Proposed Minuteman Bikeway Extension
Along Railroad Avenue
August 4, 2014
Meeting Purpose

- Answer any questions on the Railroad Ave design options
Railroad Avenue – Current Conditions

- Right of Way (40 foot with 10 sidewalk easement on south side across from Highland Ave to curve)
- Current pavement width – varies from 20 ft to 28 ft
- Trees
- Geometry at gravel parking area
- Utility poles, hydrants, etc
- Drainage
- Property encroachments
- Driveways
Railroad Avenue - Current Conditions

- Local Roadway classification
- Traffic includes cars, trucks, buses, bikes
- Low traffic volumes collected in 6/2013, 10/2013, and 11/2013 (less than 4,000 vpd)
Cross Section Options presented at 9/25/13 meeting

1. 6 ft sidewalks both sides
   2-10 ft travel lanes with 4 ft shoulders
2. 10 ft sidewalk (south side) w/ 6 ft sidewalk (north side)
   2-11 ft travel lanes and 4 ft shoulders
3. 10 ft off road shared use path (south side)
   5 ft buffer and 2 -12 ft travel lanes (no shldrs)
Additional Cross section option

4. Shift roadway to north layout line, 10 ft sidewalk on south edge, 4 ft shoulders, 10ft travel lanes

5. Input from MAPC Bicycle and Pedestrian program

6. Input from MassDOT Complete Streets Engineer
Option 1 Cross Section

Easement for 35% of project length
Option 2 Cross Section

- Total width of road and sidewalk – 46 ft
- Will require land takings along entire road
- Tree impacts are higher than option 1
- Full depth roadway and stormwater reconstruction
Option 2 Cross Section

Easement for 35% of project length
Option 3 Cross Section

- Total width of road and sidewalks – 45 ft (w/ 3 ft clear zone)
- Share the road symbols on 12 ft lanes
- Will require land takings along entire road within project limits
- Tree impacts are higher than option 1
- Full depth roadway and stormwater reconstruction
Option 3 Cross Section

Easement for 35% of project length
Option 4 Cross Section

- Total width of roadway – 38 ft
- 4 ft shoulders
- Remove all trees on north side of roadway
- No land takings
- Full depth roadway construction and drainage upgrades
- Impacts Railroad Ave geometry with South Rd and Loomis St.
Option 4  Cross Section

Easement for 35% of project length
Railroad Ave - Residential Section

From MAPC Bike and Ped program
Minuteman West Bikeway
Rail to Trail

EXISTING LAYOUT - 40'

6.00' SIDEWALK  5.00' BIKE LANE  2.00' OFFSET  10.00' TRAVEL LANE  10.00' TRAVEL LANE  2.00' OFFSET  5.00' BIKE LANE

PROP FULL DEPTH PVM'T
PROP GRAN CURB TYPE VA4 6" REV (TYP)

SOUTH ROAD TO HIGHLAND AVE

From MassDOT Complete Streets Engineer
Minuteman West Bikeway
Rail to Trail

EXISTING LAYOUT – 40°

10.00’ EASEMENT

5.00’ BIKE LANE

2.00’ OFFSET

10.00’ TRAVEL LANE

10.00’ TRAVEL LANE

2.00’ OFFSET

5.00’ BIKE LANE

6.00’ SIDEWALK

HIGHLAND AVE TO BIKEPATH PARKING

From MassDOT Complete Streets Engineer
Questions and Comments
Elm Brook Alternative Option

**Issues to be considered:**

- Path cross section and surface material consistency
- South Road crossing options
- Wetland Impacts (greater than 5,000 sf)
- Elm Brook Flood Plain Impacts
- Miller Moore Conservation Restriction
- Elm Brook Conservation Area
- Land Takings
- Potential mitigation requirements
- Funding eligibility
- Design/permitting and land taking schedule
Moore and Miller Pedestrian Easement on Railroad Ave

- A strip of land 10’ wide and parallel to and contiguous with the south sideline of Railroad Avenue, as shown on the aforementioned plan, running from the easterly sideline of Lot 1 along Railroad Avenue, to the west sideline of Lot 4B to the land of the Town of Bedford.

(Back of easement about 15 ft from current edge of pavement, 640 ft long – about 35% of project length)