

Cape Cod Canal Transportation Study

RE: Fourth Public Information Meeting

Date and Time: February 13, 2019, 7:00 PM - 9:00 PM

Location: Massachusetts Maritime Academy, Admiral's Hall, 101 Academy Drive, Buzzards Bay

Attendees: See end of document

Meeting Notes

Introduction

Ethan Britland, MassDOT Project Manager, welcomed people to the Cape Cod Canal Transportation Study Public Information Meeting. He reviewed the agenda for the meeting and offered elected officials, or their representatives in attendance, the opportunity to provide some opening remarks. Judith Froman, from the Bourne Select Board, noted the importance of public participation and feedback in study's process and thanked people for their involvement.

Goals and Objectives

Mr. Britland then began the presentation with a review the purpose of the study and noted that this study is a conceptual planning study and is not a project. The study's process has had a lot of interaction with the U.S. Army Corp of Engineers (USACE), who are conducting their own study of the Bourne and Sagamore Bridges (known as a Major Rehabilitation Evaluation Report (MRER)). The MassDOT planning study includes the development and analysis of multimodal transportation improvement alternatives for roadways, transit, and bicycle and pedestrian facilities, and will result in a final report with a plan of recommended transportation improvements.

Mr. Britland stated the goals of the study are to improve transportation mobility and accessibility in the Cape Cod Canal Area and to provide reliable year-round connectivity over the Canal and between the Sagamore and Bourne Bridges. The study's objectives for how to achieve the goals are to improve multimodal connectivity and mobility levels across the Canal at the same time avoiding degrading quality of life for Cape Cod residents and workers, ensure that crossing the canal does not become a barrier to intra-community travel for Bourne and Sandwich, and help maintain public safety across the canal in the event of an evacuation.

Mr. Britland then reviewed the study area which is composed of two subareas; the larger regional study area for the review of existing natural and social environmental resources and regional traffic volumes and patterns, and the smaller focus area directly surrounding the Bourne and Sagamore Bridges for the review of potential transportation improvements. The study's recommendations are generally contained within the focus area. Mr. Britland then turned the presentation over to Michael Paiewonsky from Stantec.

Study Assumptions, Travel Patterns, and Future (2040) No-Build Traffic Volumes

Michael Paiewonsky, Project Manager at Stantec, introduced himself to the group and began the next portion of the presentation, which focused on the results of his team's traffic analysis. The criteria used for evaluating transportation improvements were to focus on year-round safety and mobility problem locations; design for future (2040) fall weekday evening peak period; consider further improvements for summer Saturday peak, as feasible; with the assumption that new bridges would be built adjacent to existing bridges.

He explained that travel on and off the Cape is a system with two major highway corridors: the Route 3/Route 6 corridor that crosses the Canal using the Sagamore Bridge, and the Route 25/Route 28 corridor that crosses the Canal using the Bourne Bridge. Travel between the two corridors is on Scenic Highway and Sandwich Road. Ownership of infrastructure varies: the USACE owns and operates the Sagamore and Bourne Bridges, MassDOT owns and maintains the highway system (Route 3, Route 6, Route 25, Route 28, Scenic Highway, and Sandwich Road).

Mr. Paiewonsky noted that a major finding from the traffic study was the significant volume of cross-Canal travel. For example, on a Saturday in the Summer, 59% of traffic approaching the Bourne Bridge from Route 25 leave the highway, travel east and continue on Route 6 eastbound. On Saturday, as people leave Cape Cod on Route 6, 48% leave Route 6 and travel to Route 25 to continue to their destination. This cross-Canal travel puts tremendous pressure on the "Gateway Intersections" immediately north and south of each bridge: Belmont Circle and Bourne Rotary at the Bourne Bridge, and Exit 1C and the Sagamore interchange. MassDOT reconstructed the Sagamore interchange in 2006.

Traffic engineers sought to determine solutions that will work both today and in the future. Existing traffic conditions were established by in-field traffic counts within the study area in 2014. Estimates of future (2040) traffic volumes are based on forecasted growth in commuter trips, non-commuter trips, and visitor trips. Traffic volume in 2040 is estimated to be 33.4% higher than 2014 volumes in the summer, and 22.5% higher than 2014 volumes during non-summer periods. The 2040 traffic is not forecasted to be uniform throughout the study area. For example, in the summer, the Bourne Bridge is expected to experience 9% growth and the Sagamore Bridge is expected to experience 42% growth. Generally, more growth is expected during non-summer than the summer periods; the Bourne Bridge is expected to experience 19% growth and the Sagamore Bridge is expected to have 44% growth during the non-summer between 2014 and 2040.

The study measured the length of queues and delays during both the non-summer weekday afternoon peak period and the summer Saturday morning peak period at Belmont Circle, Bourne Rotary, and the Sagamore Bridge. At Belmont Circle and Bourne Rotary, Trowbridge Road and Head of the Bay Road currently experience the longest delays during the non-summer weekday afternoon peak period. Traffic on Route 25 southbound and Head of the Bay Road experience the longest delays during the summer Saturday morning peak period. The approaches to the Sagamore Bridge experiences significant increases in traffic delays during the summer Saturday morning peak period compared to the non-summer weekday afternoon peak period.

Mr. Paiewonsky then stated that the results of the ongoing USACE Major Rehabilitation Evaluation Report (MRER), which is focused on both the Sagamore and Bourne Bridges, will ultimately determine whether to rehabilitate or replace both bridges. He noted that the MassDOT study assumes that both

bridges will be replaced, with the new bridges located adjacent to and inside the existing bridges. He then turned the presentation over to Fred Moseley from Stantec.

Fred Moseley, Transportation Engineer at Stantec, began the next portion of the presentation, which focused on the results of traffic analysis. This analysis evaluated key locations separately as standalone projects to identify the most-effective alternatives at each location. Nine potential improvements were identified, and these were combined into seven analysis 'cases' analyzed by a regional Travel Demand Model to identify the effectiveness of the various combinations of alternatives and shifts in travel patterns. The cases are composed of different combinations of the nine potential improvements, so some improvements are reflected in multiple cases.

He then reviewed the nine proposed improvements. The team suggested a new on-ramp from Scenic Highway westbound to Route 25 westbound to reduce traffic volumes entering Belmont Circle. This improvement would give traffic the opportunity to enter the highway, rather than through Belmont Circle. The lower volume of traffic from this first improvement would benefit the reconstruction of Belmont Circle including a four-way signalized intersection and three-leg roundabout. A third potential improvement alternative at Belmont Circle included a flyover ramp directly from Route 25 eastbound off-ramp to Scenic Highway eastbound, allowing traffic from Route 25 to proceed directly to Scenic Highway eastbound without entering Belmont Circle.

At Bourne Rotary, the first improvement alternative is a new ramp from Route 28 northbound to Sandwich Road eastbound. Assuming reduced traffic volumes associated with this Route 28 northbound ramp, the second improvement would modify the rotary and create three signalized intersections adjacent to the rotary. A more substantial improvement at the Bourne Rotary would replace the rotary with a more standard highway interchange, allowing a separation of local and regional traffic.

The improvements at Route 6, Exit 1C include the relocation of the interchange approximately 3,600 feet west. Another improvement includes the construction of an additional eastbound lane on Route 6 east to Exit 2 (Route 130).

Mr. Moseley then discussed the travel demand modelling results of the various cases. Average delays of the seven cases were provided to compare to the future, no-build condition. He noted that Cases 3 and 3A assumed the USACE replacement of the Sagamore and Bourne Bridges, which would have a total of six lanes (two travel lanes and one auxiliary lane in each direction) that would provide additional capacity for movements across the bridges.

The traffic analysis for the Bourne Bridge Area, during the non-summer period, determined that Cases 1B, 2, 2B, and 3A would provide progressively greater reductions in delay at Belmont Circle and Bourne Rotary. The new ramps would reduce traffic in the rotaries, and a new signal and roundabout at Belmont Circle would improve traffic flow. The Bourne Rotary Interchange improvement would reduce vehicular conflict by separating local and regional traffic.

The traffic analysis for the Sagamore Bridge Area, during the non-summer period, determined that there would be modest improvements for Route 6 westbound (travelling off-Cape), but Cases 3 and 3A would be the only cases that would result in a significant improvement to Route 3 southbound (travelling on-Cape) – with the USACE replacement of the bridges and additional capacity with an auxiliary lane. Relocation of Route 6 Exit 1C would eliminate vehicle conflict at the south end of the Sagamore Bridge, resulting in a substantial reduction in delay for Route 6 westbound. He noted that Cases 1A and 1B do

not include the relocation of Exit 1C and thus would not experience the same improvement for traffic travelling westbound on Route 6. In addition, Case 3A shows reduction in delays on Route 3 southbound due to the additional Route 6 eastbound travel lane to Exit 2 allowing traffic to flow more freely. He then concluded the non-summer peak traffic analysis findings and turned the presentation over to Mr. Paiewonsky.

Mr. Paiewonsky reiterated that the goal of the traffic analysis was to address traffic flows during non-summer peak periods. He then reviewed the traffic analysis findings for the summer peak period (summer Saturdays from 10 am until 12:00 pm). The improvements during the summer were more modest, showing steady improvement, until Cases 3 and 3A. At Belmont Circle, during the summer peak period, more modest delay reductions could be achieved at Belmont Circle for Cases 1, 1A, 1B, and 2. Under Cases 2B, 3, and 3A, more freely-flowing traffic entering Belmont Circle from Route 25 would result in fewer gaps for vehicles attempting to enter from other directions, resulted in more modest delay reduction at this location. However, Improvements at Belmont Circle and Bourne Rotary would result in a regional reduction in travel times including processing up to 300 additional vehicles through Belmont Circle during the summer Saturday peak period for Cases 1B, 2, 2B, 3, and 3A. Additionally, under Case 3, future summer travel time from Route 25 Exit 2 (Glen Charlie Road) to Route 6 Exit 2 (Route 130) would see a slight increase in delay at Belmont Circle, but overall travel time would be reduced by 12.1 minutes.

At the Bourne Rotary, during the summer peak period, motorist would experience steadily decreasing delays under Cases 1B, 2, 2B, and 3A. He noted that the difference between Case 3 and 3A is the replacement of the rotary with a highway interchange in Case 3A. Under Cases 3, the analysis found with the improvements at Belmont Circle and Bourne Rotary, together with the replacement Bourne Bridge, up to 700 additional vehicles would be attracted to the Bourne Bridge crossing. The Bourne Rotary would not be able to process this additional volume of vehicles and the construction of a highway interchange at the rotary would be necessary to decrease delays and separate local traffic from regional traffic.

Mr. Paiewonsky stated that currently people traveling from Route 25 towards Route 6 eastbound often do not want to go through Belmont Circle and then immediately enter a traffic queue travelling across the Bourne Bridge. People tend to exit at Belmont Circle, drive east along the Scenic Highway and cross the Cape Cod Canal on the Sagamore Bridge. Under Case 3A, which includes new Canal bridges and the Bourne interchange, the analysis showed travel patterns would change such that crossing the Canal at the Bourne Bridge and heading towards Route 6 on Sandwich Road becomes an option as good as using Scenic Highway to cross the Canal on the Sagamore Bridge. This change in travel patterns results in a balance of traffic on the bridges and on Sandwich Road and Scenic Highway. The analysis of this scenario also showed that increased traffic on the Bourne Bridge corresponded with decreased traffic volume on the Sagamore Bridge.

The current traffic counts demonstrate the unbalanced traffic system during the summer peak period – the Sagamore Bridge has approximately 1,000 more cars than the Bourne Bridge during summer peak periods. However, the results of the traffic modeling suggest that the Case 3A improvements would produce a system with a better balance, with almost equal traffic volume on each bridge.

Mr. Paiewonsky noted that their analysis showed that during the summer peak period Route 3 southbound does not experience any improvement in delays at the Sagamore Bridge except under Cases 3 and 3A. The analysis demonstrates that the replacement of the bridges resolves the delays on

Route 3 southbound. The relocation of Route 6 Exit 1C has a similar significant positive impact on reducing traffic delays on Route 6 Westbound for Cases 1, 2, 2B, 3, and 3A.

Draft Study Recommendations

Mr. Paiewonsky introduced the draft recommendations for transportation improvements, which are divided into multimodal improvements (bicycle/pedestrian and park and ride facilities) and roadway improvements (local intersections and “Gateway” locations).

Overall, the bicycle/pedestrian improvements include accessible sidewalks and trails, crosswalks, pedestrian phases at intersections, and bicycle accommodation in roadway shoulders. These improvements can be categorized in three classes: (1) providing additional accessible connections between the local roadway network and Cape Cod Canal Bikeway; (2) improve bicycle/pedestrian facilities along the study area roadways, and specifically along the Cape Cod Regional Transit Authority (CCRTA) bus routes; and (3) provide accessible connections along roadway approaches to Sagamore and Bourne Bridges to allow better crossing for bicycles and pedestrians across the Canal on the bridges.

Mr. Paiewonsky then showed a map of existing connections to the Canal Trail from local roadways. The map identified gaps in connections. Constructing accessible connections to fill those gaps are among the draft recommendations. In many cases, the locations where there are gaps are already being used by the public despite a lack of infrastructure. He also showed a map of bus routes that could be improved to support bicycle and pedestrian travel. Other examples of improvements include providing a sidewalk connection from the Sagamore Bridge along Cranberry Highway and Adams Street, to create a connection from the Sagamore Bridge to the Canal Trail. Formalizing the sidewalk behind the shopping center to the north side of the Bourne Bridge would complement the sidewalk improvements south of the Bourne Bridge completed by MassDOT in 2017.

The analysis indicated that there is a need for an additional park and ride facility. The current park and ride facilities are routinely at, or close to, capacity. The study identified the proposed location for a new park and ride facility on Route 6 at the Exit 2 (Route 130) interchange because MassDOT currently owns the property, the Plymouth-Brockton bus route passes the site on the existing route, and a planned bicycle path (planned for 2022) would create a multimodal connection. Mr. Paiewonsky then turned the presentation of recommended roadway improvements over to Mr. Moseley.

Mr. Moseley noted that the recommendations for roadway improvements include short-term and long-term improvements. Short-term improvements were conceived to be compatible with long-term solutions. These improvements include signal timing and adaptive signal improvements at several intersections including Scenic Highway at Meetinghouse Road, and Scenic Highway at Nightingale Road. More substantial intersection improvements include a new turning lane on Route 6A at Cranberry Highway/Sandwich Road, a new traffic signal and bicycle/pedestrian improvements at the Route 130 at Cotuit Road intersection, and a new traffic signal and through lane at Sandwich Road at the Bourne Rotary Connector. The recommendation for Sandwich Road at the Bourne Rotary Connector would create a “Florida T” intersection with a separated and signalized left-turn lane and a separated through lane to benefit traffic coming out of Bourne Rotary.

Mr. Moseley stated that the components of Case 3A are recommended as these would provide the greatest long-term improvements for accessibility and mobility for Cape Cod residents, employers, and visitors. The impact of these elements has the largest safety improvement and the implementation is

focused on improving existing infrastructure. The elements associated with Case 3A include the following: installation of an on-ramp connecting Scenic Highway westbound to Route 25 westbound; relocation of the Route 6 Exit 1C interchange; reconstruction of Belmont Circle as a 3-leg roundabout with signalized intersection; addition of a new lane on Route 6 eastbound to Exit 2; and reconstruction of Bourne Rotary as a highway interchange.

Mr. Moseley reiterated the USACE is currently conducting a study to determine the long-term solutions for the Bourne and Sagamore Bridges. The recommendations from this study assume that USACE will recommend replacement of both the Bourne and Sagamore Bridges (with 2 travel lanes and 1 auxiliary lane in each direction). Mr. Moseley then showed a map of the study area with the recommended “Gateway” improvements and several slides with additional detail for each improvement discussed earlier in the presentation.

Cost Estimates Summary

Mr. Moseley presented estimated construction costs for each case in 2030 dollars and 2040 dollars. The estimated costs included costs for the approaches to the Sagamore and Bourne Bridges, but did not include the cost associated with replacement or rehabilitation of the bridges themselves. Case 1A had the lowest estimated construction cost at \$30 million (2040 dollars), and Case 3A had the highest estimated construction cost at \$540 million (2040 dollars).

He also reviewed the estimated construction costs for the various components associated with Case 3A. Costs ranged from \$16 million (2040 dollars) to \$127 million (2040 dollars). Mr. Moseley noted that the overall \$540 million cost was almost evenly split with an estimated \$300 million for the intersection and approaches to the Bourne Bridge and \$240 million for improvements in the Sagamore Bridge area. He then turned the presentation over to Mr. Britland.

Next Steps

Mr. Britland concluded the presentation with a discussion of the next steps. The draft study report will be released soon and will include a 30-day public comment period. It will be posted to the study website at <https://www.mass.gov/cape-cod-canal-transportation-study>

He noted that MassDOT will continue to coordinate with the USACE on its continuing study of the Bourne and Sagamore Bridges. Once the USACE has decided on its long-term plan for the bridges, MassDOT is committed to initiating and prioritizing the project development process for the capital projects ultimately recommended in the Cape Cod Canal Transportation Study’s final report. Mr. Britland then introduced John Bechard, Deputy Chief for Project Development at MassDOT, and noted that Mr. Bechard would be involved in the future with project development.

John Bechard, noted the next steps are to conclude this study and issue it for public comment. Studies of this type shift from the planning-level stage to project development with associated funding in the future. MassDOT will continue coordinating with USACE and moving forward with project development. Some improvements identified through this study and mentioned by Mr. Paiewonsky and Mr. Moseley have had a high-level review, but design has not begun as it is dependent on the USACE decision on the bridges.

Mr. Bechard indicated that over the next several months there will be a transition into the next phase of development. MassDOT's project development team will start mapping and identification of environmental resources, wetland flagging, and archeological investigations. They will also start refining the environmental and project constraints for any future design project. While no design will begin immediately, field survey crews will work with staff in the Boston and Taunton (District 5) offices to start developing existing conditions base plans. MassDOT will also continue coordination with USACE as decisions are made regarding the bridges and collaborating to help the project move forward.

Mr. Bechard noted that Mr. Britland and the MassDOT Planning Department would provide the information about the release of study and the next steps as it transitions to the project development for the design and engineering. He then turned the presentation over to Mr. Britland.

Questions and Comments

Mr. Britland then asked for questions and comments from the audience.

Tom Guerino, Town Administrator for Bourne, thanked Mr. Britland for his work on this project. He noted that the Cape Cod Canal did not create Cape Cod and that Bourne, while split by the Canal, is a part of Cape Cod as much as other areas of the Cape. He recognized that a new bridge in Sagamore would create different approaches but commented that any movement of Exit 1C without a new bridge despite the amount of time saved, would be disruptive to the people of Sagamore (both north Sagamore and south Sagamore). It was his opinion that the town would oppose the relocation of Exit 1C.

Mr. Guerino then stated that the proposed on-ramp to Route 25 in Buzzards Bay was an excellent idea and would remove some traffic volume. The Town, however, was concerned about the ability to move traffic coming from Main Street or down Route 25 not just further onto the Cape, but also into the improved and expanding downtown Bourne area. He noted that the movement of traffic is taking economic development pieces away from the Town and asked that MassDOT take economic development into consideration as they review these types of improvements.

Mr. Guerino then stated that at the Bourne Rotary, moving the "bypass" down to Sandwich Road was also an excellent idea. He requested that MassDOT coordinate both with the Town and the owners of the adjacent 153-acre parcel. He noted the property is the largest developable piece of property on the upper Cape, and the Town would like to see development there.

Mr. Guerino then returned to the relocation of Exit 1C. He mentioned that the peak period savings are negligible, and the Town was really concerned about the proposed roundabout at Belmont Circle. He noted that there is a lot of truck traffic that comes down Main Street, Buzzards Bay, that does not take Route 25. He requested that a future roundabout be sized to allow truck traffic to pass without travelling over the middle of the roundabout.

He stated that the Town is pleased to see the bicycle and pedestrian improvement proposals on both bridges. He noted that it was very important that crossing at Belmont Rotary was as easy as possible for people to get over the bridge with the new bike paths. A lot of people use the Canal Trail for biking and walking. He then mentioned that all the safety improvements that MassDOT could bring forward to allow people to get across are appreciated.

John York, Bourne, wanted to discuss the bicycle and pedestrian issues around the bridges. He stated that with regard to the accessibility from the Bourne Bridge to Belmont Circle, the proposed improvement to the existing sidewalk stop where the improvements need to begin. He noted he has never heard bicyclists mention the need for improvement in the area of the slide highlighting the Bourne Bridge pedestrian access, other than brush removal from the existing pavement. He mentioned that to get from that location to the Canal Trail is difficult, problematic, and dangerous. He suggested MassDOT create a policy for transportation studies that evaluate reconfigurations to roadways or interchanges where there would be a text narrative for how pedestrians and bicyclists would navigate a given interchange. He would like to see the narrative for this situation because, he believes, the only safe option is illegal – where bicyclists would operate on the sidewalk in a business district. He also hoped that when MassDOT reviews pedestrian and bicycle access in their plans, that there is no expectation for bicyclists to break the law by using sidewalks in business districts.

With regard to access points to the Canal Trail and service roads, he noted that bicycle and pedestrian access, especially to the south side service road, is problematic due to the railway line and any access point would need to include a pedestrian railway crossing. He hoped the MassDOT Rail and Transit Division would review the locations of the proposed railway crossings. Mr. Britland said that they will have the MassDOT Rail and Transit Division review the locations of the proposed railway crossings.

Mr. York then noted that the presentation showed an existing pedestrian access location on the south side of the Bourne Bridge. He mentioned that there appears to be access and the public does use it, but there is a sign that says no trespassing private railroad crossing. He noted that the contract between USACE and MassDOT Rail and Transit Division states that the USACE will not allow the public to cross at that location. He commented that both MassDOT and the railroad have previously stated it is fine to cross there despite the sign, but he views that as problematic. He suggested the access point should not be shown as existing, but rather as access that is desired.

Regarding the portion of the presentation that shows bicycle/pedestrian access at the Sagamore Bridge approaches and Adams Street, Mr. York noted that a railroad crossing at the path is shown but does not exist. He has been told by MassDOT Rail and Transit Division that no additional crossing will be created. He mentioned it would be nice to have many more access points, including at the Gallo Arena, and have children and adults be able to attend a Bourne Braves baseball game without driving on Scenic Highway.

He noted that there are problems around the area of the Gallo Arena and the Bourne Bridge. He noted that while MassDOT did sidewalk improvements coming off the Bourne Bridge, but the sidewalks were extended 150 yards before ending in a situation similar to the condition prior to the extension. He suggests that MassDOT show the impact of the automobile traffic changes on pedestrians and bicyclists.

He encouraged MassDOT to do any improvements possible to increase access from the Canal paths across the Canal and asked if USACE was required to provide pedestrian access across the Canal.

Mr. Britland thanked Mr. York for his comments and noted that MassDOT appreciates hearing the public's comments. He also reiterated that this is conceptual study, so a lot of the challenges that have been noted are issues that will need reviewed as the project moves forward. All questions and comments are being documented and MassDOT will confer with USACE regarding required pedestrian access across the Canal and respond to Mr. Guerino.

Alice Howe, Pocasset and a Friend of the Bourne Rail Trail, asked if the plans for the bridges include a pedestrian/bicycle lane – not the auxiliary lane – or if there was the possibility of pedestrian/bicycle lane under the bridges. She noted that the schools will be reconfigured for the September 2019 school year and there will be a lot more traffic with students walking over the bridge. She gave the example that Bournedale Elementary School will have pre-kindergarten, kindergarten, first, and second grades, and the new Bourne Intermediate School will have third, fourth, and fifth grades. She asked if this was incorporated into the MassDOT plan and noted that Bournedale Elementary School and Bourne Intermediate School were working with the Safe Routes to School program. She noted that with a possible extension to the Shining Sea Bikeway, it would be good to have a more access and connections to the towns.

Mr. Britland responded that the USACE was still conducting their study and has not yet made any decisions or designs but noted there would be pedestrian and bicycle access across the bridges if the decision is to replace the bridges.

Paul Alfaro, Gray Gables, mentioned that the slip ramp on Route 25 is a great idea, even built outside of this project, and asked about the timing of the full build out. He noted that the Plymouth-Brockton bus was now owned by Peter Pan. He then asked how a traffic signal at Belmont Circle would work to increase the flow of traffic and how MassDOT envisions the interchanges at the Bourne Rotary – including the access to Gray Gables.

Mr. Moseley responded that the study is in the conceptual phase. He then explained that the traffic signals would work together such that a traffic signal would process traffic coming out of the roundabout before it backs up into the roundabout. The directionality of the traffic coming out of the roundabout would not conflict and would primarily be travelling towards Scenic Highway. The separation of traffic would be increased as the design is advanced beyond what the simulation models reflected.

Mr. Mosely noted that the study focused on maintaining existing infrastructure. If the bridges are replaced, some of the elements would be changed during design updates, such as the 45-mph speed limit on the bridge. Old Sandwich Road currently goes under the Bourne Bridge, and it made sense to use that connection. Further development of the design created the opportunity to move the connection to where the rotary is currently. The layouts would be reviewed during the shift from concept to final design.

He stated that traffic moving across the bridge looking to travel east on Sandwich Road would travel across the bridge in the auxiliary lane, take the ramp at the approximate location of the current Bourne Rotary, turn right onto a connection road to Veterans Way, right onto Old Sandwich Road, and then a left turn at the Sandwich Road/Bourne Rotary Connector intersection.

Mr. Britland noted that it was too early to determine the timeframe for a buildout of the project. The project is currently in the conceptual phase, there would still be environmental permitting and design phases, and the capital funding process. The study report will define some options for construction staging, but not necessarily timeframes. The report would highlight pieces that would have independent utility or could be combined with another piece for construction staging purposes.

Robert Wheeler, Pocasset, noted that the cost is in 2030 and 2040 dollars, and the cost could increase by then. He mentioned that if the Bourne Rotary Connector were completed now, it would save a lot of traffic from the bridge, and it would be functional without the interchange or rotary. He suggested that a similar arrangement could also work on the north side without travelling over the bridge.

Mr. Britland mentioned that using 2040 for future costs is a standard method when conducting a study as looking forward 25 years is typical for traffic studies and is used for future projections of demographic data by the state and Cape Cod Commission. He noted that using 2040 does not imply a construction or funding date. The year 2030 was used in recognition of a potential construction year of the improvements, where 2040 is an analysis year that shows how costs grow over time.

Mr. Wheeler asked how long it took from conception to construction for the Sagamore and Bourne bridges. Mr. Britland responded he could not speak to the timeframe for conception, but construction took a few years.

Elmer Clegg, Chair of the Planning Board in the Town of Bourne, thanked the study team for their presentation. He agreed with Mr. Wheeler that completing the Bourne Rotary Connector ramp would be good in the short-term as it would relieve traffic on Bourne Rotary coming northbound on MacArthur Boulevard, it would remove some traffic delays, and slightly improve safety. He noted that he believes the rotary is the most dangerous highway in Bourne – not due to MacArthur Boulevard traffic, but due to the traffic coming over the bridge to make a turn southbound on MacArthur Boulevard, and the traffic that intends to go to Sandwich Road.

He also noted that Bourne Rotary represents a pivotal location for the Town of Bourne for economic development as a large developable piece of land on the top of the hill, owned by Stop & Shop, will continue to be undeveloped until the construction of the Bourne Connector and traffic flow is improved in and around the Bourne Rotary. He also noted that the Town is in litigation with Cumberland Farms regarding plans to build a facility adjacent to the Bourne Rotary where the traffic does not re-enter the rotary. He said if Cumberland Farms could redevelop a strip mall, it would open up the probability of other commercial development in the area of the rotary. He views Case 3A as a practical solution to solve traffic problem south of Bourne Bridge, but it is 20 years away. He also commented that by doing nothing short-term to improve traffic volume and safety around the Bourne Rotary, it was impeding the Town of Bourne from increasing its commercial tax base.

Tom Baron, Yarmouth, noted when this study started five years ago, he wrote a letter that a third bridge crossing should be considered. He stated that two years ago, following a presentation of alternatives to Belmont Circle, he had asked about considering a third bridge concept that would remove 50-60% of traffic volume. He suggested using the more than \$400 million for building a new bridge providing a connection between Route 25 and mid-Cape, instead of reconstructing Belmont Circle. He suggested that the conceptual study should have included other potential crossings of the canal rather than potentially interrupting communities on either side of the existing bridges with the other projects. He hoped with study concluding, for more reasonable and rational approach to Canal traffic.

Rob Wilson suggested considering a Texas-style U-turn onto a service road to stay under the bridge without crossing any traffic. Mr. Moseley responded that there are other intersection layout models, but as this study moves into design, real estate will become valuable and the footprint may become larger than the representation in the conceptual diagrams.

Mr. Wilson noted that the southbound roads are closer together than as drawn on the conceptual diagram of the Bourne Rotary highway interchange, which could give the Town of Bourne an opportunity for development. He also suggested a Florida-T intersection at the Market Basket entrance at Route 6 Exit 1C so traffic travelling up the hill does not need to stop. Mr. Moseley responded that as the study moves forward the design process would try to become more precise and minimize impacts.

Mr. Wilson asked if the proposed third lane eastbound on Route 6 would extend over the hill just past Exit 2 to help cars entering the highway travelling uphill. Mr. Moseley responded that at this conceptual stage it is not certain if it would drop at Exit 2 or continue over the hill.

Steven Tupper, Transportation Program Manager at Cape Cod Commission, thanked MassDOT and the study team for their efforts on an important regional challenge and mentioned that he looks forward to implementation of high-level and smaller projects. He also noted that the Cape Cod Commission is in the process of updating the Cape Cod Commission Regional Transportation Plan looking at long-range issues to 2040. There is a survey regarding vision for Cape Cod's transportation on the Cape Cod Commission's website (capecodcommission.org/rtp).

Mr. Britland thanked the audience for coming to the meeting and reiterated that the study will be released and posted to the MassDOT website and an email notification will be sent to the study mailing list once it is released.

Attendees:

Attendees are listed by name followed by their affiliation, if applicable.

Steve Voluckeas.
Tom Baron.
Kevin Brown.
Timothy Timmermann, EPA.
Gary Bua, HNTB.
Scott Jason, Cianbro.
Bill Sally, Green International.
Robert LaTremouille, Fowa.
Sandra Goldstein, Town of Bourne Planning Board.
Wendy Gendron, USACE.
Scott Darling, TranSystems.
John Woodley.
Rosemarie Bradley, USACE.
Dana Peterson.
Kathy Alfaro.
Paul Alfaro.
J Meeger.
Alice Howe, Friends of Bourne Rail Trail.

Ellen Sullivan.
Leslie Milstad.
Paul Tilton, Sandwich DPW.
David Dimmick, Bourne Conservation Trust.
John Waugh, Middlesex Corp.
Grace Day.
William Day.
Kathleen Palmer, Representative Vieira.
Heather Mead, Heritage Museums and Gardens.
Hasmukh Patel, MassDOT.
John Coogan.
Tom Guerino, Bourne.
A. Sharon.
John York, Resident.
Paul Rendon, JBCC.
Buddy O'Neil, Masco.
Stephen Buckley, OpenChatham.com
Brenna Attanasio, Hampton.
Pam Adler, Bourne.
Tom O'Connor, Mohawk Northeast.
Teo Woods, Lane Construction.
Matt Kealey, VHB.
Wayne Lamson.
Cassie Ostrander, FHWA.
Timothy Lydon, Town of Bourne.
Phil Logan, SMART
Elmer Clegg, Town of Bourne
John Johnson.
Judy Pugensell, Bourne citizen.
Jeanne Azarovitz, Bourne Planning Board/LCP.
Judith Froman, Bourne Select Board.
Glenn Cannon, Town of Bourne.
George Skeel, Town of Bourne.
Mark Forest, Town of Yarmouth.
Leo Tyrell.
Robert Townes, SSA.
Peter Bilodeau, Sagamore Inn Restaurant.
Bob Dwyer, Pocasset Village Foundation and Association.
Don Tibbetts.
Don Critchfield.
Ben Muller, MassDOT.
Vince Alley, Walsh Construction.
Paul Gately, Gatehouse Media.
Will Varrell, WSP.
Marie Oliva, CCCRC.
Rob Wilson.
Evan Lowell, TranSystems.
Rob Hureler.

John Carroll.
Jay Jenkins.
Margot Jenkins.
Steven Tupper, CCC.
H. Carter Hunt, MDFA.
Wes Ewell.
Joe Bradley.