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To:	Joe Pavaio Project Manager	Date:	August ??, 2018
From:	Sarah Davis Howard Stein Hudson	HSH Project No.:	2013061.36
Subject:	MassDOT Chelsea/Route 1 Viaduct Rehabilitation Project, #605287 Kiwanis Briefing Meeting Notes of May 17, 2018		

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## Overview

On May 17, 2018, the Massachusetts Department of Transportation (MassDOT) Highway Division presented an update on the Chelsea/Route 1 Viaduct Rehabilitation Project to the Kiwanis Club of Greater Boston. The briefing was held at the Doubletree Hotel in Chelsea. Representative Paul Donato was also in attendance.

MassDOT Project Manager Joe Pavaio began the meeting by giving attendees an overview of the project and its purpose, the schedule, work to be done and the mitigation package the community will be receiving, including the reopening of Ramp A and turning the rehabilitated Carter Street lot over to the City of Chelsea following construction.

Mr. Pavaio took questions throughout the presentation, focusing on Route 1 traffic, parking shortages, and MBTA Bus Route 111. A representative from the MBTA has been present at project meetings to hear the community's concerns. Mr. Pavaio explained that impacts to Route 1 would be minimal, and any loss of parking would be mitigated throughout construction. There were also concerns over the safety of Accelerated Bridge Construction (ABC) methods following the collapse of the Florida International University Pedestrian Bridge. Mr. Pavaio assured attendees that the methods employed to rehabilitate the Chelsea Viaduct are safe and that MassDOT has extensive experience using ABC methods.

Following the final design submission, the project is anticipated to be advertised in July.

# Agenda

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## Detailed Meeting Minutes<sup>1</sup>

### Welcome & Opening Remarks

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**C: Joe Pavao:** My name is Joe Pavao and I am the MassDOT Project Manager for the Chelsea Viaduct Rehabilitation Project. Thank you for having us. Before we start, I just want to recognize Representative Paul Donato for being here, thank you for attending.

Today we are going to give an update on the project. I can assure you, the tingle that you feel as you drive into Chelsea is not the bridge. The viaduct is safe to travel over but needs quite a bit of work.

I'm going to go through the presentation, but this is your meeting so go ahead and ask questions, get food, and walk around. We'll keep it informal.

I'm happy to answer questions.

### Project Overview & Discussion

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**C: Joe Pavao:** We'll start with the project overview, impacts, where we are with the environmental review, what we've done with outreach, how the design has progressed, and our coordination with the MBTA.

MassDOT is the proponent for the project, the FHWA (Federal Highway Administration) is funding about 80 percent of this project, HNTB is the lead designer, and HSH (Howard Stein Hudson), CME and VHB are sub-consultants. We have been working with a few other organizations, and the City of Chelsea and the MBTA have played important roles as well.

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<sup>1</sup> Herein "C" stands for comment, "Q" for question and "A" for answer. For a list of attendees, please see Appendix 1.

The project limits are the Carter Street off-ramp, referred to as Ramp D, all the way south to the Tobin Bridge, including all elevated structures in that range. This is another aerial view looking northbound.

The Chelsea Viaduct connects Route 1 to the Tobin Bridge. It carries about 63,000 vehicles each day. There are 75 spans all linked together that we are replacing on a very accelerated schedule. As far as existing conditions go, the viaduct appears to be in bad condition but has been and continues to be inspected on a regular basis. The viaduct is structurally deficient, which means it's in need of replacement. This project will eliminate 160,000 square feet of deficient deck.

We will advertise the project this year and reduce impacts by using an accelerated design. We're working towards the federal goal of reducing structurally deficient deck statewide to less than 10% and this project puts us very close to achieving that.

In terms of the project status and what we've done to date, we've completed a lot of subsurface exploration, a very detailed survey, and the 75% design. At this point, we're essentially at final design, but we still need to do a value engineering study required by the FHWA. For that we'll have a team of experts review the design over a three-day period to make sure the state is getting the best value on this project.

This is the schedule, which I presented earlier. Plans, specifications, and estimates are done, but we still need to advertise this project, select a contractor, provide a Notice to Proceed (NTP) to a contractor, and continue with public outreach.

To date, public outreach in Chelsea has included numerous meetings. The latest was a meeting with the New England Produce Center (NEPC) about a week ago. It was eye opening to see how much produce is processed both in Chelsea and Everett. We'll be working closely with them to ensure we have minimal impacts to their operations when planning any road or ramp closures.

The scope of work includes repairing the substructure by encasing the existing steel columns to support the load of the structure. The plan is for this to happen during the first year and a half of construction, throughout the entirety of 2019. There will be minimal to no impact on Route 1 traffic throughout this phase. We will be using accelerated bridge construction (ABC) methods and prefabricated bridge units (PBUs) for this project. Six isolated spans on the grid deck must be cut out and replaced as-is because they are either over the Silver Line or approaching the Tobin Bridge. We are providing new crash-tested bridge barriers which will be much safer and taller, and a solid snow fence which will act as a sound barrier. We'll also replace all the roadway lighting, and all of the existing drainage and parking lots underneath the viaduct. The Carter

Street lot is overgrown right now, but MassDOT will be repaving it and turning it over to the City of Chelsea on a no-cost lease.

There are a couple of options to dress up the existing steel supports. If we open up some of them as opportunities to display artwork, student work can potentially be showcased. We have four of these options displayed at the City Hall and in the public library; go take a look and cast your vote.

With the PBUs, the intent is to have them fabricated off-site, trucked in, and then have the contractor install one span a night. The noisier work will take place during the day, and at night the old panels will be removed with cranes and replaced with new ones. It sounds easy – it's actually a very time-consuming operation – but we think we can do it in a year's time.

This graphic shows how traffic will be impacted. Work on the Chelsea Viaduct superstructure will not start until April 2020, and it will continue until August 2020. The road will be reduced to two lanes in either direction. At night, the road will be reduced down to one lane. Each night, 11:00 p.m. to 5:00 a.m., a truck will pull up with the PBU, the PBU will be installed, and the road will open to traffic in the morning.

For the sections of the viaduct where we have the isolated bridge deck spans that pass over the Silver Line and approaching the Tobin Bridge we will use conventional methods because we cannot use PBUs here with the depth of the units. These two sections will be done over the course of 12, 55-hour weekends – six in the spring and six in the fall - with work starting at 10:00 p.m. on Fridays and continuing through to Monday at 5:00 a.m. These are particularly sensitive locations with communities very near to them, so we want to get in and out as quickly as possible. If we don't do it this way, it would be night work for over nine months to get that done.

**Q: No Name Given:** Why not work on those pieces during the summer?

**A: Joe Pavao:** We picked the weekends during the year with the lowest volumes of traffic.

Our schedule has us advertising the project around the end of June<sup>2</sup>. Right now, the FHWA is reviewing documents that need approval before we can advertise the project. We are finalizing the design now. We plan to award the project to a contractor by November and give the Notice to Proceed (NTP) so that work can begin in spring 2019. All of 2019 through to April 2020 will be focused on the substructure work. There will be parking impacts, but we have a plan to mitigate

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<sup>2</sup> The project was advertised in July.

those impacts as much as possible. Winter 2019 will be focused on the substructure rehabilitation work.

**Q: No Name Given:** What will be the noise level at night during the 12, 55-hour weekends?

**A: Joe Pavao:** We took noise level measurements and will specify that the contractor must stay within very strict noise levels. The contractor will have to come up with a plan to do the noisy work during the day. There will be no saw cutting or jackhammering allowed at night. If they must do noisy work at night, they must put up noise curtains and take other precautions, and they will be required to submit their noise mitigation plan to us. Of course, things come up, so we will have a 24-hour hotline in both English and Spanish. If we get a call and the project is getting too noisy, the contractor will have to stop work.

**Q: No Name Given:** So, you're never shutting down Route 1?

**A: Joe Pavao:** That's correct, unless there is some kind of emergency, Route 1 will have two lanes open at all times except during nighttime PBU installation, which will reduce the road down to one lane. The entire process and site will be monitored, with police details at strategic locations. We will make adjustments as needed; the first two weeks people will feel their way around to find alternate routes, so we'll need to make adjustments as we go.

There will be some ramp closures. The Carter Street on-ramp will be closed during construction done over four weekends that line up with the 12 weekends that we're already doing. For this closure we will coordinate very closely with the NEPC and other business that have night deliveries.

I already talked about the weekend construction, but before we do any of this work the contractor is going to be required to come out and provide advance notice to the public. We will hold public meetings well in advance every time there will be a closure or a reduction in traffic.

Regional traffic mitigation is something that we've been working on by being out in the field as often as we can, letting people know what's going on. We have a comprehensive police detail program. We'll have real-time traffic management and real-time Variable Message Signs (VMS) in place. We will post these signs further out and they will hopefully divert some traffic to other highways like Route 128.

You can see here the suggested police detail locations; we essentially want to have police details anywhere we think people will detour. It probably will be overkill at first, but like I said we will

feel it out as we go and scale back as necessary. Once the contractor has created the construction schedule, we'll meet with local and state police to ensure we have the manpower for the details.

There will also be some nighttime closures on the local streets underneath the viaduct; for example, when we do the work on Arlington Street, it might require that we close the street in the middle of the night. However, there will be no long-term closures and no closures during the day.

There have been some concerns about various construction impacts including noise, dust, lead paint, and parking. There are very strict noise control and dust containment plans. The lead paint abatement restrictions are the strictest requirements we can have. For the lead paint, I don't know the details but basically everything will get sucked up by a vacuum so that nothing can escape. There will be a lead paint monitor on site at all times; this will help us to ensure contractor compliance. Any lead paint removed in the process will be disposed of at a treatment facility off-site.

For noise, once again, the contractor must create a noise control plan that meets our specifications; they will tell us how they are going to meet those specifications. We then enforce that plan during construction.

For parking, most impacts will occur beginning in spring 2019 and extending through to April of 2020. There will be some additional impacts during superstructure work. We have a plan for parking and will try to maintain as much parking as possible, if not all parking, during construction.

**Q: No Name Given:** What about when we get a lot of snow? Carter Street is underneath the viaduct, and a lot of people park there.

**A: Joe Pavao:** I believe we will have one for one replacement of parking during construction. We will require the contractor to clear snow, and we will provide replacement parking. Replacement parking will not be far away. During column work, it will be as small as shifts within a parking lot. There will be no long-distance moves.

As I mentioned earlier with the environmental review, we have a categorical exclusion on this. The FHWA is currently reviewing that, and once it is approved we can advertise the project.

We have a robust plan for outreach and public participation – more than any other project we've done at MassDOT. We can continue to do more briefings as people request, and we will have more public meetings during the construction process.

Some of our mitigation commitments stem from our first formal comments taken at the 25% Design Public Hearing (DPH). We had many meetings prior to that where we listened to peoples' concerns, and then the 25 % DPH served as a formalization of that process. So, at that meeting, we took all of the comments in writing, really looked at them, and adjusted the design accordingly. This is what came out of that paired with a negotiation with the City Manager on the needs of the city; we established that we will be adding an allowance for crossing guards near the school. Architectural improvements will be made to the columns which will allow students to display their talents.

Weekend construction and ABC methods are tactics that MassDOT has been using a lot more where we can. We will get in and out as quickly as possible. Conventional methods would take four or five years for this project. The superstructure portion, at least, will be done in one season. We will also improve lighting under the structures, making sure that current lighting meets standards underneath the viaduct. We'll repave the parking lots and replace the drainage, as I said earlier.

We'll use incentives and disincentives to ensure that the project is delivered on time. This is based on a daily road user cost, which we calculate and get approved by the FHWA. This allows us to essentially enforce the end times and start times with a contractor. If we tell them they must have traffic opened to the public by Monday morning at 5:00 a.m. and they're still working, this is how we enforce it. There will be a minute by minute penalty which serves as a strong incentive to the contractor. This has worked well on past projects, including the Route 3 Bridge project, which included one 55-hour weekend each way. That project finished five hours early because of the incentives in place.

Ramp A came up a lot in commentary. MassDOT intended to eliminate it, but the community wants the ramp, so we listened. Ramp A will be closed during construction, then rebuilt and maintained at the end of the project. Before this is closed, Carter Street underneath the Tobin bridge will be completed, so we'll never have two ramps closed at the same time.

I mentioned the snow barrier before, but the project doesn't qualify for a sound barrier, so we got creative. We needed to install a new snow fence to protect nearby homes, so we decided on a solid barrier that also dampens sound.

Additional commitments have been negotiated with the City Manager. We can't accommodate everything that's been asked for by the community, so we agreed to provide a corridor enhancement fund of \$800,000 which the city can add to if they so choose. MassDOT also agreed to turn over the Carter Street lot, which the city can use for a skate park, garden, parking – it doesn't really matter to the state and can be used as the City sees fit. The \$800,000 fund, once again, can be used to mitigate project impacts but it is up to the City to decide how they'd like to utilize those funds.

MBTA Bus Route 111 has been a big conversation topic in regard to this project. We recognize that Bus 111 is over-capacity; it's one of the most used buses in the state. It's currently using Ramp A to get to Boston Southbound, but once the Carter Street Ramp in Chelsea is complete, Bus 111 will be moving there, which will save an estimated three to five minutes on that route. The MBTA has been coming to many of the meetings to help come up with a plan for Bus 111 and other impacted services. And the MBTA continues to meet with us as the project moves on.

Someone had mentioned all the work that is going on in Chelsea and listed all the projects that are happening. We understand that these projects have a lot of impact on the North Shore community which drives through Chelsea. We are looking at this from a global perspective to figure out which method of coordination can minimize impacts on commuters so that fewer will rely on local streets. We know there will be impacts, especially on Bus 111, and we will continue to work on that.

There are project benefits for the three big projects lined up: the Chelsea Viaduct, the Tobin Bridge, and the North Washington Street Bridge Projects. Once this viaduct is complete, it has a 75-year lifespan; this doesn't mean that there will be no maintenance. On the existing viaduct, we haven't been able to keep up with the maintenance necessary which is why it's in the condition it's in. So, we'll maintain this new viaduct about every 15 to 20 years. The Tobin Bridge project is ongoing. The North Washington Street Bridge will also have a 75-year lifespan with dedicated bike and pedestrian accommodations and a dedicated bus lane for the main impacted bus routes.

Our next steps include getting the project to a contractor by the end of this year, so they can start work first thing in 2019. This is the contact information for the project where you can reach us if you have any comments or concerns.

**Q: No Name Given:** At prior meetings, we discussed that the community is looking for fare mitigation on Bus 111 and a dedicated bus lane on the Tobin Bridge to minimize the commute impacts. Can you discuss these points further? Also, the General Manager of the MBTA informed



us previously that we should look for other ways into Boston, including walking and biking. What if we walk or bike across the Tobin?

**A: Joe Pavao:** I can't speak to what the MBTA has said as I'm not aware of those comments. However, I can say that the Bus 111 issue is something we are looking at globally. There will be minimum impacts on Bus 111 from this project, with most impacts coming from the North Washington Street Bridge. I also can't speak for the MBTA regarding fare reduction or Bus 111 ridership. But as far as alternate modes go, the Silver Line just came on, and I think some Bus 111 riders will utilize the Silver Line. It's not a permanent solution, but the end goal of all of these projects will result in a bus lane, which will help. I also think that moving Bus 111 to the Carter Street on-ramp during construction will help the 111, since the highway is three lanes there. So, there are some benefits to Bus 111 that will be seen immediately, but there will be impacts during phases of the North Washington Street Bridge Project.

**Q: No Name Given:** First, I was on Bus 111 last night on Everett Avenue. I noticed that where the bus takes the left for the Carter Street ramp, you basically have two lanes of traffic coming together. When you have buses stopping to turn left at that ramp, it will back traffic up across Chelsea. Second, when the material is taken out, where does it go? Finally, I appreciate that the process is accelerated, and it worked well out in California, but in Florida it had a tragic outcome<sup>3</sup>. How can you ensure a positive outcome here?

**A: Joe Pavao:** I'll address the bus turns first. Early on we talked to the City Manager about the enhancement fund, and the bus turns are one of the things we were looking at. Because we were going to close Ramp A instead of rebuilding it, we would have saved money which we would have used to redo that intersection at the Everett Street on-ramp to help accommodate those buses. With our current plans, there are some minor improvements that can be done at that intersection. The enhancement fund was actually increased when we abandoned the plan to close Ramp A. Improvements can probably be made there, but they will not be done as part of this project.

Regarding materials, everything that we use goes to an approved site where it gets treated. When the superstructure gets removed, they will de-lead the entire site and the superstructure will be hauled off site. That process is all regulated by the state, so nothing gets left in Chelsea.

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<sup>3</sup> The Florida bridge being referred to is the Florida International University Pedestrian Bridge that collapsed in March 2018. The pedestrian bridge was assembled using ABC methods.

Everything we touch gets removed, so even lead paint that's fallen onto the parking lots below will be removed when we take out the asphalt in the parking lots to repave.

I can't speak to what happened in Florida – I'm not sure how it happened – but we have a robust inspection program in Massachusetts. We have experience with PBUs, Fast 14, heavy lifts, and slides. We recently slid the Route 3 Bridge into place, and we're not having any issues with quality. We're watching how it gets built, and it's a very common practice. The process definitely got more attention when we did the Fast 14 bridges in ten weekends. A lot of states have started to duplicate it now. We're confident that it's very safe and that the quality is not compromised.

Are there any further questions? Thank you for having us.

## Next Steps

Following the final design submission, the project will be advertised in July of 2018. Once the contract has been awarded and the Notice to Proceed is issued, the project team and the winning contractor will return to Chelsea for a meeting, as requested by the City Manager. Future briefings can be requested at any time by community groups.

## Appendix 1: Meeting Attendees

First Name	Last Name	Affiliation
Leslie	Aldrich	Massachusetts General Hospital
Catia	Aruda	Kiwanis Somerville
Maria	Belen Power	Green Roots
Roseann	Bongiovanni	Green Roots
Eugene	Brune	Kiwanis Somerville
Michelle	Bustin	Kayem Foods
John	Chirichiello	Kiwanis Chelsea
Rita	Cornelio	Kiwanis Medford
Rich	Cuthie	Kiwanis Chelsea
Rep. Paul	Donato	State Representative
Kathy Ann	Dottin	Kiwanis Everett
Andris	Gonzalez	
Albert	Mangini	
Gerry	McCue	Kiwanis Malden
Michael	McWilliams	Kiwanis
Linda	Murphy	Metro Credit Union
Margaret	Raymond	Kiwanis Malden
Jon	Schwager	
Pavl	Swart	Kiwanis Malden
Tana	Tselepis	Kiwanis Malden
Johanna	Young	