



Minuteman West Bikeway

Rail to Trail



Proposed Minuteman Bikeway Extension Along Railroad Avenue August 4, 2014



Rail to Trail



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

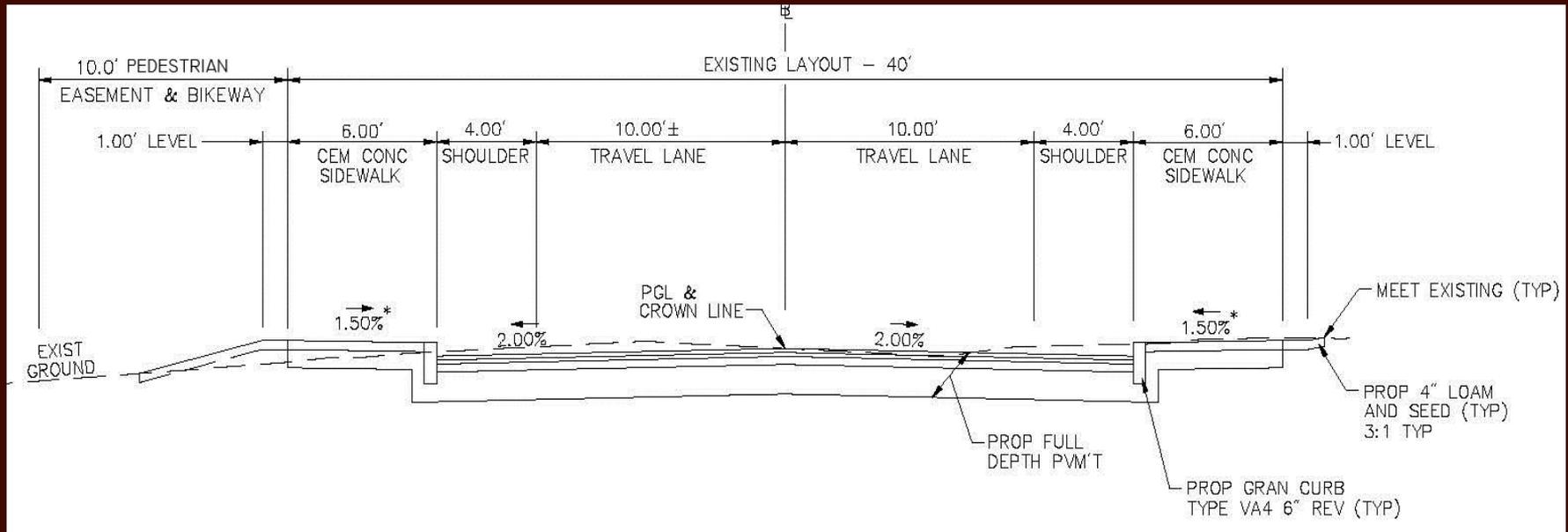
4. Shift roadway to north layout line, 10 ft sidewalk on south edge, 4 ft shoulders, 10ft travel lanes
5. Input from MAPC Bicycle and Pedestrian program
6. Input from MassDOT Complete Streets Engineer



Rail to Trail



Option 1 Cross Section



Easement for 35% of project length











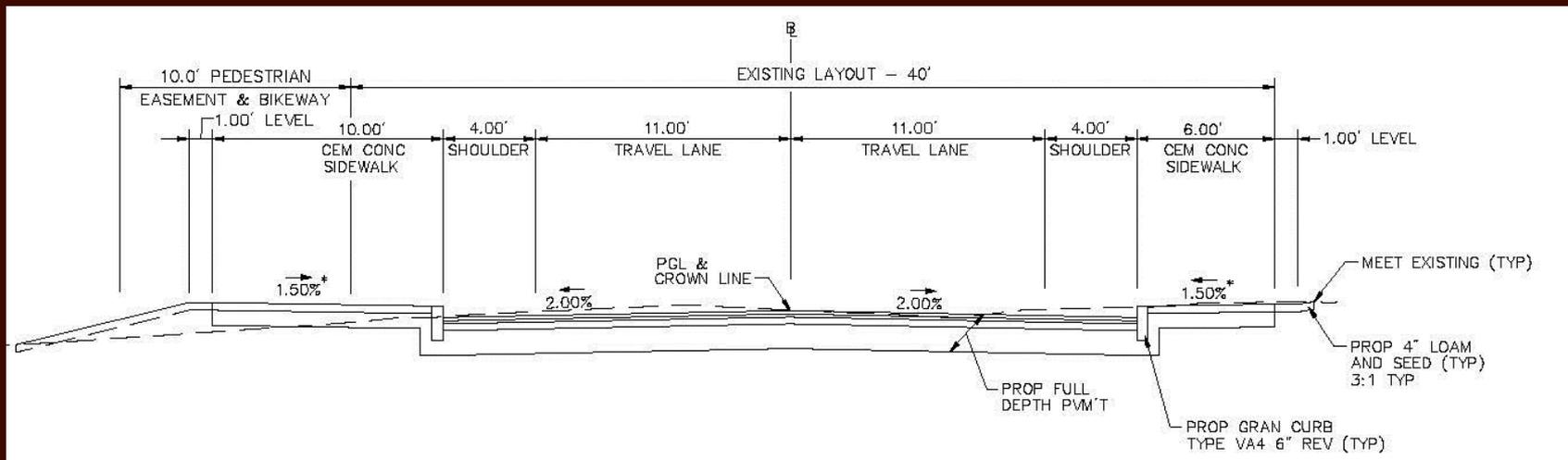


Option 2 Cross Section

- 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

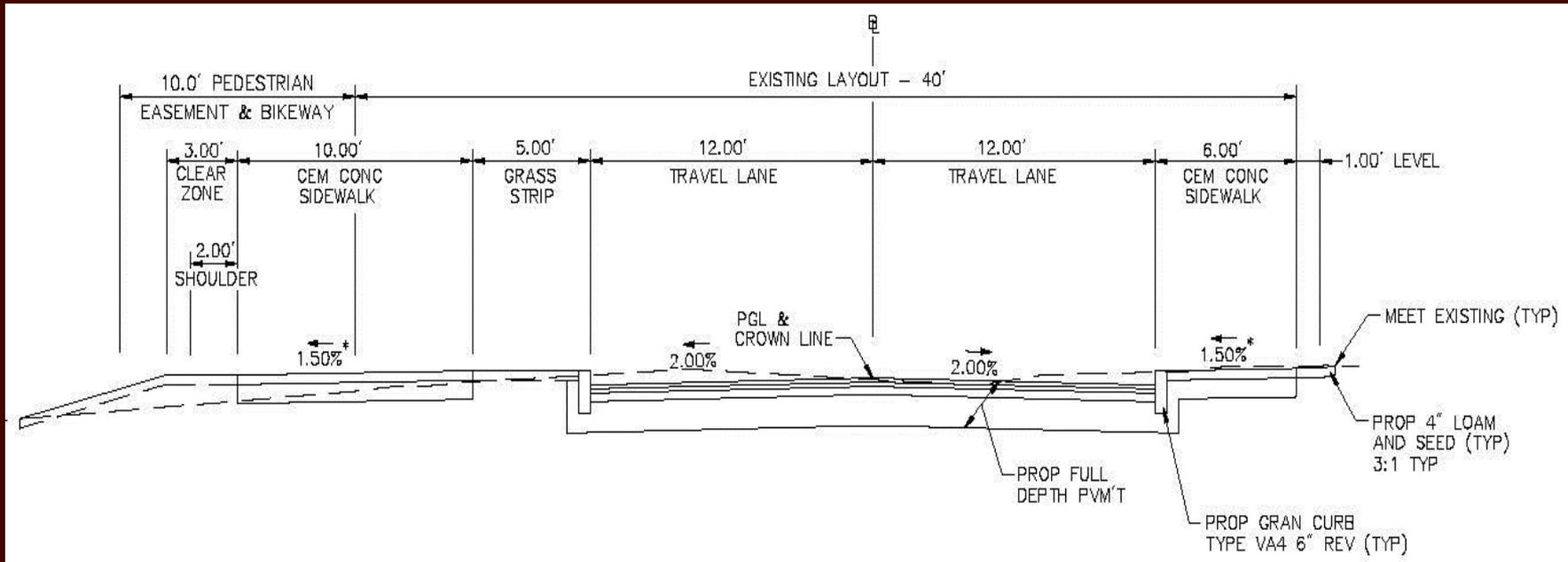
- Total width of road and sidewalks – 45 ft (w/ 3 ft clear zone)
- Share the road symbols on 12 ft lanes
- Will require land takings along entire road within project limits
- Tree impacts are higher than option 1
- Full depth roadway and stormwater reconstruction



Rail to Trail



Option 3 Cross Section



Easement for 35% of project length



Option 4 Cross Section

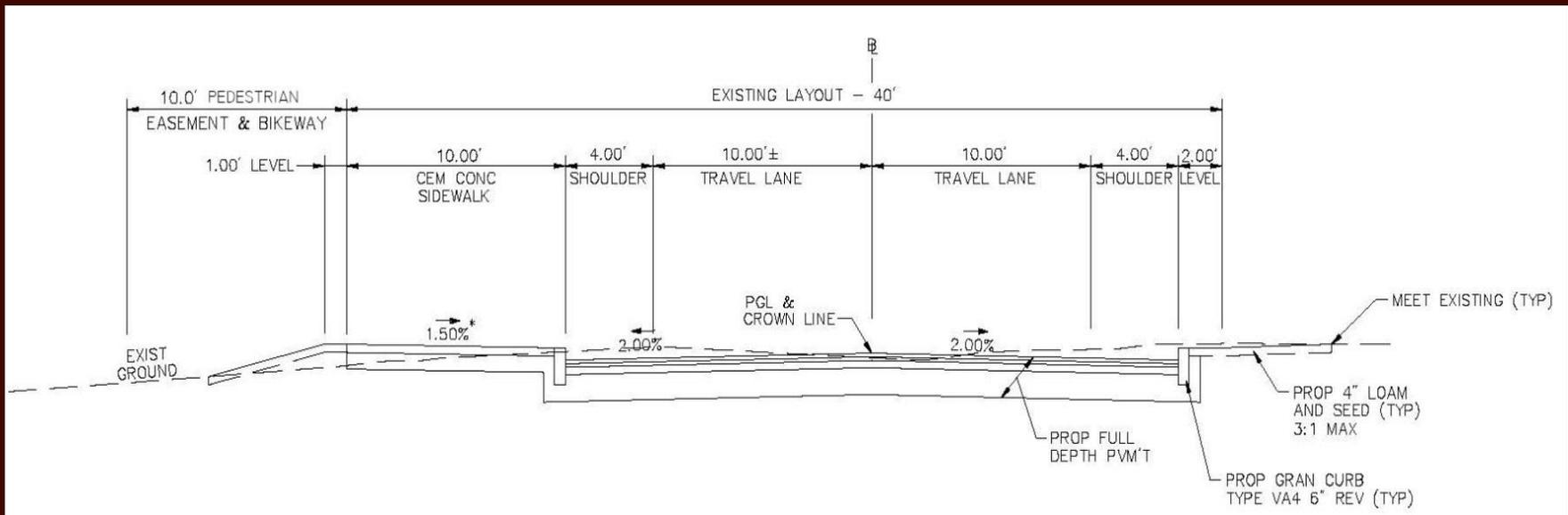
- Total width of roadway – 38 ft
- 4 ft shoulders
- Remove all trees on north side of roadway
- No land takings
- Full depth roadway construction and drainage upgrades
- Impacts Railroad Ave geometry with South Rd and Loomis St.



Rail to Trail



Option 4 Cross Section



Easement for 35% of project length

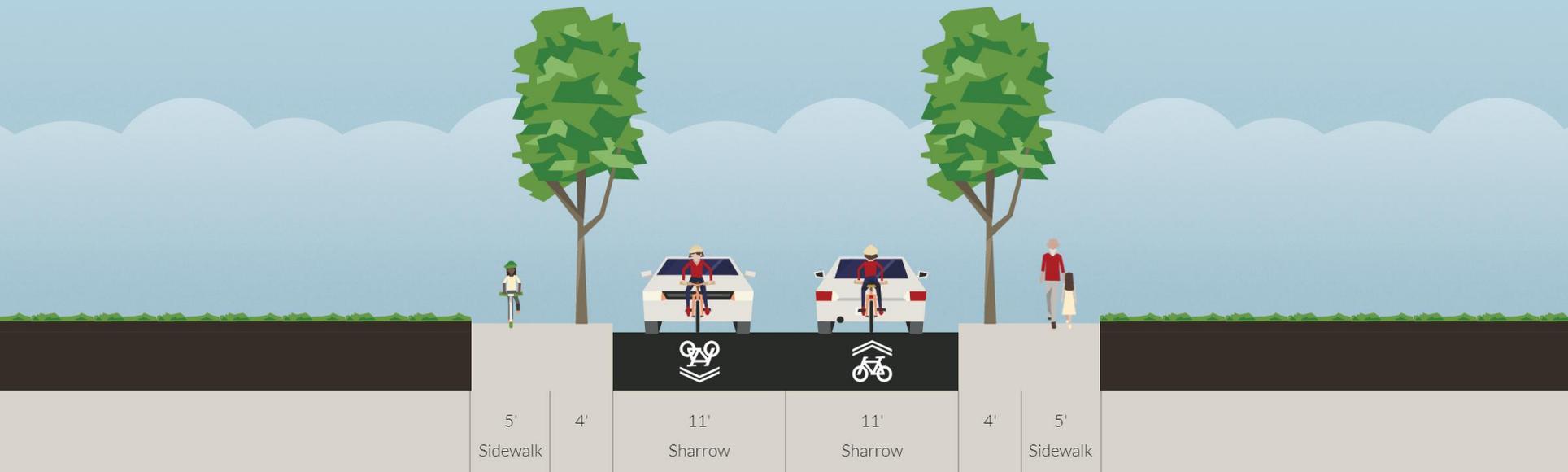


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Rail to Trail



Railroad Ave - Residential Section



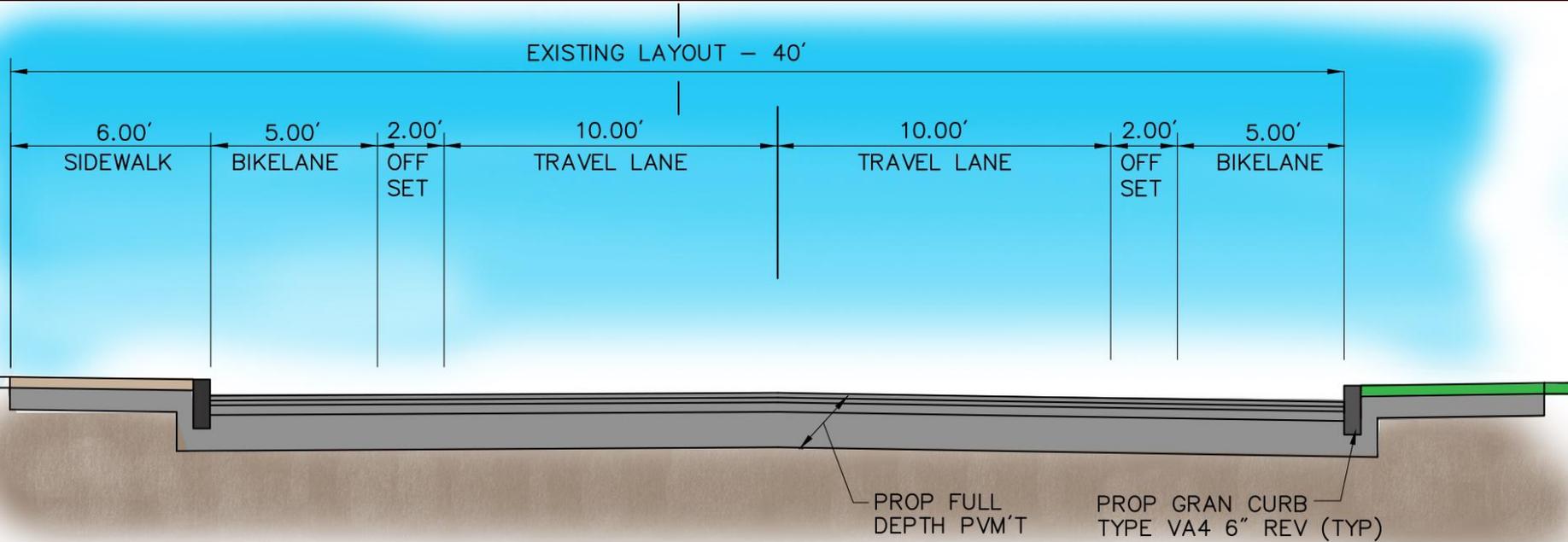
From MAPC Bike and Ped program





Minuteman West Bikeway

Rail to Trail



SOUTH ROAD TO HIGHLAND AVE

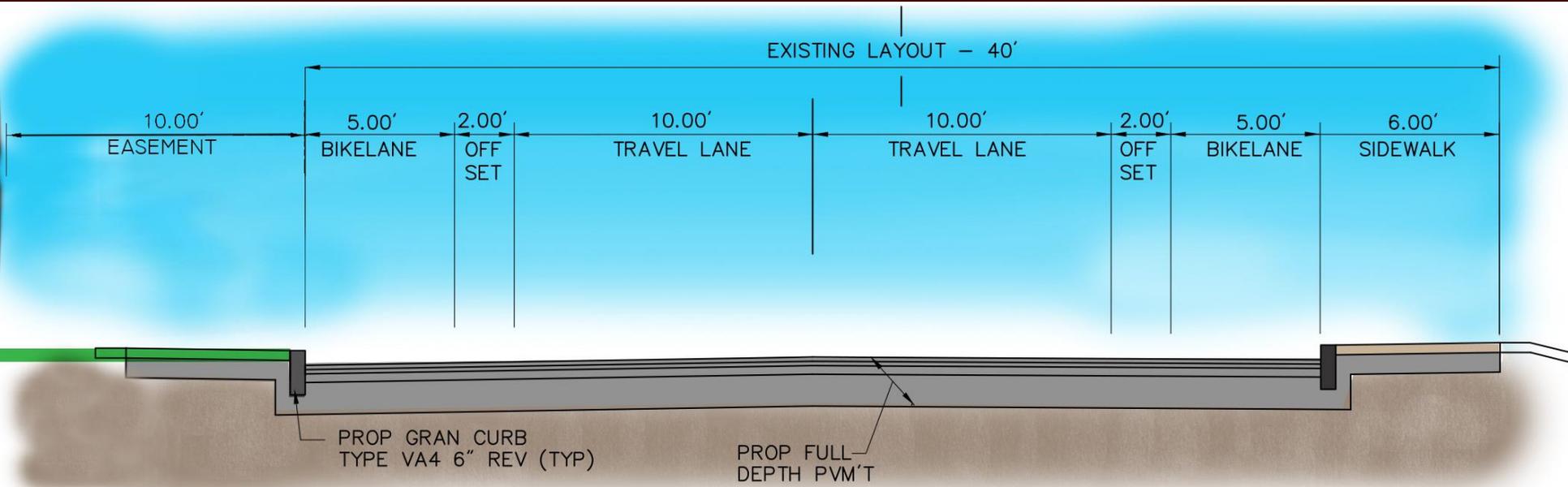
From MassDOT Complete Streets Engineer





Minuteman West Bikeway

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HIGHLAND AVE TO BIKEPATH PARKING

From MassDOT Complete Streets Engineer





Minuteman West Bikeway

Rail to Trail



Questions and Comments

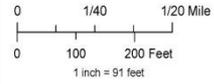


Elm Brook Alternative Option

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

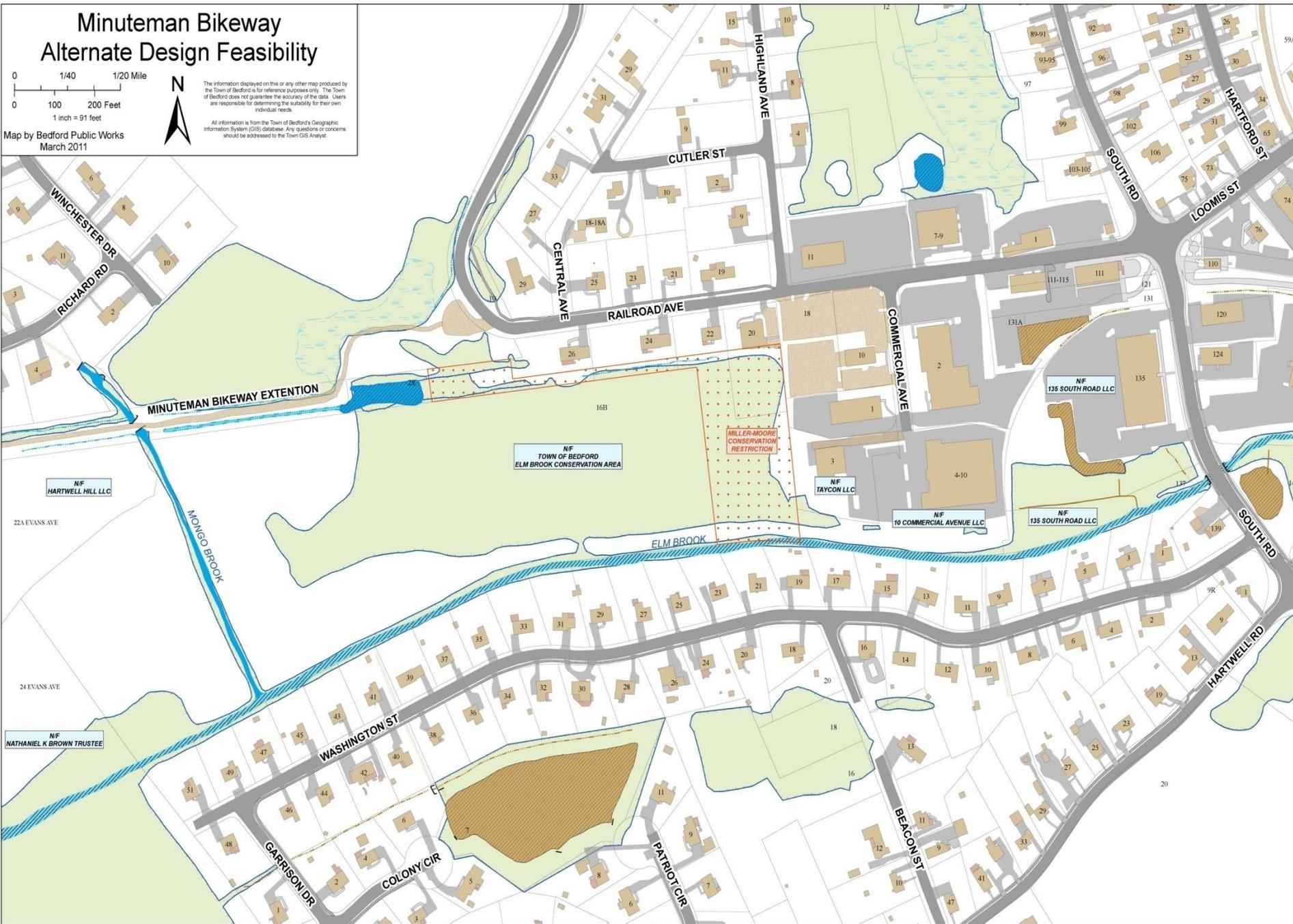
Minuteman Bikeway Alternate Design Feasibility



The information displayed on this or any other map produced by the Town of Bedford is for reference purposes only. The Town of Bedford does not guarantee the accuracy of the data. Users are responsible for determining the suitability for their own individual needs.

All information is from the Town of Bedford's Geographic Information System (GIS) database. Any questions or concerns should be addressed to the Town GIS Analyst.

Map by Bedford Public Works
March 2011





Moore and Miller Pedestrian Easement on Rail Road 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)

N/P
GOLDEN CURVE
REALTY CORP
BK. 11841 PG. 334
PLAN 539 OF 1970
BK. 11841 PG. 152

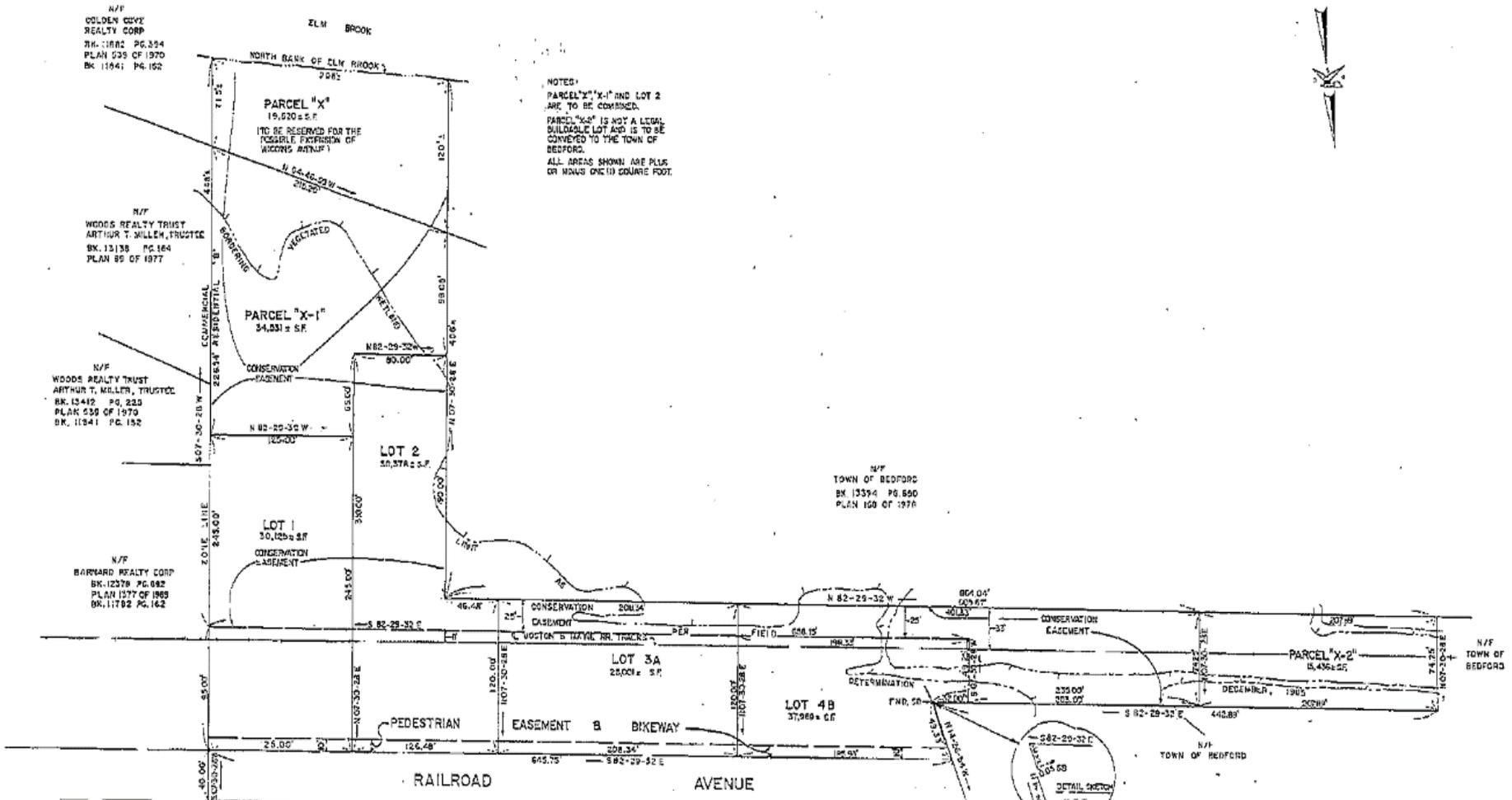
N/P
WOODS REALTY TRUST
ARTHUR T. MILLER, TRUSTEE
BK. 13138 PG. 164
PLAN 89 OF 1977

N/P
WOODS REALTY TRUST
ARTHUR T. MILLER, TRUSTEE
BK. 13412 PG. 223
PLAN 539 OF 1979
BK. 11841 PG. 152

N/P
BARBARA REALTY CORP
BK. 12378 PG. 682
PLAN 1277 OF 1969
BK. 11792 PG. 142

NOTES:
PARCELS "X" AND LOT 2
ARE TO BE CONVEYED.
PARCEL "X-2" IS NOT A LEGAL
BUILDABLE LOT AND IS TO BE
CONVEYED TO THE TOWN OF
BEDFORD.
ALL AREAS SHOWN ARE PLUS
OR MINUS ONE (1) SQUARE FOOT.

N/P
TOWN OF BEDFORD
BK. 13394 PG. 690
PLAN 100 OF 1978



HIGHLAND AVENUE

I HEREBY CERTIFY TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF THAT:

- 1) THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTRARS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.
- 2) THIS PLAN SHOWS THE PROPERTY LINES AND THE LINES OF EXISTING OWNERSHIPS, AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY COMPLETED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

MAR 5 1981 *Donald A. Francis*
DATE REGISTERED PROFESSIONAL LAND SURVEYOR



REFERENCE:

MIDDLESEX REGISTRY OF DEEDS
SOUTH DISTRICT
BOOK 11473 PAGE 22-135
* 13559 * 35
* 19465 * 240
PLAN NO. 162 OF 1969
* 1233 * 1963
* 821 * 1966
* 891 * 1991

PLAN OF LAND
IN
BEDFORD, MASS.
(MIDDLESEX COUNTY)
PREPARED FOR: MILLER - MOORE
SCALE: 1" = 40'
MARCH 5, 1981

BSC - BEDFORD
LAND SURVEYORS CIVIL ENGINEERS
16 NORTH ROAD BEDFORD, MASS.
A DIVISION OF BOSTON SURVEY CONSULTANTS

FEET 0 20 40 60 80 100
METERS 0 5 10 20 40

JOB NO. T-2571.01 DWG. NO. 1342.05A

Middlesex Registry of Deeds,
Southern District,
Cambridge, Massachusetts
Plan No. 162 of 19 91
Rec'd 3-19-81
at 11:45 AM on 3-19-81
Rec'd, bk 21023 Page 295
Attest *Angela B. Jones*
Register

102