

Greenbush Line Restoration Design-Build



THE COMPLETION OF BOSTON'S SOUTHEAST EXPRESSWAY IN 1959 MARKED THE END OF SERVICE ON THE GREENBUSH LINE, AS SOUTH SHORE COMMUTERS TURNED TO THE CONVENIENCE OF THEIR AUTOMOBILES, BUT THE GREENBUSH LINE IS REAWAKENING WITH RESTORATION AND NEW CONSTRUCTION.

LOCATION
BRAintree, WEYMOUTH,
HINGHAM, COHASSET,
SCITUATE, & GREENBUSH, MA

CLIENT
MASSACHUSETTS BAY
TRANSPORTATION AUTHORITY
(MBTA)

CONSTRUCTION COST
\$300 MILLION

SIZE
18-MILE-LONG SYSTEM

The Greenbush Line is the rebirth of an integrated and safe commuter rail system that will once again serve Boston's South Shore commuters, reducing pollution and congestion. As the primary engineering design consultant for the joint-venture design-build team, STV was responsible for all design and engineering services and management of all design consultants for this highly visible endeavor.

The project consisted of the restoration and reconstruction of the largely out-of-service railroad right-of-way and included the implementation of seven new stations, a new signal and communication system, and a layover facility at the end of the line in Greenbush, MA. The scope also called for a modified shallow cut tunnel at Weymouth Landing; a cut-and-cover tunnel

through Hingham Square; and freight facilities in Braintree, which were relocated off-line.

STV, as the lead designer, oversaw design of the entire rail system. The firm provided track design, paying special attention to the horizontal and vertical alignments throughout the corridor to maximize operating speeds and allow a high level of system safety. Additionally, the firm provided design for the rehabilitation of 18 bridges (10 railroad and 8 highway), including substructure and superstructure replacement, as well as design for all drainage improvements and utility upgrades and relocations.

The design and construction of each grade crossing followed applicable standards, guidelines, and requirements set forth by the MBTA and the FRA.