= Shore Line East =

Shore Line East (SLE) is a commuter rail service which operates along the Northeast Corridor through southern Connecticut, US. A fully owned subsidiary of the Connecticut Department of Transportation (ConnDOT), SLE provides service seven days a week along the Northeast Corridor from New London west to New Haven, with limited through service to Bridgeport and Stamford. Connecting service west of New Haven to New York City is available via Metro @-@ North Railroad 's New Haven Line.

The service was introduced in 1990 as a temporary measure to reduce congestion during construction work on I @-@ 95 . However , it proved more popular than expected , and service was continued after construction ended despite criticisms that the line was too expensive to operate . The service has been continually upgraded since its inception with rebuilt stations and new rolling stock as well as extensions to New London in 1996 and to Stamford in 2001 . Around 1 @,@ 900 to 2 @,@ 100 riders use the service every weekday depending on the season .

= = Current service = =

Most weekday SLE trains run local westbound from New London or Old Saybrook to New Haven in the morning , with some nonstop eastbound service . This traffic pattern is reversed in the afternoon and evening rush . A handful operate through New Haven as far as Stamford .

Most weekend SLE trains also run local westbound in the morning , then express in the afternoon , stopping only at Guilford and Westbrook between Old Saybrook and State Street . Eastbound service is reversed . This is because Branford , Madison , and Clinton only have platforms on the eastbound track , and thus switching is needed to platform a westbound train .

Around half of SLE trains operate to and from New London Station . New London SLE multi @-@ ride pass holders are also allowed to board selected Northeast Regional trains , or Acela Express train # 2151 . There are plans to increase the service to New London , which is limited by U.S. Coast Guard requirements regarding the bridge crossing the Connecticut River . After years with just one or two trains to New London , additional New London round trips were added in 2010 and 2013 , and weekend service began in June 2013 .

All trains that do not operate west of New Haven make a connection to a Metro @-@ North Railroad train at New Haven , for service to and from points in Connecticut , Westchester County , New York , and New York City .

Although SLE service is funded by ConnDOT, it is operated under contract by Amtrak. Amtrak owns and controls the Northeast Corridor east of New Haven. West of New Haven, the New Haven Line is owned by ConnDOT and trains are dispatched by Metro @-@ North.

During the OpSail and SailFest tall ship festivals at New London , extra Friday and weekend Shore Line East service is operated from New Haven to New London . During OpSail 2000 , through service operated from New Haven to Mystic ? the only time Shore Line East service has run east of New London .

= = Service history = =

= = = Previous service = = =

The section of the Northeast Corridor that Shore Line East operates on was once the New York @-@ Boston mainline of the New York , New Haven and Hartford Railroad . The section from New Haven to New London was built as the New Haven & New London Railroad . It was charted in 1848 , began construction in 1850 , and opened for service in July 1852 . The line was owned by the New York , Providence and Boston Railroad (the " Stonington Road ") from 1858 to 1862 , and by the Shore Line Railway from 1864 until it was acquired by the New York , New Haven , and Hartford Railroad (the " New Haven ") in 1870 . Crossing the Connecticut River required a ferry transfer until

a drawbridge was built in 1870.

The line was referred to by the New Haven Railroad as the Shore Line , to distinguish it from the railroad 's Main Line from New Haven to Springfield , Massachusetts . In recognition of the large role played by the New Haven in the history and heritage of the state of Connecticut , ConnDOT paints SLE 's diesel @-@ powered locomotives in the New Haven 's orange and black style . New Haven Railroad colors and emblems have also been placed at several stations , particularly New Haven Union Station .

The New Haven Railroad operated local service on the Shore Line up until its merger with Penn Central on January 1 , 1969 , when most commuter service east of New Haven was abandoned . Intercity service continued , but generally only stopped at New Haven , Old Saybrook , and New London . Penn Central continued to operate the Clamdigger , a single daily New London @-@ New Haven round trip with local stops , as well as a New London @-@ Boston round trip . Amtrak took over the Clamdigger along with most intercity passenger service , in May 1971 . In January 1972 , Amtrak discontinued the Clamdigger and Penn Central cut the New London @-@ Boston trip .

In 1976 and 1977, Amtrak operated the Clamdigger as a Providence @-@ New Haven round trip with limited local stops; for three months in 1978, it was revived with additional commuter @-@ based stops. It was replaced in April 1978 by the Beacon Hill, which stopped at New Haven, Branford, Madison, Old Saybrook, Niantic, New London, and Mystic en route to Providence and Boston. The Beacon Hill (which served the Providence and Boston commuting markets rather than New Haven) was discontinued in 1981 due to funding cuts, ending commuter rail service in Connecticut east of New Haven.

= = = Initial service = = =

In 1981 and 1986, legislation was proposed to restore commuter service between New Haven and New London, as well as between New Haven and Hartford. A 1986 ConnDOT study analyzed congestion on Interstate 95, which runs parallel to the line. The study showed that Old Saybrook was a better terminus for initial service, with an expected ridership of 420 riders in each direction daily.

Based on the study , Governor O 'Neill ordered ConnDOT in October 1986 to initiate rail service on the corridor . It was established as a temporary service to newly reopened local stations between Union Station in New Haven and Old Saybrook , to alleviate traffic congestion that arose from scheduled construction work on I @-@ 95 . O 'Neill introduced a \$ 50 million transportation program that included \$ 900 @,@ 000 (later reduced to \$ 500 @,@ 000) for basic stations and \$ 4 million to refurbish 12 Budd Rail Diesel Cars for rolling stock . The RDCs were found to be insufficient and two diesel trainsets were purchased from the defunct PATrain service in 1989 instead .

A second study in 1989 indicated higher potential ridership of 700 to 1350 daily riders . The state bought Amtrak 's New Haven maintenance facility in May 1989 and signed a service contract with Amtrak in November . (Metro @-@ North Railroad was not considered for several reasons , largely because Amtrak already owned the rail line east of New Haven) . Construction of 5 intermediate stations was completed in April 1990 .

Shore Line East service began on May 29, 1990, with four trains each direction during the morning and evening. The service carried the Clamdigger name during planning; "Shore Line East "did not appear until shortly before service began. Shore Line East was threatened to be cut in 1991 by newly elected Governor Lowell Weicker, but it proved more popular than expected, and was effectively made permanent. A 1996 study found that Shore Line East captured 8 % of regional commuter trips and attracted a loyal ridership base.

In 1995 and 1997, then Gov. John Rowland proposed to replace Shore Line East and the Waterbury Branch with bus service, citing a high subsidy of \$ 18 @.@ 70 per rider per trip, in order to decrease the unpopular gas tax. Lawmakers from the region called the proposals political and defended the line 's ability to reduce congestion and pollution, while opponents of the line called it an example of government waste. The Shore Line East Rider 's Association and other groups lobbied to save both services each time, and after public hearings a small fare increase was

enacted in late 1997 instead.

= = = Early expansions and criticisms = = =

In July 1995, Governor Rowland signed a bill ordering various studies, including one that analyzed extending service to New London as had been originally planned. Before the study was completed, ConnDOT unilaterally decided to implement New London service, which the report commended. On February 1, 1996, two round trips per weekday were extended to New London. At that point, ridership was up 18% over 1991 numbers.

In January 2001, because of to changes in Amtrak rules, passengers were no longer allowed to cross tracks to access trains. New platforms were opened on the south side of the tracks at Branford and Westbrook at approximately the same locations.

In December 2001, a single morning rush @-@ hour round trip branded SLExpress was extended to Stamford, with a stop at Bridgeport plus eastbound @-@ only stops at Stratford and Milford. An evening eastbound trip was also extended to Stamford with only the Bridgeport intermediate stop. This trip was intended to allow commuters to reach employment centers in Bridgeport and Stamford without having to make a transfer at New Haven. On June 24, 2002, additional Stamford trains were added, for a total of two westbound and three eastbound trains. When West Haven opened in August 2013, it was added to these trips as well.

In 2003, in order to add four additional Amtrak trips along the corridor, four of the then six round trips to New London were cut back to Old Saybrook. An agreement with the Connecticut Department of Environmental Protection limits service over the Old Saybrook @-@ Old Lyme bridge in order to avoid inconveniencing recreational boaters. ConnDOT 's agreement with Amtrak allowed commuters with monthly passes to ride certain Amtrak trains instead. After criticism over the service cuts, in April 2008 ConnDOT began allowing commuters with multi @-@ ride passes to board the selected Amtrak trains as well.

= = = Improved and increased service = = =

When started in 1990, Shore Line East was intended to be a temporary service. Except at Old Saybrook and New Haven, which were already served by Amtrak, the state constructed new stations? consisting of little more than bare wooden decks? for minimal cost. Since the service was started two months before the Americans with Disabilities Act was signed, the platforms were not built to be handicapped accessible. After a decade of service, with Shore Line East established as part of Connecticut 's transportation system, the state began to upgrade the service. The basic stations have been rebuilt with high @-@ level platforms to provide handicapped access and level boarding, parking lots have been expanded, and more trains have been added to the schedule.

A completely new station was also added to the line for traffic mitigation as part of the reconstruction of the Pearl Harbor Memorial Bridge . On June 7 , 2002 , State Street Station was opened in New Haven to provide better access to the downtown area than Union Station , which is half a mile away from the business district .

The first station to be rebuilt was Old Saybrook , the busy eastern terminus of the line . The new high @-@ level island platform and pedestrian bridge opened on November 1 , 2002 . Old Saybrook had previous had only a single side platform serving a relatively small number of Amtrak trains ; the rebuilt has two platforms serving three tracks , to allow Amtrak trains in both directions to stop or pass even while a SLE train is at the station .

Beginning on May 24 , 2004 , construction of new platforms began at Clinton , Guilford , and Branford . The rebuilt Clinton station opened on July 25 , 2005 , and the rebuilt Branford station opened on August 8 , 2005 ; both consist of a single high @-@ level platform on the south side of the tracks . The new Guilford station , which has platforms on both sides of the tracks (connected by a pedestrian bridge) to allow for greater operational flexibility , opened on November 28 , 2005 . Construction at Madison started on September 24 , 2007 , and finished with the opening of the rebuilt station platform on July 28 , 2008 .

On October 8 , 2007 , reverse @-@ peak and more midday service were introduced , which officials hailed as the beginning of Shore Line East as a true bidirectional system . Several existing express trains also began to stop at Guilford . Since at least 2006 , advocates had been calling for the establishment of weekend Shore Line East service . A pilot of weekend service was run from November 17 , 2007 , to December 30 , 2007 , with six " Shopper 's Special " round trips from Old Saybrook to New Haven . The trains were scheduled to connect with similar Metro @-@ North specials at New Haven . Year @-@ round weekend service began on July 4 , 2008 , with 9 daily Old Saybrook ? New Haven round trips on weekends . No weekend service was run to New London , but weekday service was increased as cross @-@ honoring of multiple @-@ ride and monthly tickets was added on two Amtrak trains .

The major obstacle preventing full New London service is the bridge over the Connecticut River between Old Saybrook and Old Lyme . The drawbridge section is closed for a certain period of time to allow trains to pass , which prevents large boats from passing under . The Marine Trades Association opposes additional service , which would mandate more bridge closings . The 2003 agreement with Amtrak limited weekday traffic over the bridge to 2 SLE and 39 Amtrak trains until 2018 , although it was revised in 2010 and 2013 . Since 2003 , New London had been served by cross @-@ honored Amtrak trains plus one or two dedicated SLE roundtrips .

On February 16, 2010, an additional round trip was extended to New London. Three more were extended on May 10, 2010. However, advocates for full service to New London said that Governor Rell failed to deliver on promises to New London, with one newspaper columnist writing that " she seems incapable of standing up to the marine trades lobby " regarding the bridge openings.

In July 2012, Governor Malloy announced that 5 weekend round trips would be extended to New London beginning in April 2013. However, the extension was dependent on ongoing negotiations with the marine industry over mandated closings of the Old Saybrook? Old Lyme bridge. Two weekday midday trips were added in May 2013, while weekend service began on June 1, 2013, after the application for additional bridge closings was approved by the state Department of Energy and Environmental Protection. By July, New London represented 26 % of weekend ridership. In December 2013, the state announced that ridership was up 35 % for the year as a result of the increased service. From 2009 to 2014, monthly New London ridership increased from less than 1 @,@ 000 monthly passengers to approximately 5 @,@ 000, accounting for a significant fraction of ridership increases on Shore Line East during that period.

Four of the five intermediate stations between Old Saybrook and New Haven were rebuilt with accessible platforms between 2004 and 2008, but rebuilding at Westbrook was delayed due to environmental and cost issues. No site was available until Westbrook and ConnDOT traded the new station site on Norris Avenue for a highway garage site off Route 145. The controversial land swap was begun in 2004 but was not finalized until 2006, and town operations were not moved to the Route 145 site until September 2011. Site clearing began in November 2011, and ground was broken for the \$ 14 @.@ 4 million station in January 2012. A new station with a larger 210 @-@ space lot and platforms on both tracks opened on March 25, 2014, with full bidirectional service to the station beginning on May 11.

= = = Future = =

In a 2007 report , ConnDOT outlined plans to turn SLE into a full @-@ service bidirectional regional rail line , with full @-@ day service and all trains extended to New London . This involves incremental improvements , similar to those that have already been put into place . One of the first priorities is to add a second platform at all stations , which is mandated by the 2003 agreement with Amtrak . New London , Old Saybrook , Guilford , Westbrook , and stops from New Haven Union Station west all have multiple platforms , while State Street has an island platform serving two tracks with plans for a second platform .

Branford is the first previously rebuilt station to be further renovated with a second platform . A \$ 60 million bond in February 2011 included \$ 16 @.@ 5 million for a second platform and pedestrian bridge at Branford , \$ 7 @.@ 3 million for platform extensions at Guilford , and \$ 11 million to add

catenary wires to currently unwired sidings along the line . Construction on the new platform at Branford began in September 2013 , and the Guilford work is under way as well . As of September 2015 , the new platform and pedestrian bridge at Branford were officially scheduled to open on December 18 , 2015 , but have been delayed into 2016 as a result of the previous harsh winter and other issues . Bidding on a second platform and three @-@ level parking garage at Madison , planned since 2009 , was scheduled to begin in 2013 but did not occur . Per the agreement with Amtrak , a second platform is planned to be added to Clinton station . The project was originally planned to start in early 2012 , but has since been indefinitely delayed .

Expansion of the original parking facilities is also necessary to meet demand at many stations, since many started with small lots suitable for just a few dozen cars. The rebuilt stations at Branford, Guilford, Madison, Clinton, and Westbrook have larger lots than the 1990 stations, and a second lot with 272 spaces opened at Branford in June 2011. A 585 @-@ space, three @-@ level parking garage is eventually planned for Madison station.

Although the route east of New Haven is electrified under Amtrak 's 60 Hz traction power system, Shore Line East currently operates entirely with diesel locomotives. Once the full order of M8 railcars are in service, and Amtrak tests and approves the M8s for usage east of New Haven, ConnDOT plans to use 24 to 32 cars for electric SLE service to reduce diesel emissions. The diesel trainsets will be moved to service on the Danbury or Waterbury branches, or to the planned Hartford Line from New Haven to Springfield.

In April 2012, state officials released a report detailing possible sites for an infill station in East Lyme. Four sites were analyzed? two near downtown Niantic and two at Rocky Neck State Park. Niantic had previously been a stop on the Clamdigger. As part of a bonding proposal made by Governor Malloy, \$ 750 @,@ 000 would be allocated for a new station at Niantic.

The possibility of extending service eastward has also been considered . Several special trains operated to Mystic during the 2000 OpSail festival , the only such service to date . In a 2001 report examining commuter rail for Rhode Island , RIDOT considered an extension of Shore Line East to Providence via Westerly (effectively restoring the Clamdigger service) . Ultimately , MBTA Commuter Rail service , which already ran to Providence as part of the Providence / Stoughton Line , was extended southward instead (although only to Wickford Junction) . However , both RIDOT and SLE have long @-@ term plans to extend their services to meet at Westerly . Extending SLE service would require negotiations with the US Coast Guard , the Marine Trades Association , and other stakeholders for increased use of the Thames River Bridge and the Mystic River bridge . As part of Governor Malloy 's thirty year transit plan , Shore Line East would be extended to Westerly at a cost of \$ 200 million . On February 1 , 2016 , the Connecticut Public Transportation Commission issued a report recommending extension of Shore Line East rail service to Mystic and Westerly as soon as possible .

= = Rolling stock = =

In contrast to the electric multiple units used on Metro @-@ North 's New Haven Line , which are also purchased in part by the state of Connecticut , all SLE trains are diesel push @-@ pull trains . SLE runs diesel service because Amtrak had not yet electrified the Northeast Corridor between New Haven and Boston at the time service began . The original SLE service operated with 2 F @-@ 7s and 10 Pullman @-@ Standard coaches purchased from Pittsburgh 's PATrain for \$ 1 @.@ 7 million .

In 1991, ConnDOT purchased 10 Bombardier Shoreliner III coaches, similar to ones already used on the Danbury Branch and Waterbury Branch, and leased three additional diesel locomotives: two EMD GP38s and one EMD GP9. In 1994 Amtrak rebuilt 11 of ConnDOT 's surplus SPV @-@ 2000 diesel railcars into coaches, dubbed " Constitution Liners. " In 1996, SLE took delivery of six refmanufactured GP40 @-@ 2H diesels to replace the entire motive power fleet. These were supplemented in 2005 with 8 GE P40DC Genesis diesels leased from Amtrak. ConnDOT purchased the P40DCs in 2008. To augment capacity ConnDOT acquired 33 Mafersa coaches from the Virginia Railway Express in 2004. These began entering service in 2006, displacing the

Shoreliners and Constitution Liners.

ConnDOT plans call for the Kawasaki M8 to replace most or all of the locomotives and coaches currently in service on Shore Line East in 2018 . ConnDOT has proposed to use up to 32 M8 's in SLE service as far as Old Saybrook; the diesel equipment will then be used on the Hartford Line and for New London service . Limited direct service from Grand Central Terminal to Old Saybrook may be added once the M8s are in service .

ConnDOT acquired an additional four GE P40DC locomotives from New Jersey Transit in 2015. Originally built for Amtrak, NJ Transit employed the locomotives on the short @-@ lived Atlantic City Express Service.

= = = Roster = = =

= = Station stops = =