

PROJECT DESCRIPTION

STATE PROJECT NUMBER: 0082-0318
FEDERAL AID PROJECT NUMBER: 0009 (116)
REMOVAL OF TRAFFIC SIGNALS ON ROUTE 9
CITY OF MIDDLETOWN AND TOWN OF CROMWELL

PROJECT LOCATION:

This project is located in the City of Middletown and the Town of Cromwell on Route 9 (Chester Bowles Highway) between log miles 22.9 and 25.4. At the southern limit, the project begins near the Eastern Drive interchange (Exit 22), extends to the north, and terminates near the Route 99 interchange (Exit 25). The limits encompass the Washington Street (NB Exit 23 / SB Exit 23C) and Route 17 (Hartford Avenue Exit 24) interchanges, River Road, Harbor Drive, Union Street, deKoven Drive, and Rapallo Avenue. Route 17 overlaps Route 9 within the project limits from Exit 23A to Exit 24 (log miles 22.3 to 23.0).

EXISTING CONDITIONS:

Route 9 is a major north/south route connecting Old Saybrook and West Hartford. Through the downtown Middletown area, it is flanked by the Connecticut River to the east and an active Providence and Worcester Railroad line to the west. It is classified as a freeway apart from a short section of non-freeway in the downtown Middletown area from old NB Exit 23 to Exit 24. This 0.36-mile section of Route 9 includes two at-grade signalized intersections that contribute to significant delays and crashes.

The intersection of Route 9 and Hartford Avenue (Exit 24) is the main access between Route 9 and the Arrigoni Bridge, which connects Middletown and Portland over the Connecticut River. This signalized intersection provides full access to and from Route 9. This location has a significant number of crashes that can be attributed to the signal, with the majority being rear end.

At NB Exit 23 (SB Exit 23C), Route 9 intersects with Washington Street and deKoven Drive at a large, signalized intersection over an at-grade railroad crossing. Washington Street leads to Route 66, providing connectivity to western portions of the state. This intersection provides full access from Route 9 and access to Route 9 south.

The delays at both previously mentioned signalized intersections subsequently cause additional delays to the downtown Middletown area, resulting in congestion amongst city streets. Between these intersections, Route 9 is horizontally and vertically constrained by a Providence and Worcester Railroad Bridge (00639R).

The majority of the project is located within the 100 year Connecticut River Floodplain.

CRASH DATA:

The latest available three-year crash data along the Route 9 project limits (January 1, 2022, to December 31, 2024) reported 574 crashes with 183 injuries. The intersection of Hartford Avenue and Route 9 is also on the CTDOT's High Frequency Crash List¹.

PURPOSE AND NEED:

The purpose of this project is to improve safety and reduce congestion on Route 9. This project is needed because two traffic signals on Route 9 directly contribute to crash rates significantly higher than adjacent segments of freeway.

¹ Pursuant to Title 23 United States Code Section 409, this data is not admissible and not discoverable in any federal or state court proceeding and cannot be considered for any other purpose in any action for damages arising from an occurrence at a location addressed in this report.

PROJECT IMPROVEMENTS:

A new off-ramp is proposed on Route 9 northbound at River Road to serve as the primary access for northbound exiting vehicles. A three-leg roundabout will calm freeway traffic to downtown speeds and serve as a gateway feature to the riverfront. The proposed off-ramp requires the partial acquisition of a superfund site owned by RLO Properties as well as several minor acquisitions of City property.

The intersection of River Road and Harbor Drive will be reconfigured to prioritize River Road, accommodating the vehicles coming from Route 9 northbound. A right turn lane will be added to Union Street to help encourage vehicles to use deKoven Drive for connection to the Arrigoni Bridge and Route 66. This right turn lane will require a sliver acquisition of 40 Union Street. An additional pedestrian crossing is being provided on Union Street at the railroad crossing to improve pedestrian connectivity to the Connecticut River and proposed developments. A multi-use trail on the east side of River Road will provide a riverfront walk and will address the missing link for multi-modal connection from downtown to proposed development areas.

The traffic signal at the Washington Street interchange (NB Exit 23) will be removed and access will be simplified. Northbound and southbound access to Washington Street will be removed while maintaining access to Route 9 southbound with the addition of an acceleration lane for merging. Motorists looking to travel westbound on Route 66 will now be directed to the respective previous exit, Exit 23 and the new off-ramp at River Road.

The traffic signal on Route 9 at Exit 24 (Hartford Avenue) will be removed, and access will be converted from an at-grade signalized intersection to a grade separated free flow interchange. The removal of this signal not only reduces the possibility of wrong way entrances and improves safety, but it greatly improves the efficiency of the signal at Saint John's Square as well. With the signal removed from Route 9, vehicles approaching Route 9 will flow freely onto northbound and southbound. This removes the queue from Hartford Avenue eastbound and in turn provides more green time to Main Street, dramatically reducing the queue on Route 66 westbound over the Arrigoni Bridge. In order to provide a safe interchange, access from Route 9 northbound to Hartford Ave must be removed. The acceleration lane onto Route 9 northbound will be constructed in the existing median of Route 9 and will serve as an additional through lane for Route 9 northbound until Exit 25 for Route 99 in Cromwell. Access to and from Hartford Avenue from Route 9 southbound will be maintained with full length deceleration and acceleration lanes.

Improvements will be made to Rapallo Avenue to convert the existing bi-directional roadway to a one-way configuration. A designated right turn lane and a through/left lane are proposed on Rapallo Avenue at Main Street to improve the travel path from Route 9 northbound to the Arrigoni bridge. By converting Rapallo Avenue to one-way, we are able to accommodate this new movement with only minor roadway widening and while maintaining all 21 on-street parking spaces. This configuration will also improve the pedestrian safety of the crossing along Main Street and eliminate the current observed illegal left turns onto Rapallo Avenue from Main Street southbound.

Exit 22 will be widened and designated left and right turn lanes will be provided to reconcile unacceptable queue lengths seen in the 2045 traffic analysis. Widening Exit 22 will allow for the primarily eastbound moving traffic to exit Route 9 southbound without being inhibited by the relatively low number of vehicles leaving Route 9 southbound and traveling west.

Northbound trucks destined for the Arrigoni Bridge will be encouraged to use Exit 25 and reverse direction to use the Route 9 southbound access to Saint John's Square and the Arrigoni Bridge. A roundabout is proposed at the Route 99 interchange to improve the safety and viability of that movement.

Variable message signs will be used to alert drivers to any roadway closures or incidents in the area. If needed, these signs can be used to reroute northbound vehicles headed to the Arrigoni Bridge up to Exit 25 in Cromwell where they can then take Route 9 southbound back to Exit 24 to go over the bridge. Not only is this route a good option for incident management, but it also provides an efficient route, especially for trucks, that only increases the travel time to get to the Arrigoni Bridge by two minutes when compared to traveling via the new off-ramp at River Road. This route, while slightly longer in duration, is anticipated to be the preferred route for trucks to access the Arrigoni Bridge from Route 9 northbound.

Approximately 180,000 cubic yards of material will be removed from a state parcel in order to compensate for the fill within the 100 year floodplain. This soil is proposed to be relocated to a State parcel at 915 River Road and a City parcel between Bow Lane, River Road, and Farm Road.

A separate project, CTDOT project number 0082-0327, has been initiated to design and construct a pedestrian bridge over Route 9 to provide better connectivity to the riverfront. This project is in its infancy but will be coordinated with the signal removal project as it progresses.

PROJECT HISTORY:

CTDOT has shown interest in removing the traffic signals on Route 9 in Middletown since the early 2000's. The public has been engaged multiple times and has historically shown support of the removal of the signals yet haven't been in support of the design alternatives previously presented. After the 2018 public engagement, the traffic model was expanded, and further analysis was performed. An origin-destination study was conducted to gain the knowledge of the network to accurately redistribute vehicles in the proposed design. Additional alternatives were investigated, leading to the proposed design which proposes providing access by means of a new off-ramp at River Road. This alternative was originally suggested by the City of Middletown as a method to remove the traffic signals by using the existing infrastructure. The existing bridge carrying Route 9 over Union Street provides the opportunity to convey traffic under Route 9 for northbound exiting vehicles.

CTDOT held two workshops in February of 2024 to discuss all the alternatives and better refine the design. At these workshops, significant support was shown in favor of the proposed design, Alternative 11. Following the workshop, the elected officials of the surrounding cities and towns have provided their full support of the project. A Public Information and CEPA Scoping meeting was held on April 30, 2024 to inform the public of the design and provide an opportunity to comment.

FUNDING:

Engineering: 100% State FIF
Construction: 80% Federal / 20% State NHPP
Construction Cost: \$143,000,000

PROJECT SCHEDULE (SUBJECT TO AVAILABLE FUNDING) :

Start of Construction: Spring 2028
Construction Completion: Fall 2031

PROJECT DESCRIPTION

STATE PROJECT NUMBER: 0082-0330

FEDERAL AID PROJECT NUMBER: 1081(118)

DEKOVEN DRIVE AND RAPALLO AVENUE IMPROVEMENTS

CITY OF MIDDLETOWN

PROJECT LOCATION:

This project is located in the City of Middletown on deKoven Drive from Washington Street heading north to include Rapallo Avenue up to its intersection with Main Street. Offline work is located on 7 and 31 Rapallo Avenue.

EXISTING CONDITIONS:

deKoven Drive parallels Main Street and serves as a frontage road to Main Street. deKoven Drive turns into Rapallo Avenue via a substandard compound curve. Rapallo Avenue is bi-directional with unmarked street parking on both sides of the road. The current curb to curb width is approximately 35.5 feet which leaves 6.5 feet of unmarked parking on each side of the road. The City ROW along deKoven Drive and Rapallo Avenue is very tight to the edge of the buildings, often with the sidewalk terminating all the way up at the building foundation. The City is experiencing numerous violations of the “no left turn” from Main Street southbound to Rapallo Avenue eastbound. Additionally, the City is looking for ways to alleviate congestion on Main Street in the vicinity of Rapallo Avenue.

CRASH DATA:

The latest available three-year crash data along these roads (January 1, 2023, to December 31, 2025) reported 19 crashes with 5 injuries.

PURPOSE AND NEED:

The purpose of this project is to improve safety and reduce congestion in the vicinity of deKoven Drive and Rapallo Avenue. This project is needed because the curve between deKoven Drive and Rapallo Avenue is substandard and because the lane configuration on Rapallo Avenue leads to excessive congestion at its intersection with Main Street.

PROJECT IMPROVEMENTS:

Improvements will be made to Rapallo Avenue by converting the existing bi-directional roadway to a one-way configuration heading towards Main Street. A designated right turn lane and a through/left lane are proposed on Rapallo Avenue at Main Street. By converting Rapallo Avenue to one-way and by widening approximately 3 feet, all 21 on-street parking spaces will be maintained and widened by 1.5 feet to provide more space for parked vehicles. This configuration will also improve the pedestrian safety of the crossing along Main Street by allowing pedestrians to focus on only one approach and eliminate the current observed illegal left turns onto Rapallo Avenue from Main Street southbound. The horizontal curve between deKoven Drive and Rapallo Avenue will also be addressed and improved to better meet driver expectations. In addition to the roadway work, a gravel parking lot at 7 and 31 Rapallo Avenue will be paved and striped and all sidewalks and sidewalk ramps within the project limits will be repaired as needed.

FUNDING:

Engineering: 100% State FIF

Construction: 80% Federal STPH/ 20% State

SCHEDULE:

FDP: November 11, 2026

DCD: December 23, 2026

ADV: January 20, 2027

AWD: February 17, 2027

NTP: May 31, 2027

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