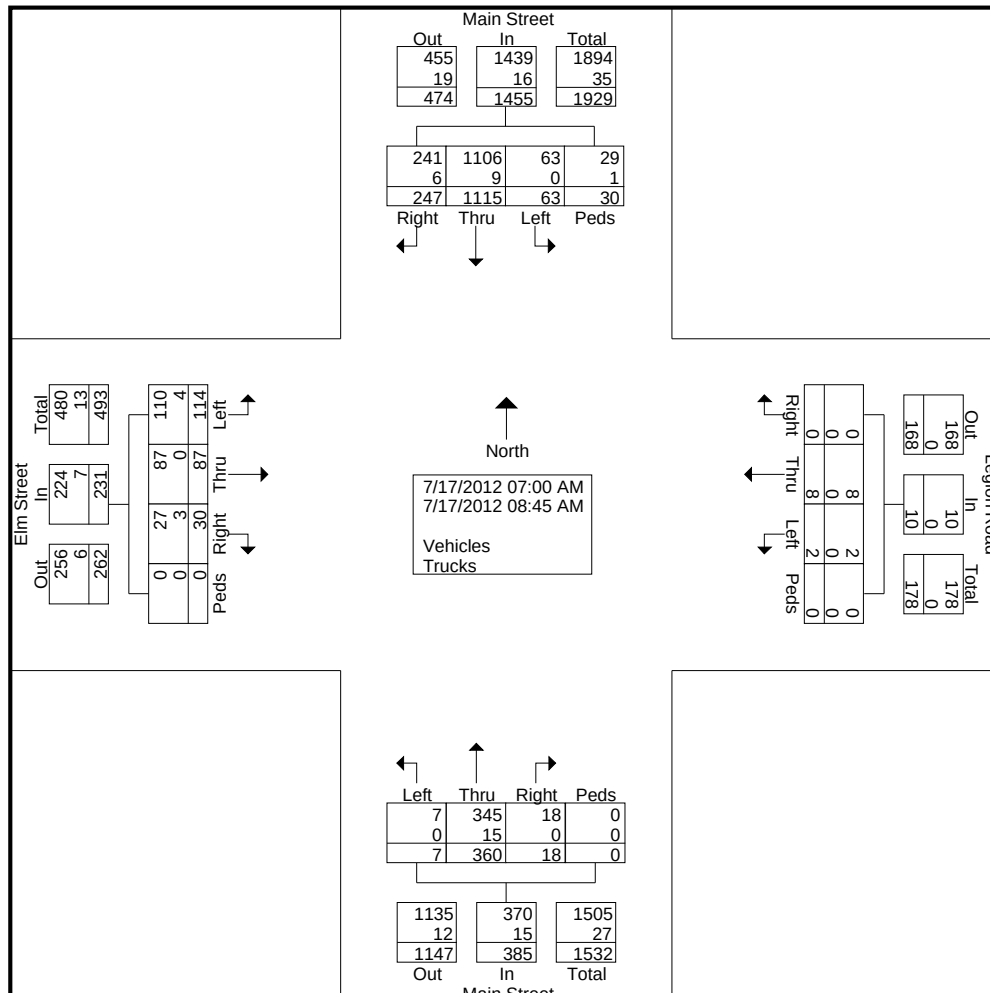
Site Code : 00004305

Start Date : 7/17/2012

Page No : 1

Groups Printed- Vehicles - Trucks

	Main Street From North					Legion Road From East					Main Street From South					Elm Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	41	205	0	0	246	0	1	2	0	3	2	60	1	0	63	4	7	18	0	29	341
07:15 AM	35	91	14	18	158	0	2	0	0	2	1	10	1	0	12	2	11	5	0	18	190
07:30 AM	11	121	16	0	148	0	4	0	0	4	2	18	0	0	20	5	7	6	0	18	190
07:45 AM	27	162	27	0	216	0	0	0	0	0	0	42	0	0	42	2	14	13	0	29	287
Total	114	579	57	18	768	0	7	2	0	9	5	130	2	0	137	13	39	42	0	94	1008
08:00 AM	18	157	5	2	182	0	0	0	0	0	4	74	2	0	80	3	10	13	0	26	288
08:15 AM	55	123	0	9	187	0	0	0	0	0	3	40	0	0	43	4	5	6	0	15	245
08:30 AM	48	132	1	0	181	0	0	0	0	0	1	56	0	0	57	7	15	30	0	52	290
08:45 AM	12	124	0	1	137	0	1	0	0	1	5	60	3	0	68	3	18	23	0	44	250
Total	133	536	6	12	687	0	1	0	0	1	13	230	5	0	248	17	48	72	0	137	1073
Grand Total	247	1115	63	30	1455	0	8	2	0	10	18	360	7	0	385	30	87	114	0	231	2081
Apprch %	17	76.6	4.3	2.1		0	80	20	0		4.7	93.5	1.8	0		13	37.7	49.4	0		
Total %	11.9	53.6	3	1.4	69.9	0	0.4	0.1	0	0.5	0.9	17.3	0.3	0	18.5	1.4	4.2	5.5	0	11.1	
Vehicles	241	1106	63	29	1439	0	8	2	0	10	18	345	7	0	370	27	87	110	0	224	2043
% Vehicles	97.6	99.2	100	96.7	98.9	0	100	100	0	100	100	95.8	100	0	96.1	90	100	96.5	0	97	98.2
Trucks	6	9	0	1	16	0	0	0	0	0	0	15	0	0	15	3	0	4	0	7	38
% Trucks	2.4	0.8	0	3.3	1.1	0	0	0	0	0	0	4.2	0	0	3.9	10	0	3.5	0	3	1.8



Montachusett Regional Planning Commission

R1427 Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton

Street: Main Street

Location: Elm Street & Legion Road

Functional Class: U-3

File Name : 115-2012-4305 AM

Site Code : 00004305

Start Date : 7/17/2012

Page No : 2

	Main Street From North					Legion Road From East					Main Street From South					Elm Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	27	162	27	0	216	0	0	0	0	0	0	42	0	0	42	2	14	13	0	29	287
08:00 AM	18	157	5	2	182	0	0	0	0	0	4	74	2	0	80	3	10	13	0	26	288
08:15 AM	55	123	0	9	187	0	0	0	0	0	3	40	0	0	43	4	5	6	0	15	245
08:30 AM	48	132	1	0	181	0	0	0	0	0	1	56	0	0	57	7	15	30	0	52	290
Total Volume	148	574	33	11	766	0	0	0	0	0	8	212	2	0	222	16	44	62	0	122	1110
% App. Total	19.3	74.9	4.3	1.4		0	0	0	0		3.6	95.5	0.9	0		13.1	36.1	50.8	0		
PHF	.673	.886	.306	.306	.887	.000	.000	.000	.000	.000	.500	.716	.250	.000	.694	.571	.733	.517	.000	.587	.957

Montachusett Regional Planning Commission

R1427 Water Street

Fitchburg, MA 01420

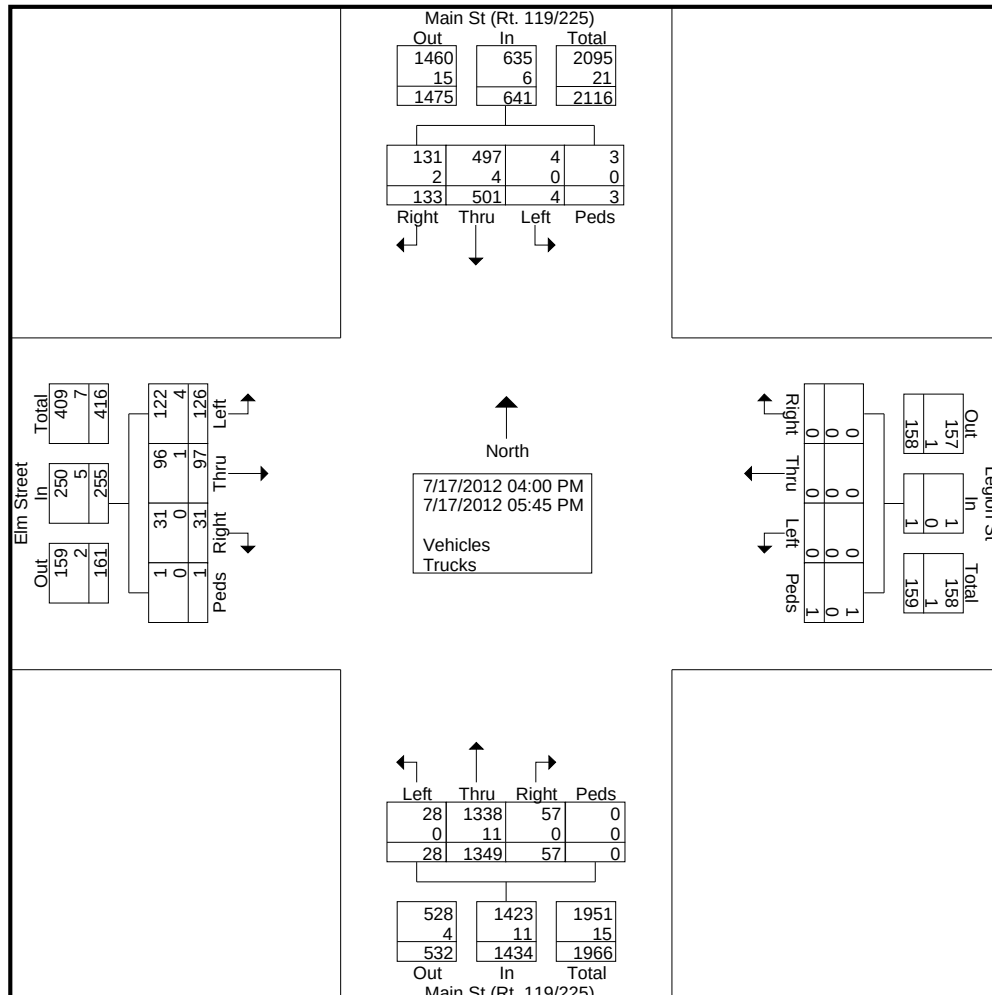
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton
Street: Main St (Rt. 119/225)
Location: at Elm/Legion St
Functional Class: U-3

File Name : 115-2012-4305 PM
Site Code : 0004305
Start Date : 7/17/2012
Page No : 1

Groups Printed- Vehicles - Trucks

	Main St (Rt. 119/225) From North					Legion St From East					Main St (Rt. 119/225) From South					Elm Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	23	51	0	2	76	0	0	0	0	0	5	126	3	0	134	6	5	30	0	41	251
04:15 PM	12	49	2	0	63	0	0	0	1	1	6	133	3	0	142	3	17	13	0	33	239
04:30 PM	24	71	0	0	95	0	0	0	0	0	8	164	6	0	178	0	15	10	0	25	298
04:45 PM	15	73	1	0	89	0	0	0	0	0	8	195	3	0	206	1	13	12	0	26	321
Total	74	244	3	2	323	0	0	0	1	1	27	618	15	0	660	10	50	65	0	125	1109
05:00 PM	18	65	0	0	83	0	0	0	0	0	5	142	2	0	149	8	10	19	1	38	270
05:15 PM	17	61	0	1	79	0	0	0	0	0	6	198	3	0	207	4	15	12	0	31	317
05:30 PM	14	66	0	0	80	0	0	0	0	0	8	207	7	0	222	2	9	16	0	27	329
05:45 PM	10	65	1	0	76	0	0	0	0	0	11	184	1	0	196	7	13	14	0	34	306
Total	59	257	1	1	318	0	0	0	0	0	30	731	13	0	774	21	47	61	1	130	1222
Grand Total	133	501	4	3	641	0	0	0	1	1	57	1349	28	0	1434	31	97	126	1	255	2331
Apprch %	20.7	78.2	0.6	0.5		0	0	0	100		4	94.1	2	0		12.2	38	49.4	0.4		
Total %	5.7	21.5	0.2	0.1	27.5	0	0	0	0	0	2.4	57.9	1.2	0	61.5	1.3	4.2	5.4	0	10.9	
Vehicles	131	497	4	3	635	0	0	0	1	1	57	1338	28	0	1423	31	96	122	1	250	2309
% Vehicles	98.5	99.2	100	100	99.1	0	0	0	100	100	100	99.2	100	0	99.2	100	99	96.8	100	98	99.1
Trucks	2	4	0	0	6	0	0	0	0	0	0	11	0	0	11	0	1	4	0	5	22
% Trucks	1.5	0.8	0	0	0.9	0	0	0	0	0	0	0.8	0	0	0.8	0	1	3.2	0	2	0.9



Montachusett Regional Planning Commission

R1427 Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton
Street: Main St (Rt. 119/225)
Location: at Elm/Legion St
Functional Class: U-3

File Name : 115-2012-4305 PM
Site Code : 0004305
Start Date : 7/17/2012
Page No : 2

	Main St (Rt. 119/225) From North					Legion St From East					Main St (Rt. 119/225) From South					Elm Street From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	15	73	1	0	89	0	0	0	0	0	8	195	3	0	206	1	13	12	0	26	321
05:00 PM	18	65	0	0	83	0	0	0	0	0	5	142	2	0	149	8	10	19	1	38	270
05:15 PM	17	61	0	1	79	0	0	0	0	0	6	198	3	0	207	4	15	12	0	31	317
05:30 PM	14	66	0	0	80	0	0	0	0	0	8	207	7	0	222	2	9	16	0	27	329
Total Volume	64	265	1	1	331	0	0	0	0	0	27	742	15	0	784	15	47	59	1	122	1237
% App. Total	19.3	80.1	0.3	0.3		0	0	0	0		3.4	94.6	1.9	0		12.3	38.5	48.4	0.8		
PHF	.889	.908	.250	.250	.930	.000	.000	.000	.000	.000	.844	.896	.536	.000	.883	.469	.783	.776	.250	.803	.940

APPENDIX E – Speed Counts

Community: Groton
Street: Boston Road
Location: E. of Lovers Lane
Functional Class: U-3

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 11520124302
Station ID:

Latitude: 0' 0.000 Undefined

East	Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	76	999	Total	Pace Speed	Number in Pace
06/18/12	0	0	0	0	0	3	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	32-41	8	
01:00	0	0	0	1	0	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	31-40	5		
02:00	0	0	0	0	1	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	30-39	10		
03:00	1	0	1	2	22	39	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	32-41	55		
04:00	2	0	0	5	95	245	40	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	389	33-42	317		
05:00	19	2	3	22	314	544	69	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	974	32-41	766		
06:00	25	10	25	54	401	501	41	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1060	31-40	787		
07:00	29	22	36	116	422	307	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	952	30-39	644		
08:00	31	43	38	82	251	174	19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	639	30-39	367		
09:00	24	36	50	65	183	99	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	469	29-38	249		
10:00	27	35	30	49	152	109	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	410	30-39	220		
11:00	25	23	47	68	171	80	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	423	29-38	229		
12 PM	24	26	35	47	147	114	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	402	30-39	222		
13:00	22	33	28	45	156	97	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	387	30-39	216		
14:00	32	22	30	59	161	124	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	439	30-39	243		
15:00	39	26	35	55	155	94	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	411	30-39	211		
16:00	33	25	33	28	152	121	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	403	31-40	223		
17:00	37	16	27	25	79	91	19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	295	31-40	137		
18:00	20	12	19	8	83	107	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	264	31-40	157		
19:00	10	12	17	15	75	65	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	204	31-40	118		
20:00	1	12	8	14	56	42	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	135	30-39	85		
21:00	0	0	1	3	27	30	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	31-40	51		
22:00	0	0	0	2	13	11	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	31-40	21		
23:00	0	0	0	0	9	11	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	31-40	18		
Total	401	355	464	765	3134	3020	315	18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8473			
Percent	4.7%	4.2%	5.5%	9.0%	37.0%	35.6%	3.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%					
AM Peak	08:00	08:00	09:00	07:00	07:00	05:00	05:00	06:00																				06:00			
Vol.	31	43	50	116	422	544	69	3																				1060			
PM Peak	15:00	13:00	12:00	14:00	14:00	14:00	17:00	16:00	23:00																				14:00		
Vol.	39	33	35	59	161	124	19	3	1																				439		

Montachusett Regional Planning Commission

1427R Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton
Street: Boston Road
Location: E. of Lovers Lane
Functional Class: U-3

Site Code: 11520124302

Station ID:

East Latitude: 0' 0.000 Undefined

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace Speed	Number in Pace
06/19/12	0	0	0	0	2	4	1	0	0	0	0	0	0	0	0	7	32-41	6
01:00	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	4	31-40	4
02:00	1	0	1	1	6	7	2	0	0	0	0	0	0	0	0	18	32-41	11
03:00	0	0	0	1	28	34	8	0	0	0	0	0	0	0	0	71	31-40	56
04:00	0	0	1	5	58	271	60	2	1	0	0	0	0	0	0	398	34-43	330
05:00	10	0	5	48	288	534	60	0	0	0	0	0	0	0	0	945	32-41	742
06:00	25	11	17	73	405	497	58	1	0	0	0	0	0	0	0	1087	31-40	791
07:00	29	22	36	116	422	307	20	0	0	0	0	0	0	0	0	952	30-39	644
08:00	31	43	38	82	251	174	19	1	0	0	0	0	0	0	0	639	30-39	367
09:00	24	36	50	65	183	99	11	1	0	0	0	0	0	0	0	469	29-38	249
10:00	19	20	41	61	195	88	6	0	0	0	0	0	0	0	0	430	29-38	257
11:00	18	25	46	52	178	112	8	0	0	0	0	0	0	0	0	439	30-39	253
12 PM	19	22	27	53	221	97	9	0	0	0	0	0	0	0	0	448	29-38	284
13:00	17	29	19	58	163	119	12	0	0	0	0	0	0	0	0	417	30-39	245
14:00	27	21	22	45	175	119	14	0	0	0	0	0	0	0	0	423	30-39	251
15:00	30	15	34	54	151	100	7	0	0	0	0	0	0	0	0	391	30-39	217
16:00	28	17	23	17	128	146	13	0	0	0	0	0	0	0	0	372	31-40	226
17:00	26	16	22	24	86	112	14	0	0	0	0	0	0	0	0	300	31-40	163
18:00	9	14	11	18	67	96	19	1	0	0	0	0	0	0	0	235	32-41	140
19:00	5	14	11	13	65	69	7	0	0	0	0	0	0	0	0	184	31-40	114
20:00	1	8	6	11	76	44	4	0	0	0	0	0	0	0	0	150	30-39	106
21:00	0	0	0	3	37	29	7	0	0	0	0	0	0	0	0	76	31-40	59
22:00	1	0	0	1	12	16	5	1	0	0	0	0	0	0	0	36	32-41	25
23:00	0	0	0	1	10	7	0	0	0	0	0	0	0	0	0	18	31-40	15
Total	320	313	410	802	3208	3084	364	7	1	0	0	0	0	0	0	8509		
Percent	3.8%	3.7%	4.8%	9.4%	37.7%	36.2%	4.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	09:00	07:00	07:00	05:00	04:00	04:00	04:00							06:00		
Vol.	31	43	50	116	422	534	60	2	1							1087		
PM Peak	15:00	13:00	15:00	13:00	12:00	16:00	18:00	18:00								12:00		
Vol.	30	29	34	58	221	146	19	1								448		
Total	721	668	874	1567	6342	6104	679	25	2	0	0	0	0	0	0	16982		
Percent	4.2%	3.9%	5.1%	9.2%	37.3%	35.9%	4.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 22 MPH
50th Percentile : 33 MPH
85th Percentile : 38 MPH
95th Percentile : 40 MPH

Stats 10 MPH Pace Speed : 31-40 MPH
Number in Pace : 10651
Percent in Pace : 62.7%
Number of Vehicles > 35 MPH : 6490
Percent of Vehicles > 35 MPH : 38.2%
Mean Speed(Average) : 31 MPH

Montachusett Regional Planning Commission

Community: Groton
Street: Boston Road
Location: E. of Lovers Lane
Functional Class: U-3

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 11520124302

Station ID:

Latitude: 0' 0.000 Undefined

West	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Speed	in Pace
06/18/12	0	0	0	0	6	10	5	0	0	0	0	0	0	0	21	33-42	16
01:00	0	0	0	0	3	5	1	0	0	0	0	0	0	0	9	33-42	7
02:00	0	0	0	0	1	5	2	1	0	0	0	0	0	0	9	34-43	7
03:00	0	0	0	0	1	3	5	1	0	0	0	0	0	0	10	38-47	7
04:00	0	0	1	1	3	9	10	0	1	0	0	0	0	0	25	36-45	17
05:00	10	2	0	2	9	48	38	8	1	0	0	0	0	0	118	36-45	72
06:00	21	2	3	15	35	88	50	3	1	0	0	0	0	0	218	34-43	122
07:00	22	8	19	28	75	106	31	2	0	0	0	0	0	0	291	32-41	156
08:00	28	12	17	14	75	147	42	1	0	0	0	0	0	0	336	33-42	193
09:00	20	22	20	19	72	142	31	1	0	0	0	0	0	0	327	32-41	184
10:00	27	24	32	25	86	158	42	4	0	0	0	0	0	0	398	32-41	210
11:00	20	14	35	37	105	148	50	2	0	0	0	0	0	0	411	32-41	223
12 PM	16	12	51	34	102	167	48	1	1	0	0	0	0	0	432	32-41	240
13:00	23	19	33	38	126	164	33	1	0	0	0	0	0	0	437	31-40	248
14:00	28	21	54	61	145	258	63	1	0	0	0	0	0	0	631	32-41	357
15:00	47	29	73	139	244	270	47	0	0	0	0	0	0	0	849	31-40	447
16:00	41	22	58	109	318	358	78	2	0	0	0	0	0	0	986	31-40	591
17:00	19	17	47	74	218	449	76	3	0	0	0	0	0	0	903	32-41	602
18:00	13	12	18	21	89	217	103	3	0	0	0	0	0	0	476	34-43	304
19:00	6	7	8	10	67	175	49	1	0	0	0	0	0	0	323	33-42	229
20:00	3	1	7	9	63	108	35	3	0	0	0	0	0	0	229	32-41	158
21:00	0	0	2	3	25	60	27	1	0	0	0	0	0	0	118	34-43	86
22:00	1	0	0	2	18	39	20	3	0	0	0	0	0	0	83	34-43	58
23:00	0	0	0	1	14	24	6	0	1	0	0	0	0	0	46	32-41	35
Total	345	224	478	642	1900	3158	892	42	5	0	0	0	0	0	7686		
Percent	4.5%	2.9%	6.2%	8.4%	24.7%	41.1%	11.6%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	10:00	11:00	11:00	11:00	10:00	06:00	05:00	04:00						11:00		
Vol.	28	24	35	37	105	158	50	8	1						411		
PM Peak	15:00	15:00	15:00	15:00	16:00	17:00	18:00	17:00	12:00						16:00		
Vol.	47	29	73	139	318	449	103	3	1						986		

Montachusett Regional Planning Commission

Community: Groton
Street: Boston Road
Location: E. of Lovers Lane
Functional Class: U-3

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 11520124302
Station ID:

West Latitude: 0' 0.000 Undefined

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
06/19/12	1	0	0	1	10	5	8	0	0	0	0	0	0	0	25	30-39	14
01:00	1	0	0	0	3	13	1	1	0	0	0	0	0	0	19	33-42	15
02:00	1	0	0	0	6	4	1	1	0	0	0	0	0	0	13	32-41	8
03:00	0	1	0	0	1	2	2	0	1	0	0	0	0	0	7	37-46	3
04:00	0	0	0	0	2	10	10	2	1	0	0	0	0	0	25	36-45	18
05:00	13	0	4	2	13	43	40	15	2	0	0	0	0	0	132	36-45	71
06:00	16	1	8	15	39	97	79	2	0	0	0	0	0	0	257	35-44	155
07:00	22	8	19	28	75	106	31	2	0	0	0	0	0	0	291	32-41	156
08:00	28	12	17	14	75	147	42	1	0	0	0	0	0	0	336	33-42	193
09:00	20	22	20	19	72	142	31	1	0	0	0	0	0	0	327	32-41	184
10:00	18	24	28	28	85	144	27	3	0	0	0	0	0	0	357	32-41	196
11:00	29	21	32	24	117	122	47	2	0	0	0	0	0	0	394	31-40	202
12 PM	18	20	26	43	97	140	56	2	0	0	0	0	0	0	402	32-41	211
13:00	27	15	25	33	118	197	54	4	0	0	0	0	0	0	473	32-41	276
14:00	41	17	35	47	164	263	59	4	0	0	0	0	0	0	630	32-41	369
15:00	41	14	52	84	255	316	75	5	0	0	0	0	0	0	842	31-40	498
16:00	33	11	60	107	222	359	89	3	0	0	0	0	0	0	884	32-41	520
17:00	20	18	42	85	256	457	59	0	0	0	0	0	0	0	937	32-41	634
18:00	16	5	19	20	111	308	74	3	0	0	0	0	0	0	556	33-42	393
19:00	5	6	11	5	55	186	50	5	0	0	0	0	0	0	323	33-42	234
20:00	2	2	6	7	87	140	19	0	0	0	0	0	0	0	263	32-41	203
21:00	3	1	2	10	40	72	25	1	0	0	0	0	0	0	154	33-42	104
22:00	0	0	0	1	21	54	30	0	0	0	0	0	0	0	106	34-43	80
23:00	0	0	1	1	16	34	12	3	0	0	0	0	0	0	67	33-42	48
Total	355	198	407	574	1940	3361	921	60	4	0	0	0	0	0	7820		
Percent	4.5%	2.5%	5.2%	7.3%	24.8%	43.0%	11.8%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	10:00	11:00	07:00	11:00	08:00	06:00	05:00	05:00						11:00		
Vol.	29	24	32	28	117	147	79	15	2						394		
PM Peak	14:00	12:00	16:00	16:00	17:00	17:00	16:00	15:00							17:00		
Vol.	41	20	60	107	256	457	89	5							937		
Total	700	422	885	1216	3840	6519	1813	102	9	0	0	0	0	0	15506		
Percent	4.5%	2.7%	5.7%	7.8%	24.8%	42.0%	11.7%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 23 MPH
50th Percentile : 34 MPH
85th Percentile : 40 MPH
95th Percentile : 43 MPH

Stats 10 MPH Pace Speed : 32-41 MPH
Number in Pace : 9203
Percent in Pace : 59.4%
Number of Vehicles > 35 MPH : 7737
Percent of Vehicles > 35 MPH : 49.9%
Mean Speed(Average) : 33 MPH

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Station ID:

East, West															Latitude: 0 0.000 Undefined		
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
06/18/12	0	0	0	0	9	16	5	0	0	0	0	0	0	0	30	33-42	23
01:00	0	0	1	0	5	8	2	0	0	0	0	0	0	0	16	31-40	12
02:00	0	0	0	1	6	11	2	1	0	0	0	0	0	0	21	32-41	16
03:00	1	0	1	2	23	42	11	2	0	0	0	0	0	0	82	32-41	60
04:00	2	0	1	6	98	254	50	2	1	0	0	0	0	0	414	33-42	332
05:00	29	4	3	24	323	592	107	9	1	0	0	0	0	0	1092	32-41	821
06:00	46	12	28	69	436	589	91	6	1	0	0	0	0	0	1278	32-41	892
07:00	51	30	55	144	497	413	51	2	0	0	0	0	0	0	1243	30-39	792
08:00	59	55	55	96	326	321	61	2	0	0	0	0	0	0	975	31-40	546
09:00	44	58	70	84	255	241	42	2	0	0	0	0	0	0	796	31-40	418
10:00	54	59	62	74	238	267	50	4	0	0	0	0	0	0	808	31-40	421
11:00	45	37	82	105	276	228	59	2	0	0	0	0	0	0	834	30-39	437
12 PM	40	38	86	81	249	281	56	2	1	0	0	0	0	0	834	31-40	455
13:00	45	52	61	83	282	261	39	1	0	0	0	0	0	0	824	31-40	458
14:00	60	43	84	120	306	382	74	1	0	0	0	0	0	0	1070	31-40	590
15:00	86	55	108	194	399	364	54	0	0	0	0	0	0	0	1260	30-39	658
16:00	74	47	91	137	470	479	86	5	0	0	0	0	0	0	1389	31-40	813
17:00	56	33	74	99	297	540	95	4	0	0	0	0	0	0	1198	32-41	733
18:00	33	24	37	29	172	324	117	4	0	0	0	0	0	0	740	33-42	451
19:00	16	19	25	25	142	240	58	2	0	0	0	0	0	0	527	32-41	339
20:00	4	13	15	23	119	150	37	3	0	0	0	0	0	0	364	31-40	238
21:00	0	0	3	6	52	90	32	1	0	0	0	0	0	0	184	33-42	134
22:00	1	0	0	4	31	50	20	4	0	0	0	0	0	0	110	33-42	76
23:00	0	0	0	1	23	35	8	1	2	0	0	0	0	0	70	32-41	53
Total	746	579	942	1407	5034	6178	1207	60	6	0	0	0	0	0	16159		
Percent	4.6%	3.6%	5.8%	8.7%	31.2%	38.2%	7.5%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	10:00	11:00	07:00	07:00	05:00	05:00	05:00	04:00						06:00		
Vol.	59	59	82	144	497	592	107	9	1						1278		
PM Peak	15:00	15:00	15:00	15:00	16:00	17:00	18:00	16:00	23:00						16:00		
Vol.	86																

Montachusett Regional Planning Commission

1427R Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton
Street: Boston Road
Location: E. of Lovers Lane
Functional Class: U-3

Site Code: 11520124302

Station ID:

Latitude: 0' 0.000 Undefined

East, West	1	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace Speed	Number in Pace
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85			
06/19/12	1	0	0	1	12	9	9	0	0	0	0	0	0	0	0	32	33-42	19
01:00	1	0	0	0	4	16	1	1	0	0	0	0	0	0	0	23	33-42	18
02:00	2	0	1	1	12	11	3	1	0	0	0	0	0	0	0	31	31-40	20
03:00	0	1	0	1	29	36	10	0	1	0	0	0	0	0	0	78	32-41	59
04:00	0	0	1	5	60	281	70	4	2	0	0	0	0	0	0	423	34-43	347
05:00	23	0	9	50	301	577	100	15	2	0	0	0	0	0	0	1077	32-41	795
06:00	41	12	25	88	444	594	137	3	0	0	0	0	0	0	0	1344	32-41	918
07:00	51	30	55	144	497	413	51	2	0	0	0	0	0	0	0	1243	30-39	792
08:00	59	55	55	96	326	321	61	2	0	0	0	0	0	0	0	975	31-40	546
09:00	44	58	70	84	255	241	42	2	0	0	0	0	0	0	0	796	31-40	418
10:00	37	44	69	89	280	232	33	3	0	0	0	0	0	0	0	787	30-39	439
11:00	47	46	78	76	295	234	55	2	0	0	0	0	0	0	0	833	30-39	449
12 PM	37	42	53	96	318	237	65	2	0	0	0	0	0	0	0	850	30-39	482
13:00	44	44	44	91	281	316	66	4	0	0	0	0	0	0	0	890	31-40	511
14:00	68	38	57	92	339	382	73	4	0	0	0	0	0	0	0	1053	31-40	612
15:00	71	29	86	138	406	416	82	5	0	0	0	0	0	0	0	1233	31-40	709
16:00	61	28	83	124	350	505	102	3	0	0	0	0	0	0	0	1256	32-41	743
17:00	46	34	64	109	342	569	73	0	0	0	0	0	0	0	0	1237	32-41	794
18:00	25	19	30	38	178	404	93	4	0	0	0	0	0	0	0	791	33-42	528
19:00	10	20	22	18	120	255	57	5	0	0	0	0	0	0	0	507	32-41	338
20:00	3	10	12	18	163	184	23	0	0	0	0	0	0	0	0	413	31-40	305
21:00	3	1	2	13	77	101	32	1	0	0	0	0	0	0	0	230	32-41	162
22:00	1	0	0	2	33	70	35	1	0	0	0	0	0	0	0	142	34-43	104
23:00	0	0	1	2	26	41	12	3	0	0	0	0	0	0	0	85	32-41	62
Total	675	511	817	1376	5148	6445	1285	67	5	0	0	0	0	0	0	16329		
Percent	4.1%	3.1%	5.0%	8.4%	31.5%	39.5%	7.9%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	09:00	11:00	07:00	07:00	06:00	06:00	05:00	04:00							06:00		
Vol.	59	58	78	144	497	594	137	15	2							1344		
PM Peak	15:00	13:00	15:00	15:00	15:00	17:00	16:00	15:00								16:00		
Vol.	71	44	86	138	406	569	102	5								1256		
Total	1421	1090	1759	2783	10182	12623	2492	127	11	0	0	0	0	0	0	32488		
Percent	4.4%	3.4%	5.4%	8.6%	31.3%	38.9%	7.7%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 22 MPH
50th Percentile : 34 MPH
85th Percentile : 39 MPH
95th Percentile : 41 MPH

Stats 10 MPH Pace Speed : 31-40 MPH
Number in Pace : 19683
Percent in Pace : 60.6%
Number of Vehicles > 35 MPH : 14224
Percent of Vehicles > 35 MPH : 43.8%
Mean Speed(Average) : 32 MPH

Montachusett Regional Planning Commission

1427R Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton

Street: Main St (Rt. 119/225)

Location: N. of Lowell Rd (Rt. 40)

Functional Class: U-3

Site Code: 1152012463

Station ID:

North

Latitude: 0' 0.000 Undefined

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
06/18/12	1	2	13	46	13	3	0	0	0	0	0	0	0	0	78	23-32	58
01:00	0	2	6	15	9	0	0	0	0	0	0	0	0	0	32	24-33	22
02:00	0	1	3	2	5	0	0	0	0	0	0	0	0	0	11	27-36	6
03:00	0	1	2	5	6	1	0	0	0	0	0	0	0	0	15	25-34	10
04:00	0	0	0	9	4	1	0	0	0	0	0	0	0	0	14	25-34	12
05:00	1	3	8	9	13	4	0	0	0	0	0	0	0	0	38	26-35	20
06:00	23	7	33	40	25	6	0	0	0	0	0	0	0	0	134	22-31	60
07:00	46	15	32	77	43	3	0	0	0	0	0	0	0	0	216	24-33	96
08:00	60	35	57	74	36	2	0	0	0	0	0	0	0	0	264	22-31	100
09:00	52	36	114	130	36	2	0	0	0	0	0	0	0	0	370	21-30	192
10:00	47	54	152	116	20	0	0	0	0	0	0	0	0	0	389	20-29	213
11:00	54	59	149	165	21	2	0	0	0	0	0	0	0	0	450	21-30	246
12 PM	59	99	187	126	10	1	0	0	0	0	0	0	0	0	482	19-28	252
13:00	35	68	203	177	21	1	0	0	0	0	0	0	0	0	505	20-29	309
14:00	56	80	221	168	20	2	0	0	0	0	0	0	0	0	547	20-29	312
15:00	98	109	198	166	23	1	0	0	0	0	0	0	0	0	595	20-29	281
16:00	197	242	264	89	8	1	0	0	0	0	0	0	0	0	801	15-24	363
17:00	187	219	226	116	2	0	0	0	0	0	0	0	0	0	750	14-23	324
18:00	105	152	321	287	18	1	0	0	0	0	0	0	0	0	884	20-29	477
19:00	15	29	151	273	90	4	0	0	0	0	0	0	0	0	562	22-31	382
20:00	13	30	100	205	71	2	1	0	0	0	0	0	0	0	422	23-32	277
21:00	6	16	71	140	39	3	0	0	0	0	0	0	0	0	275	22-31	190
22:00	9	8	31	72	35	2	0	0	0	0	0	0	0	0	157	24-33	98
23:00	0	4	19	49	26	3	0	0	0	0	0	0	0	0	101	24-33	71
Total	1064	1271	2561	2556	594	45	1	0	0	0	0	0	0	0	8092		
Percent	13.1%	15.7%	31.6%	31.6%	7.3%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	11:00	10:00	11:00	07:00	06:00									11:00		
Vol.	60	59	152	165	43	6									450		
PM Peak	16:00	16:00	18:00	18:00	19:00	19:00	20:00								18:00		
Vol.	197	242	321	287	90	4	1								884		
Total	1064	1271	2561	2556	594	45	1	0	0	0	0	0	0	0	8092		
Percent	13.1%	15.7%	31.6%	31.6%	7.3%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 10 MPH
 50th Percentile : 21 MPH
 85th Percentile : 28 MPH
 95th Percentile : 31 MPH

Stats
 10 MPH Pace Speed : 20-29 MPH
 Number in Pace : 3996
 Percent in Pace : 49.4%
 Number of Vehicles > 25 MPH : 2700
 Percent of Vehicles > 25 MPH : 33.4%
 Mean Speed(Average) : 21 MPH

Montachusett Regional Planning Commission

1427R Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton

Street: Main St (Rt. 119/225)

Location: N. of Lowell Rd (Rt. 40)

Functional Class: U-3

Site Code: 1152012463

Station ID:

South

Latitude: 0' 0.000 Undefined

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
06/18/12	2	3	11	11	6	0	0	0	0	0	0	0	0	0	33	21-30	19
01:00	0	1	6	5	3	1	0	0	0	0	0	0	0	0	16	20-29	10
02:00	0	0	2	2	3	0	0	0	0	0	0	0	0	0	7	24-33	5
03:00	1	1	3	12	2	2	0	0	0	0	0	0	0	0	21	23-32	14
04:00	1	2	5	32	40	4	0	0	0	0	0	0	0	0	84	26-35	63
05:00	7	12	48	213	165	15	1	0	0	0	0	0	0	0	461	25-34	334
06:00	42	122	287	442	146	9	0	0	0	0	0	0	0	0	1048	22-31	626
07:00	132	295	386	240	26	3	0	0	0	0	0	0	0	0	1082	17-26	536
08:00	153	283	338	176	15	2	0	0	0	0	0	0	0	0	967	16-25	466
09:00	93	188	267	131	18	0	0	0	0	0	0	0	0	0	697	17-26	351
10:00	107	149	181	72	12	0	0	0	0	0	0	0	0	0	521	16-25	240
11:00	77	134	147	109	23	0	0	0	0	0	0	0	0	0	490	17-26	217
12 PM	146	146	170	63	6	0	0	0	0	0	0	0	0	0	531	15-24	226
13:00	94	124	190	92	14	0	0	0	0	0	0	0	0	0	514	17-26	239
14:00	54	133	208	78	15	1	0	0	0	0	0	0	0	0	489	17-26	264
15:00	126	140	125	59	13	1	0	0	0	0	0	0	0	0	464	11-20	198
16:00	159	131	83	28	4	0	0	0	0	0	0	0	0	0	405	7-16	199
17:00	179	85	76	37	4	0	0	0	0	0	0	0	0	0	381	6-15	196
18:00	122	53	78	48	14	0	0	0	0	0	0	0	0	0	315	5-14	141
19:00	44	66	107	121	25	2	0	0	0	0	0	0	0	0	365	21-30	178
20:00	28	28	54	83	32	9	0	0	0	0	0	0	0	0	234	22-31	112
21:00	14	42	61	46	15	2	0	0	0	0	0	0	0	0	180	19-28	89
22:00	4	8	26	46	15	0	0	0	0	0	0	0	0	0	99	23-32	63
23:00	1	5	9	15	9	3	0	0	0	0	0	0	0	0	42	24-33	22
Total	1586	2151	2868	2161	625	54	1	0	0	0	0	0	0	0	9446		
Percent	16.8%	22.8%	30.4%	22.9%	6.6%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	07:00	07:00	06:00	05:00	05:00	05:00								07:00		
Vol.	153	295	386	442	165	15	1								1082		
PM Peak	17:00	12:00	14:00	19:00	20:00	20:00									12:00		
Vol.	179	146	208	121	32	9									531		
Total	1586	2151	2868	2161	625	54	1	0	0	0	0	0	0	0	9446		
Percent	16.8%	22.8%	30.4%	22.9%	6.6%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 9 MPH
 50th Percentile : 19 MPH
 85th Percentile : 27 MPH
 95th Percentile : 31 MPH

Stats
 10 MPH Pace Speed : 19-28 MPH
 Number in Pace : 4026
 Percent in Pace : 42.6%
 Number of Vehicles > 25 MPH : 2344
 Percent of Vehicles > 25 MPH : 24.8%
 Mean Speed(Average) : 19 MPH

Montachusett Regional Planning Commission

Community: Groton
Street: Main St (Rt. 119/225)
Location: N. of Lowell Rd (Rt. 40)
Functional Class: U-3

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 1152012463

Station ID:

Latitude: 0' 0.000 Undefined

North, South

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace Speed	Number in Pace
06/18/12	3	5	24	57	19	3	0	0	0	0	0	0	0	0	0	111	23-32	76
01:00	0	3	12	20	12	1	0	0	0	0	0	0	0	0	0	48	24-33	31
02:00	0	1	5	4	8	0	0	0	0	0	0	0	0	0	0	18	24-33	11
03:00	1	2	5	17	8	3	0	0	0	0	0	0	0	0	0	36	24-33	23
04:00	1	2	5	41	44	5	0	0	0	0	0	0	0	0	0	98	26-35	75
05:00	8	15	56	222	178	19	1	0	0	0	0	0	0	0	0	499	25-34	353
06:00	65	129	320	482	171	15	0	0	0	0	0	0	0	0	0	1182	22-31	685
07:00	178	310	418	317	69	6	0	0	0	0	0	0	0	0	0	1298	19-28	596
08:00	213	318	395	250	51	4	0	0	0	0	0	0	0	0	0	1231	17-26	546
09:00	145	224	381	261	54	2	0	0	0	0	0	0	0	0	0	1067	19-28	517
10:00	154	203	333	188	32	0	0	0	0	0	0	0	0	0	0	910	18-27	425
11:00	131	193	296	274	44	2	0	0	0	0	0	0	0	0	0	940	20-29	445
12 PM	205	245	357	189	16	1	0	0	0	0	0	0	0	0	0	1013	17-26	455
13:00	129	192	393	269	35	1	0	0	0	0	0	0	0	0	0	1019	19-28	528
14:00	110	213	429	246	35	3	0	0	0	0	0	0	0	0	0	1036	19-28	557
15:00	224	249	323	225	36	2	0	0	0	0	0	0	0	0	0	1059	18-27	437
16:00	356	373	347	117	12	1	0	0	0	0	0	0	0	0	0	1206	11-20	527
17:00	366	304	302	153	6	0	0	0	0	0	0	0	0	0	0	1131	7-16	487
18:00	227	205	399	335	32	1	0	0	0	0	0	0	0	0	0	1199	20-29	556
19:00	59	95	258	394	115	6	0	0	0	0	0	0	0	0	0	927	22-31	550
20:00	41	58	154	288	103	11	1	0	0	0	0	0	0	0	0	656	23-32	385
21:00	20	58	132	186	54	5	0	0	0	0	0	0	0	0	0	455	22-31	268
22:00	13	16	57	118	50	2	0	0	0	0	0	0	0	0	0	256	23-32	161
23:00	1	9	28	64	35	6	0	0	0	0	0	0	0	0	0	143	24-33	93
Total	2650	3422	5429	4717	1219	99	2	0	0	0	0	0	0	0	0	17538		
Percent	15.1%	19.5%	31.0%	26.9%	7.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	07:00	06:00	05:00	05:00	05:00										07:00	
Vol.	213	318	418	482	178	19	1										1298	
PM Peak	17:00	16:00	14:00	19:00	19:00	20:00	20:00										16:00	
Vol.	366	373	429	394	115	11	1										1206	
Total	2650	3422	5429	4717	1219	99	2	0	0	0	0	0	0	0	0	17538		
Percent	15.1%	19.5%	31.0%	26.9%	7.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
			15th Percentile :		9 MPH													
			50th Percentile :		20 MPH													
			85th Percentile :		28 MPH													
			95th Percentile :		31 MPH													

Stats
10 MPH Pace Speed : 20-29 MPH
Number in Pace : 7934
Percent in Pace : 45.2%
Number of Vehicles > 25 MPH : 5025
Percent of Vehicles > 25 MPH : 28.7%
Mean Speed(Average) : 20 MPH

Montachusett Regional Planning Commission

1427R Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton

Street: Main St (Rt. 119/225)

Location: S. of Lowell Rd (Rt. 40)

Functional Class: U-3

Site Code: 1152012442

Station ID:

North

Latitude: 0' 0.000 Undefined

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
06/18/12	0	0	1	7	10	2	0	0	0	0	0	0	0	0	20	27-36	15
01:00	0	0	0	6	4	3	0	0	0	0	0	0	0	0	13	27-36	9
02:00	1	0	0	1	3	6	0	0	0	0	0	0	0	0	11	32-41	8
03:00	0	0	0	4	9	4	2	0	0	0	0	0	0	0	19	27-36	13
04:00	2	0	0	8	30	12	3	1	0	0	0	0	0	0	56	29-38	39
05:00	23	0	3	23	81	34	3	0	0	0	0	0	0	0	167	29-38	100
06:00	46	1	5	45	139	31	4	1	0	0	0	0	0	0	272	28-37	157
07:00	40	1	10	105	182	30	6	0	0	0	0	0	0	1	375	27-36	241
08:00	27	2	18	114	203	37	2	0	0	0	1	0	0	0	404	27-36	276
09:00	26	0	22	117	205	38	2	0	0	0	0	0	0	0	410	27-36	281
10:00	35	3	26	178	223	27	3	3	1	0	0	0	0	0	499	26-35	339
11:00	39	1	16	146	227	37	1	0	0	0	0	0	0	0	467	27-36	317
12 PM	34	0	21	159	256	41	2	1	0	1	0	1	0	0	516	27-36	358
13:00	28	1	27	191	293	32	1	0	0	0	0	0	0	0	573	27-36	418
14:00	132	33	72	243	276	34	0	0	0	0	0	0	1	0	791	26-35	407
15:00	161	51	118	347	263	14	0	0	0	0	0	0	0	0	954	25-34	484
16:00	195	76	71	355	280	18	0	0	0	0	0	0	0	0	995	25-34	478
17:00	29	1	21	319	400	42	2	1	0	0	0	0	0	0	815	26-35	622
18:00	15	1	5	136	262	35	0	0	0	0	0	0	0	1	455	27-36	354
19:00	8	0	8	122	172	32	1	0	0	0	0	0	0	0	343	27-36	261
20:00	9	0	5	74	103	12	4	0	0	0	0	0	0	0	207	27-36	153
21:00	0	0	0	30	47	21	2	0	0	0	0	0	0	1	101	28-37	73
22:00	1	0	4	29	47	7	1	0	0	0	0	0	0	0	89	27-36	68
23:00	2	0	2	21	23	1	0	0	0	0	0	0	0	0	49	26-35	38
Total	853	171	455	2780	3738	550	39	7	1	1	1	1	1	3	8601		
Percent	9.9%	2.0%	5.3%	32.3%	43.5%	6.4%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	10:00	10:00	10:00	11:00	09:00	07:00	10:00	10:00		08:00			07:00	10:00		
Vol.	46	3	26	178	227	38	6	3	1		1			1	499		
PM Peak	16:00	16:00	15:00	16:00	17:00	17:00	20:00	12:00		12:00		12:00	14:00	18:00	16:00		
Vol.	195	76	118	355	400	42	4	1		1		1	1	1	995		
Total	853	171	455	2780	3738	550	39	7	1	1	1	1	1	3	8601		
Percent	9.9%	2.0%	5.3%	32.3%	43.5%	6.4%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 12 MPH
50th Percentile : 29 MPH
85th Percentile : 34 MPH
95th Percentile : 36 MPH

Stats 10 MPH Pace Speed : 26-35 MPH
Number in Pace : 5377
Percent in Pace : 62.5%
Number of Vehicles > 30 MPH : 3878
Percent of Vehicles > 30 MPH : 45.1%
Mean Speed(Average) : 27 MPH

Montachusett Regional Planning Commission

Community: Groton
Street: Main St (Rt. 119/225)
Location: S. of Lowell Rd (Rt. 40)
Functional Class: U-3

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 1152012442
Station ID:

South Latitude: 0' 0.000 Undefined

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace Speed	Number in Pace
06/18/12	0	0	0	2	5	3	0	0	0	0	0	0	0	0	0	10	29-38	8
01:00	0	0	0	1	6	3	1	0	0	0	0	0	0	0	0	11	31-40	8
02:00	0	0	0	6	7	13	0	0	0	0	0	0	0	0	0	26	32-41	18
03:00	0	0	0	3	58	59	6	0	0	0	0	0	0	0	0	126	31-40	104
04:00	5	0	1	31	330	249	12	2	0	0	0	0	0	0	0	630	31-40	511
05:00	18	1	4	90	675	259	10	0	0	0	0	0	0	0	0	1057	30-39	855
06:00	34	0	6	263	572	100	5	0	0	0	0	0	0	0	0	980	27-36	752
07:00	31	0	10	209	450	89	3	0	0	0	0	0	0	0	0	792	27-36	594
08:00	25	0	15	158	278	55	4	0	0	0	0	0	0	0	0	535	27-36	386
09:00	18	2	14	197	193	21	1	0	0	0	0	0	0	0	0	446	26-35	336
10:00	40	2	12	168	186	35	0	1	0	0	0	0	0	0	0	444	26-35	295
11:00	25	1	27	167	197	30	0	0	0	0	0	0	0	0	0	447	26-35	313
12 PM	24	0	20	176	187	23	0	0	0	0	0	0	0	0	0	430	26-35	311
13:00	25	0	8	145	226	21	2	0	0	0	0	0	0	0	0	427	27-36	318
14:00	44	0	26	157	175	20	0	1	0	0	0	0	0	0	0	423	26-35	275
15:00	39	0	13	129	188	28	1	0	0	0	0	0	0	0	0	398	27-36	265
16:00	57	2	14	82	130	39	1	0	0	0	0	0	0	0	0	325	27-36	172
17:00	20	2	2	47	138	56	5	0	0	0	0	0	0	0	0	270	29-38	179
18:00	17	0	3	44	152	38	3	1	2	0	0	0	0	0	0	260	28-37	184
19:00	9	0	2	33	88	42	6	0	0	0	0	0	0	0	0	180	29-38	122
20:00	2	1	3	29	48	33	3	0	0	0	0	0	0	0	0	119	29-38	78
21:00	1	0	0	7	38	13	2	0	0	0	0	0	0	0	0	61	29-38	48
22:00	1	0	0	5	15	8	0	1	0	0	0	0	0	0	0	30	30-39	21
23:00	0	0	0	2	8	3	2	0	0	0	0	0	0	0	0	15	29-38	11
Total	435	11	180	2151	4350	1240	67	6	2	0	0	0	0	0	0	8442		
Percent	5.2%	0.1%	2.1%	25.5%	51.5%	14.7%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	09:00	11:00	06:00	05:00	05:00	04:00	04:00								05:00		
Vol.	40	2	27	263	675	259	12	2								1057		
PM Peak	16:00	16:00	14:00	12:00	13:00	17:00	19:00	14:00	18:00							12:00		
Vol.	57	2	26	176	226	56	6	1	2							430		
Total	435	11	180	2151	4350	1240	67	6	2	0	0	0	0	0	0	8442		
Percent	5.2%	0.1%	2.1%	25.5%	51.5%	14.7%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 25 MPH
50th Percentile : 31 MPH
85th Percentile : 35 MPH
95th Percentile : 38 MPH

Stats 10 MPH Pace Speed : 28-37 MPH
Number in Pace : 5890
Percent in Pace : 69.8%
Number of Vehicles > 30 MPH : 5184
Percent of Vehicles > 30 MPH : 61.4%
Mean Speed(Average) : 30 MPH

Montachusett Regional Planning Commission

Community: Groton
Street: Main St (Rt. 119/225)
Location: S. of Lowell Rd (Rt. 40)
Functional Class: U-3

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 1152012442

Station ID:

North, South

Latitude: 0' 0.000 Undefined

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
06/18/12	0	0	1	9	15	5	0	0	0	0	0	0	0	0	30	28-37	22
01:00	0	0	0	7	10	6	1	0	0	0	0	0	0	0	24	28-37	17
02:00	1	0	0	7	10	19	0	0	0	0	0	0	0	0	37	31-40	26
03:00	0	0	0	7	67	63	8	0	0	0	0	0	0	0	145	31-40	116
04:00	7	0	1	39	360	261	15	3	0	0	0	0	0	0	686	30-39	549
05:00	41	1	7	113	756	293	13	0	0	0	0	0	0	0	1224	29-38	951
06:00	80	1	11	308	711	131	9	1	0	0	0	0	0	0	1252	27-36	902
07:00	71	1	20	314	632	119	9	0	0	0	0	0	0	1	1167	27-36	834
08:00	52	2	33	272	481	92	6	0	0	0	1	0	0	0	939	27-36	662
09:00	44	2	36	314	398	59	3	0	0	0	0	0	0	0	856	26-35	612
10:00	75	5	38	346	409	62	3	4	1	0	0	0	0	0	943	26-35	634
11:00	64	2	43	313	424	67	1	0	0	0	0	0	0	0	914	27-36	627
12 PM	58	0	41	335	443	64	2	1	0	1	0	1	0	0	946	26-35	665
13:00	53	1	35	336	519	53	3	0	0	0	0	0	0	0	1000	27-36	736
14:00	176	33	98	400	451	54	0	1	0	0	0	0	1	0	1214	26-35	679
15:00	200	51	131	476	451	42	1	0	0	0	0	0	0	0	1352	26-35	736
16:00	252	78	85	437	410	57	1	0	0	0	0	0	0	0	1320	26-35	645
17:00	49	3	23	366	538	98	7	1	0	0	0	0	0	0	1085	27-36	789
18:00	32	1	8	180	414	73	3	1	2	0	0	0	0	1	715	27-36	533
19:00	17	0	10	155	260	74	7	0	0	0	0	0	0	0	523	27-36	376
20:00	11	1	8	103	151	45	7	0	0	0	0	0	0	0	326	27-36	228
21:00	1	0	0	37	85	34	4	0	0	0	0	0	0	1	162	28-37	120
22:00	2	0	4	34	62	15	1	1	0	0	0	0	0	0	119	27-36	88
23:00	2	0	2	23	31	4	2	0	0	0	0	0	0	0	64	27-36	47
Total	1288	182	635	4931	8088	1790	106	13	3	1	1	1	1	3	17043		
Percent	7.6%	1.1%	3.7%	28.9%	47.5%	10.5%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	10:00	11:00	10:00	05:00	05:00	04:00	10:00	10:00		08:00			07:00	06:00		
Vol.	80	5	43	346	756	293	15	4	1		1			1	1252		
PM Peak	16:00	16:00	15:00	15:00	17:00	17:00	17:00	12:00	18:00	12:00		12:00	14:00	18:00	15:00		
Vol.	252	78	131	476	538	98	7	1	2	1		1	1	1	1352		
Total	1288	182	635	4931	8088	1790	106	13	3	1	1	1	1	3	17043		
Percent	7.6%	1.1%	3.7%	28.9%	47.5%	10.5%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 20 MPH
50th Percentile : 30 MPH
85th Percentile : 34 MPH
95th Percentile : 37 MPH

Stats
10 MPH Pace Speed : 27-36 MPH
Number in Pace : 11228
Percent in Pace : 65.9%
Number of Vehicles > 30 MPH : 9031
Percent of Vehicles > 30 MPH : 53.0%
Mean Speed(Average) : 29 MPH

APPENDIX F – Classification Data

Montachusett Regional Planning Commission

1427R Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Page 1

Community: Groton
Street: Boston Road
Location: E. of Lovers Lane
Functional Class: U-3

Site Code: 11520124302

Station ID:

East															Latitude: 0' 0.000 Undefined	
Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total	
06/18/12	1	7	0	0	0	0	0	0	1	0	0	0	0	0	9	
01:00	1	5	0	0	0	0	0	0	1	0	0	0	0	0	7	
02:00	0	8	4	0	0	0	0	0	0	0	0	0	0	0	12	
03:00	2	48	17	0	1	1	0	0	2	0	0	0	0	1	72	
04:00	10	269	88	1	8	5	0	2	4	0	0	0	0	2	389	
05:00	26	703	197	1	22	1	1	3	1	0	0	0	0	19	974	
06:00	14	865	129	1	17	2	0	4	4	1	0	0	0	23	1060	
07:00	13	798	97	1	10	0	0	3	3	0	0	0	0	27	952	
08:00	6	495	83	3	11	2	1	8	2	0	0	0	0	28	639	
09:00	7	369	53	6	11	0	0	3	2	0	0	0	0	18	469	
10:00	2	296	67	4	7	4	0	1	4	0	0	0	0	25	410	
11:00	2	307	61	4	14	4	1	4	7	1	0	0	0	18	423	
12 PM	5	287	60	2	13	7	0	2	3	0	0	0	0	23	402	
13:00	2	300	50	1	6	3	0	3	1	2	0	0	0	19	387	
14:00	6	323	59	1	12	4	0	2	2	0	0	0	0	30	439	
15:00	6	302	46	2	9	1	0	5	1	0	0	0	0	39	411	
16:00	3	318	36	1	6	2	0	3	1	0	0	0	0	33	403	
17:00	1	222	29	0	4	1	0	1	1	0	0	0	0	36	295	
18:00	3	211	24	0	6	0	0	0	0	0	0	0	0	20	264	
19:00	1	170	26	1	0	0	0	0	0	0	0	0	0	6	204	
20:00	1	114	17	0	1	0	0	1	1	0	0	0	0	0	135	
21:00	1	58	6	0	1	0	0	0	0	0	0	0	0	0	66	
22:00	0	23	2	0	0	0	0	1	1	0	0	0	0	0	27	
23:00	0	19	5	0	0	0	0	0	0	0	0	0	0	0	24	
Total	113	6517	1156	29	159	37	3	46	42	4	0	0	0	367	8473	
Percent	1.3%	76.9%	13.6%	0.3%	1.9%	0.4%	0.0%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	4.3%		
AM Peak	05:00	06:00	05:00	09:00	05:00	04:00	05:00	08:00	11:00	06:00				08:00		
Vol.	26	865	197	6	22	5	1	8	7	1				28		
PM Peak	14:00	14:00	12:00	12:00	12:00	12:00		15:00	12:00	13:00				15:00		
Vol.	6	323	60	2	13	7		5	3	2				39		

Montachusett Regional Planning Commission
1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Page 2

Community: Groton
Street: Boston Road
Location: E. of Lovers Lane
Functional Class: U-3

Site Code: 11520124302
Station ID:

East															Latitude: 0' 0.000 Undefined	
Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total	
06/19/12	0	5	1	0	0	0	0	1	0	0	0	0	0	0	7	
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4	
02:00	0	14	2	0	0	0	0	0	1	0	0	0	0	1	18	
03:00	0	49	15	0	3	1	0	0	3	0	0	0	0	0	71	
04:00	9	271	106	0	5	3	0	0	2	1	0	0	0	1	398	
05:00	27	690	178	3	26	3	0	5	2	1	0	0	0	10	945	
06:00	14	886	129	3	20	7	0	2	3	1	0	0	0	22	1087	
07:00	13	798	97	1	10	0	0	3	3	0	0	0	0	27	952	
08:00	6	495	83	3	11	2	1	8	2	0	0	0	0	28	639	
09:00	7	369	53	6	11	0	0	3	2	0	0	0	0	18	469	
10:00	3	325	65	4	10	1	2	1	3	1	0	0	0	15	430	
11:00	9	324	56	0	18	6	1	2	6	0	0	0	0	17	439	
12 PM	3	350	49	1	16	4	0	3	5	0	0	0	0	17	448	
13:00	5	322	55	1	12	2	0	2	1	1	0	0	0	16	417	
14:00	3	316	64	0	11	2	0	1	1	0	1	0	0	24	423	
15:00	2	307	37	0	11	0	0	4	1	0	0	1	0	28	391	
16:00	2	289	42	2	6	1	0	2	0	1	0	0	0	27	372	
17:00	2	227	36	0	8	0	0	1	1	0	0	0	0	25	300	
18:00	5	195	22	0	3	0	0	0	2	0	0	0	0	8	235	
19:00	5	155	18	1	0	0	0	0	0	0	0	0	0	5	184	
20:00	1	133	15	0	0	0	0	0	0	0	0	0	0	1	150	
21:00	0	68	7	0	1	0	0	0	0	0	0	0	0	0	76	
22:00	2	31	1	0	0	0	0	1	0	0	0	0	0	1	36	
23:00	0	16	1	0	0	0	0	1	0	0	0	0	0	0	18	
Total	118	6639	1132	25	182	32	4	40	38	6	1	1	0	291	8509	
Percent	1.4%	78.0%	13.3%	0.3%	2.1%	0.4%	0.0%	0.5%	0.4%	0.1%	0.0%	0.0%	0.0%	3.4%		
AM Peak	05:00	06:00	05:00	09:00	05:00	06:00	10:00	08:00	11:00	04:00				08:00		
Vol.	27	886	178	6	26	7	2	8	6	1				28		
PM Peak	13:00	12:00	14:00	16:00	12:00	12:00		15:00	12:00	13:00	14:00	15:00		15:00		
Vol.	5	350	64	2	16	4		4	5	1	1	1		28		
Grand Total	231	13156	2288	54	341	69	7	86	80	10	1	1	0	658	16982	
Percent	1.4%	77.5%	13.5%	0.3%	2.0%	0.4%	0.0%	0.5%	0.5%	0.1%	0.0%	0.0%	0.0%	3.9%		

Montachusett Regional Planning Commission
1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Page 3

Community: Groton
Street: Boston Road
Location: E. of Lovers Lane
Functional Class: U-3

Site Code: 11520124302
Station ID:

West																Latitude: 0' 0.000 Undefined	
Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total		
06/18/12	0	14	6	0	1	0	0	0	0	0	0	0	0	0	21		
01:00	0	5	4	0	0	0	0	0	0	0	0	0	0	0	9		
02:00	0	8	1	0	0	0	0	0	0	0	0	0	0	0	9		
03:00	0	5	4	0	1	0	0	0	0	0	0	0	0	0	10		
04:00	1	19	4	1	0	0	0	0	0	0	0	0	0	0	25		
05:00	2	67	25	0	8	1	0	1	4	0	0	0	0	10	118		
06:00	1	132	49	1	11	2	0	0	1	0	0	0	0	21	218		
07:00	4	166	66	4	21	2	0	5	1	0	0	0	0	22	291		
08:00	3	197	70	3	27	2	0	4	2	0	0	0	0	28	336		
09:00	2	216	59	3	19	3	0	6	1	0	0	0	0	18	327		
10:00	1	236	95	7	24	5	1	2	3	0	0	0	0	24	398		
11:00	3	254	99	6	19	3	1	2	3	1	0	0	0	20	411		
12 PM	8	299	82	3	16	3	1	3	2	0	0	0	0	15	432		
13:00	5	295	93	0	13	2	3	1	2	0	0	0	0	23	437		
14:00	7	416	127	4	31	5	0	8	5	0	0	0	0	28	631		
15:00	11	589	169	3	26	2	0	7	3	1	0	0	0	38	849		
16:00	8	745	158	0	33	0	0	4	2	0	0	0	0	36	986		
17:00	13	681	146	1	38	1	1	3	0	0	0	0	0	19	903		
18:00	5	366	78	1	11	0	0	2	0	0	0	0	0	13	476		
19:00	1	254	52	0	7	0	0	1	2	0	0	0	0	6	323		
20:00	1	172	39	0	12	0	0	1	1	0	0	0	0	3	229		
21:00	1	89	23	0	4	0	0	0	1	0	0	0	0	0	118		
22:00	0	60	14	0	8	0	0	0	0	0	0	0	0	1	83		
23:00	0	35	6	0	1	0	0	2	2	0	0	0	0	0	46		
Total	77	5320	1469	37	331	31	7	52	35	2	0	0	0	325	7686		
Percent	1.0%	69.2%	19.1%	0.5%	4.3%	0.4%	0.1%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%	4.2%			
AM Peak	07:00	11:00	11:00	10:00	08:00	10:00	10:00	09:00	05:00	11:00					08:00		
Vol.	4	254	99	7	27	5	1	6	4	1					28		
PM Peak	17:00	16:00	15:00	14:00	17:00	14:00	13:00	14:00	14:00	15:00					15:00		
Vol.	13	745	169	4	38	5	3	8	5	1					38		

Montachusett Regional Planning Commission
1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Page 4

Community: Groton
Street: Boston Road
Location: E. of Lovers Lane
Functional Class: U-3

Site Code: 11520124302
Station ID:

West															Latitude: 0' 0.000 Undefined	
Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total	
06/19/12	1	19	3	0	1	0	0	0	0	0	0	0	0	1	25	
01:00	0	13	3	1	0	0	0	1	0	0	0	0	0	1	19	
02:00	0	9	2	0	1	0	0	0	0	0	0	0	0	1	13	
03:00	0	3	4	0	0	0	0	0	0	0	0	0	0	0	7	
04:00	0	14	3	2	2	1	0	1	2	0	0	0	0	0	25	
05:00	2	67	37	1	10	0	0	1	1	0	0	0	0	13	132	
06:00	2	168	51	0	18	1	0	1	0	0	0	0	0	16	257	
07:00	4	166	66	4	21	2	0	5	1	0	0	0	0	22	291	
08:00	3	197	70	3	27	2	0	4	2	0	0	0	0	28	336	
09:00	2	216	59	3	19	3	0	6	1	0	0	0	0	18	327	
10:00	1	244	66	4	13	3	0	4	4	0	0	0	0	18	357	
11:00	3	243	78	2	19	5	1	6	6	1	0	0	0	30	394	
12 PM	6	272	75	3	20	4	0	2	1	0	0	0	0	19	402	
13:00	11	297	107	3	20	2	0	4	1	1	0	0	0	27	473	
14:00	8	427	125	0	22	1	0	8	1	0	0	0	0	38	630	
15:00	9	559	183	5	39	2	0	3	1	1	3	0	0	37	842	
16:00	11	645	166	1	23	1	0	2	0	0	0	0	1	34	884	
17:00	16	732	132	1	27	0	1	6	0	0	0	0	0	22	937	
18:00	10	409	92	1	23	2	0	2	1	0	0	0	0	16	556	
19:00	6	256	51	0	3	0	0	2	0	0	0	0	0	5	323	
20:00	3	206	44	0	8	0	0	0	0	0	0	0	0	2	263	
21:00	0	112	33	0	3	0	0	3	1	0	0	0	0	2	154	
22:00	1	84	17	0	3	0	0	0	0	1	0	0	0	0	106	
23:00	0	61	5	0	1	0	0	0	0	0	0	0	0	0	67	
Total	99	5419	1472	34	323	29	2	61	23	4	3	0	1	350	7820	
Percent	1.3%	69.3%	18.8%	0.4%	4.1%	0.4%	0.0%	0.8%	0.3%	0.1%	0.0%	0.0%	0.0%	4.5%		
AM Peak	07:00	10:00	11:00	07:00	08:00	11:00	11:00	09:00	11:00	11:00				11:00		
Vol.	4	244	78	4	27	5	1	6	6	1				30		
PM Peak	17:00	17:00	15:00	15:00	15:00	12:00	17:00	14:00	12:00	13:00	15:00		16:00	14:00		
Vol.	16	732	183	5	39	4	1	8	1	1	3		1	38		
Grand Total	176	10739	2941	71	654	60	9	113	58	6	3	0	1	675	15506	
Percent	1.1%	69.3%	19.0%	0.5%	4.2%	0.4%	0.1%	0.7%	0.4%	0.0%	0.0%	0.0%	0.0%	4.4%		

Montachusett Regional Planning Commission

1427R Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton
Street: Boston Road
Location: E. of Lovers Lane
Functional Class: U-3

Site Code: 11520124302

Station ID:

East, West															Latitude: 0' 0.000 Undefined	
Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total	
06/18/12	1	21	6	0	1	0	0	0	1	0	0	0	0	0	30	
01:00	1	10	4	0	0	0	0	0	1	0	0	0	0	0	16	
02:00	0	16	5	0	0	0	0	0	0	0	0	0	0	0	21	
03:00	2	53	21	0	2	1	0	0	2	0	0	0	0	1	82	
04:00	11	288	92	2	8	5	0	2	4	0	0	0	0	2	414	
05:00	28	770	222	1	30	2	1	4	5	0	0	0	0	29	1092	
06:00	15	997	178	2	28	4	0	4	5	1	0	0	0	44	1278	
07:00	17	964	163	5	31	2	0	8	4	0	0	0	0	49	1243	
08:00	9	692	153	6	38	4	1	12	4	0	0	0	0	56	975	
09:00	9	585	112	9	30	3	0	9	3	0	0	0	0	36	796	
10:00	3	532	162	11	31	9	1	3	7	0	0	0	0	49	808	
11:00	5	561	160	10	33	7	2	6	10	2	0	0	0	38	834	
12 PM	13	586	142	5	29	10	1	5	5	0	0	0	0	38	834	
13:00	7	595	143	1	19	5	3	4	3	2	0	0	0	42	824	
14:00	13	739	186	5	43	9	0	10	7	0	0	0	0	58	1070	
15:00	17	891	215	5	35	3	0	12	4	1	0	0	0	77	1260	
16:00	11	1063	194	1	39	2	0	7	3	0	0	0	0	69	1389	
17:00	14	903	175	1	42	2	1	4	1	0	0	0	0	55	1198	
18:00	8	577	102	1	17	0	0	2	0	0	0	0	0	33	740	
19:00	2	424	78	1	7	0	0	1	2	0	0	0	0	12	527	
20:00	2	286	56	0	13	0	0	2	2	0	0	0	0	3	364	
21:00	2	147	29	0	5	0	0	0	1	0	0	0	0	0	184	
22:00	0	83	16	0	8	0	0	1	1	0	0	0	0	1	110	
23:00	0	54	11	0	1	0	0	2	2	0	0	0	0	0	70	
Total	190	11837	2625	66	490	68	10	98	77	6	0	0	0	692	16159	
Percent	1.2%	73.3%	16.2%	0.4%	3.0%	0.4%	0.1%	0.6%	0.5%	0.0%	0.0%	0.0%	0.0%	4.3%		
AM Peak	05:00	06:00	05:00	10:00	08:00	10:00	11:00	08:00	11:00	11:00				08:00		
Vol.	28	997	222	11	38	9	2	12	10	2				56		
PM Peak	15:00	16:00	15:00	12:00	14:00	12:00	13:00	15:00	14:00	13:00				15:00		
Vol.	17	1063	215	5	43	10	3	12	7	2				77		

Montachusett Regional Planning Commission

1427R Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Page 6

Community: Groton
Street: Boston Road
Location: E. of Lovers Lane
Functional Class: U-3

Site Code: 11520124302

Station ID:

East, West															Latitude: 0' 0.000 Undefined	
Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classified	Total	
06/19/12	1	24	4	0	1	0	0	1	0	0	0	0	0	1	32	
01:00	0	17	3	1	0	0	0	1	0	0	0	0	0	1	23	
02:00	0	23	4	0	1	0	0	0	1	0	0	0	0	2	31	
03:00	0	52	19	0	3	1	0	0	3	0	0	0	0	0	78	
04:00	9	285	109	2	7	4	0	1	4	1	0	0	0	1	423	
05:00	29	757	215	4	36	3	0	6	3	1	0	0	0	23	1077	
06:00	16	1054	180	3	38	8	0	3	3	1	0	0	0	38	1344	
07:00	17	964	163	5	31	2	0	8	4	0	0	0	0	49	1243	
08:00	9	692	153	6	38	4	1	12	4	0	0	0	0	56	975	
09:00	9	585	112	9	30	3	0	9	3	0	0	0	0	36	796	
10:00	4	569	131	8	23	4	2	5	7	1	0	0	0	33	787	
11:00	12	567	134	2	37	11	2	8	12	1	0	0	0	47	833	
12 PM	9	622	124	4	36	8	0	5	6	0	0	0	0	36	850	
13:00	16	619	162	4	32	4	0	6	2	2	0	0	0	43	890	
14:00	11	743	189	0	33	3	0	9	2	0	1	0	0	62	1053	
15:00	11	866	220	5	50	2	0	7	2	1	3	1	0	65	1233	
16:00	13	934	208	3	29	2	0	4	0	1	0	0	1	61	1256	
17:00	18	959	168	1	35	0	1	7	1	0	0	0	0	47	1237	
18:00	15	604	114	1	26	2	0	2	3	0	0	0	0	24	791	
19:00	11	411	69	1	3	0	0	2	0	0	0	0	0	10	507	
20:00	4	339	59	0	8	0	0	0	0	0	0	0	0	3	413	
21:00	0	180	40	0	4	0	0	3	1	0	0	0	0	2	230	
22:00	3	115	18	0	3	0	0	1	0	1	0	0	0	1	142	
23:00	0	77	6	0	1	0	0	1	0	0	0	0	0	0	85	
Total	217	12058	2604	59	505	61	6	101	61	10	4	1	1	641	16329	
Percent	1.3%	73.8%	15.9%	0.4%	3.1%	0.4%	0.0%	0.6%	0.4%	0.1%	0.0%	0.0%	0.0%	3.9%		
AM Peak	05:00	06:00	05:00	09:00	06:00	11:00	10:00	08:00	11:00	04:00				08:00		
Vol.	29	1054	215	9	38	11	2	12	12	1				56		
PM Peak	17:00	17:00	15:00	15:00	15:00	12:00	17:00	14:00	12:00	13:00	15:00	15:00	16:00	15:00		
Vol.	18	959	220	5	50	8	1	9	6	2	3	1	1	65		
Grand Total	407	23895	5229	125	995	129	16	199	138	16	4	1	1	1333	32488	
Percent	1.3%	73.6%	16.1%	0.4%	3.1%	0.4%	0.0%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	4.1%		

Montachusett Regional Planning Commission

1427R Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton

Street: Main St (Rt. 119/225)

Location: N. of Lowell Rd (Rt. 40)

Functional Class: U-3

Site Code: 1152012463

Station ID:

North

Latitude: 0' 0.000 Undefined

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
06/18/12	1	2	13	46	13	3	0	0	0	0	0	0	0	0	78	23-32	58
01:00	0	2	6	15	9	0	0	0	0	0	0	0	0	0	32	24-33	22
02:00	0	1	3	2	5	0	0	0	0	0	0	0	0	0	11	27-36	6
03:00	0	1	2	5	6	1	0	0	0	0	0	0	0	0	15	25-34	10
04:00	0	0	0	9	4	1	0	0	0	0	0	0	0	0	14	25-34	12
05:00	1	3	8	9	13	4	0	0	0	0	0	0	0	0	38	26-35	20
06:00	23	7	33	40	25	6	0	0	0	0	0	0	0	0	134	22-31	60
07:00	46	15	32	77	43	3	0	0	0	0	0	0	0	0	216	24-33	96
08:00	60	35	57	74	36	2	0	0	0	0	0	0	0	0	264	22-31	100
09:00	52	36	114	130	36	2	0	0	0	0	0	0	0	0	370	21-30	192
10:00	47	54	152	116	20	0	0	0	0	0	0	0	0	0	389	20-29	213
11:00	54	59	149	165	21	2	0	0	0	0	0	0	0	0	450	21-30	246
12 PM	59	99	187	126	10	1	0	0	0	0	0	0	0	0	482	19-28	252
13:00	35	68	203	177	21	1	0	0	0	0	0	0	0	0	505	20-29	309
14:00	56	80	221	168	20	2	0	0	0	0	0	0	0	0	547	20-29	312
15:00	98	109	198	166	23	1	0	0	0	0	0	0	0	0	595	20-29	281
16:00	197	242	264	89	8	1	0	0	0	0	0	0	0	0	801	15-24	363
17:00	187	219	226	116	2	0	0	0	0	0	0	0	0	0	750	14-23	324
18:00	105	152	321	287	18	1	0	0	0	0	0	0	0	0	884	20-29	477
19:00	15	29	151	273	90	4	0	0	0	0	0	0	0	0	562	22-31	382
20:00	13	30	100	205	71	2	1	0	0	0	0	0	0	0	422	23-32	277
21:00	6	16	71	140	39	3	0	0	0	0	0	0	0	0	275	22-31	190
22:00	9	8	31	72	35	2	0	0	0	0	0	0	0	0	157	24-33	98
23:00	0	4	19	49	26	3	0	0	0	0	0	0	0	0	101	24-33	71
Total	1064	1271	2561	2556	594	45	1	0	0	0	0	0	0	0	8092		
Percent	13.1%	15.7%	31.6%	31.6%	7.3%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	11:00	10:00	11:00	07:00	06:00									11:00		
Vol.	60	59	152	165	43	6									450		
PM Peak	16:00	16:00	18:00	18:00	19:00	19:00	20:00								18:00		
Vol.	197	242	321	287	90	4	1								884		
Total	1064	1271	2561	2556	594	45	1	0	0	0	0	0	0	0	8092		
Percent	13.1%	15.7%	31.6%	31.6%	7.3%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 10 MPH
 50th Percentile : 21 MPH
 85th Percentile : 28 MPH
 95th Percentile : 31 MPH

Stats
 10 MPH Pace Speed : 20-29 MPH
 Number in Pace : 3996
 Percent in Pace : 49.4%
 Number of Vehicles > 25 MPH : 2700
 Percent of Vehicles > 25 MPH : 33.4%
 Mean Speed(Average) : 21 MPH

Montachusett Regional Planning Commission

Community: Groton
Street: Main St (Rt. 119/225)
Location: N. of Lowell Rd (Rt. 40)
Functional Class: U-3

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 1152012463

Station ID:

South

Latitude: 0' 0.000 Undefined

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
06/18/12	2	3	11	11	6	0	0	0	0	0	0	0	0	0	33	21-30	19
01:00	0	1	6	5	3	1	0	0	0	0	0	0	0	0	16	20-29	10
02:00	0	0	2	2	3	0	0	0	0	0	0	0	0	0	7	24-33	5
03:00	1	1	3	12	2	2	0	0	0	0	0	0	0	0	21	23-32	14
04:00	1	2	5	32	40	4	0	0	0	0	0	0	0	0	84	26-35	63
05:00	7	12	48	213	165	15	1	0	0	0	0	0	0	0	461	25-34	334
06:00	42	122	287	442	146	9	0	0	0	0	0	0	0	0	1048	22-31	626
07:00	132	295	386	240	26	3	0	0	0	0	0	0	0	0	1082	17-26	536
08:00	153	283	338	176	15	2	0	0	0	0	0	0	0	0	967	16-25	466
09:00	93	188	267	131	18	0	0	0	0	0	0	0	0	0	697	17-26	351
10:00	107	149	181	72	12	0	0	0	0	0	0	0	0	0	521	16-25	240
11:00	77	134	147	109	23	0	0	0	0	0	0	0	0	0	490	17-26	217
12 PM	146	146	170	63	6	0	0	0	0	0	0	0	0	0	531	15-24	226
13:00	94	124	190	92	14	0	0	0	0	0	0	0	0	0	514	17-26	239
14:00	54	133	208	78	15	1	0	0	0	0	0	0	0	0	489	17-26	264
15:00	126	140	125	59	13	1	0	0	0	0	0	0	0	0	464	11-20	198
16:00	159	131	83	28	4	0	0	0	0	0	0	0	0	0	405	7-16	199
17:00	179	85	76	37	4	0	0	0	0	0	0	0	0	0	381	6-15	196
18:00	122	53	78	48	14	0	0	0	0	0	0	0	0	0	315	5-14	141
19:00	44	66	107	121	25	2	0	0	0	0	0	0	0	0	365	21-30	178
20:00	28	28	54	83	32	9	0	0	0	0	0	0	0	0	234	22-31	112
21:00	14	42	61	46	15	2	0	0	0	0	0	0	0	0	180	19-28	89
22:00	4	8	26	46	15	0	0	0	0	0	0	0	0	0	99	23-32	63
23:00	1	5	9	15	9	3	0	0	0	0	0	0	0	0	42	24-33	22
Total	1586	2151	2868	2161	625	54	1	0	0	0	0	0	0	0	9446		
Percent	16.8%	22.8%	30.4%	22.9%	6.6%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	07:00	07:00	06:00	05:00	05:00	05:00									07:00	
Vol.	153	295	386	442	165	15	1									1082	
PM Peak	17:00	12:00	14:00	19:00	20:00	20:00										12:00	
Vol.	179	146	208	121	32	9										531	
Total	1586	2151	2868	2161	625	54	1	0	0	0	0	0	0	0	9446		
Percent	16.8%	22.8%	30.4%	22.9%	6.6%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 9 MPH
50th Percentile : 19 MPH
85th Percentile : 27 MPH
95th Percentile : 31 MPH

Stats
10 MPH Pace Speed : 19-28 MPH
Number in Pace : 4026
Percent in Pace : 42.6%
Number of Vehicles > 25 MPH : 2344
Percent of Vehicles > 25 MPH : 24.8%
Mean Speed(Average) : 19 MPH

Montachusett Regional Planning Commission

Community: Groton
Street: Main St (Rt. 119/225)
Location: N. of Lowell Rd (Rt. 40)
Functional Class: U-3

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 1152012463

Station ID:

Latitude: 0' 0.000 Undefined

North, South

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace Speed	Number in Pace
06/18/12	3	5	24	57	19	3	0	0	0	0	0	0	0	0	0	111	23-32	76
01:00	0	3	12	20	12	1	0	0	0	0	0	0	0	0	0	48	24-33	31
02:00	0	1	5	4	8	0	0	0	0	0	0	0	0	0	0	18	24-33	11
03:00	1	2	5	17	8	3	0	0	0	0	0	0	0	0	0	36	24-33	23
04:00	1	2	5	41	44	5	0	0	0	0	0	0	0	0	0	98	26-35	75
05:00	8	15	56	222	178	19	1	0	0	0	0	0	0	0	0	499	25-34	353
06:00	65	129	320	482	171	15	0	0	0	0	0	0	0	0	0	1182	22-31	685
07:00	178	310	418	317	69	6	0	0	0	0	0	0	0	0	0	1298	19-28	596
08:00	213	318	395	250	51	4	0	0	0	0	0	0	0	0	0	1231	17-26	546
09:00	145	224	381	261	54	2	0	0	0	0	0	0	0	0	0	1067	19-28	517
10:00	154	203	333	188	32	0	0	0	0	0	0	0	0	0	0	910	18-27	425
11:00	131	193	296	274	44	2	0	0	0	0	0	0	0	0	0	940	20-29	445
12 PM	205	245	357	189	16	1	0	0	0	0	0	0	0	0	0	1013	17-26	455
13:00	129	192	393	269	35	1	0	0	0	0	0	0	0	0	0	1019	19-28	528
14:00	110	213	429	246	35	3	0	0	0	0	0	0	0	0	0	1036	19-28	557
15:00	224	249	323	225	36	2	0	0	0	0	0	0	0	0	0	1059	18-27	437
16:00	356	373	347	117	12	1	0	0	0	0	0	0	0	0	0	1206	11-20	527
17:00	366	304	302	153	6	0	0	0	0	0	0	0	0	0	0	1131	7-16	487
18:00	227	205	399	335	32	1	0	0	0	0	0	0	0	0	0	1199	20-29	556
19:00	59	95	258	394	115	6	0	0	0	0	0	0	0	0	0	927	22-31	550
20:00	41	58	154	288	103	11	1	0	0	0	0	0	0	0	0	656	23-32	385
21:00	20	58	132	186	54	5	0	0	0	0	0	0	0	0	0	455	22-31	268
22:00	13	16	57	118	50	2	0	0	0	0	0	0	0	0	0	256	23-32	161
23:00	1	9	28	64	35	6	0	0	0	0	0	0	0	0	0	143	24-33	93
Total	2650	3422	5429	4717	1219	99	2	0	0	0	0	0	0	0	0	17538		
Percent	15.1%	19.5%	31.0%	26.9%	7.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	07:00	06:00	05:00	05:00	05:00										07:00	
Vol.	213	318	418	482	178	19	1										1298	
PM Peak	17:00	16:00	14:00	19:00	19:00	20:00	20:00										16:00	
Vol.	366	373	429	394	115	11	1										1206	
Total	2650	3422	5429	4717	1219	99	2	0	0	0	0	0	0	0	0	17538		
Percent	15.1%	19.5%	31.0%	26.9%	7.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
			15th Percentile :		9 MPH													
			50th Percentile :		20 MPH													
			85th Percentile :		28 MPH													
			95th Percentile :		31 MPH													

Stats
10 MPH Pace Speed : 20-29 MPH
Number in Pace : 7934
Percent in Pace : 45.2%
Number of Vehicles > 25 MPH : 5025
Percent of Vehicles > 25 MPH : 28.7%
Mean Speed(Average) : 20 MPH

Montachusett Regional Planning Commission

1427R Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton

Street: Main St (Rt. 119/225)

Location: S. of Lowell Rd (Rt. 40)

Functional Class: U-3

Site Code: 1152012442

Station ID:

North

Latitude: 0' 0.000 Undefined

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
06/18/12	0	0	1	7	10	2	0	0	0	0	0	0	0	0	20	27-36	15
01:00	0	0	0	6	4	3	0	0	0	0	0	0	0	0	13	27-36	9
02:00	1	0	0	1	3	6	0	0	0	0	0	0	0	0	11	32-41	8
03:00	0	0	0	4	9	4	2	0	0	0	0	0	0	0	19	27-36	13
04:00	2	0	0	8	30	12	3	1	0	0	0	0	0	0	56	29-38	39
05:00	23	0	3	23	81	34	3	0	0	0	0	0	0	0	167	29-38	100
06:00	46	1	5	45	139	31	4	1	0	0	0	0	0	0	272	28-37	157
07:00	40	1	10	105	182	30	6	0	0	0	0	0	0	1	375	27-36	241
08:00	27	2	18	114	203	37	2	0	0	0	1	0	0	0	404	27-36	276
09:00	26	0	22	117	205	38	2	0	0	0	0	0	0	0	410	27-36	281
10:00	35	3	26	178	223	27	3	3	1	0	0	0	0	0	499	26-35	339
11:00	39	1	16	146	227	37	1	0	0	0	0	0	0	0	467	27-36	317
12 PM	34	0	21	159	256	41	2	1	0	1	0	1	0	0	516	27-36	358
13:00	28	1	27	191	293	32	1	0	0	0	0	0	0	0	573	27-36	418
14:00	132	33	72	243	276	34	0	0	0	0	0	0	1	0	791	26-35	407
15:00	161	51	118	347	263	14	0	0	0	0	0	0	0	0	954	25-34	484
16:00	195	76	71	355	280	18	0	0	0	0	0	0	0	0	995	25-34	478
17:00	29	1	21	319	400	42	2	1	0	0	0	0	0	0	815	26-35	622
18:00	15	1	5	136	262	35	0	0	0	0	0	0	0	1	455	27-36	354
19:00	8	0	8	122	172	32	1	0	0	0	0	0	0	0	343	27-36	261
20:00	9	0	5	74	103	12	4	0	0	0	0	0	0	0	207	27-36	153
21:00	0	0	0	30	47	21	2	0	0	0	0	0	0	1	101	28-37	73
22:00	1	0	4	29	47	7	1	0	0	0	0	0	0	0	89	27-36	68
23:00	2	0	2	21	23	1	0	0	0	0	0	0	0	0	49	26-35	38
Total	853	171	455	2780	3738	550	39	7	1	1	1	1	1	3	8601		
Percent	9.9%	2.0%	5.3%	32.3%	43.5%	6.4%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	10:00	10:00	10:00	11:00	09:00	07:00	10:00	10:00		08:00			07:00	10:00		
Vol.	46	3	26	178	227	38	6	3	1		1			1	499		
PM Peak	16:00	16:00	15:00	16:00	17:00	17:00	20:00	12:00		12:00		12:00	14:00	18:00	16:00		
Vol.	195	76	118	355	400	42	4	1		1		1	1	1	995		
Total	853	171	455	2780	3738	550	39	7	1	1	1	1	1	3	8601		
Percent	9.9%	2.0%	5.3%	32.3%	43.5%	6.4%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 12 MPH
50th Percentile : 29 MPH
85th Percentile : 34 MPH
95th Percentile : 36 MPH

Stats 10 MPH Pace Speed : 26-35 MPH
Number in Pace : 5377
Percent in Pace : 62.5%
Number of Vehicles > 30 MPH : 3878
Percent of Vehicles > 30 MPH : 45.1%
Mean Speed(Average) : 27 MPH

Montachusett Regional Planning Commission

1427R Water Street

Fitchburg, MA 01420

Tel: (978) 345-7376 Email: mrpc@mrpc.org

Community: Groton

Street: Main St (Rt. 119/225)

Location: S. of Lowell Rd (Rt. 40)

Functional Class: U-3

Site Code: 1152012442

Station ID:

South

Latitude: 0' 0.000 Undefined

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace Speed	Number in Pace
06/18/12	0	0	0	2	5	3	0	0	0	0	0	0	0	0	0	10	29-38	8
01:00	0	0	0	1	6	3	1	0	0	0	0	0	0	0	0	11	31-40	8
02:00	0	0	0	6	7	13	0	0	0	0	0	0	0	0	0	26	32-41	18
03:00	0	0	0	3	58	59	6	0	0	0	0	0	0	0	0	126	31-40	104
04:00	5	0	1	31	330	249	12	2	0	0	0	0	0	0	0	630	31-40	511
05:00	18	1	4	90	675	259	10	0	0	0	0	0	0	0	0	1057	30-39	855
06:00	34	0	6	263	572	100	5	0	0	0	0	0	0	0	0	980	27-36	752
07:00	31	0	10	209	450	89	3	0	0	0	0	0	0	0	0	792	27-36	594
08:00	25	0	15	158	278	55	4	0	0	0	0	0	0	0	0	535	27-36	386
09:00	18	2	14	197	193	21	1	0	0	0	0	0	0	0	0	446	26-35	336
10:00	40	2	12	168	186	35	0	1	0	0	0	0	0	0	0	444	26-35	295
11:00	25	1	27	167	197	30	0	0	0	0	0	0	0	0	0	447	26-35	313
12 PM	24	0	20	176	187	23	0	0	0	0	0	0	0	0	0	430	26-35	311
13:00	25	0	8	145	226	21	2	0	0	0	0	0	0	0	0	427	27-36	318
14:00	44	0	26	157	175	20	0	1	0	0	0	0	0	0	0	423	26-35	275
15:00	39	0	13	129	188	28	1	0	0	0	0	0	0	0	0	398	27-36	265
16:00	57	2	14	82	130	39	1	0	0	0	0	0	0	0	0	325	27-36	172
17:00	20	2	2	47	138	56	5	0	0	0	0	0	0	0	0	270	29-38	179
18:00	17	0	3	44	152	38	3	1	2	0	0	0	0	0	0	260	28-37	184
19:00	9	0	2	33	88	42	6	0	0	0	0	0	0	0	0	180	29-38	122
20:00	2	1	3	29	48	33	3	0	0	0	0	0	0	0	0	119	29-38	78
21:00	1	0	0	7	38	13	2	0	0	0	0	0	0	0	0	61	29-38	48
22:00	1	0	0	5	15	8	0	1	0	0	0	0	0	0	0	30	30-39	21
23:00	0	0	0	2	8	3	2	0	0	0	0	0	0	0	0	15	29-38	11
Total	435	11	180	2151	4350	1240	67	6	2	0	0	0	0	0	0	8442		
Percent	5.2%	0.1%	2.1%	25.5%	51.5%	14.7%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	09:00	11:00	06:00	05:00	05:00	04:00	04:00									05:00	
Vol.	40	2	27	263	675	259	12	2									1057	
PM Peak	16:00	16:00	14:00	12:00	13:00	17:00	19:00	14:00	18:00								12:00	
Vol.	57	2	26	176	226	56	6	1	2								430	
Total	435	11	180	2151	4350	1240	67	6	2	0	0	0	0	0	0	8442		
Percent	5.2%	0.1%	2.1%	25.5%	51.5%	14.7%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 25 MPH
50th Percentile : 31 MPH
85th Percentile : 35 MPH
95th Percentile : 38 MPH

Stats 10 MPH Pace Speed : 28-37 MPH
Number in Pace : 5890
Percent in Pace : 69.8%
Number of Vehicles > 30 MPH : 5184
Percent of Vehicles > 30 MPH : 61.4%
Mean Speed(Average) : 30 MPH

Montachusett Regional Planning Commission

Community: Groton
Street: Main St (Rt. 119/225)
Location: S. of Lowell Rd (Rt. 40)
Functional Class: U-3

1427R Water Street
Fitchburg, MA 01420
Tel: (978) 345-7376 Email: mrpc@mrpc.org

Site Code: 1152012442

Station ID:

North, South

Latitude: 0' 0.000 Undefined

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
06/18/12	0	0	1	9	15	5	0	0	0	0	0	0	0	0	30	28-37	22
01:00	0	0	0	7	10	6	1	0	0	0	0	0	0	0	24	28-37	17
02:00	1	0	0	7	10	19	0	0	0	0	0	0	0	0	37	31-40	26
03:00	0	0	0	7	67	63	8	0	0	0	0	0	0	0	145	31-40	116
04:00	7	0	1	39	360	261	15	3	0	0	0	0	0	0	686	30-39	549
05:00	41	1	7	113	756	293	13	0	0	0	0	0	0	0	1224	29-38	951
06:00	80	1	11	308	711	131	9	1	0	0	0	0	0	0	1252	27-36	902
07:00	71	1	20	314	632	119	9	0	0	0	0	0	0	1	1167	27-36	834
08:00	52	2	33	272	481	92	6	0	0	0	1	0	0	0	939	27-36	662
09:00	44	2	36	314	398	59	3	0	0	0	0	0	0	0	856	26-35	612
10:00	75	5	38	346	409	62	3	4	1	0	0	0	0	0	943	26-35	634
11:00	64	2	43	313	424	67	1	0	0	0	0	0	0	0	914	27-36	627
12 PM	58	0	41	335	443	64	2	1	0	1	0	1	0	0	946	26-35	665
13:00	53	1	35	336	519	53	3	0	0	0	0	0	0	0	1000	27-36	736
14:00	176	33	98	400	451	54	0	1	0	0	0	0	1	0	1214	26-35	679
15:00	200	51	131	476	451	42	1	0	0	0	0	0	0	0	1352	26-35	736
16:00	252	78	85	437	410	57	1	0	0	0	0	0	0	0	1320	26-35	645
17:00	49	3	23	366	538	98	7	1	0	0	0	0	0	0	1085	27-36	789
18:00	32	1	8	180	414	73	3	1	2	0	0	0	0	1	715	27-36	533
19:00	17	0	10	155	260	74	7	0	0	0	0	0	0	0	523	27-36	376
20:00	11	1	8	103	151	45	7	0	0	0	0	0	0	0	326	27-36	228
21:00	1	0	0	37	85	34	4	0	0	0	0	0	0	1	162	28-37	120
22:00	2	0	4	34	62	15	1	1	0	0	0	0	0	0	119	27-36	88
23:00	2	0	2	23	31	4	2	0	0	0	0	0	0	0	64	27-36	47
Total	1288	182	635	4931	8088	1790	106	13	3	1	1	1	1	3	17043		
Percent	7.6%	1.1%	3.7%	28.9%	47.5%	10.5%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	10:00	11:00	10:00	05:00	05:00	04:00	10:00	10:00		08:00			07:00	06:00		
Vol.	80	5	43	346	756	293	15	4	1		1			1	1252		
PM Peak	16:00	16:00	15:00	15:00	17:00	17:00	17:00	12:00	18:00	12:00		12:00	14:00	18:00	15:00		
Vol.	252	78	131	476	538	98	7	1	2	1		1	1	1	1352		
Total	1288	182	635	4931	8088	1790	106	13	3	1	1	1	1	3	17043		
Percent	7.6%	1.1%	3.7%	28.9%	47.5%	10.5%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 20 MPH
50th Percentile : 30 MPH
85th Percentile : 34 MPH
95th Percentile : 37 MPH

Stats
10 MPH Pace Speed : 27-36 MPH
Number in Pace : 11228
Percent in Pace : 65.9%
Number of Vehicles > 30 MPH : 9031
Percent of Vehicles > 30 MPH : 53.0%
Mean Speed(Average) : 29 MPH