



Charles D. Baker, Governor  
Karyn E. Polito, Lieutenant Governor  
Stephanie Pollack, MassDOT Secretary & CEO



TO: I-91 Viaduct Study Working Group  
FROM: I-91 Viaduct Study Team  
DATE: May 4, 2016  
SUBJECT: Removal of the 'West Side Alternative'

The Massachusetts Department of Transportation (MassDOT)'s I-91 Viaduct Study seeks to identify existing issues and evaluate alternative alignments for the viaduct section of I-91 which may be less disruptive to Springfield's urban environment and provide a regional highway connection that is more environmentally and financially sustainable in the long-term than the existing configuration. Providing stronger connections between downtown Springfield, the South End, and other Springfield neighborhoods with the Connecticut River stands as a key objective of the study.

During the fall of 2015 and winter of 2016 MassDOT and its study consultant Milone & MacBroom (the "Study Team") carried out the Alternatives Development phase of the study. Over this period, 12 (twelve) alternatives were introduced which reimaged both the viaduct and rail line as it is currently aligned through Springfield. Six of these ideas, such as realigning Route 5, splitting northbound and southbound travel on I-91, and placing the highway at-grade were removed from consideration between the December 2015 and January 2016 Working Group meetings due to feasibility concerns and identification of fatal flaws. A March 16<sup>th</sup>, 2016 Working Group meeting further refined the list of long-term alternatives to be carried forward for Alternatives Analysis to three. These alternatives were an elevated viaduct structure to provide additional space to facilitate connections underneath and two variations of a sunken or depressed structure which would provide access over a partial or fully-covered highway and rail line between the city and the waterfront.

Some members of the Working Group felt that one alternative removed at this juncture, which would carry the highway and rail line from the east side of the Connecticut River in Springfield to the west side of the river in West Springfield and Agawam (the "West Side Alternative"), did not have its benefits and impacts fully qualified and quantified in order to warrant removal from further consideration. A follow-up meeting on March 22<sup>nd</sup>, 2016 provided proponents and opponents of the West Side Alternative opportunity to more fully discuss their thoughts and raise design ideas that the Study Team could develop and analyze in more detail.

In the time since these meetings, the Study Team further developed potential highway and rail line alignments along the west side of the Connecticut River which could reduce potential impacts. The goal of this effort was to position a West Side Alternative to the greatest extent viable for long-term permitting, funding, construction, and operation, particularly regarding the three advanced alternatives. The current concept for the West Side Alternative is available at the end of this document.

With this additional work now completed, the Study Team has confirmed that the West Side Alternative is not suitable to advance to the Alternatives Analysis stage of the study. The primary reasons for this determination are outlined below:

**Property and Land Impacts:** A primary point of concern among West Side Alternative proponents was that the initial estimation of the number of property takings associated with the alternative was not accurate and that an attempt to reduce the number of takings by selecting an alignment with the least amount of impacts should be explored. The Study Team carried out this step and found that the least impactful alignment would still involve the taking of 48 structures in West Springfield and 55 structures in Agawam. These takings would include businesses, utility structures, single-family homes, and multi-family residences.

Acquisition costs for each of these properties would be significant, and widespread community opposition would likely be encountered, endangering the support needed to construct this alternative.

School Street Park in Agawam would be heavily impacted under the proposed West Side Alternative, particularly in regards to its presence near a possible US-5/Route 57 interchange. Section 4(f) of the Department of Transportation Act of 1966 obligates any project which uses Federal funding to avoid use of any land from a public park, recreation area, wildlife and waterfowl refuge, or historic site unless there is no feasible and prudent alternative and the project has exhausted all possible planning to minimize harm to these facilities. A Section 4(f) evaluation must be approved by the Federal Highway Administration for the project to move forward. Mitigation of impacted lands or facilities must be included in the project.

Section 106 of the National Historic Preservation Act of 1966 would also obligate MassDOT to account for any historic properties listed in the National Register of Historic Places or properties which meet the criteria for the National Register with any alignment. If adverse effects are discovered MassDOT must seek ways to avoid, minimize, or mitigate these effects. The School Street Barn at 551 School Street in Agawam, which the West Side Alternative would intercept, is listed on the National Register of Historic Places. Furthermore, any structure over 50 years old is eligible to be listed on the National Register required that it meets other criteria regarding its historical significance.

The West Side Alternative would also need to acquire applicable Federal and State wetland permitting. Wetlands impacted under the West Side Alternative exist around the Westfield River and to the area west of the existing US-5 alignment and north of the Westfield River. Regulations require that the project avoid or minimize impacts to wetlands.

The Alternative would additionally be subject to Massachusetts Environmental Policy Act (MEPA) and National Environmental Policy Act (NEPA) permitting in addition to any of the regulations discussed above.

Given the presence of the existing I-91 viaduct and rail line in Springfield, any West Side Alternative which impacts parks, recreation areas, historic sites, and wetlands would likely fail to acquire the proper permitting, as an alternate route already exists. Additionally, even for those matters that MassDOT could attain the proper permitting to address, the agency generally strives to minimize these types of impacts as a matter of best practice for its projects. Doing so reduces project costs, accelerates project delivery, and helps engender community support.

In addition to direct property takings, several indirect impacts would be imposed upon nearby properties. Noise and visual impacts can be expected for properties abutting the new highway and rail line alignment, potentially leading to property value losses which would be harmful on an individual and community level.

**Access Concerns:** A lack of access from the new interstate facility to West Springfield and Agawam acts to reduce the benefits each community can gain from the project. The proposed West Side Alternative would feature one interchange throughout its run in West Springfield and Agawam. A reconfigured interchange with US-5 and Route 57 in Agawam would provide access over the South End Bridge east into Springfield and west into Agawam and Southwick on Route 57. As Route 57 is a limited-access highway in its current configuration access to neighborhoods near this interchange would be lost, including access to Meadow Street westbound and River Road southbound. In the current configuration, the land required for on and off-ramps for this access would have impacts to Corey Street, River Road, South and North Alhambra Circle, Barney Street and Sterling Road.

No interchange is proposed for West Springfield due to the presence of the Connecticut River immediately to the east of the reconfigured highway and rail line. Configuration of the highway to allow space for an interchange would considerably add to the land and property takings of the project. Access between Springfield and West Springfield across the Memorial Bridge via the Memorial Circle could require reconfiguration of roadways to account for the new highway and rail line. Pedestrian and bicycle access to the Memorial Bridge would be impacted.

As exits for private enterprises are not allowed off of interstate facilities, access to the Springfield Water and Sewer Commission facility in Agawam would need to be addressed.

Although a realigned highway and rail line away from Springfield could drastically change access from the city's downtown and South End neighborhoods to the Connecticut River waterfront, concerns exist about the loss of regional access this project would create. Residents and businesses strongly consider access in choosing where to locate. To take a notable example, the MGM Springfield resort casino project proponents may have concerns about any alternative which redirects access for patrons across the region.

**Costs:** Each of the three alternatives the Study Team wishes to move forward for Alternatives Analysis would carry significant costs due to the scale and complexity of a relocation or reconfiguration of the I-91 viaduct structure. However, the West Side Alternative would more than likely contain much higher costs due to the significantly higher number of components involved and complications which must be overcome. Although an estimated construction cost is not attainable without advancing the idea through Alternatives Analysis it can be reasonably expected that reconfiguration of the I-91/I-291 interchange in Springfield to carry I-91 over the Connecticut River; new construction or reconstruction of the existing rail bridge to divert rail traffic on to a new line southbound along the Connecticut River; the remainder of the new rail line; upgrades to US-5 to bring it to interstate standards; right-of-way impacts; a reconfigured interchange with US-5 and Route 57; and a new highway and rail bridge over the Connecticut River to meet the existing highway and rail line in Longmeadow would cost well into the billions of dollars.

In addition to the engineering challenges inherent with these actions, considerable engineering obstacles would also raise the cost of the West Side Alternative. Vertical grade challenges would need to be addressed at every proposed interchange, particularly where a new rail line would meet the existing rail bridge in West Springfield. Controlling grades into both Union Station in Springfield and the existing rail yard in West Springfield would also need to be remedied. There are expected to be stormwater, groundwater, and water level impacts. Some of these costs can be reasonably expected for any of the alternatives, but the scale of the West Side Alternative renders these impacts most dominant.

As the current US-5 highway does not meet Interstate standards, there would be costs associated with achieving this. Much of the right-of-way acquisition would be tied to this activity but a reconstruction of the roadway itself would also likely be required.

Utility impacts are expected to be significant with this alternative. CSX, the owner of the existing rail line in Springfield, may likely demand significant compensation for disruption of freight services.

Additionally, mitigation efforts to reduce disruption during the construction period would contribute to the total cost of the project. Construction of new barriers to ease visual impacts and achieve noise abatement can be expected. Long-term diversion of vehicular traffic and rail activity will be required. As the current I-91 alignment and rail line in Springfield would be reconfigured as part of this alternative mitigation efforts would need to take place on both sides of the Connecticut River.

**Lack of Community Support:** During the March 16<sup>th</sup> and March 22<sup>nd</sup>, 2016 Working Group meetings, representatives from the cities of West Springfield and Agawam each voiced their opposition to the West Side alternative. Selection of the West Side

Alternative would annul or indirectly impact several projects each community has underway in the area.

In West Springfield the city recently created a canoe launch and is finalizing the design for a Riverwalk connection with neighborhood communities. A redesign of Memorial Avenue with a Complete Streets layout is also nearing construction. An Environmental Justice population north of the Memorial Rotary may be impacted and the business community in this area could also be affected by the project.

In Agawam, the isolation area that a new highway and rail line alignment would create was brought up as a concern by the Planning and Police Department. Sewer force mains at the Connecticut River confluence with US-5 would also be affected. Impacts to businesses, noise impacts, conflicts with the Riverwalk, and ramp access issues were also raised by city officials.

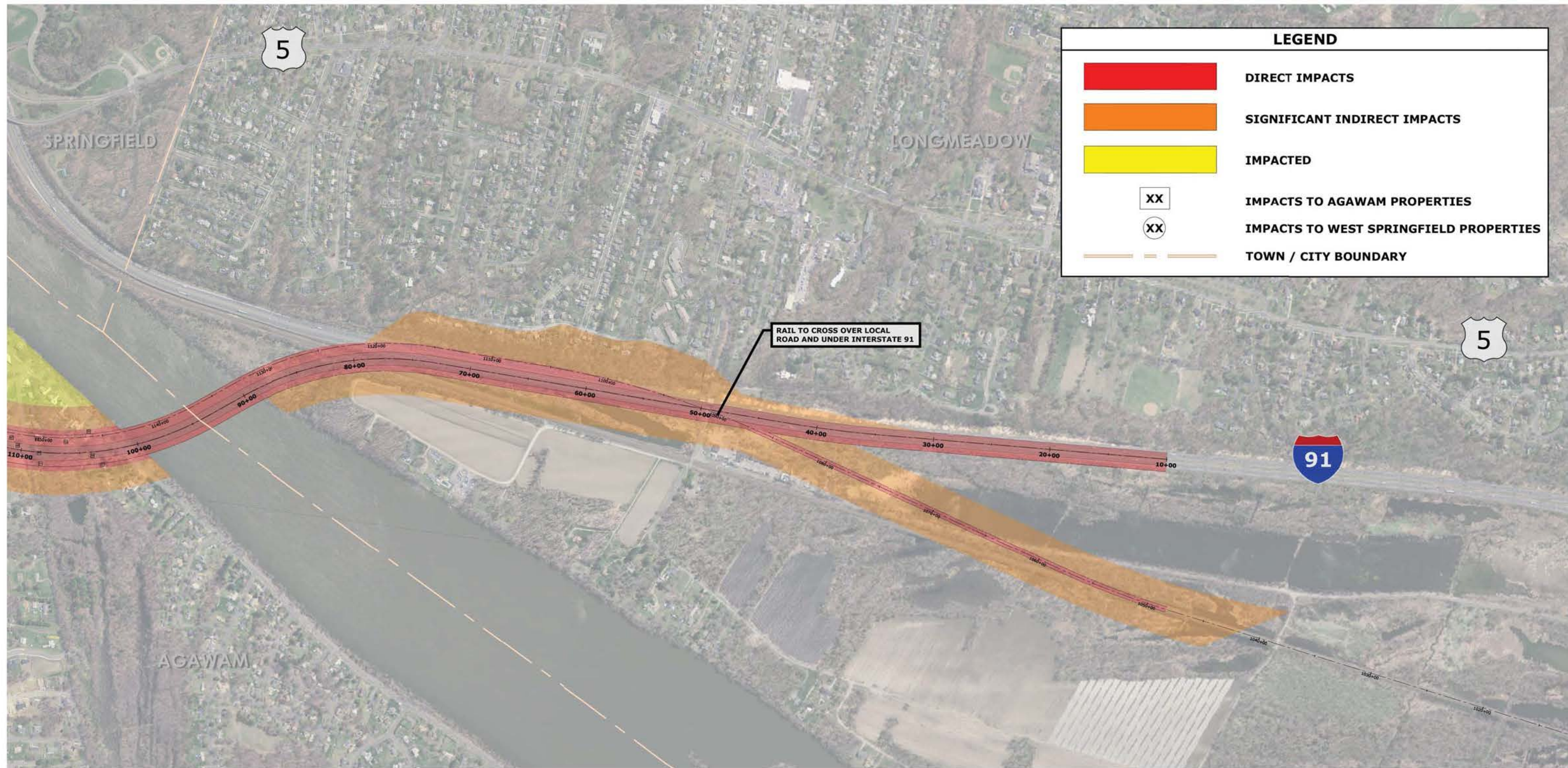
An argument posited in favor of the West Side Alternative relates to the magnitude of potential benefits from removing the viaduct structure and rail line from the Connecticut River waterfront in Springfield. Reconnecting downtown Springfield and the South End neighborhood with the Connecticut River could, in the long-term, bring about greater economic benefits to the region relative to the other three alternatives given Springfield's standing as the region's commercial center. However, it was deemed not prudent to pursue these potential gains, given the significant level of identified impacts of the West Side Alternative along with the lack of support by West Springfield and Agawam.

In conclusion, the sum of the West Side Alternative's impacts leads to an alternative which would be difficult, if not infeasible, to acquire the appropriate permitting, generate community, regional, and statewide support, overcome engineering challenges, gain funding, and achieve an overall benefit for the region's residents, visitors, and employers. The Study Team firmly believes that the three alternatives being advanced for further analysis could bring about significant (mobility, economic, accessibility, livability, recreational, etc.) benefits to the city of Springfield without imposing an undue burden on neighborhoods along the west side of the Connecticut River.









LEGEND	
<span style="display: inline-block; width: 30px; height: 15px; background-color: red; border: 1px solid black;"></span>	<b>DIRECT IMPACTS</b>
<span style="display: inline-block; width: 30px; height: 15px; background-color: orange; border: 1px solid black;"></span>	<b>SIGNIFICANT INDIRECT IMPACTS</b>
<span style="display: inline-block; width: 30px; height: 15px; background-color: yellow; border: 1px solid black;"></span>	<b>IMPACTED</b>
<span style="border: 1px solid black; padding: 2px;">XX</span>	<b>IMPACTS TO AGAWAM PROPERTIES</b>
<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">XX</span>	<b>IMPACTS TO WEST SPRINGFIELD PROPERTIES</b>
<span style="border-top: 1px dashed black; width: 30px; display: inline-block;"></span>	<b>TOWN / CITY BOUNDARY</b>