

2. SERVICE AREA

Communities to Be Served

The map on page 4 depicts the service area of a Central Mass. extension. The reasons for defining the service area as shown are set forth below.

On most existing MBTA commuter rail lines, the primary service area consists of cities and towns directly on the line, followed by towns directly adjoining these. In addition, the outermost station on a line often attracts riders from greater distances than the intermediate stations. A Central Mass. commuter rail line would have a much smaller service area than would be expected under these guidelines, however.

A Central Mass. rail extension would branch from the existing Fitchburg commuter rail line in Waltham or Weston and extend through the towns of Wayland, Sudbury, Hudson, and Bolton to Route I-495 in Berlin. Waltham is currently served by two stations on the Fitchburg commuter rail line (Brandeis/Roberts and Waltham). Weston has three stations on the Fitchburg Line (Kendal Green, Hastings, and Silver Hill). Wellesley Farms Station on the Framingham/Worcester Line is less than half a mile from the border of Weston. A new station on the Framingham/Worcester Line in Weston near the Mass. Turnpike/Route 128 interchange is under design. Therefore, Central Mass. stations in either Weston or Waltham would attract few, if any, new commuter rail riders.

None of the five other towns along the Central Mass. route have direct rail passenger service, but Wayland adjoins three other towns with stations and Sudbury adjoins two. Towns adjoining those directly on the Central Mass. route to the north are Lincoln, Concord, and Acton, which all have stations on the Fitchburg Line, and Maynard and Stow which have no direct rail service. Adjoining communities to the south are Wellesley, Natick, and Framingham, which all have stations on the Framingham/Worcester Line, and Marlborough and Northborough which currently have no rail passenger service. Adjoining towns to the west are Clinton and Boylston, neither of which has rail passenger service.

Central Mass. trains would operate into Boston over the Fitchburg Line and terminate at the same station. The most likely station sites on the Central Mass. (discussed in chapter 3) would have less convenient access than existing Fitchburg Line stations for residents of Lincoln, Concord, Acton, or Maynard. Therefore, ridership attracted to the Central Mass. from any of these towns would be insignificant. Residents from sections of Stow south of the town center would have shorter access to a Central Mass. station in Hudson than to present Fitchburg Line Stations, so that portion of the town is included in the Central Mass. service area.

Central Mass. service would give residents of towns to the south of its alignment a new option of riding to North Station or Porter Square instead of Back Bay or South Station. Even on existing North Side lines, however, survey results show that the majority of riders have destinations at least as close to Back Bay or South Station as to North Station. For purposes of analysis, it is assumed that the number of Wellesley, Natick, or Framingham residents who would choose to use the Central Mass. rather than the Framingham/Worcester Line would be offset by Sudbury and Wayland residents who would be expected to divert to the Central Mass. but would actually continue to use the Framingham/Worcester line.

Of the other two communities to the south, Marlborough would be best served by a Central Mass. extension, but Northborough would be better served by the planned new station in Westborough on the Framingham/Worcester Line. To the west, Clinton and Boylston would be in the Central Mass. service area, but towns further to the west would not have good access to Central Mass. stations and also generate few trips to Boston or Cambridge. Therefore, ridership from beyond Boylston or Clinton would be insignificant.

Existing Transportation Services

Present Railroad Facilities In Study Area

A Central Mass. commuter rail extension would use the right-of-way of the former Boston & Maine Railroad Central Mass. Branch. This line is currently inactive, but is owned by the MBTA. Passenger train service on the Central Mass. line was last operated in 1971. Freight service was officially discontinued between Waltham and Berlin in 1980, but had not been run between Hudson and Berlin since 1975.¹

Two towns on the Central Mass. route, Sudbury and Berlin, are also on active rail lines now used only for freight service. These lines connect with the Framingham/Worcester commuter rail line at Framingham station. Passenger service on both lines was last operated in the 1930s. (The current owner and operator of the lines, Conrail, has announced plans to sell them to RailTex, an independent operator of regional rail systems.) Use of either or both of these lines as alternatives to service on the Central Mass. route would be technically feasible, but a detailed analysis of such service is outside the scope of this study.

Present Highway Facilities Serving Study Area

A Central Mass. extension would be used predominantly for travel from communities in its corridor to Boston or Cambridge. Such travel is on a west-east

¹Freight service on the 1.5 miles of the Central Mass. nearest the old junction with the Fitchburg Line in Waltham was operated until 1994.

orientation. Of the towns that would have stations on the extension, only Weston is served directly by a west-east limited-access highway. Mass. Turnpike Exit 14 is located in the southeast corner of the town. The Turnpike also passes through the southern edge of Wayland, but the nearest access point is Exit 13 in Framingham, at the Natick town line.

The primary west-east highway for Sudbury, Wayland, and much of Weston is U.S. Route 20. This is an undivided, mostly two-lane road with unlimited access and several traffic lights. Route 20 connects in Waltham with Route 128. Traffic for Boston and Cambridge from Route 20 can continue either south on Route 128 to the Mass. Turnpike or north to Route 2. State Route 30, another two-lane undivided road, provides an alternative to Route 20 from points in the southern edge of Wayland and Weston. It connects with the Mass. Turnpike and with Route 128 in Weston.

Hudson and Berlin both have very indirect highway access to Boston and Cambridge. Route I-495, which runs along the border between Hudson and Berlin, has a north-south orientation, but connects with Routes 2, 20, 9 and the Mass. Turnpike for west-east travel. It is also possible to reach these highways over a variety of local roads and secondary state highways.

Traffic on Route 20 was examined by CTPS in studies published in 1988 and 1991.² Travel time runs conducted for the 1988 study found that speeds on all segments of Route 20 between Marlborough and Route 128 averaged less than 40 m.p.h.. for eastbound A.M. peak and westbound P.M. peak traffic. The eastbound A.M. peak speed averaged 38 m.p.h. in Sudbury and 35 m.p.h. in Wayland, but only 24 m.p.h. in Weston. (Informal reports indicate that average speeds have decreased slightly since 1988, but comparable timing run data are not available.)

Timing runs on Route 128 and the Mass. Pike were conducted by CTPS in 1995. Combining the results of these with the 1988 results for Route 20, total driving times to the South Station exit of the Turnpike in the peak 30 minutes would be about 36 minutes from South Sudbury, 30 from Wayland Center, and 22 from Weston Center. Times to Copley Square, including egress from the Turnpike, would be about two minutes longer than these. (Several alternate routes from these towns to the Turnpike over local streets can be taken, but none would have significantly faster travel times than these.) Present scheduled times for bus service to Boston on this combination of routes allow 6-8 minutes longer than the driving times calculated above.

²CTPS Route 20 Corridor Planning Study: Short Range Element. 1988.
CTPS Route 20 Corridor Planning Study: Long-Range Element. 1991.

Present Public Transportation Serving the Study Area

Commuter Rail

Of the towns on the Central Mass. Line, only Weston is currently served directly by other commuter rail lines. (These are discussed in greater detail in the first section of this chapter). Commuter rail riders from other communities in the Central Mass. service area currently use stations on the Fitchburg or Framingham/Worcester lines. The Fitchburg Line runs through towns to the north at distances ranging from one to ten miles from the Central Mass. route. The Framingham/Worcester line runs through towns to the south, at distances of three to ten miles from the Central Mass. A station in Weston on this line near Mass. Pike Exit 14 is under design. There are currently no intermediate stops between Framingham and downtown Worcester but locations for additional stations in Ashland, Southborough, Westborough, Grafton and the east side of Worcester are now being finalized. The service areas of most of these would overlap that of the outer end of a Central Mass. extension.

According to expanded 1993 survey results, 358 inbound commuter rail trips originated in one of the nine cities and towns in the Central Mass. service area on a typical weekday. Of these, 222 used the Fitchburg Line and 136 used the Framingham/Worcester Line. Origins by city or town are shown in Table 2-1.³

Other MBTA Service

No MBTA service other than commuter rail is operated directly in any towns in the Central Mass. corridor. Survey results show that corridor residents make use of MBTA services at several other locations, however.

The MBTA Riverside terminal in Newton is near the Grove Street exit from Route 128, about three miles south of the interchange between Routes 20 and 128. At Riverside, all-day light rail service to Boston at intervals of 5 to 10 minutes is provided by the Green Line. During peak hours, MBTA bus Route 500⁴ runs between Riverside and the Boston financial district via the Mass. Turnpike. Headways range from 10 to 30 minutes.

Some residents of towns in the Central Mass. corridor use MBTA express bus Route 505 (Waltham-Downtown Boston) by driving to West Newton or Waltham and parking there. Others use the Red Line, mainly by driving to Alewife Station via Route 2.

³Service on the Framingham Line was extended to Worcester in September 1994. Boardings at Worcester are based on a survey conducted in February 1995.

⁴MBTA bus Routes 300 and 305 were re-numbered 500 and 505 in September 1996.

Recent survey results indicate that about 180 residents of the Central Mass. service area use the Red or Green lines and about 120 use MBTA express buses on a typical weekday. Added to the commuter rail ridership, this makes about 655 weekday MBTA trips in each direction by Central Mass. service area residents.

Table 2-1
Weekday Inbound Ridership at Present Commuter Rail Stations for Trips
Originating in Central Mass. Service Area

Boarding Sta.	Origin								Total	
	Wayland	Sudbury	Hudson	Bolton	Berlin	Stow	Marlboro	Clinton		Boylston
<i>Fitchburg Line</i>										
Littleton/495					2			1		3
So. Acton		4	16	16		25	2	14		77
W. Concord		3	2					5		10
Lincoln	10	67	3				9			89
Kendal Green	22	7								29
Brandeis				3						3
Waltham							11			11
Subtotal	32	81	21	21	0	25	22	20	0	222
<i>Framingham Line</i>										
Worcester								2	1	3
Framingham		2	4				37		2	45
West Natick	1	5					5			11
Natick	23									23
Wellesley	9						3			12
Wellesley Hills		2								2
Wells. Farms	7	3								10
Auburndale	27	3								30
Subtotal	67	15	4	0	0	0	45	2	3	136
Total	99	96	25	21	0	25	67	22	3	358

Note: Origins From Stow above include only those from south of the town center

Private-Carrier Express Bus Service

Two private companies operate express bus routes to downtown Boston from towns directly on the Central Mass. line, but neither route has frequent service. The Post Road Line, currently operated by Cavalier Coach Corp., runs from Northborough to Boston, serving stops on Route 20 in Marlborough, Sudbury, Wayland and Weston. There is one inbound A.M. peak trip and one outbound P.M. peak trip on weekdays only, and no off-peak trips. Funding for this route is provided by the MBTA/EOTC Interdistrict Transportation Service Program (IDTS). In 1993, ridership averaged 27 passengers each way per day for the entire Post Road route. Current counts for individual boarding locations are not available, but based on old survey results Marlborough and Sudbury would each account for about eight riders and Wayland for about six.

The other express bus route in the Central Mass. corridor, operated by Gulbankian Bus Lines, runs from Hudson to Boston, with intermediate stops in Marlborough, Southborough and Framingham. Of these, only Hudson is directly on the Central Mass. line., but Marlborough would also be in the Central Mass. service area. This route is unsubsidized. There are three trips per day in each direction, including one inbound in the A.M. peak and one outbound in the P.M. peak. Ridership on the inbound A.M. peak trip averages about 30-35 passengers per day. Of these about five board in Hudson, 10-15 in Marlborough, and 15 in Southborough. (The Framingham stop is rarely used.)

Of the towns located directly on the Central Mass. Line, only Berlin and Bolton, at the western end of the route have no bus service to Boston at present. Neither of the towns adjoining Berlin to the west (Boylston and Clinton) have bus service to Boston, or have had such service at any time in the recent past.

In addition to the routes described above, Central Mass. corridor residents also have access to private-carrier bus routes in several adjoining towns. Recent information on ridership by town of origin for these routes is not available, however.

To the north, Yankee Line, Inc. operates a route from Littleton to Copley Square and Park Street Station in Boston, with intermediate stops in Concord and Acton. Service on this route consists of one inbound A.M. peak trip and one outbound P.M. peak trip. The stops on this route are further from the Central Mass. line than stations on the Fitchburg Line, so diversions to the Central Mass. would be insignificant.

To the south, express bus service to Boston from Framingham is currently operated by Peter Pan Bus Lines. All trips on this route stop at Shopper's World, either at the commuter lot at Flutie Pass or at the Massport Logan Express terminal. This service is unsubsidized. There are currently 10 inbound and 12 outbound trips per day serving Shopper's World, including seven inbound and

six outbound in peak hours. Four trips in each direction, all in peak hours, continue to the Edgewater apartment complex west of Framingham Center. Recent ridership figures for this route are not available. Based on current service levels and old origin-destination surveys, an estimated 20 to 25 Central Mass. corridor residents board Shopper's World express buses on a typical day.

Peter Pan also operates a local bus on Route 9 between Worcester and Boston, with several stops in Framingham, Natick, and Wellesley. This route, which is subsidized by the MBTA, has seven round trips a day, including two inbound in the A.M. peak and one outbound in the P.M. peak. This is the only bus service to Boston from Natick or Wellesley. Ridership for the entire route averages fewer than 75 passengers per day in each direction.

All of the private carrier express bus routes serving the Central Mass. corridor are discussed in greater detail in appendixes A and F. Table 2-2 summarizes present weekday ridership on all mass transit alternatives for trips originating in the Central Mass service area.

Table 2-2
Weekday Inbound Ridership on Present Mass Transit Services for Trips
Originating in Central Mass. Service Area

<u>Existing Mass Transit Service</u>	<u>Riders From Central Mass. Service Area</u>
Red Line - Alewife	110
Green Line - Riverside	70
MBTA Express Bus Route 500 or 505	120
Framingham Commuter Rail	135
Fitchburg Commuter Rail	220
Private Carrier Bus	<u>60</u>
Total	715
