

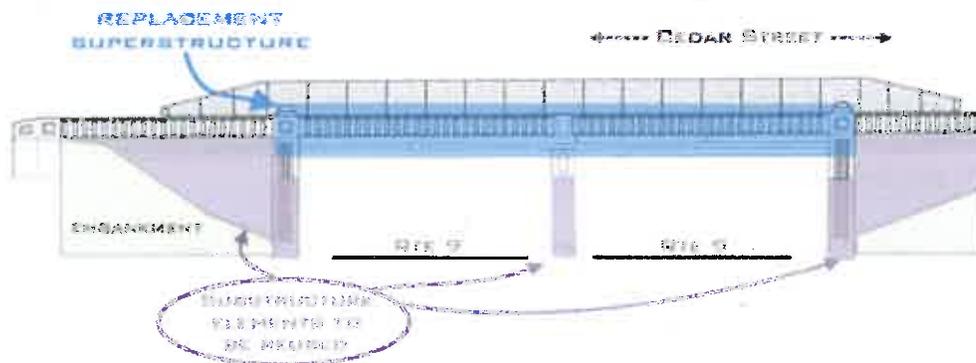
Rapid Bridge Replacement Project, Cedar St. over Route 9, Wellesley



Purpose of the Project: The purpose of this project is to replace the existing bridge that carries Cedar Street over Route 9 in Wellesley, safely, efficiently, and with the least possible impact to road users and the surrounding community. It was built in 1936; age, weather, and use have taken a toll on the concrete deck and the steel beams that support the deck. Together, the beams and deck make up the part of the bridge called the superstructure. The concrete and steel are deteriorated. The superstructure is reaching the end of its functional life and needs to be replaced. The bridge’s abutments are in very good condition and will be able to remain. MassDOT will adjust the abutments to carry the new replacement superstructure.

In order to ensure the least possible impact to road users and the surrounding community, MassDOT is going to use accelerated bridge construction methods to build and install the replacement bridge superstructure. By using accelerated bridge construction methods on this project, MassDOT will be able to complete the project in just one construction season, approximately half the time that it would take using conventional construction methods. In addition, the use of accelerated bridge construction methods will allow the bridge to be moved and placed with just 72 hours of impact to traffic.

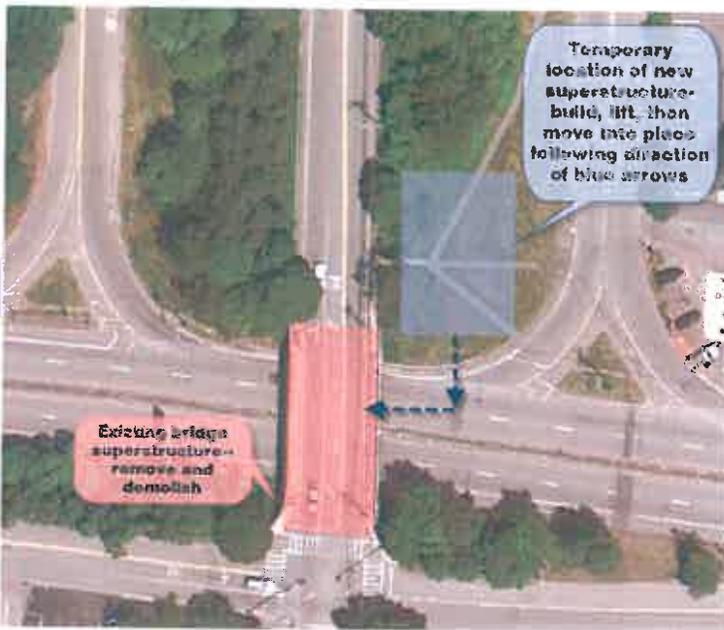
ANATOMY OF A BRIDGE



Accelerated Bridge Construction (ABC) Methods: "ABC" methods are means of rapidly constructing bridges by building major bridge components apart from their final location and installing them quickly using heavy lifting equipment such as cranes, gantry systems or self-propelled motorized transporters. ABC techniques minimize construction-related impacts (such as traffic congestion) by moving as much of the work out of the roadway as

possible. This project will be completed in just one construction season. We estimate that conventional staged construction methods would have resulted in a two-year-long project with ongoing traffic disruptions. MassDOT successfully used ABC methods on a similar superstructure replacement project in Phillipston.

Accelerated Method of Construction: In order to reduce construction-related inconvenience, MassDOT is



using accelerated bridge construction methods which minimize the duration of work performed in the roadway. The replacement superstructure will be built in the work area within the cloverleaf, immediately northeast of the existing bridge and entirely outside of the roadway. It will be made of cast-in-place high performance concrete on top of steel beams. It will be built on temporary supports called shoring towers. Weather permitting, on Friday, July 1 at 10:00 PM, MassDOT will secure the work zone by closing the portion of Route 9 and Cedar Street within the work area and will establish the detour route. Then the design/build entity will demolish the existing superstructure. The replacement superstructure will be moved into place with special remote-controlled machines called 'Self-Propelled Modular Transporters'

(SPMTs). The SPMTs will lift the replacement superstructure from the shoring towers, drive it a short distance on Route 9 to its final location and then lower it into place.

Detour Routes: In order to demolish the existing superstructure and move the replacement superstructure into place, MassDOT will need to close the immediate bridge area for a period of seventy-two consecutive hours. During this time, vehicular and pedestrian traffic on Route 9 and Cedar Street will be detoured around the work zone. All detour routes will be in effect from July 1st at 10:00 pm till July 4th at 10:00 pm.

Pedestrian Accommodations: During the time of the detour, J.F. White, the Contractor, will provide shuttle service to pedestrians crossing Route 9 via Cedar Street.

Route 9 Detour: During the time of the detour, all Route 9 traffic will be routed around the project site using the existing ramps adjacent to the Cedar Street Bridge. Westbound traffic will be routed onto the exit ramp off Route 9, cross Cedar Street and take the entrance ramp back onto Route 9 just west of the existing bridge. Route 9 eastbound traffic will follow the east bound exit ramp onto Worcester Street, cross Cedar Street and re-enter Route 9 via the entrance ramp east of the bridge.

Cedar Street Detour Traffic travelling southbound on Cedar Street will turn right onto Route 9 westbound and reverse direction at the next intersection, returning to Cedar Street south of the work zone via the exit ramp. Traffic traveling northbound on Cedar Street will enter Route 9 eastbound and reverse direction at the next intersection, returning to Cedar Street north of the work zone via the exit ramp.

You can view detour route maps and learn more about the project by visiting www.mass.gov/massdot/heavyliftwellesley