



Minuteman Bikeway Design Status

Presented by
Trish Domigan
Pete Sorensen

February 13, 2017

Minuteman Bikeway

- MassDOT approved use of state and federal funding for project in April 2014
- Total construction cost approved: \$4,006,200
- Project will extend from Depot Park to Concord T/L (2.2 miles)
- Project currently not on the Transportation Improvement Program

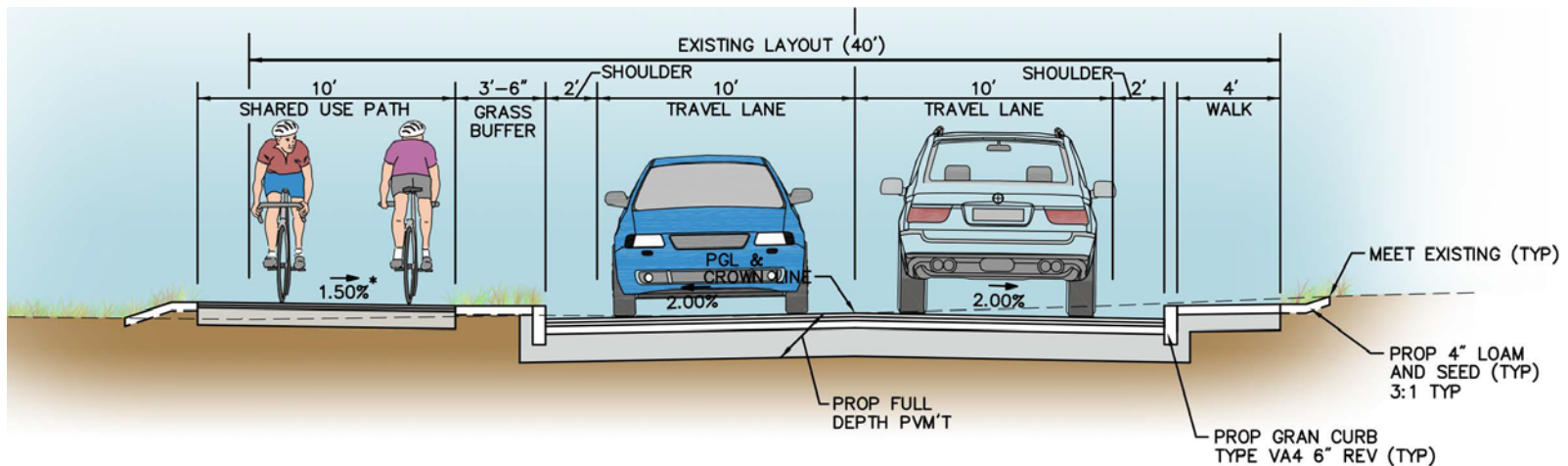
Minuteman Bikeway

- Project Limits:
 - Railroad Ave: 1700 feet
 - Commercial Ave: 600 feet
 - Off road bikeway: 1.9 miles
 - Concord Road: 1200 feet



Minuteman Bikeway Cross sections –

Railroad Ave



TYPICAL SECTION – B-B

NTS

*0.5% CONSTRUCTION TOLERANCE

Minuteman Bikeway

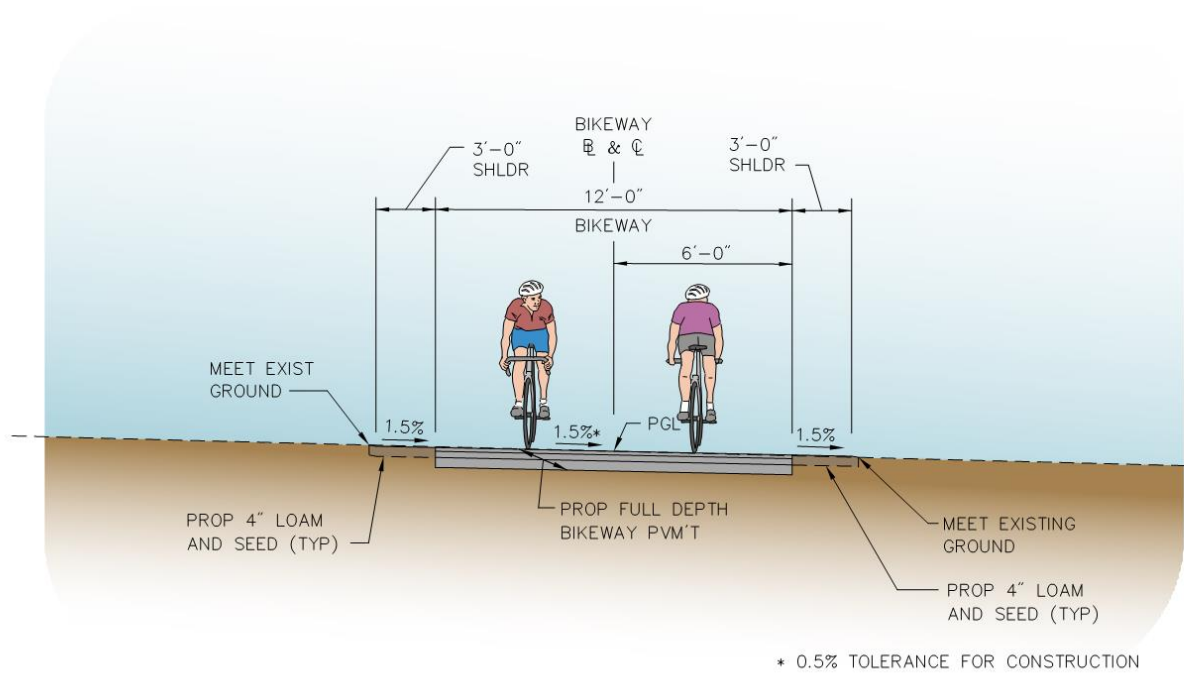
- Project includes:
 - Railroad Ave at South/ Loomis Street
 - Traffic signal modifications
 - Bikeway crossing
 - Railroad Ave and Commercial Ave
 - Roadway reconstruction
 - Drainage reconstruction
 - Shared use path design
 - Protected crossing at Railroad Ave
 - Gravel parking area on Railroad Ave

Railroad Ave Improvements



Minuteman Bikeway Cross sections –

Off road bikeway



Minuteman Bikeway

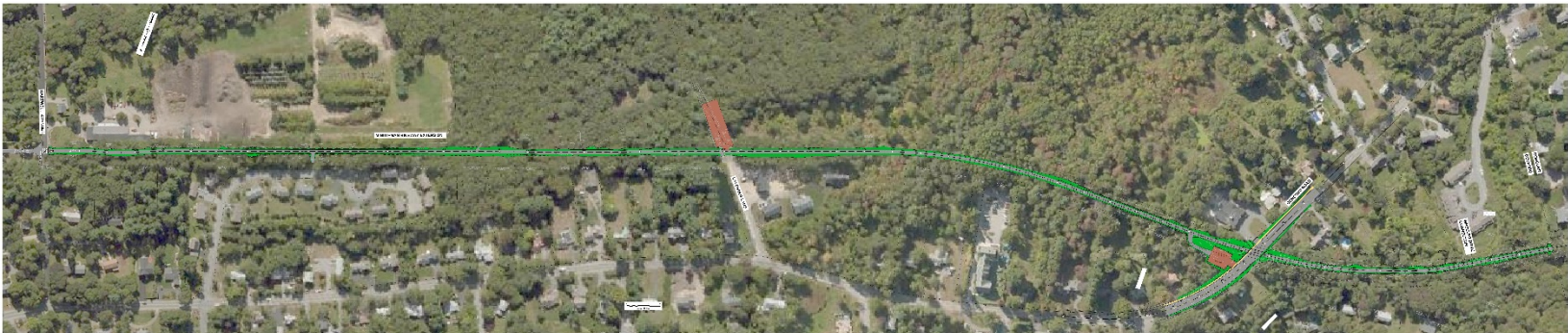
- Project Includes:
 - Off Road Bikeway
 - 12 foot wide paved bikeway
 - Parking lot at Railroad Ave, End of Lavender Lane and Concord Road
 - Trailheads at Railroad Ave, Concord Road and Wheeler Street
 - Access to all adjacent pathways and side streets
 - Protected roadway crossings on Railroad Ave, Hartwell Road and Concord Road
 - Concord Road Crossing
 - Comparing a at-grade pedestrian signal, HAWK and a bikeway underpass
 - Meeting with MassDOT to discuss crossing treatments.

Minuteman Bikeway

Railroad Ave – Hartwell Rd



Hartwell Rd – Concord Town Line



Concord Road crossing alternative comparison

Alternative Comparison Matrix

Option	Description	Advantages	Disadvantages	Vehicle/Trail user Conflicts /Safety	Neighborhood Visual Impact	Traffic Impact	Trail and Parking Lot Access to Concord Road	Emergency Access	Air Quality Impact	Construction Cost	Constructability	Right of Way	Life Span	Maintenance	Total Points
At-grade Signalized Crosswalk	Pedestrian Crosswalk on Roadway with Traffic Signal Lights	<ul style="list-style-type: none"> Low installation and Maintenance Cost 	<ul style="list-style-type: none"> Path User Momentum Stopped Vehicle Queues Emergency Access Delays Vehicle Emissions Power Costs Annual Pavement Marking Application Unexpected traffic signal Overhead utility relocation 	1	2	1	3	3	1	3	3	3	1	2	23
At-grade HAWK signalized Crosswalk	Pedestrian Crosswalk on Roadway	<ul style="list-style-type: none"> Low installation and Maintenance Cost 	<ul style="list-style-type: none"> Path User Momentum Stopped Vehicle Queues Emergency Access Delays Vehicle Emissions Annual Pavement Marking Application Unexpected traffic signal Overhead utility relocation 	1	2	2	3	3	1	3	3	3	1	2	24
Grade-Separated Underpass	<p>Tunnel under Roadway with access to parking lot and Concord Road</p> <p>Includes Concord Rd reconstruction for 600 linear feet.</p>	<ul style="list-style-type: none"> Path User Momentum Maintained Easier travel for path users No delay for path users No sight distance issues Community support 	<ul style="list-style-type: none"> Initial Construction Cost Concord road reconstruction to raise profile to install underpass Underground utility relocation - sewer and water 	3	2	3	3	3	3	1	1	2	3	3	27

1 = Most Impact
 2 = Some Impact
 3 = Least Impact

Concord Road – Pedestrian Signal



Concord Road Underpass



Minuteman Bikeway

- Next Steps
 - Meet with DOT to discuss Concord Rd crossing options
 - 25% design submittal - March 2017
 - Public Hearing - Summer 2017
 - Transportation Improvement Program inclusion - Winter 2017/2018
 - Final design development – Summer 2017 to Fall 2018
 - Environmental Permitting – Winter 2017/2018
 - Construction - Spring 2019

Trish Domigan | pdomigan@vhb.com | 617.607.2794

Pete Sorensen | psorensen@vhb.com | 617.607.2161

www.vhb.com



Offices located throughout the east coast