I-91 Viaduct Study Working Group Meeting #8

October 26, 2016 – 4:00 PM

UMass Center at Springfield, Tower Square, 1500 Main Street, Springfield, MA

Summary

Purpose: The eighth meeting of the I-91 Viaduct Study Working Group presented an update on the three alternative scenarios developed, including land use and economic development scenarios to be used as modeling inputs.

Present: Ethan Britland, Michael Clark and Rohith Prakash of the Massachusetts Department of Transportation (MassDOT) Office of Transportation Planning (OTP); Mark Arigoni, John Hoey and Van Kacoyannakis of the project study team led by Milone & MacBroom (MMI); Emily Christin and Sarah Paritsky of Regina Villa Associates; Betsy Johnson, Walk/Bike Springfield; and the following members of the Working Group:

Rana Al-Jammal, Pioneer Valley Planning Commission (PVPC)
Jenny Catuogno, Young Professional Networking Groups
Donna Feng, MassDOT District 2
Laura Hanson, MassDOT District 2
Sarita Hudson, Partners for a Healthier Community
Rich Masse, MassDOT District 2
Paul Nicolai, Nicolai Law Group, P.C.
Catherine Ratté, Live Well Springfield/PVPC
Margaret Round, MA Department of Public Health
Gary M. Roux, PVPC
Paula Simmons, MassDOT Rail and Transit Division
Thomas Yarsley

MassDOT Project Manager Ethan Britland opened the meeting and led a round of introductions. He reviewed the agenda for the meeting and explained that the purpose of this meeting is to share an update on the refinement of the three long-term alternatives and the short and mid-term alternatives. Before the alternatives are put through the travel demand model, the team will also present a summary of the expected land use, demographic, and economic development for each long-term alternative.

MMI Principal Mark Arigoni reviewed the three alternatives that were presented at the previous Working Group meeting and showed illustrative proposed cross-sections of each:

- Alternative #1: Sunken, Tunnel, or Combination(s) Following Current I-91 Alignment
- Alternative #2: Sunken, Tunnel, or Combination(s) following Modified I-91 Alignment (section of combined rail and highway corridor)
- Alternative #3: Reconstructed Elevated Structure (Modern Viaduct)

He explained that there will be detailed discussions of each alternative at this meeting, including some refinements to each.

Short and Mid-Term Alternatives

Mr. Arigoni presented the short term alternatives that can be implemented quickly, including improvements under the current viaduct and several pedestrian access improvements. He noted that each of these alternatives is still on the table.

Mr. Arigoni presented the mid-term alternatives, which include improvements to the Longmeadow Curve and the I-291/I-91 Interchange. He said both of these recommendations can be implemented regardless of which of the three I-91 alternatives is chosen. A list of the short and mid-term alternatives can be viewed in the presentation, available on the study website.

Mr. Arigoni reviewed the goals and objectives of the study and noted that each alternative will be evaluated against these goals. He said the study team will choose the alternative that strikes the best balance between these goals.

Alternative #1 – Sunken, Tunnel, or Combination(s) Following Current I-91 Alignment

Mr. Arigoni showed a conceptual plan of Alternative #1 with boxes outlining three different sections of the corridor, and noted that each section will be discussed in detail. The sections include the I-291/I-91 Interchange area, the business/riverfront area, and the South End Bridge/Agawam/Longmeadow area. He said that each alternative is broken up into the same sections. Mr. Arigoni showed conceptual plans with graphics showing a hypothetical development scenario that could be representative of potential future development within each section of each alternative, as described below. Mr. Arigoni noted that the actual development that occurs along the corridor may vary from the conceptual representations shown.

I-291/I-91 Interchange Section: Mr. Arigoni identified two new on- and off-ramps from I-291 West to I-91 South which would allow traffic to access the Memorial Bridge and West Springfield. Mr. Arigoni said the project team met with Chris Cignoli and Kevin Kennedy from the City of Springfield recently, and this alternative received positive feedback. He described several ideas for development, including an eco-industrial park and multi-story riverfront residential buildings. New access roads connect to the riverfront development park (a current constraint in this area is that Avocado Street provides the only access to the development space). There is also enhanced riverfront access and green park space along the Bikeway.

Business/Riverfront Section: Mr. Arigoni described park space covering the sunken highway (alongside at-grade East and West Columbus Avenues), which opens up many opportunities for landscaping and access to the riverfront. He said the new ramp alignments are as follows:

- Off-ramp from I-91 North to East Columbus Avenue before the highway goes underground
- New on-ramp from West Columbus Avenue to I-91 South
- Off-ramp from I-91 South to West Columbus Avenue in which vehicles would use Union Street to reach Downtown Springfield
- On-ramp from East Columbus Avenue to I-91 North

The I-91 garages would need to be removed, so the plan shows a reconstructed two-level I-91 North garage. Mr. Arigoni said that the City of Springfield expressed interest in developing the riverfront area

rather than leaving it as open green space. He described several developments shown in what is called the "Parkview Development" including new residential and commercial development along East and West Columbus Avenues and Hall of Fame Avenue. A riverfront residential and retail development next to the Memorial Bridge includes a parking garage to off-set the I-91 North and South garages that would need to be removed.

South End Bridge/Agawam/Longmeadow Section: Mr. Arigoni said this section did not change too much since the previous meeting. The roundabout at the end of the South End Bridge leading into Agawam was removed and replaced with a signalized intersection, and the Connecticut River Bikeway was extended across the South End Bridge into Agawam.

Question from Thomas Yarsley: What is the distance from traffic exiting the South End Bridge to the first stop light? Will there be traffic backing up onto the bridge at a red light? Mr. Kacoyannakis said there is about 700 feet and four lanes of traffic, and this option was evaluated to be the safest for vehicles and least impactful to the surrounding properties. The project team will receive more detailed information from the TransCAD model, but as of right now the team is using their best judgement. If the results of TransCAD show heavy traffic concerns at the signalized intersection, the study team can make adjustments. A discussion followed regarding various options for transporting traffic to Route 57.

Question from Catherine Ratté, Live Well Springfield/PVPC: Will there be pedestrian or bicycle access from Forest Park to the Connecticut Riverwalk and Bikeway?

Comment from Betsy Johnson, Walk/Bike Springfield: It is very important to make a connection between the Connecticut Riverwalk and Bikeway and the neighborhood of Forest Park. Mr. Arigoni said the study team looked at a lot of scenarios to provide that connection, and the only way to do that safely is to add another bridge. He added that this alternative connects the Bikeway to Agawam. Mr. Arigoni said the substructure of the South End Bridge is a constraint for making southerly connections, but at some point the bridge will need to be replaced and at that point adding a bike lane could be considered.

Alternative #2 – Sunken, Tunnel, or Combination(s) following Modified I-91 Alignment

I-291/I-91 Interchange Section: Mr. Arigoni explained the differences in the new off-ramp from I-291 West to I-91 South; its connection to I-91 South would be very elevated. He said there is no possible connection to the Memorial Bridge from I-291 West due to grade constraints, and the off-ramp would be a single lane with no shoulder. Although the interchange shown in Alternative #2 differs from that shown in Alternative #1 either option can be used on either alternative; a second possibility is shown here to discuss different options. There are height constraints on parcel development in the area below the off-ramp. The plan shows retail/restaurant development on the riverfront beneath the off-ramp, with a public/private community greenhouse and garden. Mr. Arigoni described an eco-industrial park similar to Alternative #1 along Avocado Street, and a parking garage next to the railroad.

Business/Riverfront Section: Mr. Arigoni said I-91 would be underground until Broad Street in this alternative. He noted that it is safe to show development above the sunken highway at this point in the study. There is a lot of new space adjacent to the core of downtown which could be an attractive location for development, including a potentially expanded courthouse. There are developments in the Parkview section for office, retail and residential which could be connected via skywalks to other buildings.

Question from Mr. Yarsley: What level of development above the sunken highway is possible? Mr. Arigoni said at this point in the study he cannot say that development over the sunken highway is impossible. It will definitely need a strong central support and might have height restrictions. Mr. Yarsley said the study team should make these restrictions available on the conceptual plan so people are not misled.

Comment from Paul Nicolai, Nicolai Law Group: I don't see the benefit of the loop alignment of the I-291 West off-ramp to I-91 South in Alternative #2 over its alignment in Alternative #1. He noted that the alignment in Alternative #1 seems more flexible for the City. Mr. Arigoni noted that many of the features in each alternative can be intertwined with one another. Mr. Kacoyannakis explained that the alignment in Alternative #2 makes a simpler pass over the Railroad and the loop alignment is based on horizontal and vertical constraints moving I-91 adjacent to the railroad and Connecticut River. Mr. Nicolai suggested that buildings constructed next to the rail cover will have their view blocked, so they should have parking on first few floors.

South End Bridge/Agawam Section: Mr. Arigoni said this would be different than Alternative #1 in that there is a loop ramp to elevate traffic over the South End bridge. There is an extension of the Bikeway across the South End Bridge like in Alternative #1.

Question from Mr. Nicolai: Do you have current traffic counts for how many vehicles travel to Route 5 and Route 57? Mr. Kacoyannakis said there is more traffic currently going to Route 5 than to Route 57, and will remain that way in 2040 also. He explained that he took into account safety considerations and detailed how he came to this design, which stays within the Right of Way. He said if the TransCAD model results produce a change in volume where this design provides a poor level of service, the team can change the design.

Alternative #3 – Reconstructed Elevated Structure (Modern Viaduct)

Mr. Arigoni noted that most improvements and development would take place beneath the viaduct with this alternative. Street improvements, including lighting underneath the viaduct, could happen immediately, and there would be a lot of usable space.

I-291/I-91 Interchange Section: Mr. Arigoni said the new off-ramp from I-291 West to I-91 South could be a mid-term improvement that would provide new access to the Memorial Bridge. The plan shows eco-industrial park/sustainable business development, residential and restaurant/retail development along the riverfront, and enhanced riverfront access and park space along the Bikeway.

Business/Riverfront Section: The I-91 North Garage remains, but Mr. Arigoni said the I-91 South Garage was removed to enhance connection underneath the viaduct. The plan shows significant enhancements to riverfront access.

Question from Mr. Yarsley: How much elevation would the viaduct have? Mr. Arigoni said it the viaduct would be about a 10-15 feet high with wider pier spacing that would allow for greater light and airflow underneath.

Question from Sarita Hudson, Partners for a Healthier Community: Will the Health Impact Assessment determine which alternative is best for air pollution? Mr. Britland said there will not be a Health Impact Assessment done for this study, but the study team is integrating public health in their evaluation of the

alternatives. He said the team will do its best to figure which alternative has the most health benefits and least health impacts to the city, given that all of this is conceptual in nature.

Comment from Betsy Johnson, Walk Bike Springfield: There is a study being done by local students on the public health in Downtown Springfield. Margaret Round, MA Department of Public Health, clarified that DPH conducted a baseline health assessment of the study area which will also be considered in the evaluations. She said DPH is working with the I-91 Viaduct Study Team throughout the process, and will ultimately integrate local demographic information into the conceptual maps shown at this meeting.

Comment from Ms. Johnson: Is the study team assuming that the current use of single-occupancy-vehicles will be the same in the future when these alternatives are going to be built? Why are there so many parking developments? It seems that the benefits to pedestrians and bicyclists are minimal. Mr. Arigoni stated that the benefits to pedestrians and bicyclists are significant with each alternative. He said there are about 45 intersections studied, many will be gaining pedestrian and bicycle enhancements and there will be many more connections to the riverfront which is a big improvement to the three connections that exist today. Mr. Nicolai said there are a lot of parking developments because the City of Springfield wants them. Mr. Arigoni said the development plans are really only showing building mass, and they have a variety of uses.

Question from Mr. Nicolai: Does the air pollution model account for the fuel mix of vehicles? Mr. Britland said the numbers that are used in the models are developed by MassDOT and the Department of Environmental Protection. Ms. Round said the numbers are very well regarded in the industry.

Mr. Britland said MassDOT and the study team recognize the missing connection to Forest Park, and appreciates the feedback.

South End Bridge/Agawam Section: Mr. Arigoni described an extension of the Bikeway across the South End Bridge like in Alternatives #1 and 2.

Economic Development

Mr. Arigoni presented a hypothetical breakdown of development types and sizes for each alternative. He showed a bar graph of the potential square footage of residential, retail, office, and industrial development. He noted that industrial development would be in the Avocado Street area. Alternative #2 creates the most space for development adjacent to the downtown core. He said he would expect more residential development as there are currently commercial real estate vacancies. Mr. Arigoni clarified that the square footage includes multiple floors for each building, so it is not just surface square footage. Mr. Yarsley suggested that surface space be shown as well.

Mr. Arigoni showed a bar graph that represents the potential types of jobs created and living units with each alternative. He clarified that living units are apartments or condos, and not individual houses. He added that other MMI staff members will continue to analyze this.

Mr. Arigoni showed a map of the projected population in 2040 of Springfield, West Springfield, Agawam, and Longmeadow. He noted that the development with the alternatives will be absorbed regionally, not just around the study area. The projected development impacts will be fed into the TransCAD regional model for further analysis.

Mr. Britland clarified that MassDOT and MMI are not prescribing these development scenarios, but they will be included in the model along with the City of Springfield's master planning effort.

Question from Mr. Yarsley: Has the hydrology has been studied for digging and supporting the sunken highways and developments above? Mr. Arigoni said that with the right engineering it is certainly possible, and the team will look at construction costs on a macro level. Mr. Britland assured Mr. Yarsley the study team would not present something infeasible to the public.

Schedule and Next Steps

Mr. Arigoni explained the next steps of the study are to complete the TransCAD regional model for each alternative, complete local modeling using Synchro and VISSIM, and finalize the evaluation criteria rating process for the alternatives. There are two more Working Group meetings and two more public meetings.

Mr. Arigoni thanked everyone for attending and closed the meeting.