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Fitchburg train line

Fitchburg LineAn outbound train near West Concord in 2012OverviewOwnerMassachusetts Bay Transportation AuthorityLocaleGreater BostonTerminWachusettNorth StationStations19ServiceTypeCommuter railSystemMBTA Commuter RailOperator(s)Keolis North AmericaDaily ridership9,302 (2018)[1]TechnicalLine length54 miles (87 km)[2]CharacterCommuter rail lineTrack gauge4 ft 8 1⁄2 in (1,435 mm) Route map Legend 64.9 mi104.4 km Gardner (closed) Wachusett Layover 53.7 mi86.4 km Wachusett 49.6 mi79.8 km Fitchburg Fitchburg Layover (closed) 45.1 mi72.6 km North Leominster 39.4 mi63.4 km Shirley 36.1 mi58.1 km Ayer 31.5 mi50.7 km Littleton (closed) 30.3 mi48.8 km Littleton/Route 495 26.8 mi43.1 km West Acton (closed) 25.3 mi40.7 km South Acton 21.9 mi35.2 km West Concord 20.1 mi32.3 km Concord 16.7 mi26.9 km Lincoln 14.7 mi23.7 km Silver Hill 13.7 mi22 km Hastings 13.2 mi21.2 km Kendal Green former Central Mass Branch 11.5 mi18.5 km Brandeis/Roberts 10.6 mi17.1 km Riverview (closed) 9.9 mi15.9 km Waltham 9.3 mi15 km Beaver Brook (closed) 8.3 mi13.4 km Clematis Brook (closed) 7.4 mi11.9 km Waverley 6.4 mi10.3 km Belmont Center former Lexington branch 3.4 mi5.5 km Porter Red Line Union Square Green (future) Grand Junction Railway Green to Medford/Tufts (future) Grand Junction Railway 0.8 mi1.3 km Maintenance Facility Lowell Haverhill Newbury port Orange on Oak Grove Green to Lechnere Charles River Science Park 0 mi0 km North Orange Station at Forest Hills Green to Cleveland or Heath This diagram: viewtalkedit Fitchburg Line is a branch of the MBTA Commuter Rail System that runs from Boston's North Station to Wachusett Station in Fitchburg, Massachusetts. The line is along the tracks of the former Fitchburg railroad, which was built in northern Massachusetts, United States, in the 1840s. It is one of the more picturesque MBTA railway lines that runs through Walden Pond between Lincoln and Concord. Weekend service includes a specially equipped seasonal ski train to Mount Wachusett in winter. [3] The Fitchburg Line is the second longest line in the system (and was the longest until the Providence/Stoughton Line was extended to T.F. Green Airport and later Wickford Junction) and ranks among the worst lines in terms of early performance. The Fitchburg line has the oldest infrastructure in the system and suburban trains must share the line with freight trains on the outer segment of the line. [4] Only ten of the line's 19 stations, including both terminals, are fully wheelchair accessible - the lowest proportion of all MBTA Commuter Rail lines. [2] The \$150 million project completed in 2017 included the addition of nine miles of dual-track track, expansion of wachuste, rebuilding two stations and building a new Yard. [5] History Geographical map of the Fitchburg Railroad A train at South Acton station in 1911 Former platforms in Gardner, the final station of the line from 1980 to 1987 Boston & Maine Maine Main article: Fitchburg Railroad The Fitchburg Railroad was opened between 1840 and 1845 from Boston to Fitchburg. In 1854, Henry David Thoreau wrote about his skepticism of the Fitchburg Railroad near Walden Pond in his book Walden. [6] Boston and Maine railroads leased the Fitchburg railroad in 1900 and eventually bought it in 1919. [7] In 1948, the Master Highway Plan for the Boston Metropolitan Area proposed the construction of eight radial expressways around Boston connecting the Inner Belt, Interstate 695. [8] This expressway would take up part or all of the track, which was four feet wide in that section at the time. After successful highway revolts, Governor Francis W. Sargent withheld all highway construction on Route 128 in 1970. Following the Sargent study in 1972, he permanently cancelled the 1948 plans, thereby also securing the future of the rail corridor. [9] In January 1958, passenger services to fitchburg were suspended from the west terminal of B&amp;M in Troy, New York to Williamstown; a branch line to Bellows Falls, Vermont, (with connections to Montreal) and Maynard was suspended that May, while the Main Line service was further shortened to Greenfield in December. On April 23, 1960, all traffic west of Fitchburg was cancelled. [10] The MBTA era When the newly created MBTA began on 18 December 2004, the mbta era was the first time that the MBTA had been created. All services on the Fitchburg line west of West Concord were disrupted, as was a low-rider stop in Riverview; several other northern lines have also been discontinued or operated at reduced levels of service. [11] The MBTA sought to find funding; subsidy agreements were soon concluded with cities. On June 28, 1965, service was restored to Ayer, along with an external Rockport branch and full timetables on the Lowell and Ipswich routes. [11] Although some gains have been made, including the reopening of Belmont Center and Waverley stations on April 4, 2015, the company has been in a state of disaused development. In December 1973, state subsidies for cities outside the MBTA funding area were halved, resulting in the MBTA having to renegotiate subsidies from 14 municipalities. In the end, Ayer, with just 14 commuters a day, refused to pay his \$8,200 bill in 1974; Littleton also turned down \$12,300 for his 21 On March 1, 1975, the line was suspended back to South Acton, where stops in Ayer, Littleton and West Acton were dropped. [11] [13] Two lightly used stops in Waltham – Clematis Brook and Beaver Brook – were closed in June 1978. [11] The closure of the Lexington branch next month represented a limit to the contraction of the northern lines; as a result of the energy crisis of the 1970s and in particular the energy crisis in 1979, a period of rapid expansion began in the late 1970s. On January 13, 1980, service was resumed in Fitchburg and on to Gardner. On January 1, 1987, Gardner's service was terminated when Amtrak took over the MBTA contract due to a dispute between Amtrak and Guilford; MBTA owned the track only to Fitchburg. In December 2006, the MBTA began to refer to some winter weekend tours as ski trains. [14] The train used includes a wagon equipped with ski racks; a shuttle bus to Mount Wachusett runs to Wachusett Station. [3] (Until the 2016-2017 ski season, the bus ran to Fitchburg station.) Project improvement Due to cyclical expansion and decline in the first three decades of MBTA's existence, the Fitchburg line was largely neglected and its infrastructure began to decline. The Fitchburg route was once fully double-tracked from Boston to Troy, New York; however, the second main was removed in many sections as passenger traffic dropped. In 2000 there was a 9 mile (14km) stretch of one track between South Acton and Ayer, and a shorter section at Waltham. This limited the number of trains that could continue around South Acton to Fitchburg. Until the Providence/Stoughton Line was extended to T.F. Green Airport in 2010, the Fitchburg line was the longest line in the MBTA system; it is now the second longest, and still the longest without a full double track. In a study in 2000, the Massachusetts State Legislature passed a bill that ordered the MBTA to conduct a feasibility study regarding the restoration of suburban rail lines to the cities of Gardner and Athol on the existing Fitchburg/Gardner/Athol spurs line as one of many expansion and improvement projects. [15] In 2001, the MBTA began publicly commenting on the decimal update of its mass transit program. Following the reaction of lawmakers from communities along the line, the MBTA has launched a study on possible line improvements, including not only westward expansion, but also improved stations and reduced journey times. [16] Prior to the improvement project, Littleton/Route 495 had an inaccessible low platform operated by a single line. In 2004, the publication of the Public Transport Programme found that the resumption of services Athol, was considered impractical for several reasons. Gardner is 64 miles (103 km) and Athol 81 miles (130 km) by rail from North Station - outside the normal commute. [7] The line between Fitchburg and Gardner would cost \$104.2 million for a double track, and speed is limited due to signs passing through the Wachusett Mountains. Since the Route 2 highway is faster along the corridor than rail traffic would be, the station in Gardner would attract just 50 riders a day. Instead, a 4-mile extension was recommended at a previously considered station in West Fitchburg. The Fitchburg Commuter Rail Line Service Expansion Study was published in February 2005, resounding the PMT conclusions. Recommended short-range improvements included station consolidation, track improvements, and station improvements; longer-term projects included double monitoring, increased frequency of services and extensions to Wachusett or Gardner. [18] The report quantified \$55 million for infrastructure upgrades, including double tracking through waltham city centre and from South Acton to Willows, signal improvements, redevelopment of Littleton/Route 495 station and crossing modifications. The Wachustet expansion cost \$39 million, while Gardner cost another \$50 million. [19] As an immediate change, the MBTA began operating express trains on the line. [4] The Fitchburg Commuter Rail Line Improvement Implementation Plan, released in September 2005, contained a longer list of possible improvements and outlined a goal of reducing journey times between Porter Square and Fitchburg to one hour. The \$300 million list included high-level platforms at all stops from Porter to Littleton, decommissioning, overpassing at Willows and stopping consolidation. The three Weston stops were to be combined, Ayer and Shirley merged into Devens station and Waverley and Belmont stations together. [20] Few of these extended alternatives were eventually pursued. The MBTA applied for a federal small starts grant in September 2005, and the Montachusett Regional Transportation Authority submitted a scale package in April 2007 that began analyzing construction alternatives. The Fitchburg Commuter Rail Line Improvement Project Alternatives Analysis was released in September 2007 and outlined six options: no construction with the addition of some continuously welded rail on the line, a \$30 million base with new layover facilities, and three construction options ranging from \$150 million to \$239 million. Build Alternative 1, worth \$150 million, has been selected. [4] Financing and construction of the Double Tracking and Rebuilt Crossing at Boxborough in November 2012 In November 2007, after completing five-year conceptual studies, the MBTA announced \$150 million in projects to significantly upgrade the Fitchburg Line. [21] The project aims to reduce journey times, frequency of services and improving timely performance. With the addition of several smaller sources of funding, the improvement eventually became a \$306 million project with five main components: [22] CPF-43 breaking the first completed work was the addition of CPF-43, a new locking block located in Derby Curve in Leominster. Funded by \$10.2 million from ARRA funds, the work was intended to ensure the working flexibility of suburban rail and minimize conflicts with freight transport. [23] The CPF-43 includes a universal transition between the two main tracks and a new connection to a 300 m (1000 ft) facility for storage of road maintenance equipment and 1000 ft to connect to existing freight customers. Construction work began in October 2009 and completed by the end of 2011. [23] Garage in North Leominster Completed garage in December 2014 Located just off Road 2, North Leominster station was often crowded for commuter parking spaces. After 5 years of planning, construction began in March 2012 on a three-story garage that provides 340 parking spaces. [24] The \$7.7 million project, which was funded by a free trade agreement through earmarking and formulation funding, includes indoor bus and charging stations for electric vehicles. [25] Originally due to be completed in August 2013, the garage was delayed due to the high summer heat that prevented the concrete from pouring, as well as the supplier's financial problems. [26] A garage was opened on May 20, 2014. [28] The construction of full-fledged, accessible high-level platforms was considered part of the project, but the platforms would cost an additional \$18 million and cause problems with handling pan am passing freight trains. [25] Freight trains, which are slightly wider than standard passenger cars, often affect platforms with minimal height and cause serious damage to platforms along the entire length. The double tracking of Littleton station shortly after it was rebuilt was \$US43 million (\$40 million in ARRA funds and \$3 million from the state Executive Office of Housing and Economic Development) provided for the restoration of an 8 mile (13 km) double track from Central Street in West Acton to Willows Junction in Ayer. [22] This leaves a short section in Waltham as the only mono-track section of the line. Like many external stations on the track, Littleton/Route 495 was built in the 1980s with a bare low-level concrete platform (not accessible to disabled riders) serving one track. At the beginning of 2012 it was rebuilt with a full-length island platform serving the original track and a new second track. The new station opened in June 2013. In August 2014, when double tracking was almost complete, all short turns of South Acton were extended to Littleton. [29] Double tracking work was completed in November 2014, including 8 class replacements and a new lock east of Littleton. [23] [30] [30] It begins funding southern Acton stations near completion in November 2015 The largest part of the project, funded by a total of \$172 million in state money and Federal Transit Administration Small Starts funding, is involved in a gradual improvement of existing infrastructure. Work started in 2012 and was largely completed by the end of 2015. [22] South Acton station is the busiest station on the track, with 902 day riders in 2013. [2] Like Littleton, it previously had a single low-level platform. After significant design changes based on community inputs, construction of a new station with two high-level side platforms began in September 2012. On December 21, 2015, a new station was opened, and minor works appeared by June 2016. [22] A further 2.7 km of dual runway was installed to fill the gap between the self-financed double westbound track and the previously existing double track to the east. [23] Previously, a section of track east of Acton had an older signalling system that allowed traffic in one direction on each line, which prevented express trains from running through locals and limited timetable density. The optical cable was installed through this segment and new signals installed to allow full two-way traffic. The two-tracked section west of Willows, which already had a two-way signalling that allowed passenger and slower freight trains to mix, received incremental upgrades. [23] The new signals, together with parallel line work, allowed the maximum speed on the track to be increased from 60 miles per hour (97 km/h) to 80 miles per hour (130 km/h) with a faster plan implemented on 23. [22] Seven bridges were replaced or significantly repaired, including one via Route 62 in Concord, a late addition to the project. [22] Thirteen navigational stages were replaced, nine locks were built on new or improved ones, and some segments were transferred from an outdated tower in Waltham to the MBTA control centre. [23] A new freight crossover has been added in Ayer, with the East Main Street Bridge, to increase the distance. [22] Wachusett extension Main article: Wachusett (MBTA station) The first revenue train at Wachusett Station in September 2016 According to the recommendations of studies from mid-2000, the line was funded by 7.2 km west of Fitchburg to the new Wachusett park-and-ride station. The work was funded from a \$65 million federal grant TIGER awarded in 2010, plus \$19 million in state money. Construction began in mid-2013 and the station was opened for limited service on September 30, 2016 to meet the terms of a federal grant. [31] [32] [11] The same grant financed a new stopover at Westminster, west of the new station, replacing the smaller yard in East Fitchburg. The City of Westminster opposed the project due to noise pollution and filed complaints against the MBTA alleging that proper permits had not been obtained and that the agency had misled the city about construction delays. [33] Construction was eventually permitted; On November 21, 2016, a layover was opened along with a full service of Wachusett Station. [11] [22] Weekend restrictions on services Such as laying, connecting switches and testing new signals were difficult or impossible to perform during regular daily operation. In order to adapt this work, the service was between 2013 and 2015 on weekends, when ridership is significantly lower. [2] The complete service was operated during the winter months, when snowy weather can make driving a less tasty alternative. In 2013, weekend service was reduced to South Acton from June to August and brandeis/roberts from September to November. In 2014, it was reduced to Brandeis/Roberts from late April to July and completely discontinued until November. [11] In 2015, the weekend service was discontinued from 25. [34] The MBTA trackage owns all tracks between Boston and Fitchburg. The line west of the old Stony Brook Railway (which connects willows, east of Ayer) is used by the Pan Amns Railway as part of their main line between Mattawamkeag, Maine and Mechanicville, New York. Pan Am owns a trackage west of Fitchburg, including a section used to expand Wachusett. Pan Am runs both through freight and through locals based in Fitchburg, west of Willows; there is no regular freight service on the line east of Willows. Walden Street Cattle Pass passes under the Walden Street Bridge in Cambridge, adjacent to the tracks; It was last used in the 1920s. [35] The Union Square Branch of the under-construction Green Line Extension will share the right to travel the Fitchburg line from the inner belt to Union Square station. The refurbishment of the Medford Street bridge began in March 2013 as part of initial work; the station is expected to open in 2021. [36] List of stations For stations served before the creation of the MBTA in 1964, see Fitchburg Railroad § Station and junction listing. Train to North Station, incoming Waverley Station Station In the Shirley Fare Location Mile (km)[2][7][37] Station Connections and Notes 1A Boston 0.0 (0.0) North Station; Downeaster MBTA Commuter Rail; Lowell Line, Haverhill Line, and Newburyport/Rockport Line MBTA metro: Orange Line, Green Line (branch C and branch E) MBTA bus: 4 Somerville 0.7 (1.1) Commuter Rail Maintenance Facility Flag stop for MBTA staff only Cambridge 3.4 (5.5) Porter MBTA metro: Red Line MBTA bus: 77, 77A, 83, 87, 96 1 Belmont 6.4 (10.3) Bus Belmont Center MBTA: 74, 75 7.4 (11.9) Bus Waverley MBTA: 73, 554 Waltham 8.3 (13.4) Clematis Brook Closed in June 1978. Former intersection with Central Mass on which passenger service ended in 1971 9.3 (15.0) Beaver Brook Closed in June 1978 2 9.9 (15.9) Waltham MBTA bus: 61, 70, 170, 505, 553, 554, 556, 558 128BC Waltham Shuttle 10.6 (17.1) Riverview Closed January 17, 1965 11.5 (18.5) Brandeis/Roberts MBTA bus: 553 3 Weston 13.2 (21.2) Kendal Green 13.7 (22.0) Hastings Limited weekday service 14.7 (23.7) Silver Hill Flag stop with limited weekday service 4 Lincoln 16.7 (26.9) Lincoln 5 Concord 20.1 (32.3) Concord 21.9 (35.2) West Concord 6 Acton 25.3 (40.7) South Acton Cross Acton Transit, MinuteVan, Maynard/Acton Commuter Shuttle 26.8 (43.1) West Acton Closed March 1, 1975 7 Littleton 30.1 (48.4) Littleton/Route 495 MART: Littleton-Westford Commuter Rail ShuttleTerminal station for some trains 31.5 (50.7) Littleton Closed March 1, 1975 8 Ayer 36.1 (58.1) Ayer MART: Devens Shuttle Littleton/Route 39.4 (63.4) Shirley MART: Devens Shuttle Leominster 45.1 (72.6) Severn Leominster MART: 1, 3 Fitchburg 49.6 (79.8) Fitchburg MART: 1, 2, 3, 4, 5, 6, 7, 11, Intercity / MWCC, Devens Shuttle, Boston Shuttle, Worcester Shuttle 53.7 (86.4) Wachusett MART: 11, Gardner-Wachusett Commuter Wachusett Mountain shuttle Gardner 64.9 (104.4) Gardner Zavleno 1.Iedna 1987 V současné době operační stanice Reference ^ Commuter Rail Ridership Counts (PDF). 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