MEMORANDUM |

To:	Michael O'Dowd Project Manager	Date:	December 14, 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 #17 Meeting Notes of December 2, 2015		

Overview

On December 2, 2015 members of the Allston I-90 Interchange Improvement Project team and MassDOT staff associated with the job held the 17th 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 purpose of the meeting summarized herein was for HNTB to present their findings and evaluation for the two at-grade alternatives previously presented by Glen Berkowitz representing A Better City (ABC) and Ari Ofsevit (Amateur Planner). The meeting also served to outline the project team's approach in filing the Massachusetts Environmental Policy Act (MEPA) documentation in the form of a Draft Environmental Impact Report (DEIR). Following the discussion of the environmental process, project manager Mike O'Dowd announced that a recent policy directive from senior staff at MassDOT had instructed the DOT-led project team to carry both at-grade alternatives into the next round of environmental documentation along with the MassDOT alternative. This announcement was well-received and applauded by the task force at large.

HNTB's presentation of the two at-grade alternatives served to show the preliminary findings of each option with a focus on construction staging. HNTB had been tasked several months previously with a fully independent review of the two at-grade schemes. In their opening remarks discussing the results of this

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

review, both HNTB and MassDOT staff recognized that there were several benefits as well as some drawbacks to each at-grade option and reported that they found a feasible way to construct both. In order for HNTB to present their findings in an easily understandable format, an evaluation matrix was created showing the strengths and weaknesses of all three alternatives. While the purpose of the evaluation matrix was to show HNTB's "big ticket items" and preliminary findings, many task force members were quick to point out that

Following much discussion of evaluation matrix, Michael Beintum from HNTB presented the preliminary construction staging plans for both the ABC and Amateur Planner alternatives. The key takeaways when comparing the two alternatives were cost and duration. It was explained that the ABC alternative would cost less and take less time to construct compared to both the Amateur Planner and MassDOT alternatives. It was however noted that the ABC alternative ran into a number of major constraints including the closure of the Houghton Chemical Line and Paul Dudley White Path (PDWP) for multiple years. It was suggested by a number of task force members that HNTB be assigned to do the same level of evaluation to compare the MassDOT construction staging plan to the two at-grade alternatives.

While some task force members thought the construction staging presentation provided too much detail, others thought the level of detail was appropriate and significantly important in conveying the potential community impacts during construction. In response to HNTB's presentation, it was put forth by a number of task force members to create an additional hybrid alternative that would combine the benefits and/or best pieces of each alternative presented to date. This hybrid alternative would be reached through a number of work shop sessions with HNTB, MassDOT, the project team, and interested members of the task force. Ongoing topics of discussion included the desire of a north-south connection over the Beacon Park Yard (BPY) via West Station and project mitigation occurring prior to construction.

Agenda

I. Opening Remarks

II. MEPA Document Approach

III. At-grade Concept Review – HNTB

IV. Upcoming Meetings

- Public information meeting – December 8, 2015 – Jackson Mann Community Center 6:30 PM
- Task force meeting – December 17, 2015 – Fiorentino Community Center 6:00 PM

V. Discussion

Detailed Meeting Minutes[2]

C: Ed Ionata (EI): Welcome everyone to 17th task force meeting. I am Ed Ionata from TetraTech. Our agenda tonight includes an overview of the Massachusetts Environmental Policy Act (MEPA) document approach and a presentation of the at-grade concept review by HNTB. We'll wrap up with a discussion of the upcoming meetings for the month of December.

C: Mike O'Dowd (MOD): Good evening everyone and thank you for coming out. The focus of tonight's meeting will be for HNTB to roll out the findings on their evaluation of the two at-grade concepts put forward by A Better City (ABC) and Ari Ofsevit. The presentation tonight has been seen by senior staff at MassDOT and I think many of you will be pleased to hear that a policy decision has been made to continue advancing both of the at-grade concepts in conjunction with the MassDOT 3K concept.

There are several benefits with the two at-grade concepts and also some drawbacks. The purpose of tonight's meeting is for HNTB to present their findings and discuss the strengths and weaknesses of both at-grade concepts. We have received a lot of great feedback through the working group sessions and we have integrated those comments into their efforts to make these concepts workable. There is still a lot for us to learn and a lot that we can improve upon. Dennis Baker and his team from HNTB are here to do their presentation. Chris Calnan and Ed Ionata are also here to answer questions regarding the MassDOT 3K concept.

C: EI: Thank you Mike. We are going to carry all three alternatives into the next MEPA filing which will be a draft environmental impact report (DEIR). All three alternatives will be compared with the same matrix in that filing. If you recall, we had a single preferred alternative for the environmental notification form (ENF) with the Secretary's certificate in November of last year. For this reason we'll need to draft a new DEIR outline and come up with an organized way to depict the additional alternatives in order to compare all three. We will be developing the DEIR schedule with the task force meetings planned in. The policy directive is very new and we anticipate having a schedule outlined for you after the holidays.

Q: Glen Berkowitz (GB): Can you give us a ballpark estimate on when you plan to submit the DEIR? Would you say late or early 2016?

[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.

A: EI: We honestly don't know. We are going to look at the time it would take to develop and compare the alternatives. I can't recall when we planned to file the DIER prior to the new at-grade concepts being introduced.

A: MOD: It was in the summer of 2016.

C: EI: Thank you Mike. Therefore it the DEIR filing will be sometime after the summer of 2016. Let's get to the presentation. We'll pause for 10 minutes after each major section to allow HNTB to take questions.

C: Dennis Baker (DB): Hi everyone, I'm Dennis Baker with HNTB. I have been managing the effort over the last few months in evaluating the two at-grade concepts created by ABC and Ari Ofsevit. Mike O'Dowd asked that we present an overview of our analysis findings and that is what I am going to be presenting to you. A lot of the material we are going to present has already been seen in the prior working sessions. With that said, we have a new presentation on the construction staging for both the at-grade concepts. We've been spending most of our time identifying the pros and cons of each alternative and working to develop this preliminary construction staging plan. Our scope of work has been to take the two at-grade alternatives and bring them up to a level of engineering that could be further evaluated in order to determine their feasibility.

Most people are familiar with the three alternatives. We have the MassDOT 3K4 concept that brings Cambridge Street South as close to the Turnpike as possible. We have the ABC concept which brings as many transportation facilities to grade as possible. We also have the Amateur Planner concept which places the existing rail facility above the Turnpike. We focused our evaluating on the throat section for each of these alternatives. We also spent a lot of time dealing with the construction staging for both the ABC and Amateur Planner concepts and I'm happy to report that we have found a feasible way to construct both. The construction staging presentation we have is very detailed so please bear with Mike as he walks you through it. We didn't have time to do a detailed cost estimate for each however we did come up with some ballpark estimates.

We've all seen MassDOT's concept 3K4. As I mentioned, we are going to be focusing on the throat section because that is where the most difference is between each concept. The interchange is roughly the same for all three concepts. The major aspect of the 3K4 concept is that the Turnpike is on a viaduct through the entire throat section. It is a large viaduct, similar to what we have today, with the rail facilities located beneath it. The Worcester, Grand Junction, and Houghton Chemical rail lines all remain in the same location. Some of the key improvements in the 3K4 concept that came out of the task force include shifting Soldiers Field Road (SFR) towards the viaduct to create 17' of additional parkland along the Charles River. The change in the Turnpike cross section includes the addition of shoulders for safety purposes, snow storage, and improved drainage during rain.

The ABC concept focuses on placing as many of the transportation facilities within the throat section at-grade where possible. In order to accomplish this, the proposed concept encroaches into the Charles River because there simply is not enough cross sectional space available. The issue is not one of hydrology of the Charles River but rather a permitting one. In this concept, the Grand Junction Line comes over SFR, crosses on a retain fill structure, and then descends back to grade. One of the major challenges with this concept is dealing with the Houghton Chemical connection. In this image, we've shown the Houghton Chemical line passing under the Turnpike and then ramping up on a retained fill structure. In order to do this, a 25' retained fill structure will need to be constructed. Overall, the amount of bridge is reduced with this alternative. There is still some bridge structure of the Grand Junction Line over the Turnpike but there won't be a as long a viaduct in the throat section.

Our cross section view shows the tightest point within the throat section. We have everything stacked side-by-side as tight as possible. This still requires us to fill in a little bit of the Charles River and construct a new seawall. In order to fit the PDWP we are showing a cantilevered structure over the Charles River. Our goal with the mainline was to match the existing lane widths. As we move further to the west the retain fill structure begins to rise in order to allow the rail facilities to cross under the Turnpike. The retain fill structure is about 25' for approximately 1400'. In order for trains to pass under the Turnpike we also need to depress the rail by approximately 8' to get to Houghton Chemical. We also considered the environmental permitting issues relating to the construction of a new sea wall or cantilevered structure. The Charles River Basin is designated as historic parkland and owned by the Department of Conservation and Recreation (DCR). These are all considerations this scheme will have to deal with.

Let's jump to the Amateur Planner concept. The main feature in the Amateur Planner concept is to get the Turnpike at-grade and place the Grand Junction Line above it on an elevated viaduct. In order to do this, the Grand Junction Line crosses over SFR on a bridge and stays on a bridge above the eastbound barrel of the Turnpike. The advantage of the concept is that the Grand Junction Line viaduct is a much narrower viaduct compared to what exist today. In order to provide access to Houghton Chemical we've shown a connection by bridging over a section of the westbound barrel of the Turnpike which continues down onto a fill structure. The consequence of this scheme is that the Grand Junction Line remains elevated because the lead tracks to the layover yard have to go underneath. There isn't enough space to get the Grand Junction Line down as fast as we would like so we pushed the West Station platforms to the west by 260'. Another geometric issue we ran into was that the yard lead track requires us to lower the Worcester Line.

We're showing the cross section for the Amateur Planner concept in the same location within the throat section as the ABC cross section. By elevating the Grand Junction Line on a viaduct we do not have to impact or fill in the Charles River. Another key feature of this concept is a shared-use path (SUP) on the elevated viaduct next to the Grand Junction Line. I mentioned earlier that this concept would require us to depress the Worcester Line. With the proposed elevated viaduct carrying the Grand Junction Line, the Worcester Line still needs to get under that structure. In order to do this, we would

need to excavate a 14' deep cut or boat section. By excavating 14' further down we get below the water table leading us to larger issues such as pumping. The take away here is that it does work, everything connects, but it starts to get complicated. In terms of impacts there are none to the Charles River and some to the DCR parkland.

The hardest part of our exercise was to boil the concepts down and create a matrix to show the major differences and issues between each. The matrix [3]shows the ABC Concept, Amateur Planner Concept, and MassDOT 3J3 / 3K4 Concept(s). Our goal with this matrix was to pick out the big ticket items and show how they compare across the board. In terms of the highway cross section, both the ABC and Amateur Planner concepts do not make improvements to the substandard section. The MassDOT 3J3/3K4 does make a safety improvement by providing a right shoulder and breakdown lanes. The next item is the Worcester Line. All three alternatives accommodate two tracks however the ABC and Amateur Planner concepts both require a boat section whereas the MassDOT 3J3/3K4 concept does not. In terms of the Grand Junction Line, the ABC and Amateur Planner concepts have flyovers with modifications to the SFR Bridge whereas the MassDOT 3J3/3K4 concept does not have any significant changes.

Q: Wendy Landman (WL): I have a quick technical question. I realize there is a construction difference between the concepts but is there also an operational difference?

A: DB: Yes. We have that as a separate item; I'll get to that shortly.

C: WL: Thank you.

C: DB: As far as the Houghton Chemical connection goes, the ABC concept has an underpass underneath the Turnpike and the retain fill section. The Amateur Planner concept puts the Grand Junction Line up on the viaduct. In order to make the connection to Houghton Chemical we are showing a spur bridge over the westbound barrel of the Turnpike and back down to grade. On the MassDOT 3J3/3K4 we are not changing much so the configuration is very similar to what exist today. Regarding West Station the only difference relates to the Amateur Planner concept which shifts the platforms 260' to the west.[4]

In terms of the operations and Grand Junction access from South Station, both the ABC concept and MassDOT 3J3/3K4 accommodate all operational movements whereas the Amateur Planner concept causes some impacts to operations. The issue with the Amateur Planner concept is that trains coming from South Station have to go through West Station and turn around west of the station in order to come back onto the Grand Junction Line. It's not the end of the world but it is not desirable. We were

[3] The matrix referred to can be found on page 18 of the 12-2-15 task force presentation.
[4] This shift would bring the station closer to homes in the area of Pratt and Ashford Streets and potentially impact operations at the neighboring Boston Landing station to the west.

hesitant to show the construction impacts because we are only at roughly a 5% design. From our initial look, all three alternatives are going to have impacts during construction to the rail operations. The two at-grade concepts will have long-term impacts to the Worcester, Grand Junction, and Houghton Line due to the flipping of the rail and Turnpike facilities. We're guesstimating about a years' worth of low speed operational impacts for the two at-grade concepts due to the shifting of the Worcester Line. The main cause for this is due to the cutting of the boat section. With regard to the Grand Junction Line, we also expect fairly long term impacts due to the necessary detours. The good news is that there is a detour available.[5] The MassDOT 3J3/3K4 concept is not in the same category with the at-grade concepts because the flip-flop is not happening.

We looked a bit at cost and made some very preliminary estimates to get a sense of the approximate cost differential. Our initial feeling was that the ABC concept would be cheaper, the Amateur Planner concept a bit more, and the MassDOT 3J3/3K4 is the base. I think most of us expected the ABC concept to be cheaper but did not expect the Amateur Planner to be more. Most of that cost is due to the cutting of the boat section for the Worcester Line and the construction of the viaduct for the Grand Junction Line. The other issue we looked at was permitting. Regarding Section 4(f) impacts, we anticipate that the ABC and the Amateur Planner concepts would have adverse effects. All three concepts will have Section 4(f) impacts to parkland; the takeaway is that the two at-grade concepts have more impacts compared to the MassDOT 3J3/3K4 concept. Similarly with the MEPA and Section 404 of the Clean Water Act (CWA), the impacts to the Charles River seemed very clear to us that the least environmental damaging alternative is the MassDOT 3J3/3K4.

Q: Jessica Robertson (JR): A lot of people in this room would disagree with the characterization of the different alternatives as to whether or not adding shoulders and breakdown lanes is an improvement. I understand the existing condition is not up to the standard but the sections of the Turnpike on either side of the interchange do not have shoulders and never will. A lot of us think it is a disadvantage to have a situation where you go from narrow to wide to narrow. I object to the characterization of the highway cross section analysis.

My general comment is that this is a selective list of the criteria and I think there are significant things you left out. On the Section 4(f) historic parkland impacts there are unanswered questions such as how close is the viaduct to the parkland, how high is it, and does it block the sunlight? There are a range of noise impacts on the parkland. An elevated structure is noisier than having the same structure on the ground. Traffic is constant noise, trains are occasional noise. That's not a consideration on your list. The height of the overall structure is a major issue that we've talked a lot about over the past two years and that's not on your list. If there is an opportunity to add to your list I think these items should be included.

[5] This detour runs through Worcester and Ayer, Massachusetts and is approximately 100 miles in length.

A: DB: With regard to the shoulder issue, we hear your concern. The reality is there is a lot of precedent to include shoulders especially on the Turnpike extension between Weston and Allston. There are a lot of studies with strong evidence that having shoulders creates a safer situation than not having shoulders. In our opinion, having shoulders even just in this section of the Turnpike is safer than not having them.

C: JR: The task force has expressed many times over the last two years and there is a lot of consensus that we do not consider shoulders an improvement. The phasing, "no improvement to substandard section" is an opinion.

A: DB: It's a highway engineering standard.

C: JR: On the MassDOT 3J3/3K4 column you said right shoulder and breakdown lanes provided. For the ABC and Amateur Planner concept you could have said existing cross section maintained.

C: DB: It may sound like there's a tone there but that's not our intension. From an engineering standpoint we are expressing that the existing condition is substandard by the code.

C: JR: From our perspective, MassDOT's proposal is substandard from a quality of life perspective. I am suggesting you use neutral language. We're the ones who decide which changes are positive and which changes are negative.

A: DB: We were asked to give our independent opinion, that's all we're doing.

C: Ari Ofsevit (AO): It may be worth looking at the fact that both alternatives would create a highway that has less of a vertical alignment. Right now you have a 3-4% grade on curves. I believe both of the at-grade alternatives create a flatter and straighter Turnpike.

A: DB: Height is an important issue, it's a good comment. With regards to a permitting and Section 4(f) impacts, from a simplification point of view, putting a roadway on parkland versus having a shadow or cantilever shading is more impact than a roadway.

C: JR: Well it should be an item on the list.

C: DB: Okay. It's a short list. We did our best to boil it down to the main issues.

Q: Tad Read (TR): In terms of cost could you give us a sense of the order of magnitude of the difference? Your scale is low, high, and medium. Is high double medium? Is low half? Is there a percentage difference?

A: DB: No. We struggled with how we would present this because of the limited amount of work we've done. We didn't try to price the entire job; we tried to price the differential between the alternatives. The ABC concept was in the neighborhood of being roughly 15% lower than the cost of the MassDOT 3J3/3K4. The Amateur Planner concept was about 15-20% more.

Q: TR: Thank you. During the breakout groups, it was proposed to look at introducing bus rapid transit (BRT) service along with the commuter rail service on the elevated structure. Were you able to look at that?

A: DB: We did not. We had to make a decision to determine which items we could focus on with our limited time and budget.

C: Tom Nally (TN): I think you did a good job summarizing the ABC characteristics. The matrix demonstrates the objectives we set for ourselves. It is clear that one of our major challenges is providing a connection to Houghton Chemical with the least impact to the area. We may want to look at a viaduct in order to accomplish that. The other challenge with our concept is to reduce the amount of impact on the Charles River. We may be able to accomplish this by extending the vertical wall near the River Street intersection further east along the Charles River.

C: GB: I find it amazing that we still don't know what the curb-to-curb width is in the throat section of the Turnpike. Three months ago when I was working with ABC, we thought the width was 50.5' in each direction. You repeated those numbers tonight. At the task force meeting at 10 Park Plaza, someone on your team said it was actually 48.5'. This means that the ABC plan could move 5' away from the Charles River. I tried to get MassDOT staff to tell me what the answer is and they couldn't tell me. If the existing curb-to-curb width is 5' less, this task force should be told that.

In terms of construction impacts, we would like to meet with you and your team to show you our ideas which do not require closing the PDWP for six months or the Grand Junction Line. My last comment relates to the process overall. I don't think anybody behind either of the two at-grade alternatives had the attitude that either one was perfect. We want to take the best ideas of each of the three concepts. We don't want it to be a battle between them. We would love to sit down with your team, Ari, and the task force to have a hands on discussion to talk about the best pieces of all three alternatives and combine them into a fourth alternative.

A: DB: I'd like to respond to your concern regarding the width of the viaduct. The curb-to-curb width of the existing viaduct is 48'. However there are safety curbs on the existing viaduct which creates a 2.5' wide flat area on top of the curb. When the viaduct was designed, that was a standard practice.

Q: GB: If the existing I-90 eastbound is four travel lanes at 48', is there a striped shoulder? I believe the answer is yes. Do you know how many inches the shoulder is?

A: DB: I do not.

C: GB: Let's say that it is 1' away from the curb which gives us a total cross section width of 46'. When you divide 46' by 4 travel lanes, you end up with travel lanes that are less than 12'.

A: DB: Absolutely.

C: GB: Thank you.

A: DB: Regarding your comment about setting up a meeting to discuss construction staging that would be up to MassDOT to expand our scope. It wasn't in our scope to tip the alternatives against each other. Our scope was to evaluate each alternative on its own merits. In the 11th hour we were asked to compare them. It's inevitable that people are going to want to compare them.

C: Fred Salvucci (FS): I think it is terrific that all three alternatives are going to be part of the final EIR. It is going to save time during the question and comment period because of a lot of those issues can be dealt with in this room. I applaud MassDOT for that decision. I also want to support Jessica Robertson's comments about the nature of the matrix. The existence of a matrix is terrific, however we all think the matrix should be bigger and it has left a few key items out. The Southeast Expressway does not have a breakdown lane because the decision was made that a travel lane was more important.

Jessica raised a good point but I'll take it a step further. When you are traveling in the eastbound direction on the Turnpike heading downhill into a curve and suddenly you lose a breakdown lane it causes a dangerous situation. A lot of the engineering rulebook comes from imaginary road that is flat on the ground. It doesn't deal well with the vertical nature of highways. There should be a row on the matrix that discusses the elimination of the "S" curve that we get with the at-grade options. The elimination of the "S" curve is a lot more important than a spotty breakdown lane. The matrix needs to be longer.

A: DB: Thank you Fred.

Q: FS: What height are you assuming needs to be provided between the Worcester Line and the Grand Junction in the Amateur Planner concept?

A: DB: We used 14.5' for the roadway and 18.5' for the rail.

Q: FS: How much clearance is there for the rail line through the Prudential?

A: DB: I'm sure it's less than that, I'm not sure.

C: FS: It's a lot less than that. If the consequence is getting into the water table that is a big deal. That's not good engineering judgment. To generalize items like that, I'd like to take the attitude that all three of these have room for refinement and also room for improvement. All three can be better than they are. If we end up with a viaduct, I want it to be as good as it can be. The same goes for the at-grade alternatives. Let's take advantage of the policy decision to advance all three alternatives and refine them.

My third point is that all three alternatives have adverse Section 4(f) impacts. I think it is impossible to rebuild this without intruding on the DCR parkland. If all three alternatives have Section 4(f) impacts, there should be a Section 4(f) analysis now, not at the end of the process. The first step in the Section 4(f) process is to identify if there is an alternative that avoid the impact. I think the answer is no. The second step is to identify mitigation. All three alternatives have room for improvement. I think it is important to have a work item that recognizes the Section 4(f) issues with all three alternatives.

My last point is that the Turnpike is at its highway capacity. I live in Brighton and Washington Street backs up to Oak Square daily. We're getting really bad traffic conditions on Nonantum Road, on SFR, and Washington Street. Every path as far south as Route 9 is at its capacity and we have an economy that's growing. The only way to accommodate this traffic is with substantial rail service through this point. The two track Grand Junction Line connection to North Station is essential to deal with this capacity. That issue is not on the table. The short range argument is that it is not in the 5 year plan. What is being proposed here is going to be here for the next 50-100 years. It is going to take two real passenger tracks and that is not fully reflected here. In the analysis of West Station, the Amateur Planner concept drops the Grand Junction Line into the middle of the two Worcester Branch Lines, allowing cross platform transfers. The Amateur Planner concept also allows all of the movements from South Station into the layover yard to occur without disrupting the hope for DMU service. The MassDOT 3K3/3J4 concept blocks the ability to drop the Grand Junction Line into West Station and therefore you're stuck. You don't have to agree but it needs to be in the matrix and it needs to be analyzed. I'm saying this to be constructive. Thank you.

A: DB: I agree that these alternatives need a lot of work. The next step is to continue to develop these alternatives.

A: Tony Gouveia (TG): From a rail operations perspective, the 18.5' is west of the Grand Junction Line connection. If you look at the Amateur Planner concept crossing it has the Worcester Line going under the Grand Junction Line to access the layover facility. The 18.5' comes from the general access from the west across the Grand Junction Line into the layover yard. I agree that the Prudential Center has a constrained vertical clearance but I wouldn't hold the Prudential Center as a controlling factor for rail operations.

C: WL: I want to echo many of the comments that have already been said, specifically Fred's comments regarding rail operations. We need to be thinking about all the alternatives in a more multimodal way. My concern is that the matrix is falling into a trap. I agree that the matrix needs to be broader and I understand it wasn't your initial plan to compare the concepts to each other. We need to stop looking at the data that assumes highway behavior for this design. We should instead be thinking about how this place is going to look and feel from a pedestrian perspective.

A: DB: I agree with you that our matrix is limited. I don't want people to get hung up on this matrix. The intent of the matrix is not to pit the concepts against each other. The matrix is simply our way of summarizing our findings and opinions.

C: WL: Jessica Robertson mentioned breakdown lanes but I think there should be added rows for walking and bicycle connections.

A: DB: I agree. We probably could have added 20 more rows.

C: JR: There are a couple really obvious ones that you could add such as has a bike connection from West Station to the Boston University (BU) Bridge been provided, yes or no? Are there cross platform transfers between the Grand Junction and Worcester Line, yes or no? There are simple topics that you could add to the matrix.

A: DB: I agree.

Q: Margaret Van Deusen (MVD): Why does the 3K4 concept show 11' lanes on the viaduct and the at-grade concepts show 12' lanes?

A: DB: It doesn't. They are all 12'.

Q: Ari Ofsevit (AO): Is the cost estimate based on construction cost or the projects life cycle cost?

A: DB: Just the construction cost.

C: AO: I think we can assume that the life cycle cost of the at-grade concepts less compared to an elevated viaduct.

A: DB: It's hard to generalize that. The ABC concept has fewer structures so I agree it would have less of a life time cost. The more structure we have the more of a life time cost there would likely be.

Q: Galen Mook (GM): Is there a difference between the three concepts in terms of decking in the throat area?

A: Yes. The alternatives that have a viaduct are going to be impacted.

C: GM: I suggest adding that to an item on your matrix.

C: Steve Miller (SM): It sounds like your analysis was focused on the tight point of the throat section. Has there been any analysis of impacting the riverbank as a whole? The at-grade concepts might have less parkland along the Charles River in the throat section but overall more parkland.

A: DB: We chose to show the section views but the plan views better illustrate the entire parkland through the throat area.

C: Tad Read (TR): I want to echo the thanks to you and MassDOT for listening. It's great that you are taking the ideas generated by this group seriously. One of the things the BRA is charged with analyzing is placemaking. I think the two at-grade concepts are preferred from a placemaking perspective compared to the elevated viaduct. I urge you to keep pushing in order to find new ways to make the at-grade concepts work. In an urban context it is typically a good idea to bring elevated infrastructure down. My last point is that West Station is an important component to this project and the best way to reduce traffic is to get people out of their cars and onto transit. If you can't get south or east from West Station the station will not operate effectively. We need to figure out a way to get from West Station over to Malvern Street. I urge MassDOT to continue to look at that connection.

C: DB: Thank you Tad. Up next we have Mike Beintum to provide an overview of the construction staging for the two at-grade concepts.

C: Michael Beintum (MB): Hi everyone, my name is Michael Beintum. I'm going to start with the ABC concept because it is easier to follow. I'll try my best to provide you with an overview of the important features. In stage 1 of construction we expect everything to be open with an exception of the PDWP. The first step in stage 1 is to construct the cantilever of the PDWP over the Charles River. After that is completed, we will shift SFR next to the PDWP. While this work is being completed work will begin in the BPY. In order to do this we will need to temporarily realign I-90 eastbound through the toll plaza and construct a temporary bridge over I-90. We envision this stage taking approximately 8-12 months with the most impacts associated with the PDWP.

In stage 2 we plan on closing the Grand Junction and Houghton Line spur. The first step in stage 2 is to realign and shift Turnpike traffic onto a temporary structure. Once traffic is shifted we will be able to demolish the existing viaduct and ramps associated with the interchange. Once the demolition is completed of the western portion of the Turnpike we would then construct a temporary at-grade roadway between SFR and the existing viaduct. As a result of bringing the Turnpike down to grade, access would be cut off to Houghton Chemical and the Grand Junction which would require us to construct a fly over for those facilities. In this stage we would also begin constructing the local roadway network. We expect this stage to last approximately 6-12 months.

In stage 3 the Grand Junction and Houghton Chemical Line would remain closed. We would shift traffic from the western barrel on I-90 onto a temporary at-grade roadway between SFR and the existing viaduct. The next step in this stage would be to demolish the westbound portion of the viaduct and place vehicles on the temporary bridge that was constructed in the previous stage. Once demolition is completed, we would begin constructing the eastbound portion of the Turnpike. The temporary roadway would have three lanes. During this time, ongoing construction of the local roadway network as well as the Grand Junction Line flyover would continue. We imagine this stage taking approximately 12 months.

In stage 4 the Grand Junction and Houghton Chemical Lines are still closed. We would begin shifting eastbound traffic as well as the Worcester Commuter Line onto a temporary track. We would demolish the remaining portion of the viaduct and construct the new Worcester and Grand Junction Line tracks. At the end of this stage we would construct access to Houghton Chemical as well as the layover area. We predict this stage would last approximately 18-24 months.

Q: FS: What is the total duration up to now? How long has the Grand Junction Line been out?

A: MB: Approximately 3.5 years.

C: FS: Okay, thank you.

C: MB: In stage 5 we will finish the construction of the I-90 eastbound and begin paving. We would also finish the Grand Junction Line connection and interchange access Westbound. We believe this stage will take approximately 6-12 months. That covers the ABC construction staging plan.

C: Bill Deignan (BD): You covered a lot of detail and you have clearly worked a lot on this but we want to hear the bottom line.

A: MB: Our goal with this is to prove that these alternatives are buildable.

C: BD: That could have been achieved in one sentence.

A: DB: We are presenting how these alternatives would be constructed. Someone on the task force asked for this presentation and we are responding to that request.

Q: JR: Can you speed up through the details and highlight the differences instead?

A: MB: Overall we're keeping three lanes in each direction so there is not much of an impact there. The other difference is the number of stages and total duration.

Q: Bruce Houghton (BH): Could you tell us the total duration between each plan?

A: MB: We didn't evaluate the 3K4 alternative. We don't know the exact difference between the Amateur Planner and the ABC alternative but we know the Amateur Planner concept has more staging and typically that adds more time.

A: DB: There could be as much as a couple of years between the Amateur Planner and ABC concept. We focused on coming up with ways to successfully build these alternatives; we didn't dive too deep into duration.

C: FS: I'm really interested in how you are phasing the details. If these ideas aren't thought through correctly we'll be choked on traffic. I think this level of detail is good and important work. We may come to find out that this technique should be used for other MassDOT plans. This is about the best parts of each alternative. I'm pleased to see you're paying this close of attention and we need to see this for the MassDOT plan too.

C: MB: Thank you Fred. I'll try to run through the Amateur Planner alternative a bit quicker. In stage 1 we will close the PDWP and begin the construction of SFR. We anticipate this stage last approximately 3-6 months.

In stage 2 we would close the Grand Junction and Houghton Chemical Lines. In this stage, we would keep the viaduct open and begin construction a temporary at-grade roadway next to SFR. We would also construct the I-90 temporary off ramp which may sound like a small detail but it is an important one. We would then demolish the westbound roadway. We see this stage running approximately 9-12 months.

In stage 3 we would shift the existing westbound traffic off of the viaduct and onto the at-grade roadway. We would then shift the eastbound traffic onto the westbound barrel of the viaduct and demolish the eastbound side of the structure. After the demolition is completed we would build the foundations of the viaduct, paver over them, and use it as a temporary roadway to tie into I-90 eastbound. We envision this stage taking approximately 12-18 months.

In stage 4 the PDWP, Grand Junction, and Houghton Chemical Lines are still closed. We would shift eastbound traffic from the westbound barrel to the at-grade roadway. We would then demolish the existing viaduct and construct the other pier for the Grand Junction viaduct.

Q: GB: Why is the PDWP closed?

A: MB: There is no room. At this point we've shifted SFR into the space where it exists

Q: GB: Does Nate only write the negative comments down? Do other people notice that?

A: Nathaniel Cabral-Curtis (NCC): My effort with the flip charts is to write down all questions, comments, and answers. It comes from the fact that I have been to meetings where people think we're just up here playing candy crush. It has nothing to do with negative or positive comments. I include all big picture items. I have a number of positive comments from Tad, Fred, and Wendy. To answer your question, no, I do not only include negative comments.

A: EI: Thank you Nate, we get the picture. Moving on.

C: MB: To finish stage 4, we would then construct the northern portion of the fly over which would create the Houghton Chemical spur connection. We would continue constructing the local roadway network as well as the I-90 westbound barrel. We see this stage running approximately 12-18 months.

In stage 5 the PDWP, Grand Junction, and Houghton Chemical Line are all still closed. We would then shift I-90 eastbound to a temporary alignment on the other side of the Grand Junction pier. In this stage there would be continued construction of the roadway network. We believe this stage would take approximately 18-24 months.

In stage 6 all of the major elements have been constructed and we could now shift the traffic to its final alignment. We would first shift the Worcester Line. We would then shift I-90 under the viaduct. After that we would shift the westbound barrel and SFR to a temporary alignment to construct the remaining portion of SFR. We see this stage running approximately 6-9 months.

In stage 7 we should shift SFR to its final location and construct the PDWP. We see this stage taking approximately 6-9 months. That covers the Amateur Planner construction staging. We believe the Amateur Planner alternative would take a couple of years longer than the ABC alternative.

C: David Loutzenheiser (DL): I have a positive comment. On the Longfellow Bridge Project, MassDOT was able to accommodate the PDWP throughout its construction. You need to find a way to accommodate the PDWP here throughout construction.

A: MB: It's a good point. We may be able to come up with some creative ways such as a temporary bridge in the water.

C: DL: My second point is that the PDWP is not just a path, it's also a park. You should look at it in terms of what is impacted. Right now there aren't enough trees and hopefully there will be more in the future.

A: MB: Thank you David. Most of the vegetation in the throat section is on a slope and we will be preserving as much of that as we can during construction.

C: FS: This is terrific stuff. We need to see the same step by step construction process for the MassDOT alternative. As an alternative to building a floating bicycle path, I suggest that you provide significant improvements on the Cambridge side of the river. One of the problems with these projects that I still feel badly about from the Big Dig is the mitigation commitments that never happen. It is a huge advantage to have mitigation occur earlier. An acceptable way to provide early mitigation for closing the PDWP is to improve the SUP on the Cambridge side. You could then take Glen's idea of doing a granite wall instead of a riprap. People should recognize that the mitigation from the Big Dig was dropped at the end. Mitigation should seem like extra benefits for the project, it needs to be integral parts of the construction. Early mitigation helps answer the question of how you are going to pay for all of this. The level of detail you provided is great and I think it can help us get to a place we are happy with.

Q: Jim Gillooly (JG): I understand that this is very preliminary and I am assuming we are a long way from an end plan?

A: MB: Yes.

Q: JG: In my experience, even when you think you have some figured out, better ideas come up as the process moves forward, especially in construction. Are we going to get these drawings posted online or available digitally?

A: NCC: Based on my previous experience with MassDOT web services, the PowerPoints are no problem. These drawings will unlikely meet the MassDOT requirements to be posted to the web. We will however be able to provide these drawings to you in a format that works for you. We can get a copy to task force members upon request.

C: JG: As the construction staging plans develop, I suggest having a small graph that shows what is open and what is closed.

C: DB: Mike Beintum mentioned it earlier that there has not been a traffic analysis done yet for this. Obviously this is an extremely important step in planning for construction staging.

Q: FS: Is this it for HNTB or are you doing more work? I understand this is at the risk of Mike O'Dowd's budget but I think it would be useful for the same brains to think about West Station and the layover yard. You're not going to be able to construct this with helicopters. It makes sense the way you've shown it. Ideally you would be looking to get material in and out of the site by rail. Access is a huge element to this. When you relocate the highway you basically paint yourself into a corner. West Station and the layover yard can be constructed from the Malvern Street side. I'm very impressed with the work here and I encourage MassDOT to keep the same people around to have these ideas continue. The next step is to rethink how the rail construction will happen.

A: DB: We haven't put a lot of thought into that yet but we can look at it.

C: Anthony D'Isidoro (AD): As an extension of this discussion I think it is important to have a mitigation plan for the potential of the project being broken into phases. Showing where the construction is located such as which side of the BPY is going to be extremely helpful. These are the types of things that the community should be aware of and have the opportunity to comment on.

A: DB: Phasing is a reality and funding is a big issue. If all the funding isn't available at once it would certainly effect how the construction gets staged.

C: Harry Mattison (HM): In light of Jim Gillooly's comments, I'm wondering if we can look at what we've learned so far in terms of the MassDOT alternative and think about a fourth alternative that incorporates the best ideas from all of the alternatives.

A: MOD: I think that is something that would be flushed out as we continuing looking at all three alternatives. Our goal is to advance an alternative that incorporates the desires of the task force, community, and project team. We may end up with another hybrid that gets flushed out. We still have a lot of work in front of us.

C: HM: I'm suggesting that this happens before you go two months further. We have a major opportunity with the work that Glen, Tom, and Ari did. We want to address this sooner rather than later in order to save time and money.

A: MOD: I recognize that it is a good thought and I agree we need to put some of the pieces together. If there is another option that comes out of this process, that's fine. I'm not going to dismiss it.

C: GB: I think we're asking for you to authorize a meeting or two, not ten, for HNTB and the entire task force to sit down and work through the best ideas of all three alternatives. Then we can see if something magical occurs. We want to help you do that, we want you to authorize that.

A: MOD: I think that is a reasonable suggestion. I will bring it to our senior staff.

C: FS: I want to reiterate that it is really important that the same level of detail for the construction staging be done on the MassDOT plan. This is great work.

Q: EI: Fred, are you referring to the construction staging or issues across the board?

A: FS: Construction staging is going to make or break this project from the community's perspective. The presentation of the construction staging tonight is telling me we can do this and not totally screw up the entire community. We need to know that this can be done for all three of the alternatives. This is why it is so important that the same level of detail be incorporated for the MassDOT alternative.

C: EI: Thank you Fred. The next time we meet will be at the public information meeting on December 8, 2015. The meeting will be held at the Jackson Mann Community Center. For everyone in this room, the meeting will mostly be a review.

Q: WL: I want to ask the same question I asked at the last task force meeting. As West Station refinements continue, will they include a transit connection north and south? The community has been asking for this since the beginning of the second iteration of the task force. I think it would be inappropriate to go to the public without a proposed transit connection to show.

A: Chris Calnan (CC): That is one of the items we are currently working on with Central Transportation Planning Staff (CTPS). We are waiting to receive the modeling results in order to do a transit analysis that considers a vehicular connection north and south. We are planning to vet and present a conceptual idea of that at the public meeting.

C: WL: I'm not sure what you mean by that? I'm asking how and where you would show a bus running north and south. I don't think anyone is asking for a difference in opinion between private vehicles and transit. Everyone is in favor of a north and south transit connection.

A: CC: Our approach based on the Secretary's certificate is to look at a vehicular connection.

Q: WL: Is it possible to reverse those roles and look at a transit connection first. Transit has wide spread support.

Q: HM: Which connection is CTPS making?

A: CC: Malvern Street.

C: GM: Please consider the connection between West Station and Harry Agganis Way. It would solve the engineering issues associated with the Babcock Street connection. You've already engineered a bicycle path there. If geometry is the question, you've already solved it. Please take a look at the Harry Agganis Way connection.

A: CC: We understand the north and south connection is a big issue with this task force. It has taken us a long time to get through this and we are not looking at the connection lightly. We are going to present the findings to you once receive the data from CTPS. Let's move forward with Malvern Street first.

C: BD: I would like to reiterate that the City of Cambridge thinks it is extremely important to have that north and south transit connection. I would also like to announce that MassDOT has confirmed that

they will be presenting at the City of Cambridge's meeting on December 15, 2015. It will be the same format as the public information meeting held at the Jackson Mann Community Center.

C: GM: Last year Jessica was invited to present the task force's role at a similar meeting. I think it would be useful to extend the invitation to ABC and Ari to present their alternatives.

A: BD: I'm hoping to keep it reflective of the presentation MassDOT is giving next week at the Jackson Mann Community Center.

Q: JR: did we get an answer for the north and south connection?

A: CC: The details won't be ready for the public information meeting on December 8, 2015. We will have a full analysis to show you in the New Year.

C: JR: It's always at the bottom of your list.

A: CC: CTPS has a lot of work; we'll get there.

Q: JR: Do you have a timeline we can rely on?

A: CC: We're looking at the information and we'll try to get it out at the beginning of the New Year.

C: HM: There have been a lot of things we've been talking about for multiple years such as the Allston Esplanade and a SFR connection to East Drive. Can you give us a general sense of schedule? When are you expecting to file the next MEPA document? At the rate we're doing this is going to be a six year planning process.

A: EI: Before you came in Mike announced the new policy directive to advance all three alternatives through the MEPA documentation in what we believe will be a DEIR. We'll come back at the beginning of the New Year with a new schedule, matrix, and outline of next steps. I will say that due to the additional alternatives our schedule has likely been bumped approximately four to six months out from out original filing date. A lot of our schedule is dependent upon MassDOT direction.

Q: HM: This could all be clarified in a list of issues. We've sent you comment letters with all of our concerns and only 10% of what we send comes up at these meetings. Can you acknowledge in your new schedule when we will address specific points of concern?

A: EI: If I understand you correctly, you want us to summarize it in a list?

C: HM: Yes. We have no idea when our concerns are going to be answered.

A: EI: As we lay out our revised schedule moving forward, we can mark in the schedule when specific issues will get addressed and resolved. A quick reminder that the Cambridge meeting is on December 15 and the next task force meeting is on December 17. The next task force meeting will focus on the BRA parallel effort.

Next Steps

The next task force meeting will be held at 6:00 PM on Wednesday, December 17, 2015 at the Fiorentino Community Center located at 123 Antwerp Street, Allston. This session will feature the BRA and its consultant, the Cecil Group, as the featured guest speaker on place-making. DOT and elements of its team will be there to answer any transportation questions which arise and document the meeting, however, the presentation made and focus of discussion will be on the BRA place-making effort.

All task force sessions are open to the public.

Appendix 1: Meeting Attendees

First Name	Last Name	Affiliation
Dennis	Baker	HNTB
Harris	Band	Task Force Member
George	Batchelor	MassDOT
Joseph	Beggan	Task Force Member
Michael	Beintum	HNTB
Glen	Berkowitz	ABC Consultant
Jorge	Briones	Task Force Member
William	Brownsberger	Task Force Member
Nathaniel	Cabral-Curtis	Howard Stein Hudson
Chris	Calnan	TetraTech
Anthony	D'Isidoro	Task Force Member
Donny	Daily	MassDOT
Bill	Deignan	Task Force Member
James	Gillooly	Task Force Member
Anabela	Gomes	Task Force Member
Tony	Gouveia	HNTB
Anna	Greenfield	Skanska

Joe	Grilli	HNTB
Bruce	Houghton	Task Force Member
Jonathan	Kapust	HNTB
Wendy	Landman	Task Force Member
Robert	LaTremouille	Friends of the White Geese
Elizabeth	Leary	Task Force Member
Oscar	Lopez	Task Force Member
David	Loutzenheiser	Task Force Member
Amy	Mahler	Task Force Member
Harry	Mattison	Task Force Member
Galen	Mook	Task Force Member
Tom	Nally	Task Force Member
Michael	O'Hara	Boston Police D-14
Ari	Ofsevit	Task Force Member
Richard	Parr	Task Force Member
Tad	Read	Task Force Member
Carol	Ridge-Martinez	Task Force Member
Jessica	Robertson	Task Force Member
Steve	Silveira	Task Force Member
Bob	Sloan	WalkBoston
Margaret	Van Deusen	Task Force Member

Appendix 2: Flip-chart Notes

Chart 1

Q: When do you expect to file the DEIR?

A: Can't say yet, need to integrate all 3 options. Will be later than original date of summer 2016.

Q: W/ 2 rail lines, is there an aps difference?

A: We have that further down the list, wait one minute, plz

C: On 1st one, highway cross-section, we disagree that shoulders and breakdown lanes are an improvement. Think narrow-wide-narrow = dangerous. Also, this is selective list, think things you left out. On parkland, how close is structure to parkland, is sunlight blocked, what are noise impacts. Highway down less noisy, overall height not on list

A: Let me respond. Shoulder issue not lightly. Reality is lots of precedence for this and

Chart 2

A: adding = standard, safe design. HNTB believes shoulders = safer. This is engineering opinion not a stone issue

C: TF says shoulders not an improvement

C: Might be worth looking @ vertical alignment + curve on highway

A: Have discussed it. W/ regard to shadowing, simplification, but roadway on parkland = more impact than shadow

Q: Can you give us OOM cost and delta?

A: Struggled w/ presentation. Just price differential. ABC = 15% less than 3J3, no cost for 3K4, AMP = 15-20% more

Q: When you did the breakout groups, could you look @ BRT on AMP viaduct.

A: Couldn't be done in time + budget

C: Demonstrates + highlights challenges, Houghton link, maybe look @ viaduct going over. ABC looking at lengthening River St seawall to reduce river impacts

Chart 3

C: Find it amazing that we still don't know curb-to-curb I-90 width. At 10/29 TF session, HNTB team stated the width is 48.5' wide. Tried to get DOT officials to give a width, but they haven't. In terms of const. impacts, haven't shown ABC staging. Want to meet w/ ABC+HNTB to discuss. Don't think anyone behind 2 alts had the attitude that alts were perfect, but not stop there. Take best ideas of all 3. Glen seeking 4th alt

A: Ext viaduct = curb-to-curb = 48'. Safety curbs of 2.5' on either side for safety. That gets you up to low 50's, but we used your #'s

C: Ext curb-to-curb = 48', what is width of shoulder. If 1' foot then travel lanes are less than 12'

A: Yes. Follow-up scope is up to DOT. Didn't set out to put the alts. Done on own merits

C: General comment > good job to go to EIR w/ all 3. Will save you from SEIR. Support Jessica's comment on matrix. Must be bigger

Chart 4

C: Took breakdown lanes off SE Expressway. Jessica raises important point on breakdown lane EB. Need a row on elimination of S-curve which is tricky. What height assumed between S. Station branch, Worcester branch + GJL. (Used 14.6' for road + 18'6" @ Pru) getting into water table very bad. Different height clearance not good. All 3 ops have room for improvement. I want the best viaduct or @ grade. Take advantages of DOT policy decision to enhance all 3. All 3 schemes = advance 4F impacts. Can't rebuild w/o 4F impacts. Need 4F analysis now as part of early process. Avoid, minimize, and mitigate. Need work item on this. Corridor is maxed for roadway on all parts. Only way to accommodate = more rail. Two tracks to GJL is crucial. Need to think 50 years out. Need 2 real passengers tracks AMP plan has cross platform access. Viaduct restricts you w/ Worcester Line crossing GJL into yard. Has to be in the matrix

Chart 5

A: Alts do have room for work, that's next step

A: 18'6" west of GJL connection

C: Need to think more broadly on impacts. Need to think multimodal. Not in matrix. Matrix is highway + construction but not broader. Multimodal project. How do we want this area to look, feel, operate for 50 years. If one op = better rail and less highway, we need to know this.

A: I agree. This is our matrix. This ins't final matrix. Just summarizing HNTB findings

C: Cross platform transfers yes/no, bike connect to BU Bridge. Those should be on matrix

Q: Looking @ const costs + life cycle cost?

A: Just cost const now

Q: Difference between decking over throat?

A: Viaduct could not be decked and not criteria since area not developable

Chart 6

C: Would like to add overall Riverside impacts to matrix

A: 3K4 generally does better on this

C: Thank you for this. At-grades seem to offer more for placemaking. Keep pushing + refining West Station very important. Need to get people to West Station to points west + east. Need to go from Mountford Street + BU Bridge

Q: Under ABC plan, how long is GJL closed?

A: 3 years and change

Q: What is total duration of ABC construction?

A: Around 60 mo. > 5 years

Q: Any substantial difference between these?

A: 3 lanes of traffic open in each direction and total time table. AMP has more stages and longer total duration. Easily a few years between ABC and AMP. AMP = more complex + time consuming.

Chart 7

C: I'm personally very interested in staging. I encourage us to look @ this and this ought to be applied to DOT plan to ensure the staging works from a traffic perspective.

Q: In that stage of AMP, why is PDW closed?

A: B/c we had to shift SFT on to it to get construction room

C: Longfellow project accommodates bikes thru-out. Need to find some way to keep PDW going

A: Could have temp. bridge

C: Need to look @ adding more trees to PDW since it is also a park

C: Terrific stuff. Show us same for DOT option. Would observe that alt to floating bike path would be big boost to C-bridge side path. Big advantage if we do mitigation 1st to avoid Big Dig issue. Floating idea

should also be looked at. Recognize Big Dig issue + mitigate early + make integral to construction. Granite seawall can = more generous PDW

Chart 8

C: Preliminary and ID'ing early impacts to capacity. More + better ideas may come along. Jim Gillooly request open/closed + timetable bare chart. See if can get for TF

A: Note we have done no traffic analysis to date. Need to be analyzed

C: Would be useful for HNTB to think through sequencing for West Station. Need to avoid boxing in area for West Station, don't get stuck building from Malvern St. side. Maybe not a problem, but need to think it thru.

A: Not much RR thought beyond throat area

C: Need to think about potential community impacts on construction for each option. We need op to comment > potential eval. criteria

A: Also need to think of finding staging

Chart 9

Q: How can we think of a 4th or 5th combination option? Way to save time + money

A: May well come out as we get into future evaluation. Right now plenty of work w/ these 3

Q: What we're asking you to do is authorize working session w/ HNTB to, 2 or 3 sessions, not 10, to have frappe meeting

A: O'D will take back to senior staff

Q: As W. Station refinements are shown, will they include transit connections north and south? Community wants this

A: Working w/ CTPS to do transit + vehicular connections. Still coming. Wait next week but will come from CTPS to TF 1st

Chart 10

A: Not looking @ this lightly. Want to get something going

C: Bill Deignan asks me to put out to TF

A: Trying to get out @ beginning of year for Malvern (or other) bus connection

Q: When are you filing next MEPA document, when will we come back to next foot bridge?

A: Ed explain DOT directive and when next filing will be. New schedule, new outline in Jun. 2016

C: Harry looking for list of issues ops + time table for resolution