

**Whittier Bridge /I-95 Improvement Project
Working Group Meeting
SUMMARY NOTES**

LOCATION OF MEETING: Salisbury Town Hall
Auditorium
5 Beach Road, Salisbury, MA

DATE/TIME OF MEETING: July 27, 2010, 2:00 PM – 4:15 PM

HANDOUTS:

- ❖ PowerPoint Presentation: Shared-Use Path Feasibility Study
- ❖ PowerPoint Presentation: Hydrogeologic Presentation
- ❖ *Draft Shared-Use Path Feasibility Study, July 23, 2010*

Introductions and Opening Discussion

Joseph Pavao, MassDOT, welcomed attendees and asked participants to introduce themselves (see list). He said that Mike O'Dowd, Project Manager, was on vacation and would attend the next meeting. Mr. O'Dowd briefed Senator Baddour and Representative Costello on July 20 on the project and described the Working Group and its role in the project. Mr. Pavao said that the public would be advised of the Working Group meetings at the August 12 Public Meeting.

Mr. Pavao asked if anyone had comments on the minutes of the draft notes from the July 13 Working Group meeting, which were distributed by email (with print copies available at the meeting). Several people had not had the opportunity to review the notes and Geordie Vining had submitted changes that were not included in the draft that was distributed, so Mr. Pavao said the notes would be taken up at the next meeting.

Mr. Pavao noted that Mr. O'Dowd was consulting with MassDOT staff on the mitigation requests that were submitted at the last meeting. The team anticipates discussing the mitigation table at the next Working Group meeting, on August 12, right before the Public Meeting, but does not plan to raise these issues directly at the Public Meeting since more discussion and review are likely to be required.

Presentation: Stormwater

Mr. Pavao introduced Joe Freeman, Tetra Tech Rizzo, for a presentation on hydrology, drainage and stormwater management. Mr. Freeman used a PowerPoint presentation to illustrate his remarks and he distributed enlarged versions of the data maps. The project area is positioned in the Merrimack River and Northeast Coastal Basins. The southern limit to Route 110 drains to the Merrimack River or unnamed tributaries; from Route 110 to Route 286 drains to Meader Brook (or tributaries); and from Route 286 to the northern limit water drains to the unnamed tributary to Cains Brook.

For planning and analysis, the team divided the area into drainage zones. The hydrogeologic model employed 10 design points for evaluating the rate of stormwater discharge, with recharge evaluated by watershed. Water quality has been evaluated for each wetland resource area. Mr. Freeman showed a map of the design points.

The existing drainage is a combination of open drainage flowing from the roadway and a series of catch basins. There are approximately 50 discharge locations, with almost all of them untreated discharges into bordering vegetated wetlands (BVW). Roadside swales are placed to convey drainage. Mr. Freeman showed a map of the existing drainage infrastructure and resource areas for five zones. Zone 1 is 3,700 linear feet in Newburyport, south of the Merrimack River. Zone 2 covers the Merrimack River (about 1,000 feet). Zone 3 comprises 4,700 linear feet north of the river to the Salisbury town line. Zone 4 covers 9,100 linear feet from the Amesbury/Salisbury border to the Interstate 495 (I-495) area. Zone 5 picks up there and extends 2,700 feet north. In the Amesbury section there are a number of inlets and outlets and the drainage is more complex. North to I-495 there is less complexity, but the inlets and outlets are larger. At the northern end of the project, a small portion of the drainage flows to Cains Brook and through the Salisbury well field.

There are three Water Supply Protection Areas. None of the Zone I's in Newburyport are included, although there is a Zone II that encompasses the Interstate 95 right-of-way (ROW) for 2,700 feet. Bartlett Spring Pond is a surface water supply and intersects the ROW along the west side and a Zone B/Outstanding Resource Water (ORW) extends along the median for 1,300 feet. In Salisbury, the project is within the Zone II for two water supply wells.

Looking at Riverfront Areas, Mr. Freeman listed two named perennial stream systems, the Merrimack River and Meader Brook (at the I-495 interchange); these are the only Riverfront Areas along the project alignment. Other streams are intermittent with

drainage areas less than 0.5 square miles and do not have Riverfront Areas. The goal is to keep stormwater basins out of these areas unless completely necessary.

Soil characterization is necessary to evaluate the feasibility of using certain Best Management Practices (BMPs) for stormwater infiltration and recharge. Mr. Freeman said the team mapped the hydrologic soils groups within the project area:

- South of the Merrimack River, the soil is Type A, which is sandy type soil that supports rapid infiltration
- North of the river, there are Type B, C and D soils, with pockets of Type A; B transmits water pretty well; C is restricted but does allow some flow; and D is a poor quality for infiltration or wetlands

Recharge requires A, B or C soils. There are A soils along the alignment in Newburyport. Amesbury is a mix of soils with some D types along Route 110. Toward I-495 the soils are unsuitable for large portions of the route; and there is a mix of soils, with some unsuitable areas, to the north.

The project will add an estimated 16.3 acres of new roadway pavement. This includes one lane in each direction and 10-foot shoulders, or an increase of about 30% of impervious area over existing conditions (this figure will change with the addition of the shared-use path and the reduction of the 10-foot outside shoulder to 4 feet along the corridor). Mr. Freeman said the project will comply with stormwater performance standards established by the Commonwealth. He noted that the project appears to fall beneath the minimum for wetlands impacts (impacting less than 5,000 square feet of BVW).

The project contains “new development” and “redevelopment” components. New development must meet all 10 of the state’s performance standards. Redevelopment must also meet standards with some exceptions (peak rate control, recharge and water quality). Existing discharge must also provide pre-treatment and prevent erosion to the maximum extent practicable.

Mr. Freeman described the Highway Division’s approach to performance standards. The project is viewed as a whole versus a set of points, with the goal of meeting performance standards on a watershed basis. The standard may not be met at each discharge point, but the goal is to meet recharge and peak rate control on a watershed basis and at the major discharge points. The goal is 80% total suspended solids (TSS) reduction for the entire project. In Zone II water supply protection areas, the goal is to meet higher pre-treatment standards set by DEP: treat the first inch of runoff and meet the TSS removal pre-treatment standard (44%) before recharge.

Based on the hydrology and soils studies, Mr. Freeman described 12 stormwater basins: 8 recharge basins, 2 wet basins and 2 extended detention basins. Recharge is anticipated to take place within these basins over 72 hours. The proposed system includes 12 sediment forebays, one per basin, to capture the first flush. There would also be deep sump catch basins; water quality swales (where space permits them within the median); and BMPs based on soil mapping and a limited subsurface testing program.

Mr. Freeman showed a series of graphics color coded to show the drainage basins, wetlands and infiltration areas on maps. All of the BMPs will be in the right-of-way except for Basin 1. Basins 7A and 7B have poor soils; and Basins 9 and 10 in Salisbury will be configured as recharge basins.

Mr. Freeman described compliance with the remaining standards. For Peak Rate, Standard 2, attenuation will be provided at 9 of 10 design points for the 2-, 10-, 25- and 100-year storms. Discharges to the Merrimack River are exempt since it is tidally influenced so attenuation is not proposed.

For Standard 3, Recharge, Infiltration Basins are proposed for areas with A, B or C soils. The basins will be sized to handle one-half inch of runoff over the contributing impervious area. For Water Quality, Standard 4, the project will achieve 80% TSS removal for new development areas. This goal will be achieved at each regulated resource area (versus the macro approach for the watershed). For redevelopment areas, the TSS removal rates will generally fall between 25 and 85 percent. (Some redevelopment TSS rates are shown at 0% because they are areas of minor resurfacing or pavement restriping.)

For water resource areas and Zone II's, the Basin 1 Infiltration Basin has been located outside of Bartlett Spring Pond Zone B and outside of the Newburyport Wells Zone II. Infiltration Basin 10 is located within the Zone II of the Salisbury wells, so a 44% level of pre-treatment is proposed and the basin will be sized to capture the first inch of runoff.

Mr. Freeman said that this plan will result in a substantial improvement over the current drainage situation.

Mr. Freeman was asked if the plan will change the drainage from what currently exists in the Basin 10 area. He said that the plan will bring portions of the roadway up to current standards with a capture and treat system and some use of swales.

Jon-Eric White, Newburyport, asked when the team will be working on a drainage report or design. Mike Bertoulin, Parsons Brinckerhoff (PB), said that the team is developing concepts to support the Draft Environmental Impact Report (DEIR). After approval of the concepts, these ideas will go to 25% design. There will be a Design Public Hearing on the DEIR and at this point, a definition of the box of impact zone. The team intends to permit the project conservatively – anticipating the worst case – since it is easier to scale back than to enlarge the areas under review. Permits will be sought in advance of the Design/Build contract and the team will work with each Conservation Commission as appropriate.

Mr. Bertoulin said the project's goal is to stay within the ROW as much as possible, to minimize impacts, mitigate where needed and meet the standards. The package provided for the Design/Build bidders will outline the stormwater recommendations (at 30% or more design level) so that bidders can provide more complete proposals. The bidders have three to four months to price the entire job, then submit a bid. There are two proposals: a technical one and a hard cost one. The bidders are scored on a ratio of points, with the best value, or successful bidder, resulting from the best point ranking. The drawings will go to the Conservation Commissions after the Final Environmental Impact Report (FEIR) is approved and the Notices of Intent (NOIs) will be filed next year. Mr. White asked if there has been any consideration given to a joint or combined conservation commission approach and permit. Mr. Freeman suggested that it is more likely that the Highway Division will outline a set of general conditions and ask the three commissions to endorse them to ease permitting for the Design/Build contractor.

Joe Fahey, Amesbury, asked if the project will need a Wetlands Variance. Mr. Bertoulin said at this point, the area of impact is 4,600 square feet to BVWs, and he anticipates the area will decrease as the team refines estimates and narrows the shoulders. (The threshold is 5,000 square feet per community.)

Mr. Freeman was asked about the conditions at Basin 5 on Figure 7. He said he would have to look into the figures on whether the rate and volume of discharge can be reduced. The plan is to reduce the rate of discharge from the basin, which would ameliorate the flooding issue in this area by reducing flows during design storm conditions.

Mayor Thatcher Kezer, Amesbury, asked about the culvert work at Elm Street, which a resident is interested in. Mr. Bertoulin said there will be work on that culvert, which will change the character of the drain. There was a restriction put on this culvert when I-95 was first built and when the work is done, there will be improvements and no back-up.

Andy Port, Newburyport, asked if Mr. Bertoulin could put some dates to the list of activities he provided. Mr. Bertoulin said he anticipates 25% design next summer with a fall Design Public Hearing. By April 2012, easements and permits should be secured and the team will be preparing the package for the pre-qualified Design/Build teams. The teams will have the summer to work on bids, with an award expected in late 2012. It takes a few months for the final contracts and bonds to be completed and secured. Mr. Bertoulin estimated that the contractor would be on site in spring 2013.

Mr. White asked if the team has looked at the proposed TMDL's for the Merrimack River. Mr. Freeman said they are on the horizon but not in effect yet as far as he knows. BMPs will address most of these issues, with phosphorus management the most likely challenge.

Jerry Klima, Salisbury, asked about Basins 4 and 5 (Figure 7, Stormwater BMPs) and their effect on Route 110. Mr. Bertoulin said that the ramps currently drain into the 110 system and part of the main line as well. The project's goal is no new flow into 110, and, in fact, the flow should be reduced by isolating ramp flows into Basin 4 and as well as some of the highway flows. These anticipated reductions will be shown at the NOI stage.

Michelle Rowden, Salisbury Conservation Commission, said the Town will ask the state to fix the drainage issue at the marsh outlet to the east of the Route 110 interchange. Mr. Bertoulin said that unless the project has a direct impact on an element, the intention is not to change the system. The EA/EIR will layout these kinds of details.

Mr. Port asked when there will be a recommendation on the bridge design. Mr. Pavao said that the team has provided a draft recommendation to MassDOT and the staff is reviewing it. A number of issues are still under consideration, including the shared-use path, schedule and mitigation requests. MassDOT is considering some level of innovation and balancing potential new construction technologies with cost, materials, piers, and other factors. The Ferry Road bridge is less complex.

There were concerns expressed about too much change and when there will be a decision on the shared-use path. Mr. Pavao said that the path concepts will be presented today and discussed at the public meeting in two weeks. The cost of the path could affect any potential mitigation, so that is a tradeoff the communities may want to consider. Mr. Bertoulin added that MassDOT has just provided comments to the consultants on the bridge type study. He thinks that by September, MassDOT will have a decision on the bridge design.

Mr. Pavao said that this group will drive decisions as the members review documents and alternatives, including, for example, a draft bicycle study. He agreed that after the public meeting and two more Working Group meetings, the Commonwealth will be closer to a decision on the design. Some of the designs are new to the state and require more consideration and comparison. Mr. Port said he believes the shared-use path is very important. Mayor Kezer said that the group doesn't want to be in the position of trusting MassDOT and not having input on critical decisions before they are made. Mr. Pavao assured him that is not the goal.

Presentation: Shared-Use Path Feasibility Study

Mr. Bertoulin distributed a PowerPoint presentation on the Shared-Use Path Feasibility Study, along with copies of the document (at the end of the meeting). He said that there is a strong existing network of trails in the area and the project could offer the opportunity to complete a network of pathways that would serve Amesbury, Newburyport and Salisbury, reinforcing a regional trail of bike facilities and trails. The team studied three sets of links, known as A, B and C:

- **Connection A** describes a path-to-path connection from the terminus of the Ghost Trail in Salisbury to the terminus of the Powwow Riverwalk in Amesbury;
- **Connection B** would be a park-to-park connection, from the entrance to Moseley Woods on Ferry Road to an entrance to Maudslay State Park;
- **Connection C** would link the north-south corridor, from the park-and-ride and bus station at Exit 57 in Newburyport to the western termination of the Ghost Trail, with intermediate connection to the Amesbury Visitor's Center and Ferry Road.

Mr. Bertoulin listed the existing and planned trails in the region, including:

- Coastal Trails Network: 30 mile network
- East Coast Greenway
- Border to Boston Bike Trail: part of a 52.5 mile segment from Boston to Newburyport
 - Old Eastern Marsh Trail
 - Clipper Trail
 - Ghost and Powwow Trails are a separate leg

Mr. Bertoulin showed a series of images of the walks and trails he was referring to, including the Amesbury Powwow/River Walk; Salisbury Ghost Trail; Salisbury Old Eastern Marsh Trail and Newburyport Clipper City Trail.

Mr. Bertoulin showed a typical set of roadway sections for the Whittier Bridge with a shared-use path and for other typical bike lanes and shared-use paths. The shared-use path would be designed for a wide range of users, including bicyclists, pedestrians, joggers, skaters, etc. Mr. Bertoulin showed a typical example of how a shared-use path would terminate or transition to a street or bicycle lane as well.

Mr. Bertoulin next outlined the alternative routes for the three sets of links. He showed a series of maps with the segment alternatives and images of segments of the routes.

Segment A – There are five segments to this alternative:

- A-1: Rabbit Road to the State ROW (partly owned by the MBTA and partly by a private landowner)
- A-2: within the State ROW (partly obstructed; private owner of record for part of this segment as well)
- A-3: the State ROW to Elm Street (private property, but a path could be constructed if the land is purchased from a private owner; there are also plans for a medical facility on this segment)
- A-4: Elm Street to Carriagetown Marketplace (also privately owned and Amesbury has had discussions with a potential hotel developer for a site on Elm Street)
- A-5: through the Carriagetown Marketplace to the east terminus of the Powwow Riverwalk (this is a strip mall with surface parking; Amesbury has an easement extending the Powwow Trail through a National Grid power line easement)

Mr. Bertoulin said that the acquisition of rights-of-way would add time and effort to this set of options. For that reason and others (detailed in the report), the team recommends building a paved multi-use path in the permanent alignment through Segments A-1 and A-2. In A-3, a paved multi-use path would be built along an interim alignment to Old Elm Street. Other parties would build the trail through A-4 and A-5.

For Segment B, the park-to-park connection, the team identified two alternatives:

- Connection along Ferry Road/Pine Hill Road (including on-road bike lanes and a sidewalk for pedestrians to connect the two parks along the reconstructed road; this alternative would connect to an existing entrance to Moseley Woods on Ferry Road near Briggs Avenue and there are several ways to connect to Maudslay State Park)
- Connection under Whittier Bridge (a shared-use path along the south bank of the Merrimack River passing under the new bridge)

The most practicable alternative to implement within the bridge project would be to construct bicycle lanes and an accessible sidewalk along reconstructed Ferry Road. The last corridor – C – would connect the trails north of the Merrimack River to commuter facilities and trails south of the river. The facilities include the park-and-ride/bus station at Exit 57 and the Newburyport Commuter Rail Station. The team looked at the existing paths and the crossing alternatives, with safety and convenience the key criteria. Mr. Bertoulin showed a series of images of the bridge crossing possibilities. Only one of the river crossings provides a safe and convenient connection among the six major nodes, which is a new shared-use path on the Whittier Bridge.

Mr. Bertoulin then reviewed all of the potential segments and alternatives along the I-95 corridor. There are six segments, with sub-alternatives for connections from Ferry Road to the river and from the river to Route 110, for Ferry Road and Merrill Road. (The details of these potential connections are covered on pages 8-17 to 8-24 of the Feasibility Study.) Mr. Bertoulin reviewed a number of these issues in detail, including the connection at Merrill Road (where there are sight line and crossing concerns).

Mr. Bertoulin said that Alternative C-2 provides the best connectivity, including both a through route along the I-95 corridor and the local street connection. Alternative C-4f - the connection to Old Merrill Road/Rabbit Road – is the preferred alternative. It is longer, but it provides a good transition location on Merrill Road and does not require private property takings.

Mr. Bertoulin turned to a series of renderings showing how the path might look in different locations. The first image was a typical section along I-95. In response to a question, Mr. Bertoulin said that there would be a 42-inch high barrier separating the path from the highway to protect path users from road debris and enhance safety in general. The path would be 12 feet wide (14 feet to the pavement).

The second image depicted a potential head of trail location next to the park-and-ride facility, including interpretive information, a granite panel from the current Whittier Bridge, picnic tables and amenities. There was a rendering for the Pine Hill Road terminus and the ramp to Pine Hill Road with benches and walkways. The south abutment overlook could include a wider area with a pedestrian-rated barrier and there was an image of a Pier 2 overlook and signage. The north abutment overlook could include a seal or decorative masonry. There was a typical rendering of the landscape between the bridge and Evans Place, with a protective retaining wall and barrier fence. This kind of segment could also include a wall to protect houses that are close by. Two more renderings illustrated potential amenities for a terminus at Merrill Road or Old Merrill.

Mr. Bertoulin summarized the recommendations for the shared-use path:

- The east-west connection (A) should be an interim connection from Rabbit Road west to Old Elm Street; the connection can be completed when Amesbury negotiates the rights to construct the other segments.
- The most effective park-to-park connection (B) would be to construct bike lanes and an accessible sidewalk along a reconstructed Ferry Road connecting the entrance to Moseley Woods to Maudslay State Park at a point near or just beyond the caretaker's residence.
- The north-south corridor (C) should use the new Whittier Bridge; it would run north along the east side of I-95 from the park-and-ride/bus station, with a local connection to Ferry Road. It would cross the new Whittier Bridge and turn east out of the highway ROW to meet Merrill Road just north of the intersection with the southern segment of Old Merrill Road. At this point, it would transition to on-street bike lanes and an accessible sidewalk that would run to a connection with the western terminus of the Salisbury Point Ghost Trail on Rabbit Road. Bike lanes and an accessible sidewalk would be provided on Merrill Road to the Amesbury Visitor Center.

Discussion

There was a question about the water line to Moseley Woods. Mr. Bertoulin said the water lines would be taken out of service and put under the bridge and run back to Ferry Road and this would become a service road. It would be difficult to permit a public path in the area under the bridge due to water supply protection issues, but the service road could tie into the head of the trail location and the details on public access and use could be worked out later.

Jerry Klima said that he was concerned about ending at Old Merrill Road. He can see some advantages but users would be forced on to the road between Old Merrill and Ghost Trail. Mr. Bertoulin explained the alternatives: down Old Merrill on either side to the shared-use path, then to Merrill and 110, for the crossing. Alternatively, the path would be off-road on the west side of Merrill to Rabbit Road and there would be only one crossing. The ROW is tight and a taking would be required. There was more discussion about the merits and drawbacks of the options, with a good sight distance across Old Merrill to the north. Rabbit Road has no sidewalks. There are lots of plusses and minuses, and components, and the team is still evaluating them and welcomes input from the Working Group on the alternatives.

Mayor Kezer asked what kind of participants the trails are designed for. Mr. Pavao said class A, B and C users. The Hines Bridge can accommodate A level, but not B or C and the recommended option should suit all levels of users.

Turning to the issue of cost, Mr. Bertoulin said the team is still developing a cost spreadsheet so he has only preliminary numbers. Just the bridge widening segment of the recommended plan has an estimated cost of \$1.5 million. As recommended in the report, the shared-use path and facilities have an estimated cost of \$4 to 7 million.

There was a question about safety and considering higher, more solid barriers to protect bicyclists. Mr. Bertoulin said that higher structures will tend to isolate the users, making the path feel like a long, dark alley. An open fence may not be as attractive, but it lets light in and people like to feel connected and visible for their safety.

Mr. Pavao said that the next two meetings are scheduled for August 12 and 24. The team distributed copies of the Draft Feasibility Study and encouraged the participants to submit comments or ask questions about the information and recommendations. Meetings are also tentatively scheduled for September 7 and 21.

The meeting was adjourned at 4:45 P.M.

Action Items

- The Working Group members will review the minutes of the July 13 meeting and provide comments.

Attendance:

Affiliation:

Working Group Members/MassDOT Staff

Stephanie Boundy	MassDOT
Dennis DiZoglio	Merrimack Valley Planning Commission
Joe Fahey	Amesbury
Neil Harrington	Town Manager, Town of Salisbury
Thatcher Kezer III	Mayor, City of Amesbury
Jerry Klima	Board of Selectman, Town of Salisbury
Donald Levesque	DPW, Town of Salisbury
Joe Pavao	MassDOT
Andrew Port	Newburyport Planning Department
Michelle Rowden	Salisbury Conservation Commission
Jon-Eric White	Newburyport

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