
4 Summary of Transportation Issues

4.1 Summary of Equivalent Plan Status

The Transportation Element is a required component of all Community Development Plans for cities and towns. This requirements was fulfilled by Hudson when the Department of Housing and Community Development granted the town of Hudson “Equivalent Plan Status” for two existing, multi-town transportation plans:

- Assabet River Rail trail Implementation Plan. EarthTech. June 2001. Including the communities of Marlborough, Hudson, Stow, Maynard, and Acton
- MAGIC Subregional Area Study, Phase I Report: Current Conditions and Proposed Additional Studies. Central Transportation Planning (CTPS) Staff of the Boston Metropolitan Planning Organization. Including the communities of the MAGIC subregion of MAPC.

This Transportation section incorporates the findings of the “equivalent plans” noted above. It also incorporates some traffic information newly made available in the 2000 U.S. Census. As a result, the recommendations of each of the plans is incorporated into the body of this section with much of the detail provided in those plans. The final list of recommendations offered at the end of this section consolidates these recommendations into one list, but does not repeat the detail provided in the existing “Equivalent Plans.”

The MAGIC Subregional Area Study was undertaken in 2000 in response to requests from the MAGIC Advisory Group to update and summarize information about current development activity in the area and to identify perceived needs of local officials and the MAGIC group for transportation improvements and studies. The results from the Phase I study are integrated below. In addition, information provided in a recent memorandum from CTPS to the MAGIC Advisory Committee identifying road segments in the Region that are subject to high levels of congestion has also been integrated below. Finally, information from the 2000 U.S. Census regarding workplace location data recently became available and this has been integrated into this summary also. Using these resources, a useful summary of current transportation resources and congestion problems have been identified.

Recommendations for roadway improvements and current projects now underway have been obtained from the Hudson Department of Public Works. Only those projects that relieve congestion, improve dangerous road segments, or contribute to increased capacity have been included. The relevance of these proposed improvements to the other sections of this Community Development Plan - housing, economic development, or resource protection – are highlighted.

This section summarizes the key conclusions of the MAGIC study and recommendations of these two “equivalent plans” as they pertain primarily to economic development, but also to housing, and open space/natural resources if significant.

The following constitutes a summary list of key conclusions from the MAGIC study:

1. Housing costs and restrictions on growth constrain residential growth in the region

2. Industrial growth is occurring at a rapid pace on greenfields, particularly in the immediate I-495 corridor. New employees in these facilities tend to seek housing in communities west of I-495 rather than in MAGIC communities.
3. If not restrained, industrial growth will contribute substantial additional traffic volumes to local roadways that do not have the capacity to serve this higher volume and will be congested. The best option for reducing congestion in these locations is car and van-pooling.
4. The portion of the MAGIC region bordering I-95 is served by a variety of shuttles and local buses, many of which are funded by municipalities and employers. The potential for expansion of such services west in the MAGIC region to higher income and higher home-ownership communities is limited. This is especially the case in the low density communities in the western part of the MAGIC region.
5. The only reasonable long-term support for shuttle or paratransit services are large scale employers (more than 500 employees). The greatest needs of these employers are to relieve parking shortages and recruit clerical or maintenance staff. CTPS could provide assistance in developing and evaluating routes and schedules.
6. There are some opportunities for park and ride options
7. Improvements to bike paths, particularly the Assabet River Rail Trail and the Wayside Trail, can enhance commuting by bicycle.
8. The MBTA commuter rail service suffers from parking constraints and too few outbound trains delivering reverse commuters to MAGIC region employers.
9. Few roadways were identified where the addition or enhancement of capacity was a desired measure to reduce congestion. The Route 2A corridor was identified for some improvements.

This study identified the fact that local communities have primary control of development within their borders, they can allow increasing congestion without any planning controls. Communities can and do require mitigation of traffic impact through site plan review, but too often these negotiations are forgotten once the facility is built. The MAGIC study suggests that actual limitations be used for the size, location, allowed access, and numbers of parking spaces.

4.2 Existing Transit Services

Little in the way of transit services are available in Hudson. Hudson has two entrances onto I-495, and is the start of I-290 that provides direct highway access from Hudson to the City of Worcester and the MassPike. The closest commuter rail station is the Southborough Station on the Worcester line, a ride of about X minutes. Parking at this station is XXX. Hudson is also about 15 minutes from the South Acton Station on the Fitchburg line. This parking lot is always overcrowded and flows over to several other informal parking lots in the area.

Despite the number of very large employers in Hudson and Marlborough, there is no employer-provided transportation and no Transportation Management Agency (TMA) exists to coordinate the provision of transportation services among several employers.

- Commuter Bus – The Gulbankian Bus Company provides an a bus from Hudson, through Marlborough, Southborough, and Framingham, to five stops in downtown Boston.. There are 4 round-trips each way/day, with a daily average ridership of 124. This service is subsidized through the MBTA Inter-District Transportation Service Program.

- Park and Ride Lot, Route 62 and I-495 – This lot is located on Rt. 62 just west of I-495. This lot contains approximately 40 spaces and is generally not full during the work week.

4.3 Workplace Locations for Hudson Residents and Employees of Hudson Businesses

The 2000 U.S. Census provides us with a snapshot of where residents of Hudson travel to work and where employees in Hudson facilities travel from to work in Hudson. This information is important in anticipating possible new congestion and in identifying where alternative transportation and shuttle service might be of value.

Table T-1: Location of Employment of Hudson Residents, 1990 and 2000

1990			2000		
Workplace	No. of Residents	% of Residents	Workplace	No. of Residents	% of Residents
Hudson	2,893	30.1%	Hudson	2,584	26.1%
Marlborough	1,380	14.4%	Marlborough	1,591	16.1%
Framingham	379	4.0%	Framingham	550	5.6%
Sudbury	228	2.4%	Sudbury	315	3.2%
Waltham	293	3.1%	Waltham	271	2.7%
Worcester	220	2.3%	Worcester	232	2.4%
Westborough	267	2.8%	Westborough	225	2.3%
Boston	271	2.8%	Boston	186	1.9%
			Concord	182	1.8%
			Natick	172	1.7%
Wayland	263	2.7%			
Maynard	188	2.0%			
Total in MAPC Region	8,243	85.9%		8,095	81.9%

Source: 2000 U.S. Census, MAPC produced these tables

Table T-1 summarizes several key changes in the location of work of Hudson residents between 1990 and 2000. It appears that employment of Hudson residents in Hudson has dropped by about 309 workers while those working in Marlborough has increased by 211. By 2000, employment in Hudson and Marlborough accounted for 42.2% of employed Hudson residents. This shift suggests the possibility of developing shuttle service from locations in Hudson to locations in Marlborough. This may be particularly appropriate since roads accessing Marlborough from Hudson are shown to be one of the most congested in the region, as will be shown later in Section 4.4.

Table T-2: Location of Residence of Employees Working in Hudson

1990			2000		
Location of Residence	No. of Residents	% of Employees	Location of Residence	No. of Residents	% of Employees
Hudson	2,893	30.9%	Hudson	2,584	30.3%
Marlborough	1,146	12.2%	Marlborough	771	9.0%
Worcester	414	4.4%	Worcester	559	6.6%
Clinton	241	2.6%	Clinton	196	2.3%
Leominster	201	2.2%	Leominster	167	2.0%
Framingham	271	2.9%	Framingham	163	1.9%
			Shrewsbury	162	1.9%
			Lowell	144	1.7%
Northborough	164	1.8%	Northborough	139	1.6%
			Stow	136	1.6%
Maynard	164	1.8%			
Total from MAPC Region	5,591	64.0%		5,148	60.4%

Source: 2000 U.S. Census, MAPC produced these tables

Table T-2 describes the location of residence of people working in Hudson businesses. The number of Hudson residents working in Town, has declined as described earlier. Marlborough is still the community outside of Hudson that contributes the highest proportion of workers to Hudson businesses. Framingham is also a big contributor. The number of employees from Leominster has dropped considerably, from 247 to 94 by 2000.

These tables and accompanying map Figure T-1 suggest that commuting patterns have shifted to some extent with fewer residents traveling to Boston and Maynard for work, and an increase in those working in nearby communities but having to travel on the Rt. 85 corridor. The decline in employees coming from closely surrounding communities to work in Hudson has been made up by employees coming from greater distances outside the MAPC Region – an increase of 443.

4.4 Alternative Transportation

Hudson residents have little access to commuter rail and shuttle services to reach their work locations. Hudson is located directly on I-495 giving auto travel a distinct advantage. According to the CTPS study, 83% of Hudson residents traveling to work get there by driving alone, while 12% carpool. The remaining 5% of residents either walk to work or work at home. As a result, the development of some type of alternative transportation could make a large contribution to reducing dependence on automobiles if it serves the locations with the greatest demand.

Hudson, having a compact downtown, is well-served with sidewalks on many streets in the community. With large residential projects near the downtown now in the planning and development stages, it is important for the community to assure that there are sidewalks and direct pathways connecting and integrating those new projects with the downtown area.

The Assabet River Rail Trail (ARRT) has been in the planning and development stages of each of the five communities in which it is to be located. The Assabet River Rail trail Implementation

Plan was one of the multi-town plans that provided Hudson with equivalent plan status for the purposes of this Community Development Plan Transportation element. The ARRT is planned to run from Marlborough Center to the South Acton Commuter Rail station. This trail will connect three community retail centers with each other and with a commuter rail station. Further, the ARRT will provide immediate or close-by access to a large number of major employers, including Marlborough Hospital (620 employees), Lucent Technologies (3,000+ employees), Intel (over 1000 employees), International Corporate Park (@1,000 employees), Clock Tower Place (@2,500 employees), Sea Change International (@200 employees), and The Beacon Building (@60 employees). It also provides a link to several sizable schools including the Assabet Regional Vocational High School, the Hudson Catholic High School, the Mulready Grammar School. Along the trail are also a few well used soccer and multi-sport fields. Since the ARRT will also pass through residential centers, it can well provide alternative, very pleasant transportation options to the work place, to schools, and to retail areas for a number of local residents. This could subsequently relieve congestion at several locations.

This Implementation Plan identified projected costs to design and develop all segments of the ARRT through the five communities, and projected a schedule for the development of each trail segment. Hudson Town staff have taken the lead on applying for and managing grants to develop the ARRT. During the winter of 2003, Mass Highway awarded a construction contract for much of the trail in Marlborough and Hudson. This construction is underway during 2004. Work remaining to be undertaken in Hudson includes acquisition of one additional parcel of land for the right-of-way and design and construction of the ARRT in that northeast portion of Hudson.

The Mass. Central Rail Trail (formerly called the Wayside Trail) is also being planned for a portion of the Mass. Central right-of-way through Hudson, endorsed by Hudson and all other towns except for Weston. This project is still pending review from the state regarding additional uses for this right-of-way. This rail road corridor is a highly significant statewide corridor that runs East-West from Waltham out to 495 and beyond. Some State officials consider it to be a viable future commuter rail (or other form of transit) corridor but one that would not likely be reactivated for another 25-50 years. The Mass. Central Branch passes through the heart of Hudson running its entire length and also intersects with the Assabet River Rail Trail at the location where a 25 car parking lot is being constructed to accommodate ARRT users. Hudson residents acknowledge the lack of public transportation and the potential use of this rail road corridor for future commuting purposes. Certainly a means to connect Hudson with the MBTA systems in Waltham just outside of Boston would be entirely desirable. It remains to be seen whether this corridor will be developed as a rail trail or for some other transit use such as a commuter rail or dedicated bus line.

4.5 Identified Congestion Sites and Suggested Improvement Projects

Hudson has been identified as having one of the areas in the MAGIC region with the highest concentration of employment. This area is characterized as “the Hudson industrial areas east of Route 85 and into downtown Hudson”.

Hudson has two areas within Hudson that are described in a Memorandum from the Central Transportation Planning Staff to MAPC Subregional Group Members regarding Transportation

System Performance and dated November 13, 2003. This memorandum identifies road segments that were studied and identified as being the most congested continuous route segments. These locations include Rt. 62 and Rt. 85 in Hudson. The most delayed intersection in Hudson is Route 62 at Broad and Manning St. This intersection shows a delay of 93 seconds at the morning commute and 176 seconds (almost 3 minutes) at the evening traffic peak. For the evening peak period, the Hudson St./Technology Drive intersection (Rt. 85) also is listed as having an average delay of 80 seconds.

The November 13, 2003 memorandum from the CTPS Staff does not include any projects or planning studies for Hudson that are listed as being supported by the Congestion Management System findings. The FY 2004-2008 Transportation Improvement Program does list several projects in Hudson either under construction or slated for development. These include:

- Reed Road – Reconstruction of 1,800 feet of Reed Rd, including the intersection of Marlborough St. at Forest Ave plus extension of Cherry St. 500 ft. to Rt. 62 (Main St.) This PWED project is currently under construction
- Washington Street – Widen Washington Street from Brigham St. to Rt. 290 Connector

Recent transportation improvements projects that have already been constructed or advertised through the Transportation Improvement Project (TIP) list are:

- Chapin Road Bridge
- Reconstruct/resurface Central St. Hudson from Coolidge St. to Main St, and Main St. to Wilkins St.
- Broad St. Bridge is presently under construction

Projects programmed on the current TIP include:

- Assabet River Rail Trail – from Marlborough line to Wilkins St.
- Reconstruct Main St. from Chestnut St. to the Stow town line – under construction

MAPC has developed a list of projects for the TIP that may impact the communities of the MAGIC subregion. The draft of this list issued on April 9, 2003 include the following projects for Hudson:

- Replace the Cox St. Bridge over the Assabet River
- Replace the Route 62, Main Street Bridge over the Assabet River
- Replace the Houghton St. Bridge

The Town of Hudson Public Works Department has also developed a list of roadway improvement projects they would like to see addressed during the next five years. These include:

- 2004 - Reconstruction of Stratton Hill
- 2005 – Reconstruction of Grove St. Area, Stratton Hill
- 2006 – Forest Ave./Old North Rd. and other local roads
- 2007 – Houghton/School Streets, Manning Street
- 2008 – Cottage-Wilson Streets, Packard Street
- 2009 – Apsley Street, various local roads

There are a number of additional transportation projects that have been identified through various local planning efforts of the Town. These projects include the following:

- Route 85, Washington Street widening from the I-290 Connector Road to Brigham Street

- South Street overhead utility submergion and roadway upgrade with streetscapes
- Downtown rotary traffic improvements
- Brigham Street alignment
- Development of the MassCentral Railroad line as either a rail trail or for transit service over the long term

These projects along with several others were discussed at the CD Plan Visioning sessions and were noted on the following transportation map:

Transportation Map

4.6 Action Items

T-1 Initiate or Continue Progress on Non-Automobile Transportation Options

T1.1 Complete construction of the portion of the Assabet River Rail Trail that is now under construction. Acquire the remaining right-of-way, and undertake design and construction of this new portion of the ARRT.

T1.2 Continue progress on the development of the Wayside Trail based on decisions by the Commonwealth regarding other competing uses for the right-of-way

T 1.3 Work with major employees in the Hudson/Marlborough area to develop shuttle service that will serve employers and populations centers and reduce traffic at key intersections, particularly the poorly rated Technology Drive, Rt. 85 intersection, and to connect populations centers to near-by MBTA commuter rail stations.

T-2 Evaluate and/or Develop Key Traffic Improvements

T 2.1 Undertake key road improvement projects identified by the Hudson Department of Public Works - 2004 - Reconstruction of Stratton Hill; 2005 – Reconstruction of Grove St. Area, Stratton Hill; 2006 – Forest Ave./Old North Rd. and other local roads; 2007 – Houghton/School Streets, Manning Street; 2008 – Cottage-Wilson Streets, Packard Street; 2009 – Apsley Street, various local roads

T 2.2 Undertake key road improvement projects already listed on the Transportation Improvement Plan (TIP) - Washington Street – Widen Washington Street from Brigham St. to Rt. 290 Connector; Improvements to the Chapin Rd. Bridge; Replace the Cox St. Bridge/ Replace the Route 62 Bridge over the Assabet River.

T-3 Explore and Implement Rezoning to Contribute to Roadway Improvements and Functioning

T-3.1 Consider suitability of zoning along Route 62 west of Hudson downtown to prevent strip development into the downtown, to organize business uses of this critical entry to the downtown, and to preserve and enhance the appearance of this entry.

T 3.2 Strengthen Site Plan Review portion of the Hudson Zoning Bylaws as a tool to assure that business development in Hudson is attractive and functional, with buffers and landscaping to enhance the appearance and functioning of commercially-zoned roadways.