MEMORANDUM |

To:	Michael O'Dowd Project Manager	Date:	October 1, 2015
From:	Nick Gross Howard Stein Hudson	HSH Project No.:	2013061.14
Subject:	MassDOT Highway Division Allston I-90 Interchange Improvement Project Task Force Meeting #13 Meeting Notes of September 17, 2015		

Overview

On September 17, 2015 members of the Allston I-90 Interchange Improvement Project team and MassDOT staff associated with the job held the 13th task force meeting. Generally speaking the task force membership is reflective of the initial task force with the addition of representatives from the Charles River Watershed Association as well as newly seated members in replacement for previously seated organizations.[1] The task force is composed of local residents, business owners, transportation, and green space advocates, as well as representatives of local, state, and federal governments. The purpose of the task force is, through the application of its members' in-depth knowledge, to assist and advise MassDOT in determining a single preferred alternative to be selected by the Secretary of Transportation for documentation in a joint Environmental Assessment and Environmental Impact Report (EIR) document.

The meeting was kicked-off by MassDOT's Secretary of Transportation, Stephanie Pollack who thanked the task force and public for their willingness to put their ideas on the table. The Secretary noted that ideas such as Ari Ofsevit's and Glen Berkowitz's (A Better City) at-grade alternatives have already lead to some rethinking within MassDOT and that the team is willing to make some adjustments based on the input provided by these individuals and others in the community. The goal of the task force meeting summarized herein was to allow the opportunity for the task force as well as the I-90 Allston Improvement Project team to learn the details of the two aforementioned at-grade alternatives for the replacement of the viaduct and interchange. .

Prior to the presentations, MassDOT announced that they have retained the consulting firm, HNTB to do an independent, unbiased feasibility analysis to determine what works and what does not work with the proposed at-grade concepts. The agency's charge to HNTB is to look at both alternatives with an eye towards making them work and giving each option a fair chance at success. At the next task force session

[1] A listing of task force membership can be found at: http://www.massdot.state.ma.us/highway/HighlightedProjects/AllstonI90InterchangeImprovementProject/TaskForceMembers.aspx

on October 15, the MassDOT project team, assisted by HNTB will host a workshop to collaboratively work through the two at-grade alternatives. As a prelude to the presentations it was announced that MassDOT has developed an alternative concept known at 3K which, among other things, flips the relative heights of Stadium Way and East Drive pushing the higher street to the west. This results in an overall lower elevation of the interchange's connecting roads which allows much of the rest of the project to be lowered, a long-time desire of the task force.

- Ari Ofsevit – Allston Turnpike At-Grade Concept

Ari Ofsevit, representing himself, presented his at-grade conceptual alternative noting that the focus of his work has been on the "throat" section of the Turnpike. The "throat" section is essentially the narrowest part of the Turnpike with the most constrained right-of-way nearest the Charles River and Commonwealth Avenue viaduct. Ofsevit's plan outlined the project goals, components, and why an elevated viaduct is not preferred from a bicycle, pedestrian, air-rights, and constructability perspective. In simple terms, Ofsevit's solution is to place the Grand Junction line over the Turnpike while maintaining the current width of the Turnpike, reducing overall grades, and removing a reverse curve in the highway. It is also posited that a plan without a highway viaduct will be significantly cheaper allowing funds to be repurposed for bicycle and pedestrian amenities. Some of the key take away points from Ofsevit's plan are having the Grand Junction line descend to West Station in-between the Worcester line tracks. The proposed elevated structure which would carry the Grand Junction line would also support bicycle and pedestrian modes solving the issues of connectivity to the Paul Dudley White Path. In this plan, West Station is proposed as a single level station with a concourse level of approximately 20 feet above the tracks to better match the local elevations. It should be noted that in order to successfully achieve an at-grade solution as proposed by Ofsevit, additional right-of-way is required that currently does not exist. This factor segued into Glen Berkowitz's presentation.

- A Better City – I-90 Grounding Feasibility Study

Glen Berkowitz's representing A Better City (ABC) presented how an at-grade plan for the I-90 Massachusetts Turnpike could be feasible. Much like Ari's plan, Glen's presentation focused on the "throat" section of the Turnpike describing it as the "tail that is wagging the dog." In order to achieve the additional right-of-way necessary to build at at-grade Turnpike Berkowitz proposed two options. The first was a 12' placing a seawall similar to the one by the Western Avenue Bridge further east along the river bank towards the Boston University Bridge and then using this wall to contain fill which would allow the rip-rap (boulders sloping down to the water's edge) to be leveled off and used as land. The second option was to cantilever over the Charles River with a 15 foot platform for non-motorized users. One of the key takeaways in contrast to Ofsevit's plan was to have the Grand Junction line cross under the Turnpike. This was proposed by elevating the Turnpike at the crossings to allow the Grand Junction line to pass under without relying on significant excavation. In summary, the ABC plan did not impact the southern right-of-way and proposed a 227 foot right-of-way needed to achieve an at-grade solution. It should be

noted that this plan, similar to Ofsevit's, relies on addition right-of-way from either a riprap or cantilever over the Charles River.

Generally speaking, the task force seems well pleased with the two presentations although even their authors recognized inherent challenges including relying on space that currently does not exist. The tone of the task force seemed excited and very much looking forward to the next meeting's work shop.

Detailed Meeting Minutes[2]

C: Ed Ionata (EI): Good evening everyone. My name is Ed Ionata. MassDOT's Secretary, Stephanie Pollack is here tonight to make some opening comments. After the Secretary is finished we will follow our published agenda. Kate Fichter will cover the design criteria we have been using to develop the interchange concepts. We will then have Ari Ofsevit and Glen Berkowitz up to present their alternative concepts for an at-grade solution. Before we get started I would like to remind people of the task force ground rules. We ran a looser ship over the last few meetings and we want to return to a more organized task force format. Task force members should be seated at the table and members of the public should be seated behind them. We'll address task force questions first and public questions after if we have time. The rest of the task force rules remind you to be polite and respect others opinions. With that I would like to introduce Kate Fichter.

C: Kate Fichter (KF): Hi everybody, my name is Kate Fichter. I'm the assistant secretary for policy coordination at MassDOT. It is my honor to introduce MassDOT's Secretary, Stephanie Pollack.

Remarks by Secretary Stephanie Pollack.

C: Stephanie Pollack (SP): Good evening everyone. I am sorry that I can't stay but I'm sure I can convince Ari and Glen to give me their presentations another time. I wanted to stop by tonight for a couple of reasons. The first is that I wanted to thank the members of the task force and public for their hard work. I also want to thank you for your patience as we have genuinely tried to figure out how to balance a very important project, on a very real timeline, which we understand is very important to you. Tonight I want to make sure you understand that we get it. We understand how important this project is to you and we understand that this project is a complicated multimodal project.

We understand that each of the project components is important in their own right and it is important to get them to work together. These components include the Massachusetts Turnpike, West Station and its layover facilities, the reconnection of the neighborhood, the reconstruction of Cambridge Street, the reconstruction of the pedestrian overpass, and the opportunity to connect the neighborhood to the Charles River Esplanade. We get it and we appreciate folk's willingness to put themselves out there by

[2] Herein "C" stands for comment, "Q" for question and "A" for answer. For a list of attendees, please see Appendix 1. For copies of meeting flipcharts, please see Appendix 2.

putting their ideas on the table. Some of these ideas appear to have some promise and have already led to some rethinking in the MassDOT team.

This is a multimodal project and we have a multimodal team. You should be delighted to have Mike O'Dowd as the project manager because he is the best we have. Mike is working closely with Astrid Glynn with our rail and transit division as well as David Mohler in our planning division. MassDOT administrator Tom Tinlin is here tonight as well. We have already started to do some rethinking based on some of the ideas that have been put out there and we are willing to make some changes. This project is important. It's important to do it on time and it's important to do it right. Tonight is a real opportunity for all of us to learn in more detail about some of the ideas that have been floating around. We know that there needs to be a process to ensure that you are confident that these ideas are being given their due. We can't do everything you want us to do. For example, we are not going to turn the Massachusetts Turnpike into a 25 mile per hour parkway.

As some of you may know, I am a student of the Boston Transportation Planning Review (BTPR). One of the things that stuck with me from the BTPR was that a process like this is setup to take ideas in and it is the project teams' job to analyze the feasibility of those ideas. We didn't expect the participants to be the engineers but we expected the engineers to be working for participants. Mike is going to talk to you about how we have retained HNTB. Our HNTB folks are here tonight to start the learning process. Tonight we are going to hear from both Ari and Glen. We have asked HNTB to do a feasibility analysis to determine what works and what does not. Next month we're going to have a charrette. We're going to take the ideas presented tonight along with HNTB's analysis and let you know what we think works and what doesn't. If we are going to figure out how to do this project our ideas have to eventually come together. My hope is that we can work together to come up with a work product that is better than if we didn't work together. Every project worthwhile doesn't always start off perfect. In addition to thanking you for your patience I'm going to ask for a little bit more. You're not going to leave tonight knowing what the answer is but I think we're on a great path to find the answer. I'm not here to tell you what the outcome is going to be and I'm okay with that. There is no predetermined outcome. There is only a desire to make sure that we are on track towards a project that is something we can be proud of. Thank you for your participation and effort. I am looking forward to hearing a report back from my team. Thank you everyone.

C: KF: I want to quickly talk a little bit more about the task force ground rules. We selected the people on the task force for very specific reasons. Each task force members represents a particular perspective. One of the things we are aware of is that the conversation in this room has been dominated by 6 to 10 people. We're not telling those 6 to 10 people to participate less but we are asking the folks who tend to be quieter to speak up. If you have concerns about speaking out in the room, please contact me or Mike. We hope for this to be a robust conversation so that everyone's ideas are brought to the table. I'm going to ask Mike to speak briefly about the design work that has been done since we were last together.

Discussion of HNTB's Role

C: Mike O'Dowd (MOD): Thanks Kate. When we broke up last month there was talk about flipping East Drive and Stadium Way in an effort to lower the overall elevation and profile of the station elements and connecting roadways. We have been looking at this flip and it is showing a lot of promise. There are certainly things that are beneficial for the users that will be operating through this area. There are still some challenges that we see but I don't think they are anything astronomical that we can't address. I wanted to give you some hope moving forward that the 3J concept and the 3K concept don't vary drastically from one another. The biggest difference is simply the flipping. The flipping allows us to lower the East Drive Connector. Both connectors are still high but it allows us to lower them by approximately 10 feet. Instead of having to climb 40 feet you may only have to climb 30 feet with 3K.

C: KF: Thank you Mike. Everyone should have in front of them what we believe to be the most important design parameters for the project. These are the components that have been driving our designs. I want to quickly introduce the folks that we have hired from HNTB to help look at the at-grade alternatives.

C: Tony Gouveia (TG): Good evening, my name is Tony Gouveia. I am the rail engineer expert for our team.

C: Dennis Baker (DB): Hi, my name is Dennis Baker. I have a dual role of being HNTB's project manager and a bridge engineer.

C: Jonathan Kapust (JK): Hi, my name is Jonathan Kapust. I am a highway engineer.

C: Bill Greely (BG): Hi, my name is Bill Greely and I will be focusing on the environmental aspect.

C: KF: Thank you all. Tonight we have asked Ari and Glen to present their at-grade solutions. We are also going to be holding a session at our office with HNTB sometime in the near future. I will announce that date once we have determined the time.

Allston Turnpike At-Grade Concept – Ari Ofsevit

C: Ari Ofsevit (AO): Hi everyone my name is Ari Ofsevit. I am on the task force representing LivableStreets. This idea got started before I became a task force member with my personal hat on. I want to thank the project team who has done a lot of work so far and allowing me this opportunity.

Tonight I will present my conceptual idea. Most of the numbers are close to exact. I'm not a civil or a structural engineer. That is where I am relying on the team to say this works or this doesn't work.

This is a complex project but there are simple goals that we can all agree on. The most important piece is to replace the highway before it falls down. We need to not preclude the future uses and economic development potential. We also need to complete this project with an efficient and economical plan. There may be ways to complete this project in a less expensive way without doing it cheaply. My ideas focus on what I call the "throat" section of the Massachusetts Turnpike. The "throat" section is the narrowest piece of the highway. Within this section there is the pedestrian and bicycle path, Soldiers Field Road (SFR), and the Massachusetts Turnpike. The reason we need all of the grade separation is because of the Grand Junction.

The puzzle pieces for this project include the Massachusetts Turnpike and the associated ramps, the Grand Junction, the Worcester Commuter Rail, the future west station, SFR, layover yard, access to Houghton Chemical, access to the layover yard, and the Paul Dudley White Path. The challenges with the current plan are relatively steep grades on the highway. The current plan keeps the Turnpike high and does give great elevation profiles for pedestrians, bicycles, or future air-rights development.

The potential solution I came up with is to up the Grand Junction over the Turnpike. That is what I'm going to talk about tonight. I'm going to start with the Turnpike. If you maintain the current Turnpike width that is the goal. If you put the Turnpike on the ground you can in theoretically reduce the grades and remove the reverse curve that is planned. At an-grade solution would be less expensive to build and easier to maintain. The Grand Junction is the second piece which in my plan would go over the Turnpike. The Grand Junction crosses SFR at an elevation of approximately 14 feet. Right now it continues down a steep grade which is about 1.4 percent. I am proposing that the Grand Junction line would descend into the middle of the two Worcester commuter line tracks which would contribute to a better West Station.

The way I have proposed this to be built would allow for bicycle and pedestrian facilities to be built on the same structure. The reverse curve is up for design and shown here as a sketch concept. This is not an engineered design. When the Grand Junction comes across the bridge it would be at an elevation of approximately 18 feet over the Turnpike. There are 3 options to support this. My original thought was to have a center support in the Turnpike median. Whether this idea is feasible or not is a structural engineering question. The other option would be to support it on either side of one of the barrels of the Turnpike. Right now the idea is to put it on the eastbound side of the Turnpike.

Can we get everything down to an at-grade level? The answer is maybe. An at-grade solution would most likely require 22-24 feet of additional width in the narrowest section. Glen has some ideas about that. The idea is that it would be cheaper and easier to maintain so I think it would at least be worth looking at. This cross-section shows the People's Pike and the Grand Junction on the roof of the

Massachusetts Turnpike. Someone mention to me that an added benefit would be snow protection over the Turnpike as well in this section.

We need to maintain the Worcester commuter line. My idea is to split the Worcester commuter line with the Grand Junction in-between. This would allow someone to get off a commuter train and make a cross-platform connection to a future DMU service train to Kendall Square or North Station. This will maintain the current elevations of the Worcester commuter line and provide direct access to the storage facilities. The idea is to have a single level West Station. In my concept the Turnpike is at-grade and therefore the ramps are only one level above. This also helps match the local elevations. We don't want to push West Station any closer to Cambridge Street. Our idea is to push the Grand Junction platforms a few hundred feet west.

SFR is maintained in the current location and width through the "throat" by narrowing the median. Further west towards Cambridge Street it has been proposed by a number of folks to add additional parkland. There is also talk about having a connection from SFR to the street grid area. I am not showing it in my plan but it would be compatible.

The MBTA storage layover yard would be built as planned between West Station and the Turnpike. There are a couple of options for vehicular access. Since the Turnpike is not elevated we don't have the ability to have a connection underneath it. I'm considering moving the Houghton Chemical access point across the Turnpike. The main idea here is to have the Worcester commuter line able to go straight into Boston without having to cross the Grand Junction line. Grand Junction cars going into the storage yard would likely have to run past West Station and reverse in to the yard.

There are a few ideas for facility access options. For Houghton Chemical there could be a viaduct extension. Another option would be to have a ramp adjacent to West Station and the Turnpike bridge. Rail yard access could be paired with this idea. You could then have an at-grade freight line in front of West Station. I think it is feasible if it works with the rest of the project. There is an example of this in Chicago on the Cherry Avenue Bridge. The engineers were able to convert the bridge to a pedestrian and bicycle way while keeping the bridge functional for rail service. The other idea by building this bridge is to use the abutments for bicycle and pedestrian facilities without having to build a separate bridge over SFR.

For bicycle and pedestrian facilities we want to maintain the Paul Dudley White Bike Path. The idea is to use two rail bridges and add an extension off of the bridges for bicycles and pedestrians. The nice thing about having the bicycle and pedestrian path on the elevated section with the Grand Junction is that is allows the non-motorized users to cross SFR. The plan is to have one piece of the Paul Dudley White Path go under the Boston University (BU) Bridge. It would then rise up to cross SFR and parallel the Grand Junction line into the BU campus. You can also build something along Buick Street. On the north side I'm also providing a connection from the Cambridge Street at River Street intersection over the Turnpike into West Station.

The Allston street grid should be compatible with these plans even though it is about 20 feet lower. There will be lower profiles because the Turnpike will be at-grade and the ramps will not have to go up and over. Overall, from the numbers I have been working with, nothing will be over 24 feet above ground level. This includes rail grades at 1.5 percent and roadway and path grades less than 3 percent. This plan contributes to better grade connections to BU from the Allston street grid as well. As this map indicates, the elevated portions of this plan is the Grand Junction viaduct above the "throat" section, the Houghton Chemical line, access to West Station, and the bicycle and pedestrian connections.

The benefits of this plan are the overall lower profile of the highway, street grid, and West Station. This plan will allow for a much narrower viaduct which should have cost savings. There will be more bicycle and pedestrian connections and we are available to maintain existing needs and uses. This plan will significantly increase development potential so that when the land owner wants to build it will not be a heavy lift. The next steps are to look at constructability, staging, and Houghton Chemical access options. Thank you very much.

Q: Bob Sloan (BS): Can you talk more about the construction staging?

A: AO: Sure. The idea is that there is a lot of currently unused land along SFR. There is approximately 35 feet of DCR parkland which is not used. By bringing everything down to grade you can essentially put 3 lanes of the highway at-grade during construction in that area. The first stage of the process would be to take the Turnpike and bring in down to parallel SFR. Once you have half of the Turnpike at-grade then you have a much wider area to work with. I think this staging process would be faster and easier than trying to keep it down in stages and build it in stages. In Forest Hills, they've taken down that 4-lane overpass in the course of a few months. Does that make sense to everyone?

C: GB: Mike understood.

C: MOD: I'm ready to go to construction.

A: Thomas Tinlin (TT): No, he's not.

C: Barbara Jacobson (BJ): I think it would be very beneficial to separate the bicycle and pedestrian facilities.

A: AO: I agree. If there is room, that is the best way to do it. In the narrows section near the Cambridge Street and River Street intersection it is only 5 feet wide for two-way movements. I've found myself holding the railing so that someone could get by. The Southwest Corridor is a good example of something we should strive to reach. I showed a 10 foot path along the viaduct but you could probably get 20 feet.

Q: Jorge Briones (JB): Did I hear you say that you're proposing new commuter rail service on the Grand Junction line?

A: AO: I'm not proposing it. The design guidelines show two tracks on the Grand Junction for the potential of future commuter rail service. I have all sorts of wacky ideas that would run commuter rail service to Kendall Square. The Grand Junction can help provide that.

Q: JB: In terms of Houghton Chemical, how would you get freight coming in from Worcester to Houghton Chemical?

A: AO: If you were coming from Worcester you would rise up a grade and cross in front of West Station. There would be an active freight track which would be relatively integrated into the landscape. It would be similar to the Grand Junction line in Cambridge where it goes through a heavily used bicycle and pedestrian area. There would then be an overpass over the Turnpike on fill with a downgrade into Houghton Chemical.

Q: Anthony D'Isidoro (AD): You mentioned the design would help minimize the overall cost of the project. Could you expand a little bit on that?

A: AO: My plan may or may not reduce the overall cost. The idea is that if you are building a viaduct it is going to cost more compared to building something on the ground.

C: EI: Thank you Ari. We'll now have Tom Nally and Glen Berkowitz up from A Better City (ABC).

I-90 Grounding Feasibility Study – A Better City

C: Tom Nally (TN): Hi everyone my name is Tom Nally. I am the planning director at ABC. I want to thank everyone for allowing us to make this presentation tonight. Our hope is to begin a collaborative process in looking at ways to lower the transportation elements associated with this project. Since the start of the current phase there has been an increasing sensitivity related to the overall cost of the project. ABC has been seeking cost effective solutions and has identified what we believe to be several design measures to help lower the projects overall cost and address concerns about design and place making opportunities.

I want start by saying that ABC believes every component in this project should be lowered to reduce impacts and cost. We want to place any elements at-grade where possible. We want to see lower bridges and service roads associated with the Turnpike. We think that the West Station bus drop-off should be at the same level as the mezzanine deck to simplify transfers and lower cost. Mike O'Dowd suggested and we agree that it is very important to consider swapping the East Drive and Stadium

Way Connectors. We submitted comments in the Environmental Notification Form (ENF) advocating for an at-grade option. It has become more apparent to us that we need to try to demonstrate how that can be achieved. ABC has been working with Glen Berkowitz since the filing of the ENF to develop an at-grade concept. Our objective for this work is to place as many transportation related elements at-grade for as long a distance as possible. Our approach has been to identify the constraints and devise solutions to address those constraints. Over the summer we determined that the narrowest part of the Turnpike is the controlling factor of the overall design. Glen's option has many positive aspects and a few negative ones. For both options presented tonight I think there needs to be a lot more work done relating to constructability and construction phasing.

C: Glen Berkowitz (GB): Thank you Tom and good evening everybody. ABC's central objective has been to place as many transportation elements at-grade for as long as possible. Tonight I'm going to give you a quick summary of what ABC believes is a viable at-grade plan. I'll then define the problem which builds on some of the things Ari mentioned earlier with the "throat" section. I'll cover the assumptions that we used, I'll talk about the analysis that we've done, and then I will review what we believe are the substantial benefits from an at-grade option. I'll finish with a quick overview of what we believe are the next steps.

In summary, the bottom line is that what we are trying to do is have no negative effect on the operations of the existing transportation system. We believe this acceptable plan can fit at-grade with no viaducts even in the narrowest section. When you look at the project as a whole and then look at the context of the "throat" section, it is quite substantial. The project limit is 3 times the size of the Boston Common. The narrowest section which Ari referred to as the "throat" is less than 1 percent of the total site. When you look at the project site from east to west it is about 1.1 miles long but the width of the "throat" section is only 200 feet. This is a situation of the tail wagging the dog. This is a situation where a small part of something is controlling the whole of something. ABC suggests that we should not allow the tail to wag this project.

Now I want to focus in on the "throat" section. We went back to something Mike O'Dowd taught all of us at the first task force session and that was that every foot matters. We drew 21 different sections, analyzed them, and created 3 calibration lines. We are confident that what we are presenting to you tonight is accurate to within a foot. The yellow section which is called out on the slide shows the point at which it is the narrowest. I am now going to walk you through our analysis of that cross-section.

The opportunity to make an at-grade option work relies on a couple of assumptions. The first assumption we used was that the right-of-way (ROW) on the southerly project limit against the BU property is fixed and unable to change. On the northerly side of the ROW along the Charles River we've proposed two major modifications to what the task force has been assuming. The first factor of this is based on where we assume the northerly ROW limit to end. We think there is more room than what the task force has been assuming which is the edge of pavement on the Paul Dudley White Path.

If we can find a way to work together and overcome the permitting challenges, we think we have developed a viable, at-grade alternative for this project.

The first of these pieces is what is referred to as a riprap. In this photo, the riprap is the green space between the cyclist and the Charles River. The second piece, based on existing precedence in the Charles River Basin is to cantilever over the water without placing any supports into the water. If you do those two things, we think a viable, at-grade alternative works. When you measure the existing riprap, it totals 12 feet to the edge of the water. This wasn't our idea; this was an idea of Mike and his consultant team. This was first discussed at the third task force meeting in June, 2014. You can see in their presentation that they measured that 12 feet. If we don't have to build a taller and wider viaduct by taking advantage of land that already exists, we think we should look at that. We are proposing that instead of the riprap sloping to the edge of the water that it should be replaced with a historic granite sea wall allowing us to fill in up to that point. It's done a lot on the Cambridge side of the Charles River. In 1930, they needed space to build the two lane off-ramp from SFR so they build a vertical sea wall. We are proposing a limited length of approximately 300-400 feet, that we build a vertical sea wall on top of the riprap at the throat area. We think this is one of two key steps to make an at-grade concept viable.

The second thing we are proposing in order to obtain the necessary width to build an at-grade plan came from other places in the Charles River Basin. On Memorial Drive, there is an extension outside of MIT that is built over the water approaching the Long Fellow Bridge. Adjacent to this project's limit along the Paul Dudley White Path there is a boardwalk over the water under the BU Bridge. We are proposing a cantilever with no pilings or support in the water. The point is that we have a history of going over the water in select areas for good reason. We are proposing that this project represents one of those good reasons. We have also looked at newer proposals such as the one to get an underpass at the River Street Bridge. This proposal shows a boardwalk on pilings to take pedestrians and bicyclist under the bridge. There are lots of creative ways that people have thought about in the past and are currently thinking about to address bicycle and pedestrian demands. There are examples of pedestrian cantilever walks throughout the world. I'm going to show you two examples. The first is outside of Barcelona, Spain. The second is in Pennsylvania. The point here is that stuff like this is being done in many jurisdictions. The last example is one down by the Schuylkill River. With an at-grade solution, there may be some moneys leftover to support some of these pedestrian activation spaces and infrastructure needed. That is an overview of our assumptions. Now I would like to talk about the analysis.

We started with 200 feet and added 12 feet based on the riprap vertical fill. This slide shows an additional 15 feet provided by the cantilever bringing us up to 227 feet total. When we look at this cross-section it starts with the BU ROW line, there is the Worcester Line which is shown as 2 tracks in the proposal. Next to that is the Grand Junction which is also two tracks wide. We then move to I-90 east and westbound with 4 lanes in each direction. The travel lanes are 12 feet. SFR has two lanes in each direction. We've taken a foot away from each of those lanes and I'll explain why we find that

acceptable. In this cross-section we cantilever over the water 15 feet to provide a 11 foot Paul Dudley White Path.

I'm now going to walk you through the aerials relating to the components I just discussed. The first is the Worcester Line which takes up 31 feet adjacent to the BU property line. Next to that is the Grand Junction double track which brings us to 59 feet. When we get to the I-90 mainline our proposal maintains it as it is with no enhancements. We have a total of 4 eastbound lanes and 4 westbound lanes. There is a 2 foot jersey barrier between the Grand Junction and the eastbound mainline as well as a 3 foot jersey barrier between the eastbound and westbound barrels on I-90. When we get to SFR we want to remind everyone that it is a parkway and it doesn't match any of the highway standards. 10 foot travel lanes are more than acceptable based on the DCR guide. To make our plan work, we are proposing to reduce SFR travel lanes to 10 foot lanes. At this point we are at 214 feet which would be within 2 feet of where our proposed riprap wall would be. Ari and I have many ideas on where we could put the Paul Dudley White Path without having to cantilever over the water but for this proposal I'll continue with the cantilever concept as I referenced. When we cantilever out we end up at 227 feet with an 11 foot Paul Dudley White Path. The cantilever would only be necessary for about 260 feet.

Another item our plan needed to address is how to get the Grand Junction across I-90. We believe there are two ways this can be achieved and we look forward to working with HNTB to helping us evaluate the cons of those two options. The first option is the same way Ari when over I-90 in his plan. In this option you would be able to bring the Grand Junction down immediately once over I-90. The second option is to bring the Turnpike up on fill and take the Grand Junction under. There are different ways to raise a highway. In 1961, slope fill with dirt was the recommended way to raise a highway; that is not what we are proposing to do. There is now something called expanded polystyrene (EPS) which some people in this room may be familiar with from the Big Dig. I checked with the designers who did this for the Big Dig and it turns out it is being done in many other places. The idea is to build the concrete abutments and fill it in with EPS to bring the center up to the height of the abutment. With this method, we are suggesting that the Grand Junction cross under the Turnpike which has been brought up using the EPS system. We believe the cost of this is a fraction of the cost compared to building anything in the air. In summary the highway would come up, the Grand Junction would go underneath, and the highway would get back down to grade without impacting any future air-right development opportunities.

As we approach tying this all together we think that it's wrong to assume that an at-grade alternative could be advanced by taking private property on the south side of the project. Our proposal believes that the ROW on the southerly side will remain untouched. On the north side where the public owns the property we think two key things can make this plan viable. In doing so, we think it's critically important that we don't hurt but retain transportation uses and potential. There is the potential for a two track Grand Junction. Although many people in this room have questioned the traffic projections Mike and his team have used, we don't question them to the point in saying that we should be reducing capacity on I-90. We get it and we understand why it would be nice to widen I-90. We understand just

as we understand it would be nice to widen the Paul Dudley White Path. In an effort to have shared sacrifice we think that if we all work together we can actually fit everything we need without having to build a viaduct. This entire discussion that Ari and I are having with you is just for the narrowest width of the project. Once you get to either side you don't have to cantilever over the water, you don't have to restrict the width of the Paul Dudley White Path, and you don't have to restrict shoulders on the mainline. This plan will also reduce construction impacts to the public. For the interest of time we decided not to show our construction staging plan but we look forward to doing that. Our construction staging plan does not rely on any temporary or permanent viaducts.

In summary, we hope tonight is the first step and beginning of this discussion. We want to thank Secretary Pollack for saying what she did. Let's find a way working with MassDOT to tear this viaduct down. I mentioned that Ari and I have other ideas to accomplish bicycle and pedestrian movements. We have happy to have work sessions to show this and our construction staging. We believe this minimally acceptable transportation plan can fit at-grade without any viaducts even in the narrowest section. We thank MassDOT and the task force for giving ABC this opportunity to present this alternative. We look forward to showing why this plan deserves to evolve and be more fully evaluated over the next months. Thank you.

Q: JB: You mentioned that your plan has two lines for the Grand Junction. Where does it become two lines?

A: GB: When you start with the Grand Junction Bridge over the Charles River it has two tracks. At some point in the future and as a long range plan, there is the possibility to have a two track Grand Junction. In the plan I've presented there is space for a two track Grand Junction. In the MassDOT plan they also retain the necessary space for a double track Grand Junction. We believe that the underpass for I-90 to go over in our plan should be built wide enough to accommodate a future two track Grand Junction.

Q: Bill Deignan (BD): It feels like this plan is using every inch of space. You showed the pictures of the DCR road and I'm wondering if there are any extra spaces built into your plan. It feels like the path along the Charles River is getting the short end of the stick. My other question is that, if you're already cantilevering the path over the Charles River, why are you limiting yourself to 10 feet?

A: GB: We're dealing with over a mile in length but we are letting 300 feet of that length wag the project. Our goal with this proposal is to suggest reversing that. If what we are proposing is not preferred but acceptable then maybe we can get a couple more feet. When we look at the different transportation uses from south to north and consider what needs to be accommodated, it's hard to do something different with the Worcester branch tracks. It's also very hard to do something different with the Grand Junction tracks as well. If we don't have to build an I-90 viaduct or a temporary viaduct for construction staging, we will reduce the price tag of this budget so greatly that we should have the money to do really good river front improvements. If there are significant cost savings then maybe we

can spend more time allocating that money to the bicycle and pedestrian accommodations. We are trying to determine if there is a viable alternative that warrants further study and evolution.

A: AO: I think the current width on that side of the Charles River is about 8 feet. At some points it's only 6 feet. The Charles River Basin plan from DCR proposes the path as narrower as 8 feet where it is constrained. This plan would still be greater than that. If we can get a 14 foot path along most of it with a slightly narrower section isn't the end of the world.

A: GB: There are two ways to get more width over the Charles River. The first is to cantilever over the water sheet without placing supports in the water. We used 15 feet as our assumption. I suspect other structural engineers may be able to find ways to elongate that. The other option to answer your question is that if possible, we would put pilings in the water to gain additional width of a platform structure.

Q: JB: If you maintain the Grand Junction as a single track, it seems like you could make up what you need that is shown over the Charles River. What is the reason behind the second Grand Junction track?

A: GB: I'm not the one to answer that question but I can say that my clients asked me to share this presentation before today and I started by questioning why we need a second Grand Junction track. I thank those of you in the room who have helped convince me that proper planning for the next 100 years says that you're not going to build highways to fulfill your transportation needs. You're 100 percent right, a two track Grand Junction makes this much more challenging.

C: Fred Salvucci (FS): I have two points. Some genius at the Turnpike Authority decided to create a single track to the west which resulted in a loss of all of the stations in Brighton. Service to Wellesley and Worcester has been screwed up ever since because of the single track operation. This is our chance to fix that problem. My second point is related to the Post Office at South Station. They are proposing a 50 percent increase in service but only 35 percent more people through South Station in the year 2035. The innovation district is exploding right now. Construction is ongoing. There is no give on the Turnpike, there is no give on Route 9, and there is no give on Washington Street. We need the tracks. I know there are financial constraints of operating that service right now but the space needs to be there. Kendall Square is booming and the Red Line is operating over its capacity.

I applaud Secretary Pollack for coming out tonight and I would like to be optimistic about time considering a charrette. I would like to urge the task force to consider that MassDOT just got their urban designers on board and the BRA just approved the selection of an urban designer. I think it's important that the urban designer is a part of this workshop. There are big constructability issues. The last air rights built over the Turnpike were built when the Turnpike was built in Newton Corner. Construction over the Turnpike is very difficult to do because it is a public safety issue. While you are

doing the construction staging is when you should do the air rights development. It's the window of opportunity and it will be extremely expensive to do it afterwards. Thanks for listening.

C: Robert LaTremouille (RL): My name is Robert LaTremouille. I have submitted my comments but I would like to add to them. I am impressed once again but the environmental responsibility of MassDOT. Both proposals we heard tonight would be significantly more environmentally destructive than what MassDOT has been proposing. The plans presented are duplicates of the DCR plan to destroy every tree near the BU boat house. The second proposal would be devastating to the riverfront on the Boston side. It was a pleasure to hear from the MBTA representative.

C: EI: Thank you Robert. We will have our environmental experts at the charrette to take a further look.

C: Rick Dimino (RD): I want to thank MassDOT and the Secretary for giving us the chance to make our presentation. What is most important to me is that we look closely at the environmental questions because as Glen suggested, we can do creative things while creating a public amenity. This project finds itself with some 4F issues and we're going to have to find ways to mitigate those. What we are proposing gives us a chance to do that in a pretty cool way. I don't want to be scared off by some of the environmental challenges. I see these more as opportunities. Let's key our eye on the prize while we're doing this. Let's not short cut ourselves by being scared off by environmental flags.

C: Ken Kruckemeyer (KK): My name is Ken Kruckemeyer. There were three things I heard tonight that I would like to emphasize. The first is that by keeping the Turnpike at-grade it would be much safer and more easily maintained. Creating a straighter, safer, and at-grade highway is all positive stuff. New development and West Station is going to be 20 feet lower with an at-grade solution. This means that it can serve BU and the new development in a way that will be far more effective. My last point is related to connectivity. People from BU who want to get to the Charles River can much easier get across the Turnpike when at-grade. Thank you.

C: Renatta von Tscharner (RVT): My name is Renatta von Tscharner and I am with the Charles River Conservancy. Thank you for showing the examples of the underpasses. When I first came to Boston and traveling along the Charles River all I could thing about was the looming Turnpike. If it is possible to put it at-grade then you don't have a looming, loud Turnpike. If everything is at-grade you allow the Charles River and the people to breathe. I applaud this effort and we need to be creative to find the correct solution. Thank you for looking into this.

C: Galen Mook (GM): As a task force member I would like to thank Ari and Glen for their work. I also want to thank Mike and everyone for this process. We're at a much better place than we were a month ago. This is a very good step for the task force. I look forward to seeing what comes out of this charrette. Thank you.

C: EI: Thank you Galen. We are targeting Thursday, October 15 for our next task force session. That is based on the availability of this room. The presentations from tonight will be posted on the MassDOT website.

C: NCC: All task force meeting minute notes are up.

C: KF: Thank you everyone. If you have comments, questions, or thoughts, please channel them to Nate and he will get them to us. Thank you again and we will see you next month.

Next Steps

The next task force meeting will be held at 6:00 PM on Thursday, October 15 at the Fiorentino Community Center. The Fiorentino Community Center is located at 123 Antwerp Street in Allston. All task force sessions are open to the public.

Appendix 1: Meeting Attendees

First Name	Last Name	Affiliation
Dennis	Baker	HNTB
George	Batchelor	MassDOT
Joseph	Beggan	Task Force Member
Glen	Berkowtiz	ABC
Jorge	Briones	Task Force Member
Norman	Brown	Bayside Eng./MassDOT
William	Brownsberger	Task Force Member
Chris	Calnan	TetraTech
Jim	Cerbone	MassDOT
Anthony	D'Isidoro	Task Force Member
Donny	Dailey	MassDOT
Bill	Deignan	Task Force Member
Richard	Dimino	ABC
Stacey	Donahoe	MassDOT
Courtney	Dwyer	MassDOT – D6

Marc	Ebuna	Transit Matters
John	Fallon	MassDOT
Kate	Fichter	MassDOT
James	Gillooly	Task Force Member
Tony	Gouveia	HNTB
Ed	Ionata	TetraTech
Barbara	Jacobson	Task Force Member
Marc	Kadish	Task Force Member
Jonathan	Kapust	HNTB
Kelsey	Kerle-O'Brien	Charles River Conservancy
Don	Kindsvatter	Resident
Kenneth	Kruckemeyer	LivableStreet
Robert	La Tremouille	FOWG
Wendy	Landman	Task Force Member
Elizabeth	Leary	Task Force Member
Shaun	Long	Resident
Oscar	Lopez	Task Force Member
Wayne	MacKenzie	Resident
Erik	Maki	TetraTech
Christine	Marini	Boston Police D-14
Carol	Martinez	Allston/Brighton CDC
Ian	McKinnon	TetraTech
Galen	Mook	Task Force Member
Tom	Nally	Task Force Member
Paul	Nelson	Task Force Member
Mike	O'Dowd	MassDOT
Ari	Ofsevit	LivableStreets
Alana	Olsen	Task Force Member
Etty	Padmodipoetro	Urban Ideas Lab
Rich	Parr	Task Force Member
Stephanie	Pollack	MassDOT
Tad	Read	Task Force Member
Stefanie	Seskin	Task Force Member
Thomas	Tinlin	MassDOT
Renata	von Tscharner	Charles River Conservancy
Kevin	Wright	Task Force Member

Matthew	Yaluuris	City of Cambridge