Belmont Transportation Advisory Committee (TAC) Meeting Thursday, 2021-01-28 Meeting Minutes

Tonight's meeting occurred on zoom, and was called to order at 7:00p.

List of Meeting Attendees:

TAC Members:
Dana Miller (TAC Chair, Host)
Charles Hamad
Chip Gaysunas
David Coleman
Laurence Macdonald
Jeffrey Roth (Secretary, Compiler of Minutes)

Staff:

Glenn Clancy (Office of Community Development)
Patrice Garvin (Town Administrator)
Jay Marcotte (not attending)
Paul Garabedian (Belmont Police Department)

VHB Contractors: Laura Castelli Tim McIntosh

Other Attendees: Please see names as listed through the meeting transcript text below.

Introductions of the committee were made, as well as for the staff supporting the committee.

This TAC meeting focused on a discussion of the Winter Street/Concord Ave./Mill St. roadway nexus in Belmont. Tonight we heard a revised design of the roadways in this area.

The two VHB representatives attending and listed above announced they would be presenting the roadway design updates. Those slides are attached to these minutes.

Glenn Clancy began the discussion by providing the following overview and background. This has been a three-year plan in the works to improve safety conditions of this roadway corridor. Funding is the main issue, which has held up previous progress. The hope is that when we get to the end of the design work, there will be funding available.

Most of these designs extend to some degree beyond the current rights-of-way, and land claiming is needed to install the round-abouts studied. Some land would be needed from the Rock Meadow public land. Some hurdles would be funding and rights-of-way, as well as coming to consensus about design.

Glenn mentioned that the conditions are currently unsafe for motor vehicles, and that the region needs more focus on cycling and walking requirements.

BRIEFING PRESENTATION:

Tim McIntosh (VHB) Briefing - He discussed that he has been working on

RECEIVED TOWN CLERK BELMONT, MA

DATE: May 24, 2021 TIME: 4:43 PM this project since 2017. The recent work has focused on round-about design, and he prepared to deliver approximately a ten-minute presentation.

This presentation provided a summary of previous meetings. He highlighted that resident concerns raised previously have primarily addressed high speed, traffic queuing, and safety. Some car crash data was reviewed from 2015 - 2017. **Anything more recent?**

The current conceptional design presented by VHB is a modified roundabout. The design also adds 10-foot shared use path on both sides of the round-about. Also it add sidewalks on the north side between Concord Ave. and Winter St. This could potentially be extended, but that is the limits in the current concept design work. No sidewalks currently connecting to some of these sidewalks. VHB has also been studying the impacts to rights-of-way.

The round-about concepts are mostly single-lane designs, with the exception of a right turn-lane east-bound on Mill St. Multiple pedestrian crossings are included.

The design also includes connections to the existing trail system in Rock Meadow Conservation Lands.

Tim then provided a discussion of Mill St.: The concept design work includes this as a single-land round-about again. Between the two round-abouts is a shared-use, two-way path for walking and cycling.

The increased speed coming down from Mill St. is a concern VHB is working on with this design. They are also trying to reduce impacts to private property.

VHB has also considered traffic-calming measures at the Mill/Concord interchange. Potential options include a speed table at the splitter island of the round-about, which would help to control speed for east-bound vehicles. A second potential option is a raised crosswalk at shared-use path area. These raised elements would be refined and detailed as the design progresses.

There would be some impacts to adjacent public lands with this design. The total impact is approx. 9000 sq. ft., and about 3000 sq. ft. of that is just round-abouts (i.e., traffic elements). 6000 sq. ft would be from adding the shared-use path. However, the latter is in line with current Rock Meadow region use, although the State Article 97 process would still be needed.

Construction funding is also an issue still with this design work.

VHB has been help to address third challenge, which is to try to reach a public consensus on this design. The hope is to get close to something that the Town can get behind.

The meeting then shifted to some words offered by Glenn. He added that everything currently in the design is an overlay of legacy survey data. Have to do real survey as part of next step. That would determine how elements would be located in the right-of-way. Some areas are close to private property. There needs to be updated survey data to determine if there room to fit design elements. Once this preliminary conceptual design is complete, the Town can then seek funding. Basically, they need to confirm that all these design elements things fit.

On the Chapter 97 process, Glenn has discussed this concept with Mary Trudeau (ConComm) already. They may potentially need to make up the

9000 sq. ft. somewhere else. However, the shared use path can reduce amount of area that needs to be traded off, due to the positive ecological benefits it can provide.

Glenn mentioned that a MassWorks grant project needs to be something far enough along to be ready for construction within the current fiscal year. Given the Chapter 97 process, this probably will not hit this year's fiscal year cycle, but perhaps next year in 2022.

FEEDBACK FROM TAC MEMBERS:

Committee members then provided some feedback to the design.

Chip Gaysunas (member) asked whether on the north side, at the western round-about, whether that sidewalk could be continued in the future.

Tim McIntosh responded that there is room to extend the length of the sidewalk, if that is of interest.

Jeffrey Roth (member) posed the following suggestions and questions:

1. For east-bound cyclists turning left at Mill./Concord Ave., using the round-about might make more sense as a direct route. Sharrows through-out the round-about region would help to improve safety and awareness. Traffic calming (speed tables) make a lot of sense on east-bound directions, provided some gaps at the shoulders could be provided to make them safer to navigate on a bike.

2. The Partridge Lane cul-de-sac could include a walking/bike access, so people in the neighborhood can access the shared-use path and Rock Meadow more safely away from car traffic. Also, VHB might consider adding a crosswalk there, to more safely access the shared-use path.

3. Is the shared-use path intended to be two-way for cyclists and walkers?

Tim McIntosh responded that adding a crosswalk at Winter/Partridge might be an option.

Tim McIntosh also responded that two-way traffic is intended for the shared-use path. Use of cross-walk system would be an option for less experienced cyclists, while more experienced or vehicular cyclists could take the lane.

Glenn Clancy provided some further rationale for the proposed Partridge Lane cul-de-sac, and that a gap could be considered there for walking and biking.

David Coleman (member) asked the following questions:

- 1. Has the Mill/Concord round-about been studied for traffic volume?
- 2. He asked if there was a possibility that the traffic-calming might cause back-ups.
- 3. He was interested in a pedestrian crossing there.

Laura Castelli responded that queuing at Mill is something that was studied. May formalize sidewalk at Winter Street. A gap in the Cul-de-sac at Partridge Lane is something they would like to consider.

Tim McIntosh said that VHB did not analyze traffic model with traffic-calming yet. Some details there still need to be worked out.

Laura Castelli added that it was unlikely that traffic calming would have a significant impact on traffic congestion.

David Coleman asked an additional question about west-bound entering first round-about. Is that concept taking private property?

Tim McIntosh responded that the plans avoid doing so.

Charles Hamad (member) asked about any impacts to the gas station at Mill $\operatorname{St.}$

Tim McIntosh responded that the design has not been discussed with gas station business yet. Survey plan had some right-of-way information showing no infringement, but that data could be outdated. Sidewalk crossing was important to this design, and likely not to impact the gas station operation.

Glenn Clancy responded that a primary thing to nail down is fuel delivery operations, and how they could accommodate new curb and intersection designs. He added that that round-abouts are all designed to meet turning radius for trucks, as the bricked central areas can be driven over very slowly by long trucks.

PUBLIC QUESTION AND COMMENT PERIOD:

Residents were next invited to speak and ask questions about this topic.

Martin Plass: Resident of Stanley Road at Mill St. He mentioned that traffic is a major concern. He would like to see this design implemented as soon as possible. At the same time he suggested keeping the plan simple and easy to implement, and wondered if walkways might be necessary or eliminated. The two-left-turn design at round-about seems like might complicate the design and make it less safe. His third observation was about the shared-use path, and whether it could extend all the way to Lone Tree Hill parking lot area.

Dana Miller (member, TAC Chair) echoed the words that what we can do depends a lot on state funding availability.

Glenn reiterated that we have no source of funding yet for this project. Several different constituencies that have been folded into the design have also expanded the scope of this project over the years. However, he mentioned that we should shoot for the moon, get a consensus design, then see what we can do with funding. At that point, we can decide what elements could potentially be dropped, if needed. Glenn has been trying to address the issue of isolation felt by some of the residential areas by providing safer walking and biking options to people.

Martin Pless: He mentioned again that he would like to see the path extend all the way down to Lone Tree Hill.

Rick Semerjian: He asked whether anyone has talked to Lexington about the recent project near Wilson Farms on Winter Street/Pleasant Street. Given their similar traffic problems, they created a sidewalk and path along the roadway, and at Mass. Ave. removed a round-about and installed traffic signal there to improve safety.

Laura Castelli responded that for the Lexington case it was more like a T-intersection merge and less like a round-about. Different situations there due to traffic there, so that is why the traffic signal was considered.

Charles Hamann: He said that he thinks this is a great plan, and that the Town has done a good job on this design work. He has looked at the history of the acquisition of Rock Meadow, and it was purchased from McClain back in 1960's, for a "steal". He suggested that the situation is different than a title situation, and believed that there are no formal and specific conservation restrictions on the property. As long as still used for public use of lands, a shared-use path should be

possible. The path also would not use a significant amount of the Rock Meadow land.

Glenn Clancy: He does not currently have the deed for Rock Meadow, but plans to look it up soon. Glenn believes it mentioned passive and active recreation, but still need to confirm these details. He said this would need to go through the Town Counsel, given the long time since the 1960's. He believe it would probably be treated as Chapter 97 process anyhow for all intents and-purposes.

James Berets (Rayburn Road): He said that he appreciates the continued efforts to try to improve the roadway safety there. He supported the idea of access from Partridge Lane blockade, to allow people to still walk and cycle through there. Second thing was on commentary/questions slide. There are some informal parking spaces along Concord Ave. near Rock Meadow, and those parking spaces might disappear with mitigations planned. He suggested looking at ways to avoid people parking in unsafe ways, given his observations about that off-business hours parking situation there.

Jacob Lloyd (33 Winter Street): He thanked everyone for all the work going on with this project. He supported the idea of the north-side sidewalk options. He also supports the Partridge Lane access concept to allow walking/cycling access through a barricade. He wanted to know how long sidewalk extends along Winter Street, and whether that could be extended or not. He asked what would be the chances of getting funding for that as well. He also followed up on the previous parking question, observing that sometimes the parking extends all the way down Mill St., for people accessing both Lone Hill, Beaver Brook and Rock Meadow.

Tim McIntosh responded that the sidewalk extension limit in this current conceptual design is slightly past Partridge Lane.

Glenn Clancy responded to the funding question. He mentioned that the Town has applied for funding previously in the past and it has been a challenge. However, here one could make the case for economic development. There is an affordable housing development underway just across the Belmont border in Lexington on Winter St. There are also zoning area changes for MBTA service communities, that levies requirements on municipalities to create zones for multi-family (3 or 4+) dwellings. This is relevant because communities that have not changed their zoning to reflect this will not be eligible for MassWorks funding in the future. The application process for MassWorks starts usually in August, and is fairly simple, and quick. The EOT's TIP process is much more long-term, and significantly more competitive.

Brandon Jackson (Winter St. resident): He stated that the left-hand turn lane east-bound approaching Mill St. seems short, and asked about back-up of traffic given that it is only 40 to 50 feet in length. He asked if removing that simplifies the design and concept. He also inquired about the locations of sidewalks, and suggested moving sidewalks/crosswalks to the west side of the Concord Ave. round-about. He also asked what the red areas are in the diagrams for the Winter/Concord round-abouts. Finally, he asked if the approach from the west would still be fast, and was concerned about low visibility entering Winter St. rotary.

Tim McIntosh: He responded that the red areas marked on both round-abouts are truck aprons areas. The purpose of these are to facilitate large turning radii for vehicles. He also mentioned that some physical geometric deflections will slow traffic, even from Concord Ave. east-bound entering traffic.

Brandon Jackson: He asked a follow-up question about using land in Rock Meadow, and trading parcels. Would there be an advantage of moving the round-about southward and eastward.

Tim McIntosh: Yes, that would make sense if the Chapter 97 process is easier than currently anticipated.

Glenn Clancy: He mentioned that he would like to wrap the sidewalk around that corner and up Winter Street, but it depends on what upcoming survey data might reveal.

Robert Eckert (South Cottage Road Resident): He said thank you to the Staff and Committee for working on this project. He had a few questions and comments about the process. The proposed shared-use path for cycling and walking is a good idea, and it would make sense to extend it further down Mill St., and also take it deeper into Rock Meadow. (I.e., make it a more direct route, and don't hug the road.) He said that approach would likely be consistent with use of conservation land, making an approval potentially possible.

Tim McIntosh: He clarified that right now the path hugs the road, but is approximately 5' off edge of road, so does take more space that way, as opposed to the suggestion by Robert Eckert.

Robert Eckert: He said as a cyclist, he would stay on the pavement, and also that the walking route appears much more circuitous. He also said he thought that an Achilles' heel issue of the design was that for people heading west on bikes, the design needs to be conducive to safely go westbound from the shared-use path to Concord Ave. westbound. This might require closer analysis to address these issues. Robert Eckert also said that the sidewalks on the north side make a lot of sense. He believe that we should try to make the project great, then go get money. He said he would donate money to help get this project implemented. He also said that increasing parking at Rock Meadow might be something to also look at.

Laura Castelli: She responded to shifting the shared-use pathway south-wards deeper into Rock Meadow Land. Unfortunately, there may be some wetland restrictions that would make that approach more difficult to implement.

Robert Eckert: He responded that it might still be possible to get around that wetlands process with a cycling and walking route use of conservation land. He added that having cycling paths away from busy roads would be more appealing.

Dorothy Stoneman (March Street resident, also property owner on Rayburn Road): She said she has been in this neighborhood for a long time. She would object to raising taxes in Belmont to implement these changes. She believes that the solution at Marsh/Winter St. to put up four-way stop signs should also be looked at here. She asked if simpler designs like that could be done here. She remarked that Partridge Lane should have ability to access Rock Meadow more easily. She also has not experienced traffic congestion problems. Finally, she asked if there any estimate about the total cost of this project.

Dana Miller (TAC Chair): She responded that there are not currently any cost estimates yet for this project.

Tim McIntosh (VHB): He added that a ROM estimate for the round-about is \$2M - \$3M, circa 2017. However, costs have likely changed significantly since then.

Helga and Sonia Cosman (Residents): They do not see many traffic problems and safety problems. They would like to keep the design simple. They asked the question about how people would go eastbound into the gas station. They want to make sure access is preserved.

Laura Castelli (VHB): She commented that the access points for the service station would not be changing.

Tim McIntosh (VHB): He reiterated that access would not be changing to gas station.

Sonia Cosman: She asked if there is less space for the gas station with this new design.

Tim McIntosh (VHB): He remarked that the gray/green area drawn on the nose of the property, is within town jurisdiction, so no impact to land being used currently by gas station. This analysis is based on circa 1990's land survey data, and would be confirmed before the project moved forward.

Helga Cosman (Resident): She asked what has happened with previous proposals for this project.

Dana Miller (TAC Chair): She mentioned that we discussed that earlier in the meeting. The previous proposals, previous meeting minutes, and what happened to the proposals are all available on the Town website.

Anthony Barnes (36 Winter Street Resident): He commented that he often observes northbound Mill Street traffic problems, and would like to see that improved. He also said that he uses Rock Meadow a lot with their children. To access that, they walk along shoulder the on the north side of Concord Ave., and would like to have a sidewalk there instead to enhance safety. He also mentioned that the school bus drop-offs have been eliminated there due to safety issues, so he feels a strong need to improve safety there. He would like to support this, and has a few additional comments listed below:

- 1. The gas station currently has no curb there, and wanted to see how this was changing.
- 2. He would like to support walking and cycling infrastructure, and want some more feedback on how to do so.
- 3. He asked about data on impacts of traffic, and how the public would view that information.
- 5. How can he support this project as residents?
- 6. How can he also help with getting sidewalks on Winter St. someday?

Glenn Clancy: He said that letters of support to the State certainly help, especially with a MassWorks proposal like this. Regarding sidewalks on Winter St., that could potentially be done with DPW funding, but often that funding is very limited. He also said that often times sidewalk constructions or reconstructions are done in conjunction with roadway reconstructions. If this project were a go, then that would be an obvious side activity to find Town funds to make those sidewalks happen.

Laura Castelli: She said that she can make more data available to Glenn Clancy and Patrice Garvin.

Jon Norton (Audubon Lane Resident): He said that it is really great to see this effort on this project. He said that traffic situation and walking situation improvements are much needed. He said that it is important for him to be able to walk to Rock Meadow with his family.

Lin Norton (Audubon Lane Resident): She said that walking is very important to quality of life, and there is the need to enhance safety there because currently people cannot walk easily or safely. Also, for people driving to their house, sometimes it is tough due to car traffic on the roads. She said that the community should support each other, and that she got hope from this meeting organization. She recommended that we should move faster to make the Town upscale with these kinds of accommodations, and that the Town residents deserve a project like this. She said that she feels she almost has to drive everywhere, and wants more options that do not require driving a car.

Kenneth Stalberg (Kendall Gardens Resident): He thanked the Committee and Staff for the work on this project. He has used these intersections many times, and feels that the Mill St. west-bound traffic problems need attention from a project like this. He asked whether data on traffic back-ups would be made available as well. He would like to know quantitatively how the traffic problems will be addressed by this design. He also supports the idea of the sidewalks and paths.

David Kershaw (1021 Concord Avenue Resident): He said that he likes the plan a lot, and would like to get the budget to do this. He would like to avoid the funding process holding up progress. He mentioned that the roadways were repaved approximately ten years ago, but that did not include the roads closer to these intersections, where their house is located. There are currently large potholes and dangerous surfaces developing in the roadways. He has requested slow speed warning signs previously.

Jen McMullin (Resident): She expressed concern about safety on Winter and Marsh Streets as well.

David Coleman (TAC): He thanked everyone for the community involvement in this project and for the great effort by all working on it.

Ted Speros (981 Concord Avenue Resident): He is concerned about back-up traffic problems. He also said we need the sidewalks and also better traffic flow. He wants this to move forward as soon as possible.

Lillian Chiavetta (10 Winter Street Resident): She asked about the survey data to show how the design impacts private property. She would like to know if it is possible to ensure that the design does not impact her property. She would also like to see more traffic data. In addition, she suggested getting the sidewalks in there immediately, to improve walking safety there. Also she said to get the road fixed and move forward soon on this. Finally she mentioned some water drainage issue on her property, and emphasized the need to get this project done

Glenn Clancy: He confirmed that this design does not use any of the 10 Winter Street property. It currently only uses Rock Meadow land. An updated survey would show exactly where the design needs to fall on the land. He emphasized that this is currently conceptual design work, and the objective of the project is to not utilize anyone's private property for the upgrades.

Tom Grimble (Rayburn Road Resident): He mentioned that he is a trail steward at Rock meadow and also on the Lone Tree Hill Committee. He thanked the group for an inclusive for open process on this project. also expressed thanks for making the updated design meet suggestions from the community. He said that safety is a critical concern, even more so than traffic. The area is currently very dangerous for pedestrians, and need to address those problems now. He also suggested that accounts of crashes may not be the best measures of conflict. Another way to look at it is changes to behavior, and absence of walking for many people who live there since crossing the streets is difficult. Finally, he also asked what can we do now about to improve the safety of this situation.

Dana Miller (TAC Chair): She said she is hopeful and eager to see how we can move ahead with this project. She would like to see a MassWorks grant program application submitted soon.

Laura Castelli (VHB): She said she can recirculate traffic information to the community.

Tim McIntosh (VHB): He said that he got a lot of valuable and productive input from people at tonight's meeting.

Dana Miller: She said thank you to everyone for attending tonight's meeting. As we make progress, she hopes to get together again at future meetings to talk about next steps. Tonight's proposal briefing will be published to Town website shortly.

Glenn Clancy: He thanked VHB for their work on this. He said they have done a great job incorporating design concepts from previous projects. He believes we are very close to moving this project forward.

OLD BUSINESS:

Glenn Clancy provided an update on what is happening in Belmont Center with MBTA buses. The modern buses are taller than what the railroad bridge allows. Therefore, the bus turns around at the Lyons Club, and a bus layover station has been added in front on Unitarian Church.

Glenn is aware that the bus stops in front of the Belmont Center Fire Department, and on the Town Green in front of the old Belmont Savings Bank, were more convenient for residents and business patrons, and that the bus-route change poses a burden, especially for residents of the Winn Brook neighborhood. Glenn is exploring whether or not it would be safe to direct the bus to straddle the middle of the two travel lanes when passing under the railroad bridge and to then continue straight up Leonard Street to Alexander. For this arrangement, the MBTA would require that we install a sign about this travel instruction in the ceiling of the bridge tunnel, for the bus driverâ\200\231s attention. If this route were pursued, Glenn would explore whether or not the current bus stop in front of the old Belmont Savings Bank could be replaced with a stop on Channing Road. However, the available space there, may be too short to accommodate a bus stop.

There is an additional concern that, when traveling in the middle of the road under the railroad bridge, there may be enough room for a car to follow alongside the bus on its right side, which would pose a crash hazard. A further complicating factor is a recent request from the Leonard Street Merchant Association that, come spring, Leonard Street be again closed to traffic in one lane, to allow the merchants to use some of the roadway and sidewalks for outdoor seating. Larry Macdonald observed that the MBTA buses still do, on occasion, travel the old route. Larry also expressed concerns about the safety of people walking to the bus with the current temporary layover location adjacent to the Unitarian Church. Glenn will explore the options for routing the taller buses through Belmont Center, and will report back to the Committee.

MEETING ADJOURNMENT:

The meeting adjourned at approximately 9:45p.



OFFICE OF COMMUNITY DEVELOPMENT TOWN OF BELMONT

19 Moore Street Homer Municipal Building Belmont, Massachusetts 02478-0900

TRANSPORTATION ADVISORY COMMITTEE

Thursday, January 28, 2021

7:00 PM

Location – Remote Meeting

In keeping with Governor Baker's Executive Order of March 12, 2020;
"Order Suspending Certain Provisions of the Open Meeting Law"
All Participation by Committee and Town Residents will be by Remote Access

If the audio becomes unavailable, the meeting will be paused until it can be restored,

or the meeting will end

FOR PARTICIPANTS: The Transportation Advisory Committee will start at 7:00 PM and you may join the meeting remotely starting at 6:55 PM.

By computer or smartphone go to: https://us02web.zoom.us/j/88136816787

- Follow on screen instructions
 - Enter your Full Name under participant (only those with a name entered will be allowed to comment if desired)

By telephone: +1 929 205 6099

When prompted, enter Meeting ID: 881 3681 6787

Follow any additional prompts

To Provide Resident Comments:

If you wish to provide comments when prompted by the Chair (related to the specific agenda) here is what you do:

- By Computer or Smartphone once logged in you will be able to message the Room Host
- By telephone press *9
- When the host is ready for you, you will be called on by your phone number or name (when prompted always start by presenting your full name)
- Comments will be limited by the Chair, shall be concise, and shall not repeat
 previous comments or questions presented by others before you
- Chair is not obligated to recognize all comments and may end comment period prior to your comment being heard

TRANSPORTATION ADVISORY COMMITTEE

AGENDA

Thursday, January 28, 2021

7:00 PM

Location – Remote Meeting

7:00	Call to Order
7:00 – 7:10	Approval of Minutes
7:10 – 8:30	 Discussion of Intersection Improvements Winter Street at Concord Avenue and Mill Street at Concord Avenue
8:30 – 8:35	Old Business • No Known Items
8:35 – 8:40	New Business • No Known Items
8:40	Adjourn





Winter Street/Concord Avenue/Mill Street— Conceptual Intersection Improvements



Presented by

Tim McIntosh Laura Castelli Erin Thompson



Winter Street/Concord Avenue/Mill Street Status

- Traffic Advisory Committee meeting on October 12, 2017
 - Kicked off the discussion of potential intersection improvements
 - Residents had an opportunity to share their comments / concerns
 - Town and VHB listened
- Conceptual Design Development
 - Completed traffic data collection
 - Developed several conceptual design alternatives
- Traffic Advisory Committee meeting on December 14, 2017
 - Conceptual designs presented tonight



General Summary of Resident Concerns

- High Speed on Concord Avenue WB approaching Mill Street
- Severe intersection angle at Concord Avenue and Mill Street
- Sight line at Concord Avenue and Mill Street
- High Speed on Concord Avenue WB approaching Winter Street
- Difficult to make a left turn from Winter Street to Concord Avenue EB
- Cut-through traffic a concern at Partridge Lane
- Traffic queuing in general
- High speeds in general
- Lack of sidewalks
- Safety





Goals for Conceptual Design

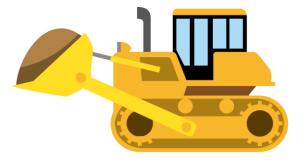
- Address Safety Issues
- Reduce High Vehicle Speeds
- Alleviate Traffic Back-ups





Challenges

- Available Right-of-Way
- Adjacent Conservation Land
- Achieving consensus on proposed solution
- Construction funding





Conceptual Design Alternatives

T-Intersection concept



- Roundabout concept
- Combination of T-Intersection and Roundabout concept







Winter Street **Pros**

- Speed issue is addressed for Concord Avenue EB to Winter Street
- Traffic queuing improved on Winter Street SB to Concord Avenue

Cons

- Lengthy traffic queue on Concord Avenue EB in AM
- Speed issue not addressed from Concord Avenue
 WB to Winter Street
- Potential driveway impact to #981 Concord Avenue



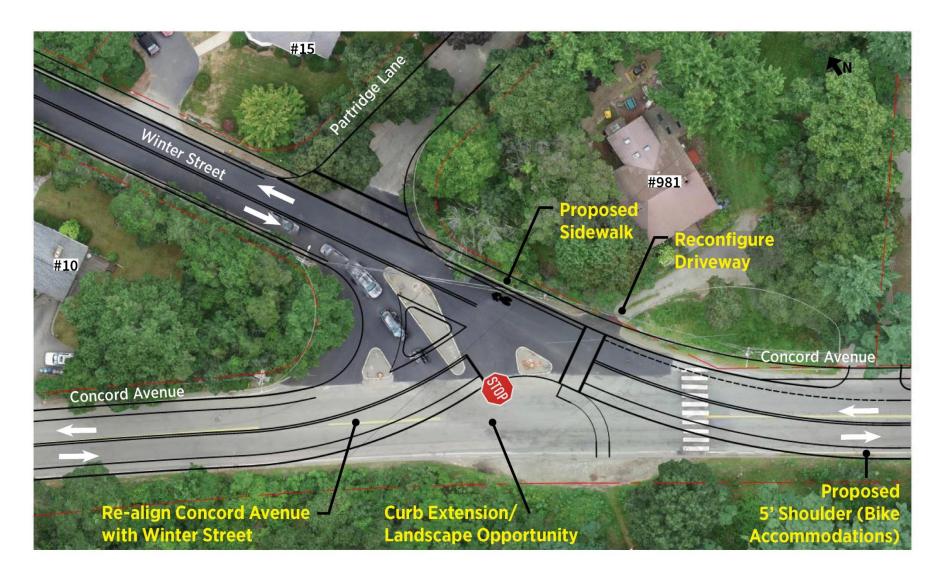


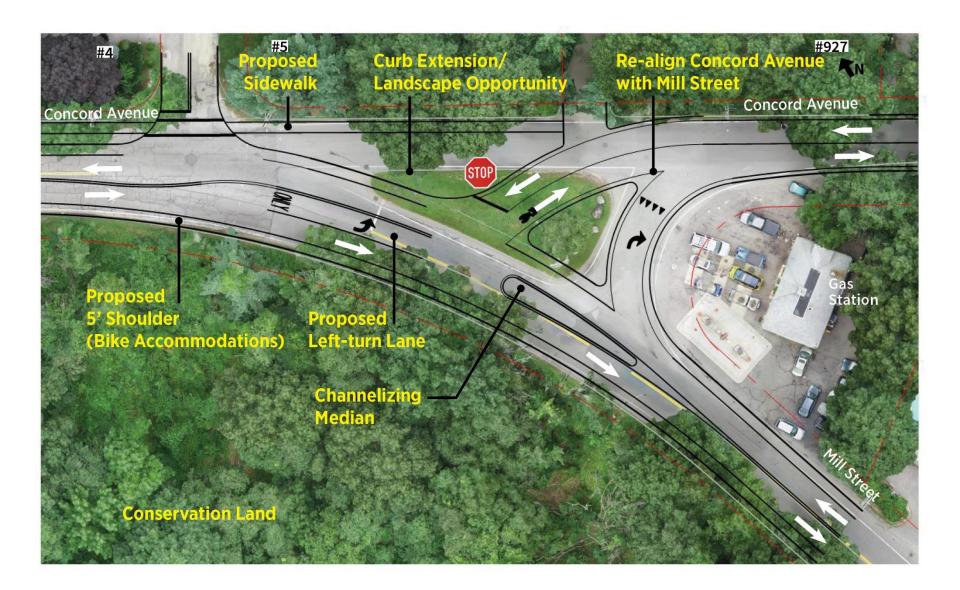
Mill Street

- Pros
- Clear sense of who has the right-of-way
- Eliminates lengthy traffic queue on Mill Street
- No impacts to Gas Station access
- Addresses speed concern for Concord Avenue WB approach to Mill Street

Cons

- Reconfiguration of existing grass island area needed
- Potential for increased speed on Mill Street









Winter Street **Pros**

- Addresses speed issue on all approaches
- Operates well in AM & PM

Cons

Potential for minor right-of-way impacts to #10
 Winter Street and #981 Concord Avenue



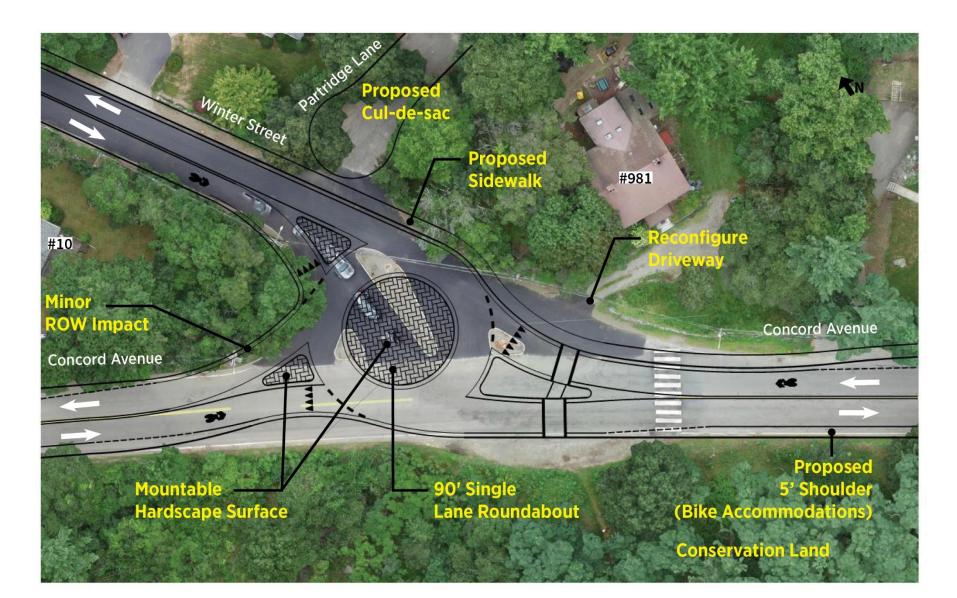


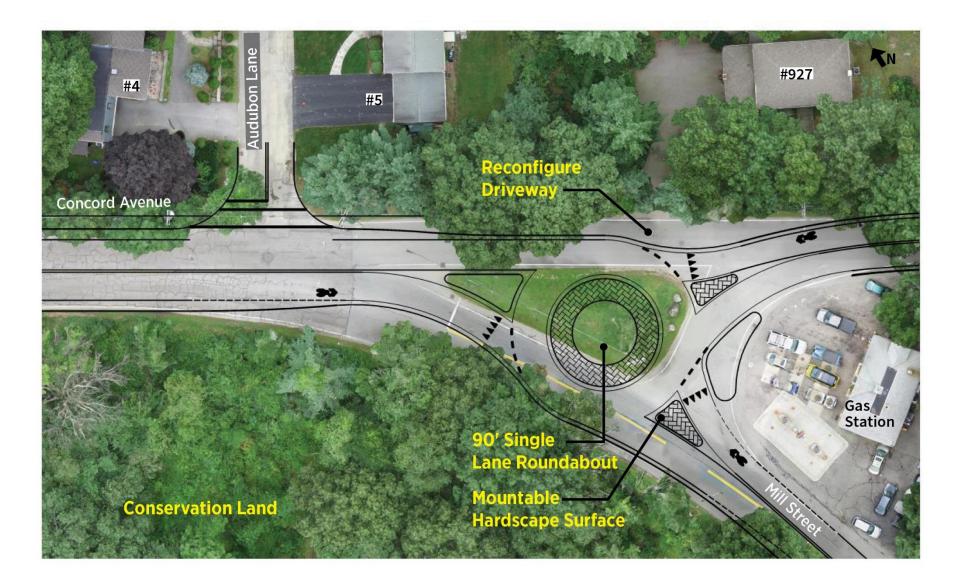
Mill Street Pros

- Addresses speed issue on all approaches
- Operates well in PM
- Clear sense of who has the right-of-way

Cons

- Impacts driveway access to #927 Concord Avenue
- Lengthy traffic queue on Concord Avenue EB approach to Mill Street in AM







Conceptual Design Alternative—Preferred



Operates well in AM & PM

- Potential for minor right-of-way impacts to #10 Winter Street and #981 Concord Avenue
- Potential for increased speed on Mill Street



Conceptual Design Alternative—Preferred



- Eliminates lengthy traffic queue on Mill Street
- No impacts to Gas Station access
- Addresses speed concern for Concord Avenue WB approach to Mill Street

island area needed



Questions

