



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(617)482-7298 fax:(617)482-1837

Meeting Date: June 14, 2010

MassHighway Project Name: Fore River Bridge Replacement, Quincy-Weymouth
Bridge No. Q-01-001= W-32-001

MassHighway Contract No.: 50281

MassHighway District: 6

Designer: STV Incorporated

Minutes Prepared By: Nathaniel Cabral-Curtis, Howard/Stein-Hudson

Meeting Place: Abigail Adams Middle School, 75 Middle Street, Weymouth MA

Persons in attendance: Meeting attendance lists have been removed to protect the privacy of audience members.

Purpose: The design team held a public information meeting at the Abigail Adams Middle School in Weymouth at the suggestion of Weymouth Mayor, Susan M. Kay. This meeting was intended to reach a combined audience of those who live in the communities on either side of the bridge, particularly North Weymouth, Weymouth in general, and Quincy Ward 2. Outreach for this meeting was conducted through the project website and through advertisements run in the Boston Herald and Quincy Patriot Ledger.

Items Discussed:

Mike O'Dowd (MassDOT Accelerated Bridge Program) opened the meeting by welcoming the audience and thank them for their attendance; he noted that many in the audience had become familiar faces during the course of the project which has had multiple public information sessions to date. Mike then explained that due to the number of architectural questions raised at the April 12, 2010 public information meeting, Miguel Rosales of Rosales + Partners would be available during the meeting summarized herein to present his concept of the new Fore River Bridge and answer questions regarding the new bridge's appearance. He also requested that during the question and answer session, members of the audience begin their questions by stating their names for the record.



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(617)482-7298 fax:(617)482-1837

Following Mike's initial remarks, several local elected officials addressed the audience. Representative James Murphy of Weymouth explained that he has worked for several years with the state delegation regarding replacement of the Fore River Bridge and that he remains committed to working with area residents to bring the project to a successful conclusion. His office will work to ensure that residents' interests and concerns are taken into account as the project moves forward. He concluded his remarks by thanking the audience for their attendance. Representative Murphy was followed by Weymouth Mayor Susan M. Kay. Mayor Kay thanked the audience for attending, noted that she is sensitive to the many projects that have taken place recently in the North Weymouth neighborhood and explained that she would work to ensure that residents of the area have a voice in the process and do not have a repetition of their prior experiences with the simultaneous construction of the temporary bridge, MWRA pumping facility and new power station. Mayor Kay was followed by Victor Pap, the councilor for North Weymouth. He noted that he has been following the project and advocating for a bridge in alignment with the wishes of the neighborhood. He concluded his remarks by requesting that area residents contact his office or the North Weymouth Civic Association with questions or concerns so that they could be provided to the project team.

Following these remarks, Mike requested that Bashir Madamidola (MassDOT District 6) read the official meeting notice.¹ Mike then explained that the purpose of the meeting would be to bring the public up to speed on the Fore River Bridge replacement project which began in the fall of 2008. Replacement of the Fore River Bridge is being conducted under the Accelerated Bridge Program or ABP. The ABP was enacted by the Patrick-Murray Administration in 2008 and finishes in 2016. Over eight years, the program provides \$3 billion to repair or replace structurally deficient bridges in the Commonwealth and ensure that other bridges do not drop into this category. Replacement of the Fore River Bridge is a signature effort of the ABP. Mike commented that because the Fore River Bridge project is being conducted under the ABP, it is moving faster than similar projects that people may have experienced in the past, but this does not mean that the public or environmental process is being given short shrift. The project does need to continue to move forward to replace the temporary bridge which is broadly disliked, by residents and which only has a lifespan of 15 years, but all public commentary is noted and does help to shape the project.

Highlights of the Presentation

Following Mike's opening remarks Mark Pelletier, Mark Ennis, and Nikole Bulger (all of STV), and Miguel Rosales (of Rosales + Partners) briefed the audience on the current status of the project. Highlights of the presentation included the following:

¹ A copy of this notice is included as Appendix 1.



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(6 1 7) 4 8 2 - 7 2 9 8 f a x : (6 1 7) 4 8 2 - 1 8 3 7

- STV and its sub-consultants began work on the Fore River Bridge replacement project in September 2008 with an initial survey of the bridge and its surroundings.
- The public involvement process for the project began with a briefing to local elected officials in April 2009 and has included multiple meetings with members of the general public and specific stakeholders such as the maritime community and area businesses. The project is currently at the 15% design level and has had much more public involvement than similar projects which usually do not reach out to the public before the 25% design level. This has been to ensure the public has an opportunity to inform the project team's efforts on this high-profile bridge replacement.
 - Since its last meeting with the public on April 12, 2010, the project team has met with the Conservation and Historical Commissions for Quincy and Weymouth to brief them on the project's status.
- The scope of work for the project team includes the following elements:
 - Coordinate with stakeholders and agencies throughout the 25% design process.
 - Evaluate the structure types for both the movable span and approach structures for the new bridge.
 - Select a preferred alternative. The project team has recommended the vertical lift structure to MassDOT, but will fully articulate the benefits and constraints associated with this type and the bascule bridge in the Environmental Assessment. The project team has explained their growing understanding regarding bridge type to the public over a series of meetings, a departure from standard practice.
 - Preparation of the NEPA filing.
 - Establishment of permitting requirements
 - Advance the schematic design to the 25% level including design, construction staging, and traffic management plans.
 - Prepare the design/build procurement package.
- Project schedule:
 - Notice to proceed – October 29, 2008.
 - Basic design – Fall 2008 to Winter 2009/2010 including:
 - Project development/environmental assessments.
 - Basic highway design.
 - Bridge type study reports.
 - MassDOT review.
 - 25% design – Spring 2010 to Spring 2011 (**the current phase**) including:
 - Federal and state permit filings, including the Environmental Assessment (EA).
 - Highway plans.
 - Bridge sketch plans.



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(6 1 7) 4 8 2 - 7 2 9 8 f a x : (6 1 7) 4 8 2 - 1 8 3 7

- MassDOT review.
 - Design/build procurement package – Fall 2010 to Spring 2011.
 - Construction kickoff – Fall 2011
- The project team is seeking to deliver a new replacement bridge which will:
 - Maximize the closed position vertical clearance to minimize bridge openings.
 - Maximize the horizontal clearance of the navigation channel to speed the passed of ships.
 - Be reliable and simple to maintain.
 - Accommodate bicycles and pedestrians.
 - Is aesthetically pleasing to the community.
 - Meets the budget set by MassDOT and FHWA.
- In developing the roadway profile for the replacement bridge, the project team has developed a profile that:
 - Maximizes closed position vertical clearance.
 - Maintains the posted speed limit of 35 miles per hour.
 - Keeps an ADA-compliant maximum grade of 5%.
 - Has no permanent impact on the homes to the east of the bridge in Weymouth or the Quincy rotary to the west.
- The new bridge will also feature:
 - 2, 12-foot travel lanes in both directions.
 - 5-foot bicycle accommodating shoulders in both directions.
 - A 6-foot sidewalk on both sides of the bridge.
- The new Fore River Bridge will be a footprint bridge² as defined by the Massachusetts state legislature and is exempt from MEPA, Chapter 91 licensing and the wetlands protection act. It must however go through the following approvals processes:
 - NEPA.
 - U.S. Coast Guard Bridge Permit.
 - MassDEP Section 401 Water Quality Certificate.
 - MA CZM Consistency Determination.
 - U.S. EPA NPDES permit for construction related storm water discharge.
 - National Historic Preservation Act.
- Within the NEPA process:
 - FHWA is the lead federal agency with coordination and cooperation from the U.S. Coast Guard.

² A structure that is functionally equivalent, that is running along the same alignment and with the same number of vehicular lanes as the structure replaced.



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(6 1 7) 4 8 2 - 7 2 9 8 f a x : (6 1 7) 4 8 2 - 1 8 3 7

- Public involvement is incorporated into the NEPA process through both the meetings taking place prior to the submission of the EA and during the 30 day public comment period after the EA is filed.
- The EA:
 - Assesses existing conditions.
 - Analyzes alternatives:
 - No-build
 - Bascule bridge
 - Vertical lift bridge
 - Identifies potential impacts and proposes mitigations to them.
- Following the submission of the EA and the public comment period, FHWA will make a determination as to which bridge type will be built.

- The schedule for submitting the EA is made up of the following elements:
 - MassDOT presents the project and solicits public comment (ongoing).
 - Consultants prepare a draft EA.
 - MassDOT reviews and comments on the draft (ongoing).
 - Consultants revise the draft based on comments from MassDOT.
 - MassDOT submits the revised EA to FHWA (expected summer 2010).
 - FHWA reviews the EA and provides comments to MassDOT.
 - MassDOT revises the EA based on FHWA comments.
 - FHWA publishes the EA for public comment for a minimum of 30 days (expected fall 2010).
 - FHWA reviews the written public comments and makes a determination regarding NEPA compliance.

- The EA looks at the following impact categories:³
 - Physical geography, soils and geology.
 - Water and wetland resources.
 - Wildlife and fisheries.
 - Air quality.
 - **Noise.**
 - **Traffic: vehicles, pedestrians and bicycles.**
 - Land use, social, economic and environment.
 - **Visual impacts.**
 - Cultural resources.
 - Public parks and recreation lands.
 - Hazardous wastes.
 - **Construction impacts.**

- With regard to noise, the project team recommends that:

³ Impact categories in bold are those which the project team feels to be of highest concern to area residents.



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(6 1 7) 4 8 2 - 7 2 9 8 f a x : (6 1 7) 4 8 2 - 1 8 3 7

- A construction liaison should be available to the community.
- MassDEP noise guidelines (ambient + 10dBA) will be used to establish thresholds.
- Use of separate thresholds for daytime (7:00AM to 6:00PM), evening (6:00PM to 10:00PM), and night (10:00PM to 7:00AM).
- Contractor for the project must implement a noise control program.

- With regard to traffic management:
 - The project team has recommended the vertical lift bridge in part because it reduces the number of bridge openings due to greater closed position vertical clearance.
 - Variable message signs (VMS) will be installed during the first phase of construction to help direct motorists away from the bridge when it is opening.
 - New traffic data has been collected for the project area.
 - The traffic management plan associated with building the temporary bridge is under review.
 - Construction criteria and methods will be established to minimize traffic impacts during construction.
 - Public updates on traffic management phases will be delivered throughout the project using a range of electronic and traditional outreach methods.
 - A truck route will be established to keep trucks out of residential neighborhoods. The project team is currently considering the one used by MWRA during construction of their pumping station near the bridge.

- Over the past several months, the project team has been working to refine the construction phasing for the project with the goals of maximizing the pace of construction while minimizing traffic impacts. The project team is currently recommending a sequence, of 40 months or a little more than 3 years, with the following elements:
 - **One:** a duration of 30 months with all four lanes of the temporary bridge available to motorists during which the movable span and much of the flanking spans will be built. This phase will be quite similar from a traffic perspective to the current conditions.
 - **Two:** a duration of 4 months with two lanes available to motorists, one in each direction, on one span of the temporary bridge as the flanking spans of the new bridge are tied into the existing approaches in the Quincy and Weymouth.
 - **Three:** a duration of 1 month with three lanes available to motorists, two on the temporary bridge, and one on the new bridge. One lane will be reversible, that is set up to provide two lanes heading westbound in the morning and two lanes heading eastbound in the evening to mirror commuting patterns.
 - **Four:** a duration of 5 months in which all traffic is shifted to the new bridge and the temporary span is fully demolished.



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(6 1 7) 4 8 2 - 7 2 9 8 f a x : (6 1 7) 4 8 2 - 1 8 3 7

Other construction phasing options have been analyzed, but the one noted above has been recommended to MassDOT by the project team because it delivers the project within the shortest overall timeline. For example, another of the phasing options considered would have reduced the period of two-lane operation to a single month, but would have lengthened the project schedule to forty-four months overall.

- With regard to aesthetics, a new, permanent vertical lift bridge would be substantially better looking than the temporary structure and with input from the community, will be made to better reflect the character of the neighborhoods around it.
- The temporary structure is visually awkward in that it has many piers and a truss along the line of the roadway which block the view of motorists and abutters. Overall, the structure does not have a smooth profile as it crosses the river.
- The project team is currently considering an all-steel vertical lift bridge which will have a clearer structure, due to fewer members, better views of the water from the deck, and a boxed underside to visually simplify the lifting truss. The towers of the new replacement bridge will not be connected as those of the temporary bridge are as they will be substantially more robust.
- Rosales + Partners have recommended that the new vertical lift bridge have a strong sense of visual order, in contrast to the random appearance of the members of the temporary bridge. The junction points of this ordered, modular structure offer opportunities for aesthetic treatments such as medallions of the seals of Quincy and Weymouth. The elevators and stairwells running from the control room to the tops of each tower will be placed on the outboard side of the bridge so as to be hidden from the North Weymouth neighborhood. The new bridge's truss will feature a curved top cord and could be colored to blend with the sky and sea. There is also an opportunity to light the bridge aesthetically at night.
- Route 3A provides a vital roadway link between Boston and the south shore carrying roughly 32,000 vehicles each week day. Bridge openings have significant impacts on commuters and area residents crossing the bridge since alternate routes are long and involve already congested intersections.
 - As such, a major goal of the project team is to reduce the number and duration of bridge openings.
- The Fore River provides access to a designated port area (DPA) under the Massachusetts Office of Coastal Zone Management as well as the Citgo tank farm, local yacht clubs and the Fore River Shipyard property. The current bridge with its horizontal channel clearance of 175 feet already represents a significant challenge to



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(617)482-7298 fax:(617)482-1837

harbor pilots bringing oil tankers to the Citgo facility. Future ships of greater width will also have a deeper draft. The Fore River cannot be dredged to a greater depth than what it is today without substantial study and congressional approval and funding. As such while ships are likely to grow wider in the future and a larger bridge would accommodate them from a width perspective, enlarging the horizontal channel clearance more accurately represents a much-desired margin of safety by local mariners for today's ships.

- As such, a major goal of the project team is to improve navigational access by providing a new bridge with a wider channel clearance. In conversations with the USCG and maritime community, a channel clearance of 225 feet has been identified as an absolute minimum; 250 feet is preferred.
- Bascule bridges are generally recommended for crossings of 225 feet or less. In the case of the Fore River Bridge, a new bascule bridge would require four leaves or movable segments. Vertical lift bridges can span up to 500 feet easily. If used to cross the Fore River, a vertical lift bridge would need only on movable segment, the truss, and offer a lower roadway profile, decreasing visual impact and offering greater vertical clearance in the closed position.
- The design team has conducted a type study which compares the bascule and vertical lift bridges on the following criteria:
 - Agency acceptance of channel width.
 - Acceptance of vertical clearance to minimize the number of openings.
 - Site conditions and impacts.
 - Engineering parameters.
 - Permit agency constraints.
 - Bridge aesthetics.
 - Capital, life cycle, and maintenance costs.
- If a bascule bridge were built to cross the Fore River, and to provide a channel clearance of 225 feet, the span would be over 300 feet from trunnion to trunnion (the axis about which the leaves rotate). This would mean:
 - Very large counterweights for each leaf, much larger than those used on the 1936 bridge.
 - The largest, heaviest bascule bridge in the country, one that would be at the outer edge of what this bridge type can safely accomplish and structurally inefficient.
 - Each counterweight would need an enclosed pit in the bridge piers to prevent the weights from coming in contact with salt water. These pits would require massive piers and would collect water and debris from the road deck above.



STV Incorporated

3 2 1 Summer Street
Boston, Massachusetts 02210
(617)482-7298 fax:(617)482-1837

- The leaves of the bridge would act like a sail, making operation of the bridge in high winds difficult and putting a tremendous strain on the gears, trunnions and motors of the bridge.
- Overall, while such a structure is feasible from an engineering standpoint, it presents ongoing maintenance challenges and is therefore not recommended by the design team.
- If a vertical lift bridge were built to cross the Fore River, it would:
 - Easily provide a channel clearance of 250 feet.
 - Be well within the engineering limits for its type and in fact be at the small end.
 - Be slightly cheaper to build and substantially cheaper to maintain due to standard, off-the-shelf parts.
 - Maximize closed position vertical clearance since the truss supporting the road is above deck.
 - Perform better with regard to scour around the piers during a 500 year storm.
 - Perform better under seismic conditions due being to a lighter and more flexible structure.
- Additionally, as is shown by the following table, a new vertical lift bridge would not resemble the current temporary structure.

Criteria	Temporary Structure	Permanent Vertical Lift Bridge
Design life	15 years	75 years
Basis for mechanical design	Crane construction	AASHTO specifications
Operation in high winds	No	Yes
Wire rope lubrication	Constant maintenance requiring daily off-peak closures	Normal maintenance, 50 year life.
Navigation channel width	175 feet	250 feet
Ease of ship transit through the bridge	Difficult	Easier
Deck system	Steel (loud)	Concrete (quiet)
Average opening time	21 minutes	13 minutes (est.)

- A closer review of the logs kept by the bridge tender also shows that the vertical lift bridge would reduce the number of openings due to recreational sloops by an



STV Incorporated

3 2 1 Summer Street
Boston, Massachusetts 02210
(617)482-7298 fax:(617)482-1837

even greater amount than previously thought. The proposed vertical lift bridge would have 20% fewer openings than the current temporary bridge, but the proposed bascule bridge would have 5% more openings than the current temporary bridge. The project team shared the following table with the audience to illustrate this point.

Proposed bridge	Approximate change in number of annual openings vs. the temporary bridge	Typical length of sailboat season	Approximate average change in openings.
Bascule	↑151	4 months	↑9.4 per week
Vertical lift	↓27	4 months	↓1.7 week

- The vertical lift provides a range of significant advantages as compared to the bascule bridge. These include:
 - Greater closed position vertical clearance leading to fewer openings and reduced traffic impacts.
 - Smaller pier footprints mean a lighter environmental impact on the Fore River including reduced scour potential.
 - Greater opportunities for accelerated bridge construction techniques. For example, the lifting span can be built off-site and floated into place. A bascule bridge must be constructed in the closed position.
 - The vertical lift bridge has fewer sets of machinery to maintain.
 - The lifting machinery for a vertical lift bridge at this location would be standard off-the-shelf components, at the low end of the spectrum with regard to size and complexity. For a bascule bridge at this location, the lifting machinery would be at the outer edge of what is available for size and complexity. Not many manufacturers produce this type of equipment. Therefore the vertical lift bridge has better maintainability in the long-term.
 - Bascule bridges must be maintained in the open position, whereas vertical lift bridges can generally be repaired in the closed position. As such, the vertical lift bridge also offers easier maintenance with decreased traffic impacts.
 - The vertical lift bridge will offer better rideability with a standard, noise-dampening concrete deck.
 - The vertical lift bridge is less susceptible to high winds.
 - The vertical lift bridge is inherently more resistant to seismic events due to a lighter, more flexible structure.



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(6 1 7) 4 8 2 - 7 2 9 8 f a x : (6 1 7) 4 8 2 - 1 8 3 7

- The vertical lift bridge does not restrict future economic development at the Fore River Shipyard.
- The vertical lift bridge is ultimately the most efficient bridge for this location.
- The bascule bridge was a wonderful, recognizable structure between Quincy and Weymouth from 1936 until its demolition, but it was not the first movable bridge to span the Fore River. From 1902 to 1936, a swing bridge crossed the river and was removed when it was determined to be too narrow for shipping and therefore limiting economic activity in the area. The community is now in a similar position and MassDOT and the design team are seeking to put in a bridge that meets the needs of all users for years to come.

Question & Answer Session

Q: Victor Pap (VP): Thank you for the evolving dialog on this project. I've got a question and a comment. Relative to the opening time of the bridge going to 21 minutes to 13 minutes, are you comparing apples or apples, or put another way, does that take into account larger, post-Panamax tankers?

A: Mark Ennis (ME): Yes, we are comparing apples to apples since the channel is currently set up for Panamax ships.

C: VP: But won't this invite larger vessels to the Fore River?

A: Mark Pelletier (MP): The main reason we're trying to get to a 250 foot horizontal clearance is that current tankers are colliding with the fender system now. Because of those collisions, ships have to go through very slowly. Rather than being escorted under the bridge by the tugboats, the tugboats have to line the tanker up and then shove it through from the back. The wider channel will allow tugboats to transit the bridge with the tanker and move through faster which leads to less stopped traffic on the bridge above. What stops a bigger tanker from coming to the Fore River is depth its unlikely that the channel is going to be dredged to be deeper any time soon.

C: VP: I understand that your bridge aesthetic is based on accommodating an industrial area, but I don't think this is an industrial area any more. If anything it's trending residential and I would like to see us moving towards a historic look. There are public safety concerns, property value concerns, and issues over the historicity of the



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(617)482-7298 fax:(617)482-1837

bridge. I'd hate to see a situation where we become the bad section of the South Shore because of an ugly bridge.

Q: Mike Lang (ML): I live in East Braintree and I've worked on every major project in the Fore River basin. I'm in awe of your spin. Comparing the vertical lift bridge to the existing structure is insane. A plywood bridge would look better than this. Your numbers are off the wall. Your problem with the Fore River is that there's ledge under the bridge. The sailboats have to leave on a high tide because it can't be dredged deep enough. The idea that you need a 250 channel clearance is questionable. In doing some minimal research, I found out that the Charles Berry Bridge has a span of 333 feet and it works fine. I also want to critique your website which is awful because it doesn't give you any data at all. You need federal and state contact information and the numbers behind your calculations; I want to see the information you fed your computers. I used your website to contact Stephanie Boundy for a copy of some minutes and she never got back to me. I'd like one of your cards to get answers to my questions.

A: Mike O'Dowd (MOD): Thank you for mentioning your issue with the minutes. We will be posting those to the project site by the end of the week.

A: ME: The bridge you mentioned in Ohio does have a longer distance from trunnion to trunnion, but it's a narrower bridge than what we are proposing here and has an open steel grid for a deck. We won't consider a lightweight steel grid deck because it's noisy and negatively impacts the neighborhood. You mentioned how easy it is to find information on that bridge, and that's in part because it was recently shut down for six months while they replaced the machinery and during that time it was stuck in the open position with traffic detoured. That's one of the reasons we're not recommending the bascule bridge.

C: ML: So you're saying that if you build a bascule bridge you won't be able get parts for it.

A: ME: I'm saying that the bascule structure is feasible to construct from an engineering point of view, but if it needed a part replaced it would be harder to get those parts and six months of being closed to traffic isn't acceptable to MassDOT.

C: ML: So your vertical lift bridge will never break.

A: ME: Yes, but if the vertical lift bridge should break, we could leave it open to traffic during repairs.



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(6 1 7) 4 8 2 - 7 2 9 8 f a x : (6 1 7) 4 8 2 - 1 8 3 7

C: MP: I want to address something you said earlier: nobody associated with this project wants to deepen the channel. To have that happen would require a lot of time, money, and permitting.

A: ML: But the limiting factor in the channel is that depth.

A: ME: The mariners don't contest that. We are using the Panamax class of vessel as our design ship, but the issue too that comes to the fore relative to the draft is that CITGO and many other oil companies don't unload all their cargo at one site. They might unload some of it elsewhere before bringing it to the Fore River.

C: ML: My organization talks to CITGO all the time and they say they have to wait for high tide to move a tanker.

A: ME: The channel is currently designated as being 35 feet deep, but that's at mean low water, so yes, they would need to wait for a high tide.

Q: Jeff Cutler (JC): I live in the neighborhood and I work for several newspapers. My question is about your communications plan. Aside from seeing a brand new bridge, the main thing I run into is we don't know when the bridge is going up. We definitely don't know about maintenance openings. I'd urge you to implement a communications plan that uses conventional and social media to let people know about openings as broadly and efficiently as possible.

A: MOD: Thank you for that comment. We are working with our IT department at MassDOT to ensure that we get better information out to the public relative to all openings, both scheduled and emergency.

Q: Ron Farmer (RF): It strikes me as obvious that you could throw out all your numbers and address all your problems by building a tunnel. Why are you reconstructing the Gordian knot with more or less string? Sure, it would be expensive to take out the rotary and the properties that are in the way, but it would be more conducive to the business community and make this neighborhood a beautiful place. The bridge you have now is a mess; it looks like hell. What about a permanent solution: put a tunnel in there and you'll eliminate all this mess and you'll have something that future generations won't have to deal with. You can blast through the ledge. We can deal with these things. Why don't we go for a permanent solution rather than another movable bridge?

A: MOD: To address that quickly, back in 2002, what was then MassHighway worked with another design team headed by Vollmer to determine how best to replace the



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(617)482-7298 fax:(617)482-1837

1936 bridge. It looked at four approaches: the bascule bridge, the vertical lift bridge, a fixed bridge, and a tunnel. It was determined that both the tunnel and fixed bridge were too costly both socially, the land takings associated would have been considerable, and economically, it would have been very expensive to do those takings and relocate the businesses and families. Large sections of Washington and Bridge Streets would have become dead-end access roads which would have been harmful to the businesses located there. In addition, the tunnel would have failed to serve bicyclists and pedestrians who we know use this corridor.

C: RF: I think some of the things you mentioned had already occurred to me. The fact is that those homes and businesses are going to wind up relocated sooner or later anyway. This area isn't the Garden of Eden. Cyclists and pedestrians can be dealt with; there are no cyclists and pedestrians using the bridge anyway. They spend billions in government on waste alone. I think you should spend the money, build the tunnel and get this right.

Q: Bill Schraeder (BS): I live in Hingham and I am wondering how much consideration has been given to moving the CITGO dock to the north of the bridge. It isn't desirable to have big tankers in a residential neighborhood.

A: MOD: I've met with a number of people regarding that very issue. The elected officials representing this area contacted CITGO ten years ago to initiate something of that nature and for then years they've had no response. I've also met with the mariners and the Coast Guard and they have told me that the area outside of the bridge is not particularly safe for an off-shore unloading facility and that such a facility would not get permitted in the time we have before the temporary bridge would have to be demolished. Given that CITGO has been quiet about this for ten years, we didn't think you could put up with that delay.

Q: BS: I want to speak to one of the engineers about this. Do you mean to tell me that without oil tankers going to CITGO you would still need the same bridge?

A: MOD: Sir, I am an engineer. This is a designated port area. We cannot build a bridge that limits the economic viability of the area as a working waterfront.

A: MP: I agree completely with Mike. This is a designated port. We could not build a bridge here that would compromise the area's status. The Coast Guard wouldn't allow it and neither would FHWA.

Q: BS: So you'd have the same width and height without tankers. I find that hard to believe. How many movable bridges are built for roadways with this volume?



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(617)482-7298 fax:(617)482-1837

- A: MOD: We have bridges in design or construction all over the Commonwealth that have these sorts of volumes.
- Q: BS: The south shore is stuck with this slow moving bridge. It's a huge disruption and I find your numbers hard to believe. Have you done any outreach to commuters further south of the bridge?
- A: MOD: 23 to 26 minutes with the current temporary bridge is an average. Certainly there have been instances when the temporary bridge or even the 1936 bridge took longer to cycle. We have done a very thorough outreach. We've extended mailed invitations, there's a website, I believe things have been on television and I think it's also been on the MassDOT face-book page. We've met with local merchants and navigational users. We've had meetings in Quincy, Weymouth, and Hingham. If you have suggestions about getting to additional commuters, I'd welcome them.
- C: BS: I would recommend placing advertisements in the newspapers in Hull, Cohasset, Marshfield and Scituate.
- A: MOD: We can do that. For the next meeting, we'll go further south with the advertisements although the *Quincy Patriot Ledger* does cover those communities.

-
- Q: Gary Peters (GP): A few questions on process, Mike, is this a public hearing?
- A: MOD: This is a public information meeting. We typically conduct a public hearing once the 25% design drawings are done.
- Q: GP: At the risk of being redundant, can I get a one-word answer? Is this a public hearing?
- A: MOD: No it is not. This is a public information meeting.
- Q: GP: And are you taking minutes?
- A: MOD: Yes, we are.
- Q: GP: Can we get copies of the minutes?
- A: MOD: I have directed that all minutes of publicly advertised meetings be posted to the website.
- Q: GP: Will you include copies of your meeting minutes in the NEPA filing?



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(617)482-7298 fax:(617)482-1837

A: MOD: Yes, we can do that.

Q: GP: Will you include copies of your meeting minutes in your U.S. Coast Guard Bridge Application?

A: MOD: Yes, we can also do that.

Q: GP: Will you share copies of the meeting minutes to MAPC and the MPO?

A: MOD: Yes, we will share them inasmuch as we have to program this project through the TIP.

Q: GP: Are you going to file a Notice of Intent?

A: MOD: Mr. Peters, we have had this discussion on numerous occasions. You have talked to the regulatory agencies involved in this project and MassDOT and you have heard the same thing consistently. We are exempt from filing under MEPA, but we still have to go through NEPA. That means that there are a number of procedures and processes that we have to comply with. We are moving forward under an Environmental Assessment which FHWA has told us to perform. With that said, when we file the EA, FHWA will give us comments and feedback which we will address before we submit a revised EA to them for their approval. At that point FHWA will make the EA available for public comment for 30 days. Knowing how important this project is, we might well request an extension so the comment period could be 45 days. If, after MassDOT has had an opportunity to address all public comments we've received, and only when FHWA feels we have addressed those concerns adequately would FHWA issue a FONSI. If FHWA feels we should, they will instruct us to go to the level of an EIS with a Notice of Intent. I can't say whether or not we will be filing the NOI because whether we do so is based on what FHWA finds in our EA.

Q: GP: Of all your current projects, how many of them are enjoying a MEPA process?

A: MOD: I'm working on one right now that's not enjoying it. It is a part of the regulatory framework. MassDOT is obligated to address a different process for each and every project. In this instance [Fore River] we are replacing an existing bridge with a proposed structure on the same alignment, functionally equivalent from a traffic perspective and attempting to meet all user demands. To state that there's a blanket permitting process for all bridges touched by the ABP is not correct.

Q: GP: Under NEPA you have three possibilities: categorical exclusion or CE, the environmental assessment or EA which you think is the right class of action for this project, and then notice of intent followed by an environmental impact statement. Of



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(617)482-7298 fax:(617)482-1837

all the bridges in the ABP, what proportion fall under the CE, what proportion under the EA, and what under the EIS?

A: MOD: There are approximately 200 bridges that are or will be touched by the ABP. Of those 200 projects, some will be a CE and some will be an EA. At this time, there are none which fall under the EIS. The purpose of the EA is to allow Federal Highway to determine if we need something more.

Q: GP: So this bridge, which is exempt from MEPA through a technicality, isn't it the second largest in the program?

A: MOD: Yes, this bridge is in the top five largest in the ABP and it's not exempt because of a technicality, it is an exemption that was given to us by the state legislature.

Q: Ron Adams (RA): I live in Weymouth. I'm concerned about noise, both during and after construction. I am concerned about how this bridge will sound for the next fifty years. Noise from the current bridge overwhelms speakers on the *USS Salem* during memorial services for Veterans Day and Memorial Day. Please choose materials that will be quieter. I want ongoing noise abatement to be part of the design. Will the new bridge be quieter?

A: ME: Yes, there will be a significant reduction in noise levels with new permanent bridge. The temporary bridge is very loud because the deck system is composed of steel plates which make a lot of noise when vehicles drive over them. That noise is of course even greater when trucks or buses pass over the bridge. The new deck and approach structures will be of concrete which means more weight and cost, but it will give you noise levels consistent with other fixed bridges.

A: MP: We have Joanne Haracz here from AECOM who has sampled noise in the project area and have baseline noise data. Joanne, do you have anything to add?

A: Joanne Haracz (JH): I would agree with Mark's comment. The new bridge will be much quieter.

C: RA: Thank you, I think now is the right time for you to be thinking about noise baffles and pavement types to reduce noise.

A: ME: Thank you, we will remain cognizant of this noise issue as we go forward.



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(6 1 7) 4 8 2 - 7 2 9 8 f a x : (6 1 7) 4 8 2 - 1 8 3 7

-
- C: MOD: If we can take a moment, I'd like to invite Diane Madden from MassDOT environmental to come down here. She's going to say a few words regarding how your comments feed into the NEPA process.
- C: Diane Madden (DM): I'd like to reiterate what Mike said. He did an excellent job with the overview of this project and applicability of different regulator frameworks. The only addition I'd make is that FHWA will review the EA and the public's comments and will make a determination as to whether a FONSI is appropriate. The key point being that if they find some significant impact then we'll be forced to go to an EIS. I wanted to mention that FHWA will look at public involvement. Public involvement is the basis of all this. As FHWA said recently, the NEPA process is one of discovery, discussion, and disclosure.
- C: GP: Thank you for coming to Weymouth. One problem is that it's taken some of us literally years to understand NEPA. Just one example: mitigation means many things for different projects. My concern is that much of what we have seen has been presented in formal language. I'm concerned with the jargon of NEPA. For purposes of participation, mitigation means something unique. We throw these names around and they're a unique language unto itself. We need to give people the tools to participate meaningfully.
- A: DM: I understand that there are many terms and names we toss around. If you have a question about what something means, please tell us so we can tell you what you need to know to understand the decisions that are being made. We need to clearly explain ourselves to you and if you need a word defined, we'll gladly do so.
- C: GP: We've had about 11 meetings to date and some people still don't understand the words. How can that happen? How can we meaningfully participate?
- A: MOD: We've had this discussion before, Mr. Peters. If you have specific concerns vis-à-vis this process, I will sit down with you and address them. Mitigation is a topic we address on everything. This meeting could count as mitigation. Some people think that mitigation just means money, but there are many things associated with mitigation. We will always try to mitigate our impacts and if you have specific concerns, I will take them.
- A: GP: We have been clear as to what the Fore River Bridge Neighborhood Association wants. We want a better process. The process associated with the construction of the temporary bridge was a disaster.
- A: MOD: You clearly demonstrated the problems with that process in our previous meeting. I don't want that happening to you again. We'll do whatever we can to make this process better because a bad process only drives up mistrust and I don't



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(6 1 7) 4 8 2 - 7 2 9 8 f a x : (6 1 7) 4 8 2 - 1 8 3 7

want that associated with this project. I don't want any of you feeling as though you were put out, excluded or that you didn't have a good experience.

A: GP: We want to share our experiences with the regulatory process with you. The group I represent includes technical people, engineers, registered sanitarians, and we'd like to sit down with you. I've got three pages of suggestions that we would like to give you.⁴

Q: Name not given: Miguel, thank you for coming to this meeting and showing us the nice renderings. I think many people in the community like these much more than the previous rendering. As this process goes forward, what communication will there be between the architect, the design team, and the community?

A: MOD: We have discussed this issue with our administrator, the chief engineer, and the secretary for MassDOT and they want us to meet with you at least quarterly. The next big milestone of this design is the completion of the EA and making it available to FHWA to ensure NEPA compliance. That's schedule for late September. We'd like to be back here with the public in September and present more information to you so you can give us your comments.

Q: Name not given: There seems to be a difference in semantics regarding this project. We've heard the term "bike lane" in the past and now it's a "bike accommodating shoulder." What's the difference?

A: MOD: It is semantics. We've identified a 5-foot delineated lane next to the travel lane for bicycles. It will be striped for bicycles, but we call it a bike accommodating shoulder because it also gives motorists a place to pull off the road in an emergency.

Q: David Watson (DW): Thank you for having this meeting. My comments and questions are more limited in scope. I did want to talk about bicycle accommodations. Thank you for including bicycle accommodations. I appreciate that effort on your part and it is consistent with state and federal policy. Since this is a full replacement project, there is some flexibility in the design. Five feet for the bike lane is certainly larger than the minimum, but what we see on bridges is that people driving tend to accelerate over the bridge. It's not comfortable for a cyclist to be in that five foot corridor. Has consideration been given to more space, or a barrier-

⁴ At this point, Gary Peters gave Mike O'Dowd a handout produced by the Fore River Bridge neighborhood association. This handout has been incorporated into the comments section of the EA.



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(617)482-7298 fax:(617)482-1837

separated facility? Also, have you thought about how bicycles will get safely on and off the bridge?

A: MOD: Thank you Dave. Dave and I work together on a number of projects and all projects we do across the Commonwealth attempt to address cyclists. The cross section for this new bridge is laid out to maximize the safe and efficient use by all users within the existing right of way. Please understand that on the movable section, the more width we add, the more weight we add. It gets to a point of balancing safe accommodation for all users with mechanical equipment needs and stability. The provision we are demonstrating here is in compliance with state and federal regulations. Regarding the approaches we have received that question a few times. I've brought that back to the district to ensure that future improvements in the 3A corridor address the issue of getting safely on and off the bridge. Any improvement we make now won't preclude future bicycle accommodations on the approaches.

Q: DW: Since the deck has to remain in a certain width due to the weight restriction, have you considered narrowing the vehicle lanes?

A: MOD: Again, that's a balance we're trying to strike, but while I have you here, what's the cyclist's preference? Five feet addresses the regulations, but what does MassBike prefer?

A: DW: Well, we don't have a preferred width, but with higher speed traffic, more width is preferable. We'd like to look at this with you. In a situation like this we would like more than five feet though I won't say it has to be six feet either. I think we would like to see some separation from traffic.

A: MOD: Thank you for that, Dave; I can raise the issue with the design team.

Q: Name not given: One point that Councilor Pap raised: you mentioned this is an industrial area, but I don't know if you've spoken to Mr. Quirk. His long range plan is to have a mixed use community in the shipyard. Maybe more than industrial so might want to take that into consideration. Also, could you put rumble strips on the edge of the bike lane to warn the cyclist if a car is veering into their lane?

A: MOD: We could accommodate the rumble strips on the approaches but typically we don't place them on bridge sections because it impacts the depth of wearing structure we are trying to maintain. Once you cut into the pavement and start making it thinner it can have a negative impact on the deck.

Q: Name not given: How about raising the bike lane a little bit? I am concerned about cars getting into the bike lane.



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(6 1 7) 4 8 2 - 7 2 9 8 f a x : (6 1 7) 4 8 2 - 1 8 3 7

A: MOD: We are working with MassBike to better delineate between bike and car zones. Maybe it's a paint, striping or something else to highlight the difference.

Q: Sid McDonough (SM): I have a suggestion about the bike lanes: why do they have share the same level as the cars? Why not bring them up to the sidewalk level and separate them from the pedestrians with some striping?

A: MOD: That's a good question. One thing we've looked at in the past is the ability to provide a wider lane by providing a shared bike/pedestrian facility. Generally we have found that pedestrians don't like being in a shared space with cyclists. We consider this approach on all new MassDOT projects and sometimes it works and sometimes it doesn't. More often than not on our bridges we put the bikes at the same level as the cars and delineate the bike route as best we can. Our minimum sidewalk on this proposed bridge here is 6.5 feet. It's not a lot of width if you're sharing with bicycles.

C: SM: If you had the bike lane at the same level as the sidewalk it could work.

A: MOD: Yes, but we still need the shoulder available to the stranded motorist.

Q: Steve McCloskey (SMC): Thanks for coming down again. I think the website is actually pretty good. My question is why we need such a wide bridge if the post Panamax tanker can't really fit into the Fore River because of its draft. Couldn't we give the current ships another 25 to 40 feet and then you could have a bascule that wouldn't need to be so enormous? Also, I saw in the statistics tonight, and I know your numbers were revised to be more accurate, but I was interested in the sharp increase in openings related to sloops. The only vessels with right of way during rush hour are tankers. If you're a commuter, it's not the sailboats that disrupt your commute, it's the tankers. I live in North Weymouth and I already have to look at the smoke stack at the power plant. I think you said at your last meeting that your vertical lift towers would be about that tall. I think it's a legitimate idea that we're moving away from being an industrial area and this vertical lift bridge will just make things worse. If we can do a low profile bascule bridge it will serve the community better and cost the same. I don't want to see blight in North Weymouth. I think the architect is being forced to put lipstick on a pig. No offense, it's a great design, it just doesn't fit our neighborhood.

A: ME: That was lot and I hope I can remember all of those comments. All of your points were well made. The sloops in commuting times: you are correct that those openings don't come during peak a.m. and p.m. but we look at off-peak openings



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(6 1 7) 4 8 2 - 7 2 9 8 f a x : (6 1 7) 4 8 2 - 1 8 3 7

from sloops as impacting local residents more heavily. The majority of trips take place outside the a.m. and p.m. peaks and so there are significant impacts to other users of the bridge; the local users making a short trip.

A: MP: Another thing you hit on was channel width. Based on what we've been told by the Coast Guard, a wider channel is being recommended not to accommodate bigger tankers, but to accommodate today's tankers more safely.

C: SMC: You're talking about a very big jump though. Wouldn't an extra 20 feet do it?

A: ME: Your points are very well taken give that Mr. O'Dowd had these discussions with the mariners who started off seeking a 300 foot channel. Mike has trimmed that figure significantly. If you add 25 feet to either side of the channel, that's 50 total feet and if you add that to the present 175 feet, it gets us to the bare minimum that the mariners will take which is 225 feet. For us, that drives a 300 foot trunnion to trunnion span which is very hard to achieve with a bascule bridge. It's only with the vertical lift bridge that we are able to easily span the distance.

Q: Barry Lawrence (BL): Is it MassDOT's policy to discuss land acquisitions in these informational meetings?

A: MOD: Our right of way man couldn't make it to this meeting, but we do not anticipate any permanent takings as part of this project.

A: Nikole Bulger (NB): We do not anticipate the permanent taking of any home or business. We may have some permanent sliver takings along the approach walls in Weymouth to rehabilitate those walls and some permanent easements/takings in the waterway. The rest of the easements would be temporary.

A: MOD: If we do need to do any takings, the design team will give us a preliminary right of way plan which would be reviewed by our right of way office. Any impacted owner would be met with and the impacts, temporary or permanent, explained to them along with their rights under federal and state law. That process would be initiated by the right of way office.

Q: Tim Donovan (TD): I view the vertical lift bridge as a "monument." It would bring to the attention of motorists that they are going from Quincy to Weymouth. I've witnessed the destruction of the Goliath Crane and the building of the chimney at Sithe. These are monuments and we don't need another monument. I prefer a mode of transit that blends in with the river and the surroundings. Regarding the cross-section for the bridge and the pedestrian rail, today's there's a no jumping sign on the



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(617)482-7298 fax:(617)482-1837

bridge, but the rail won't stop people from throwing rocks onto passing boats or jumping. You need a barrier that works. On the Weymouth side of the bridge, there's a storm water problem to address.

A: MOD: Thank you for all of that. The pedestrian barrier is under discussion. With regards to storm water, we are aware of that issue and will make sure our actions don't make it worse.

C: NB: We have spoken with the DPW director in Weymouth and he said they were not aware of a problem. Is there ponding around the catch basins? Do the puddles cross the road?

A: TD: Yes, that's what happens now.

C: NB: Thank you for clarifying that issue. We'll look into it.

Q: Gary Lowell (GL): The state already has budget problems. From what you describe, this bridge will be expensive. How will you pay for this?

A: MOD: The money is being provided through the Accelerated Bridge Program which came about through the 2008 bond bill. In addition to that, FHWA is funding 80% of the project. Ultimately, it's being paid for by your tax dollars and the gasoline tax.

Q: GL: If the project goes over budget, who pays for it?

A: MOD: Within our project budget we try to take into account a contingency value to address overruns or increases. Certainly, these costs are borne by the responsible agencies: MassDOT and FHWA.

C: MOD: Thank you all very much. Remember, the last sheet of your brochure is a write-in comment sheet. Please submit your comments to us in writing so that we can record them and make them part of the public documentation for the EA.

Next Steps

The next major public involvement milestone will be a public information meeting to be held during the summer of 2010. This meeting will focus closely on the aesthetics of the



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(6 1 7) 4 8 2 - 7 2 9 8 f a x : (6 1 7) 4 8 2 - 1 8 3 7

replacement bridge. Additional concept drawings from Rosales + Partners will be presented for discussion.



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(6 1 7) 4 8 2 - 7 2 9 8 f a x : (6 1 7) 4 8 2 - 1 8 3 7

Appendix 1: Meeting Notice

COMMONWEALTH OF MASSACHUSETTS
MASSACHUSETTS DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION

NOTICE OF PUBLIC INFORMATION MEETING

Quincy-Weymouth: Proposed Fore River Bridge Replacement
Project File No. 604382

A Public Information Meeting will be held by MassDOT-Highway Division to discuss the proposed Fore River Bridge Replacement Project in Quincy and Weymouth, MA.

WHERE: Abigail Adams Middle School - Auditorium
89 Middle Street
East Weymouth, MA 02189

WHEN: Monday, June 14, 2010 @ 6:30 PM

PURPOSE: The purpose of this meeting is to provide the public with the opportunity to become fully acquainted with the proposed bridge replacement alternatives of Bridge No. Q-01-001=W-32-001 Route 3A over Fore River. Following the presentation, MassDOT staff will lead a discussion to answer questions and gather public comment. All views and comments received at the meeting will be carefully reviewed and considered to the maximum extent possible.

PROPOSAL: The project involves the replacement of the Fore River Bridge, Route 3A over the Fore River. The proposed Fore River Bridge structure will have two travel lanes, a bicycle accommodating shoulder, and sidewalks in each direction. When completed, the project will replace the existing temporary ACROW moveable lift bridge completed and placed into service in 2005.

A secure right-of-way is necessary for this project. Acquisitions in fee and permanent or temporary easements may be required. The Commonwealth of Massachusetts is responsible for acquiring all needed rights in private or public lands. MassDOT's policy concerning land acquisitions will be discussed at this meeting.

The community has declared that this facility is accessible to all in compliance with the ADA / Title II. However, persons in need of ADA / Title II accommodations should contact Angela Rudikoff by phone at (617) 973-7005 or email to angela.rudikoff@state.ma.us. Requests must be made at least 10 days prior to the date of the public meeting.

LUISA PAIEWONSKY
HIGHWAY DIVISION ADMINISTRATOR

FRANK A. TRAMONTOZZI, P.E.
CHIEF ENGINEER

Boston, Massachusetts



STV Incorporated

3 2 1 S u m m e r S t r e e t
B o s t o n , M a s s a c h u s e t t s 0 2 2 1 0
(617)482-7298 fax:(617)482-1837

File STV No. 20

End of Meeting

Note to the Reader: the materials made available through this section of the website have been developed by the project team to support the public involvement process. As the materials cover roughly a year's worth of meetings, the reader should assume that all materials reflect the project team's best understanding of the project at the time prepared. Later materials offer the reader a deeper and clearer look at the project and should be assumed to supersede earlier materials.

These minutes are a close representation of what transpired at the meeting summarized herein, but should not be considered a verbatim transcript. Contact information provided by meeting attendees has been removed to protect their privacy.
