Mitchell River Bridge Project Work Session Meeting Notes ***DRAFT***
Chatham Historical Society, Stage Harbor Road, Chatham, MA, November 13, 2009

Just before 10:00 a.m., with most everyone present, Priscilla Leclerc, Senior Transportation Planner, Cape Cod Commission, welcomed those present, introduced herself, and introductions continued around the room.

Ron Bergstrom, Chairman for the Board of Selectmen in the Town of Chatham, welcomed those present to the Town of Chatham, and mentioned that the historic character of the Town is key to the economic base of the community, and hoped that the bridge design could reflect the historic character. Mr. Bergstrom continued that the Town supports efforts to preserve historic elements and does have an eighteen month demolition delay bylaw for historic properties. He added that he respects MassHighway's concerns for the structural and safety concerns with the bridge's condition. Mr. Bergstrom concluded with his concerns as a public official that the financial element of replacing the bridge may not be something that the Town is willing to take on, and that he would like to keep the project in line for the TIP funding.

Norm Pacun, Friends of the Mitchell River Bridge, handed out a letter stating that as the last remaining wooden drawbridge in the state, and one of possibly only two wooden drawbridges left in the country, citizens support the goal of replacing the existing structure with a similar wooden bridge. Mr. Pacun also handed out a second letter from the Old Village Association—an organization representing approximately 250 families in the village, including Bridge Street—that supported retention of a wooden bridge. Mr. Pacun then mentioned that MassHighway is constructing a wooden bridge in Pepperell, MA.

Don Aikman, Chairman of the Historical Commission, reported that the Historical Commission strongly supports replacement of a wooden bridge. The original bridge was built in the mid-1800's based on photos, and although rebuilt later, the newer structure fit the site historic context. The Historical Commission is beginning a study of the eligibility for the National Register.

Shoukry Elnahal, MassDOT Director of the Accelerated Bridge Program, stated that it is his third visit to Chatham, and MassDOT has considered comments heard at the public outreach meeting for the project in September, along with the character of the area, and has a presentation today based on these things. Mr. Elnahal then asked consultant Bill Egan of URS to begin his presentation.

Bill Egan, URS, then began a slide presentation of options for replacement of the bridge. He stated that the existing bridge is narrow at 24' wide with sidewalks that vary from 3 to 6 feet, and the deck is in poor condition. The proposed structure cross-section has added shoulder width, sidewalk, a crash tested railing, and will be plowable. It will be about the same span of about 200 feet long with five fixed spans and one movable span that will allow for 25 foot navigation, and it has a life of 75 years. Mr. Egan then reviewed the different proposals with concrete deck beams, asphalt roadway, steel and concrete piers, and stone facing on the piers and walls. Timber elements in the proposed bridge replacements were in the sidewalk and railing. One of the bascule options also had timber pilings with the timber sidewalks to reflect those of the existing bridge. Mr. Egan explained that timber materials—even glass wood lumber—did not provide the 75 year life cycle that the federal highway department requires.

On a question regarding clarification on the lack of a timber alternative, Mr. Egan stated that constraints in designing a bridge made with timber are:

- A 75 year life span is not provided

- A railing needs to be built to crash test specifications
- There is no design code for a timber movable span
- The timber members will need to be more than double in size for the design vehicle

Via conference call, David Fischetti, P.E., stated that there may be life cycle issues in the salt water environment even with the concrete decks. He mentioned the use of wooden railings.

Jim Phillips, URS, inquired if the timber railings mentioned were rated higher than TL2.

Mr. Fischetti replied that he could look that up, but did not know offhand.

Shoukry Elnahal reported that due to the need of keeping efforts in the Accelerated Bridge Program (ABP) moving on the structurally deficient bridges in the state, MassDOT may be able to build a timber bridge under state funds, but not under the ABP. The service life of a timber bridge is not sufficient for the ABP.

Jim Cooper inquired about what MassDOT considers the service life of a timber bridge to be.

Shoukry Elnahal responded that the service life is considered to be 20 years. Mr. Elnahal then turned to the MassDOT historic person regarding the National Register.

Jeff Shrimpton, MassDOT, reported that though it is the only timber drawbridge it was not considered historic when nominated for the National Register 24 years ago, and we will not pursue a new determination unless federal highway suggests it. In a Section 106 review, the goal is to come up with a context sensitive design, but that does not mean that it would necessarily be out of timber.

Norm Pacun, pointed out to Mr. Shrimpton that in 1985 the bridge was found to be historic, but the decision was reversed seven months later based on the fact that it was a timber replacement. To clarify, a timber bridge cannot be constructed due to the service life?

Both MassDOT and URS consulting on the bridge design reported that for the ABP, the service life needs to be at least 60 or 75 years. Bill Egan added that he is willing to here any additional information on the use of timber, but does not have any material that will provide that life cycle. He also mentioned the lack of federal standards for a movable wooden span. AASHTO does not have timber in the specs.

David Fischetti reported that there has been quite a bit of advancement in timber construction, but there may not be a table found with the specifications. He mentioned an exposed structure at the zoo in Binghamton Park in New York made from timber, and he looked at it 25 years later and it was not deteriorated. He said that he would be willing to explore timber use in relation to standards.

Stuart Smith, Harbormaster, reported that there are pilings still there that were not replaced in 1980, and are in surprisingly good shape.

Jim Phillips reported that for the movable span, the timber is not strong enough.

Stuart Smith, Harbormaster, mentioned that the old coastguard boathouse 36 piles are still in great shape and were put there in the 1930's. The steel bulkhead at the fish pier—put in only a few years ago—deteriorated, so steel probably will not get your life span.

Shoukry Elnahal reported that the options presented here today are almost everything that can be done, and if there is consensus in one or two months, then we will move forward, but if not there are many bridges that are in structural need in the state, and another one will be moved into the ABP.

Dorr Fox, Mass Preservation and the National Trust for Historic Preservation, asked if the bridge were on the National Register and under a Section 106 review, what would be the mitigation, or consideration in the design points?

Jeff Shrimpton, MassDOT, responded that though that is a hypothetical question, there would probably be a recommendation to provide as much timber in the new structure as was shown here, but the structure design needs to be sound.

Dorr followed up by asking if there could be a waiver to the 75 year life minimum.

Norm Pacun stated that the proposed service life is a judgment call.

Priscilla Leclerc inquired if there could be a timber deck placed on top of the concrete instead of asphalt to provide a more aesthetic bridge.

Shoukry Elnahal stated that they could look into that possibility.

Dorr Fox suggested that perhaps the concrete and steel piles could also be clad with wood.

Patty Daley, CCC, added that the Steamship Authority installed dolphins in Hyannis Harbor, and those have wood cladding on the sides which pleased the local Historic Commission.

Norm Pacun offered that to be clear in meeting the program objectives, the life needs to be 75 years and federal standards for a movable wooden span need to be determined.

Arnold Graton, Bridge builder from New Hampshire, asked if 75 years was expected from the steel piles.

Bill Egan replied yes, and added that the steel piles will have a coating to prevent deterioration.

The meeting closed with Shoukry Elnahal, ABP, stating that he will look into the possibility of a timber deck over the concrete structure and timber cladding on the pilings. In addition, he will check into the potential for state program funding.

The meeting concluded to a site visit at the bridge at about noon.