



Department of Public Works – Engineering Division

Town Hall, 365 Boston Road, Billerica, Massachusetts 01821
PH: (978) 671-1300

Frederick W. Russell, PE, Director
Kelley J. Conway, PE, Town Engineer

April 8, 2025

Rebecca Tepper, Secretary
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: Article 97 – Replacement Land Waiver Request
Town of Billerica - Yankee Doodle Bike Path

Dear Secretary Tepper:

In accordance with the provisions of M.G.L. c. 3, § 5A, the Town of Billerica respectfully requests a waiver from the replacement land requirement associated with the construction of the Yankee Doodle Bike Path across land subject to Article 97.

The subject land is currently under the care and custody of the Town of Billerica Conservation Commission and the Town seeks to execute agreements between the Select Board and the Conservation Commission for temporary construction access and permanent easements to facilitate construction and maintenance of the bike path and related appurtenances.

It is important to note that the proposed land disposition involves a transfer between public entities, and there is no change in the use of the land. Therefore, the Town respectfully requests that the requirement for replacement land be waived in this instance.

Description of Article 97 Land:

The Yankee Doodle Bike Path project impacts three (3) properties under the jurisdiction of the Billerica Conservation Commission, subject to Article 97. These properties are located within the Shady Hill and The Fields Conservation Lands and are described as follows:

1. The Fields – Assessor’s Parcel 78-282-1-1
Legal Reference: Bk 3851/Pg 267, Plan Bk 157, Plan 101
Size: 31.1 acres

2. The Fields – Assessor’s Parcel 87-249-2
Legal Reference: Bk 10217/Pg 131, Plan Bk 151, Plan 8
Size: 2.56 acres
3. Shady Hill – Parcel 87-258-1
Legal Reference: Bk 2285/Pg 656
Size: 4.39 acres

These properties are situated west of Middlesex Turnpike, bordered by industrial properties to the north, Route 3 to the west, and abutting conservation and residential properties to the south and east. The affected properties primarily consist of a mix of woodland and vegetated wetlands, with an abandoned railroad bed traversing the property. Existing walking/biking trails also traverse these parcels. The alignment of the former Boston and Maine Railroad is noted on the attached “Plan of Land in Billerica Mass.” prepared for William J. Callahan (Scale 1” = 100’) prepared by BSC Bedford.

Project Description:

The Town of Billerica, in collaboration with the Massachusetts Department of Transportation (MassDOT), is advancing the Yankee Doodle Bike Path project. This multi-use, non-motorized, accessible path is proposed to be 10 feet wide and will connect the Narrow-Gauge Trail in Bedford to the Billerica Memorial High School.

The project will be implemented in two phases:

- Phase 1: Extending from the Bedford Town line to the intersection of Concord Road and Middlesex Turnpike.
- Phase 2: Continuing from Concord Road to the Billerica Memorial High School.

The approximately 4-mile bike path will provide a vital transportation link from Billerica to Arlington, connecting the Minuteman Bikeway in Bedford via the Narrow-Gauge Bikeway. It will also enhance access to educational, recreational, and conservation areas in the southern part of town.

The path will follow the former railroad bed and existing trails to minimize environmental impacts. Proposed activities in the Conservation Lands include:

- The Fields: Construction of the shared use path, a permeable pavement parking lot, grass swales, loam and seed shoulders, wood railings, grading, clearing, grubbing, and installation of erosion control barriers.

- Shady Hill: Construction of a compensatory floodplain storage area, loam and seed, slope grading, clearing, grubbing, and installation of erosion control barriers.

Agreements for temporary construction access areas and permanent easements are necessary for construction and future maintenance. These areas have been minimized to the maximum extent practicable after review and coordination with MassDOT.

For reference, an *Overview Summary Plan* has been provided showing the proposed locations of the permanent easements and temporary construction access areas on the Conservation Commission properties, as well as a copy of the detailed *Preliminary Right of Way Plans* showing the individual easement and temporary construction access areas.

Alternatives Analysis:

The *Alternatives Analysis* demonstrates that no substantially equivalent route exists that avoids or minimizes impacts to the subject land. The selected route utilizes the existing railroad bed, aligning with existing trails to minimize environmental impacts while providing the most feasible connection to the regional bike path network.

Conclusion:


The Town's acquisition of the property was aligned with the goal of promoting natural resources, and the basic infrastructure for the bike path – the former railroad bed – was already in place at the time of acquisition. The development of the path will enhance public access along existing trails without significantly altering or disturbing the surrounding natural resources, in keeping with the Town's original purpose for acquiring the land. Furthermore, the proposed land disposition involves a transfer between public entities, with no change in the land's use.

Attached please find the following documents to aid in review and consideration of this waiver request:

- GIS Locus Map
- Deeds and Plans of Land for Article 97 Land
- Overview Summary Plan
- Construction/Right of Way Plan
- Alternatives Analysis

Thank you for your consideration of this request. Should you require further information or clarification, please do not hesitate to contact Kelley Conway in my office.

Sincerely,



Frederick Russell, PE
Director of Public Works



FRENCH STREET

MIDDLESEX TURNPIKE

PEREGRINE AVENUE

WATER STREET

THISTLE LANE

DOLAN ROAD

STEARNS LANE

HATTIE LANE

COLD SPRING ROAD

CANTERBURY STREET

DEERFIELD STREET

GARRISON STREET

FEDERAL STREET

ALYSSUM DRIVE

NUTTINGS LANE

SHADY HILL AVENUE

78-282-1-1

87-258-1

87-249-2

CONCORD ROAD

U.S. HIGHWAY ROUTE 3

BK38517

80273

MASSACHUSETTS QUITCLAIM DEED LONG FORM (INDIVIDUAL)

BK3851 PG 267

We, William J. Callahan & William J. Callahan, Jr., Trustees of the Fields Realty Trust V/D/T dated November 1, 1983, and recorded with Middlesex North Registry of Deeds in Book 2673, Page 604.

of Bedford, Middlesex

County, Massachusetts

being unmarried, for consideration paid, and in full consideration of One (\$1.00) Dollar

grants to the Town of Billerica, a Municipal Corporation duly established under the laws of the Commonwealth of Massachusetts with offices located with ~~quatriam~~ ~~corporate~~ in said Middlesex County at 15 Concord Road in Billerica, Massachusetts. the land in

See attached Schedule A

See PL BK 157-101

Said real property is conveyed to said Town under the provisions of General Laws Chapter 40, Section 8-C, as it may hereafter be amended, to be managed and controlled by the Conservation Commission of the Town of Billerica for the promotion, development and protection of the natural resources of said Town.

1985 DEC 24 11:18:13

BK88517

PG 268

SCHEDULE A

A certain parcel of land, situated in the Town of Billerica, County of Middlesex, Commonwealth of Massachusetts, known as Lot B-1, as shown on a plan entitled "Plan of Land in Billerica, Mass., (Middlesex County), prepared for William J. Callahan, Scale: 1"=100', November 8, 1986, BSC-Bedford, Land Surveyors, Civil Engineers, 18 North Road, Bedford, Mass." and more particularly described as follows:

- Beginning: at the northwesterly corner of said parcel, same point being on the westerly sideline of the Middlesex Turnpike and at Lot B-2 as shown on said plan;
- Thence running, along the westerly sideline of the Middlesex Turnpike, S40°-03'-12"E Fifty-six and 63/100 (56.63) feet to a point;
- Thence turning and running S65°-12'-50"W Sixty and 31/100 (60.31) feet to a point;
- Thence turning and running S00°-19'-50"W Seven hundred seventy-two and 84/100 (772.84) feet to a point at a stonewall;
- Thence turning and running S19°-26'-13"E One hundred thirty-six and 91/100 (136.91) feet to a point;
- Thence turning and running S07°-06'-42"E One hundred twenty one and 22/100 (121.22) feet to a point;
- Thence turning and running S08°-51'-52"E One hundred forty-one and 25/100 (141.25) feet to a point;
- Thence turning and running S02°-59'-28"E Ninety-Two and 71/100 (92.71) feet to a point;
- Thence turning and running S13°-43'-11"W One hundred twenty-two and 34/100 (122.04) feet to a point;

BK38517

p. 269

- Thence turning and running $S25^{\circ}-06'-28''W$ One hundred twelve and $16/100$ (112.16) feet to a point;
- Thence turning and running $S06^{\circ}-51'-24''W$ Sixty-eight and $54/100$ (68.54) feet to a point;
- Thence turning and running $S06^{\circ}-26'-34''W$ One hundred nine and $71/100$ (109.71) feet to a point last eight (8) courses being by a stonewall;
- Thence turning and running $S15^{\circ}-26'-29''W$ Four and $48/100$ (4.48) feet to a point;
- Thence turning and running $S30^{\circ}-19'-50''W$ Four hundred eighty-one and $80/100$ (481.80) feet to a point of curvature;
- Thence turning and running by a curved line having a length of Five hundred twenty-nine and $76/100$ (529.76) feet and a radius of Nine hundred ninety-nine and $14/100$ (999.14) feet to a point of tangency;
- Thence turning and running $S30^{\circ}-42'-35''W$ Three hundred fifty-three and $16/100$ (353.16) feet to a point on the easterly sideline of Route 3;
- Thence turning and running along the easterly sideline of Route 3 $N26^{\circ}-30'-40''W$ Thirty-nine and $25/100$ (39.25) feet to a point;
- Thence turning and running $N30^{\circ}-42'-35''$ Three hundred thirty-one and $91/100$ (331.91) feet to a point of curvature;
- Thence turning and running by a curved line having a length of Five hundred twelve and $26/100$ (512.26) feet and a radius of Nine hundred sixty-six and $14/100$ (966.14) feet to a point of tangency;
- Thence turning and running $N20^{\circ}-19'-50''E$ One hundred forty (140.00) feet to a point;
- Thence turning and running southwesterly Six hundred eighty (680) feet, more or less, to a point;

To 270

- Thence turning and running N26°-30'-40"W Two hundred (200.00) feet to a point;
- Thence turning and running S63°-29'-20"W Ninety (90.00) feet to a point on the easterly sideline of Route 3;
- Thence turning and running along the easterly sideline of Route 3, N26°-30'-40"W Eight hundred seventy and 50/100 (870.50) feet to a point;
- Thence turning and running N52°-44'-20"E Two hundred eighty-eight and 59/100 (288.59) feet to a point;
- Thence turning and running N30°-22'-41"E One thousand twenty-nine and 68/100 (1,029.68) feet to a point at Lot B-2;
- Thence turning and running S31°-51'-44"E One hundred sixty-nine and 62/100 (169.62) feet to a point;
- Thence turning and running S89°-40'-10"E One hundred sixty-five (165.00) feet to a point;
- Thence turning and running N00°-19'-50"E Five hundred eighty-five (585.00) feet to a point;
- Thence turning and running N30°-22'-41"E One hundred one and 68/100 (101.68) feet to the point of beginning.

Containing: 31.10 acres, more or less.

Said parcel is subject to easements and restrictions of record and as shown on said plan. Drainage rights, on and over said parcel are reserved by grantor, heirs and assigns.

Said real property is conveyed to said Town under the provisions of General Laws Chapter 40, Section 8-C, as it may hereafter be amended, to be managed and controlled by the Conservation Commission of the Town of Billerica for the promotion, development and protection of the natural resources of said Town.

BK38517

PG 271

Witness our hand and seal this 24 day of December 1986

William J. Callahan, Trustee as aforesaid
William J. Callahan, Jr., Trustee as aforesaid

The Commonwealth of Massachusetts

Middlesex

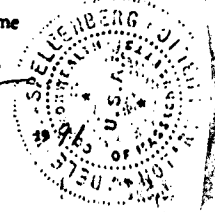
ss.

December 24 19 86

Then personally appeared the above named William J. Callahan & William J. Callahan, Jr. Trustees as aforesaid and acknowledged the foregoing instrument to be their free act and deed, before me

Adelle W. Spollenberg
Notary Public

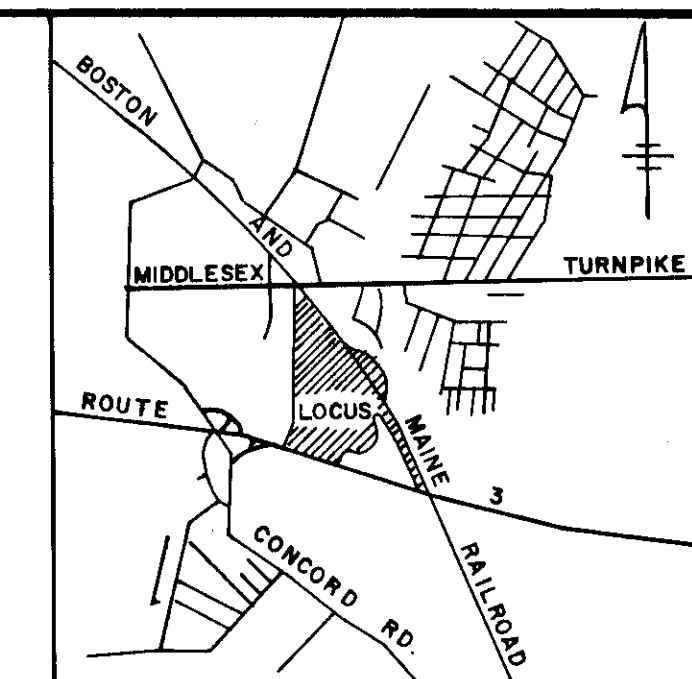
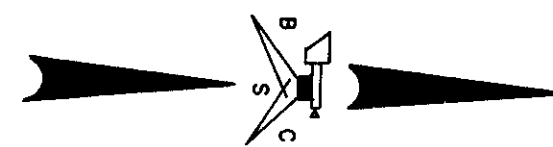
My commission expires Oct 31



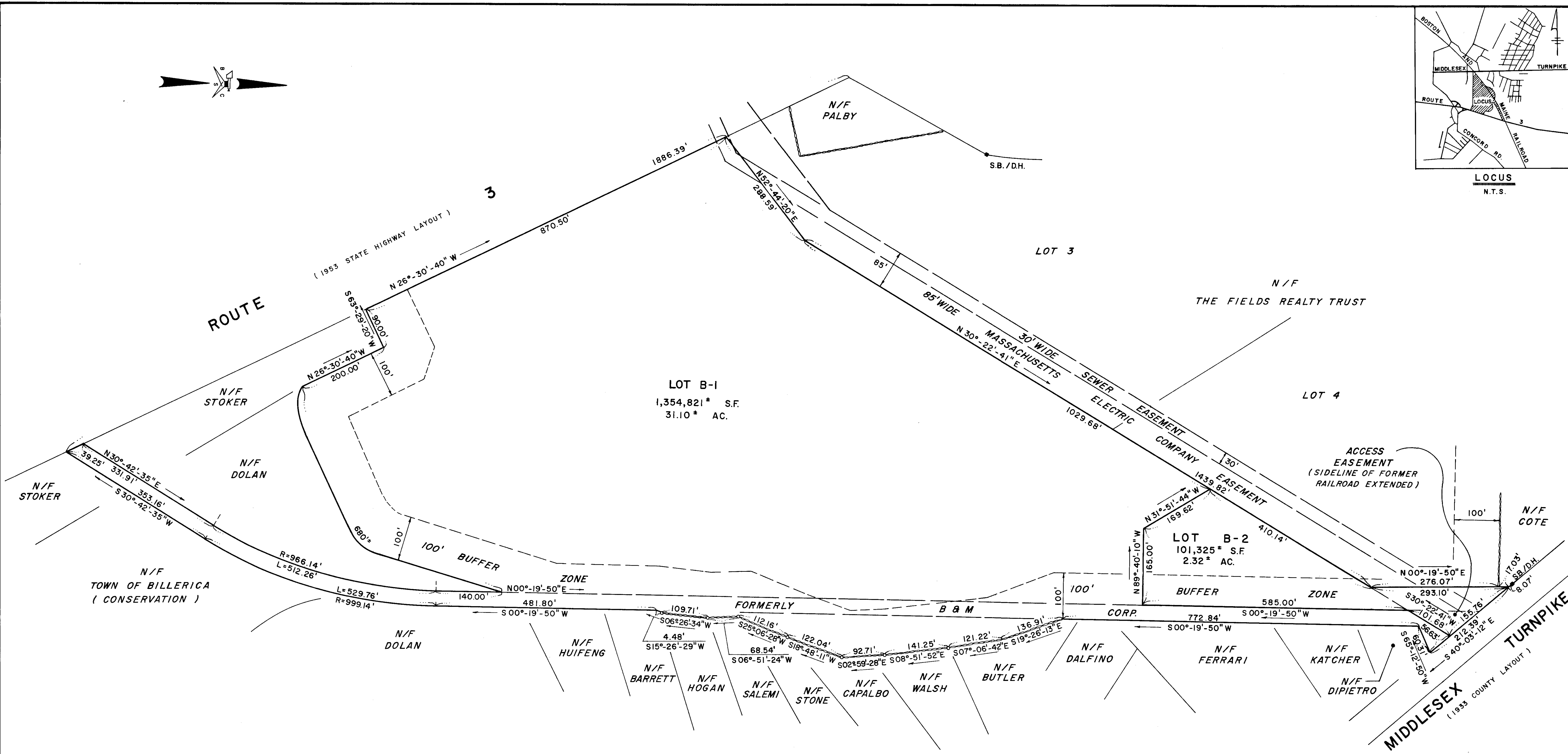
WE, the undersigned, being the Board of Selectmen of the Town of Billerica, pursuant to the provisions of Section (8C) of Chapter 40 of the Massachusetts General Laws, do hereby approve the within conveyance.

BILLERICA BOARD OF SELECTMEN

Arthur L. Doyle
Gordon C. Brainerd
[Signature]
David H. [Signature]



LOCUS
N.T.S.



APPROVAL UNDER THE SUBDIVISION CONTROL LAW NOT REQUIRED.
NO DETERMINATION OF COMPLIANCE WITH ZONING REQUIREMENTS
HAS BEEN MADE OR IS INTENDED.

TOWN OF BILLERICA PLANNING BOARD

DATE: December 1, 1986
SIGNED: Allen Sargent CLERK

REFERENCE

MIDDLESEX REGISTRY OF DEEDS NORTH DISTRICT			
DEED BOOK	2391	PAGE	371
PLAN BOOK	108	PLAN	33
PLAN BOOK	133	PLAN	118

RECORD OWNER
THE FIELDS REALTY TRUST

ZONING
INDUSTRIAL

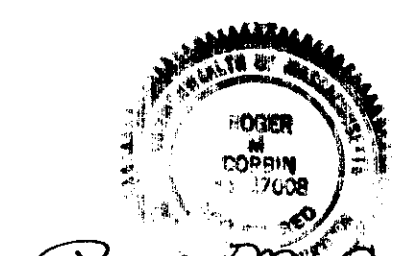
NOTE: LOT B-1 TO BE CONVEYED
TO THE TOWN OF BILLERICA
AND IS NOT A LEGAL BUILDING LOT.

APPROVED	Dec 24	86
FILED		
NOTED		
RECORDED	157	101

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

- THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH
THE RULES AND REGULATIONS OF THE REGISTERS OF
DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

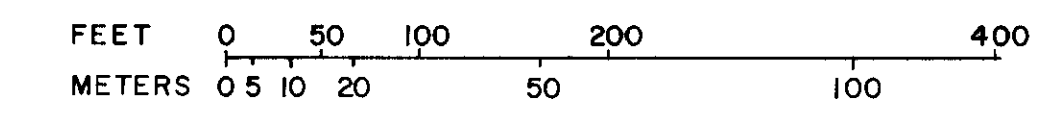
DATE: Dec. 01, 1986 Roger M. Colvin
PROFESSIONAL LAND SURVEYOR



PLAN OF LAND IN BILLERICA MASS.

(MIDDLESEX COUNTY)
PREPARED FOR WILLIAM J. CALLAHAN
SCALE: 1" = 100'
NOVEMBER 8, 1986

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



Middlesex North Registry of Deeds - 20/20 Perfect Vision i2 Document Detail Report

Current datetime: 4/20/2022 12:01:10 PM

Doc#	Document Type	Town	Book/Page	File Date	Consideration
44848	DEED		10217/131	06/16/1999	0.00
Property-Street Address and/or Description					
SEE PL 151-8 SEE RECORD					
Grantors					
DOLAN JAMES F					
Grantees					
BILLERICA TOWN OF					
References-Book/Pg Description Recorded Year					
Registered Land Certificate(s)-Cert# Book/Pg					

QUITCLAIM DEED

I, JAMES F. DOLAN, of Chelmsford, Middlesex County, Massachusetts
FOR CONSIDERATION PAID, and in full consideration of One (\$1.00)
Dollar

GRANT TO The Town of Billerica, a Municipal Corporation duly
established under the laws of the Commonwealth of Massachusetts with
offices located at 365 Boston Road, Billerica, Middlesex County,
Massachusetts

WITH QUITCLAIM COVENANTS

the land in said Billerica, Middlesex County, Massachusetts, shown
on a plan of land entitled "Compiled" Plan of Land in Billerica, MA.,
dated October, 1985, Prepared for James Dolan, Richard J. Ludwig &
Assoc., which parcel is shown on said plan as Assessor's Map
87-249-2, recorded with Middlesex North District Registry of Deeds,
Plan Book 151, Plan 8, bounded and described as follows:

Property Address: 200 Main St, Billerica

05/16/1999 02:05:05 44848 46.00 6

Said parcel of land containing 2.56 acres, more or less, according to
said plan.

Being a portion of the premises conveyed to the Grantor by James F.
Dolan, Francis J. Dolan, Raymond T. Dolan and Stephen P. Dolan, by
deed dated November 21, 1985, recorded with said Registry of Deeds,
Book 3752, Page 180.

Said real property is conveyed to said Town under the provisions of
M.G.L. Chapter 40, Section 8C, as it may hereafter be amended and
of Article 49 of the Massachusetts Constitution to be managed and
controlled by the Conservation Commission of the Town of Billerica
for the promotion and development of the natural resources and for
the protection of the watershed resources of said Town.

WITNESS my hand and seal this 24th day of December 1998.

James F. Dolan
James F. Dolan

The Commonwealth of Massachusetts

Middlesex, ss.

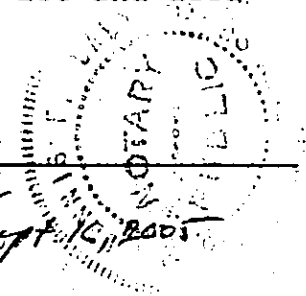
December 24th, 1998

Then personally appeared the above named James F. Dolan and acknowledged the foregoing instrument to be his free act and deed before me,

Reinis T. Kelly

Notary Public

My Commission Expires: Sept 10, 2005



We, the undersigned, being the Board of Selectmen of the Town of Billerica, MA, pursuant to the provisions of Section 8C of Chapter 40 of the Massachusetts General Laws, do hereby approve the within conveyance.

BILLERICA BOARD OF SELECTMEN

Ellen Day Rawlings

Robert M. Correnti
Peter M. Coppinger

The Commonwealth of Massachusetts

On this 17th day of May, 1999, before me personally appeared Ellen Day Rawlings, Robert M. Correnti and Peter M. Coppinger

to me known to be the persons described in and who executed the foregoing instrument and acknowledged that he/she executed the same as his/her free act and deed.

Julie M. Jones
Notary Public

July 29, 2001
My Commission expires

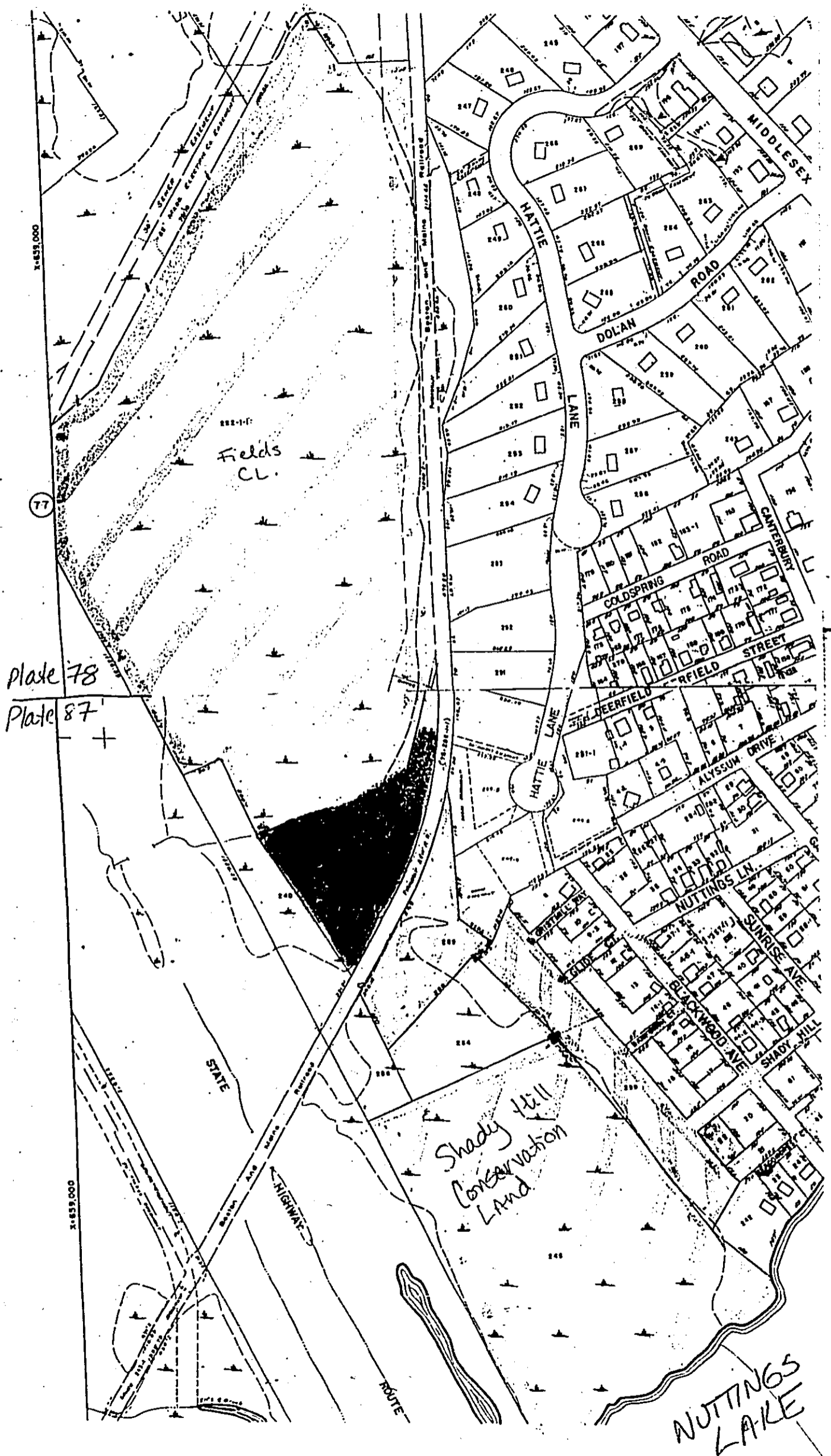

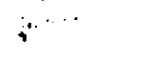


Plate 78
 Plate 87

 Conservation Land

 Dolan donation

(Plate 78 and
 79)

B I 0 2 1 7 P 1 3 5

ACCEPTANCE OF DEED

The undersigned Conservation Commission of the Town of Billerica hereby accepts the foregoing deed from James Dolan, for conservation purposes under G.L. c.40, §8C, and every other authority appertaining, this 13 day of January, 1999.

CONSERVATION COMMISSION

[Signature]
Judith Amy Amelotte
Diane DePaso
JoAnne Giovino
Jonathan Lyna

Norman Beloin Jr., Junith Amelotte, Diane DePaso, JoAnne Giovino, Jonathan Lyna

COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

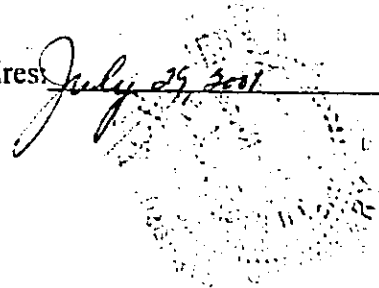
January 27, 1999, 199

Then personally appeared the above named Norman Beloin Jr. Commissioner, as aforesaid, and acknowledged the foregoing to be the free act and deed of the Billerica Conservation Commission, on behalf of the Town of Billerica, before me,

[Signature]

Notary Public

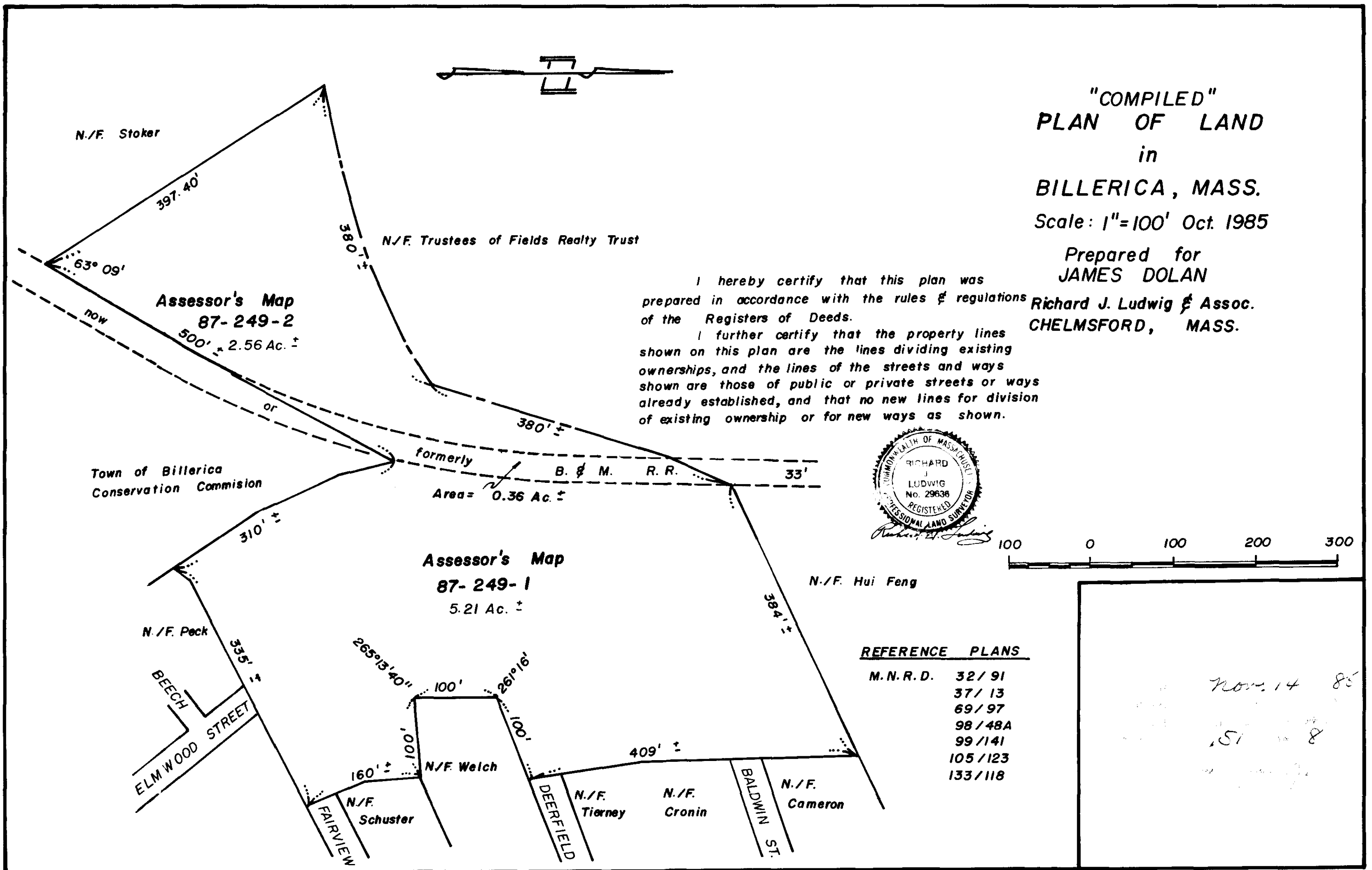
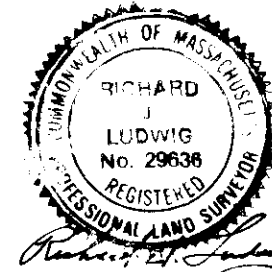
My commission expires July 29, 2001



"COMPILED"
 PLAN OF LAND
 in
 BILLERICA, MASS.
 Scale: 1"=100' Oct. 1985

Prepared for
 JAMES DOLAN
 Richard J. Ludwig & Assoc.
 CHELMSFORD, MASS.

I hereby certify that this plan was prepared in accordance with the rules & regulations of the Registers of Deeds.
 I further certify that the property lines shown on this plan are the lines dividing existing ownerships, and the lines of the streets and ways shown are those of public or private streets or ways already established, and that no new lines for division of existing ownership or for new ways as shown.



REFERENCE PLANS

M. N. R. D.	32 / 91
	37 / 13
	69 / 97
	98 / 48A
	99 / 141
	105 / 123
	133 / 118

Nov. 14 85
 151

Robert B. Innis, Phyllis V. Innis and Robert L. Innis, Trustees of the Virginia Realty Trust under a Declaration of Trust dated July 28, 1964 and recorded in Middlesex North District Registry of Deeds, Book 1662, Page 423

of

County, Massachusetts

being unmarried, for consideration paid, and in full consideration of \$5,000.00

grants to The Town of Billerica, a municipal corporation duly established under the laws of Massachusetts and situated in the County of Middlesex,

of 19 Concord Road, Billerica, Massachusetts

with quitclaim covenants

Two certain parcels of land situated in Billerica, Middlesex County, Massachusetts and thus bounded:

(Description and encumbrances, if any)

Parcel 1:

Beginning at a point at the Northwesterly corner of the granted premises and on the Southerly line of the Boston and Maine Railroad right-of-way;

THENCE in a general Northeasterly and Northerly direction, a distance of 549 feet, more or less, to a point;

THENCE turning and running in a general Southerly direction along land now or formerly of Dolan, a distance of 350 feet, more or less, to a point;

THENCE turning and running in a general Southwesterly direction along land now or formerly of Davis, Stewart and Suburban Land Co., Inc., a distance of 460 feet, more or less, to land now or formerly of Patterson;

THENCE turning and running Northerly by said Patterson land, a distance of 150 feet, more or less, to the point of beginning.

Containing approximately two (2) acres, more or less, and commonly referred to as the Dolan parcel.

Parcel 2:

Beginning at a point at the Northeasterly corner of the granted premises and at the Southeasterly corner of the premises described in Parcel 1 above;

THENCE running in a general Southeasterly direction, a distance of 875 feet, more or less, to a point;

THENCE turning and running in a general Southwesterly direction, a distance of 118.75 feet, more or less, to a point;

THENCE turning and running in a general Northwesterly direction a distance of 837.50 feet, more or less, to a point;

THENCE turning and running in a general Northeasterly direction, a distance of 150 feet, more or less, to the point of beginning.

Containing approximately two (2) acres more or less and commonly referred to as the Stewart parcel.

Being a portion of the premises described in a deed from Robert B. Innis to the grantors herein dated August 28, 1964 and recorded in said Registry, Book 1662, Page 417.

This conveyance is made subject to any and all easements and restrictions of record insofar as the same are now in force and applicable.

Said real property is conveyed to said Town under the provisions of General Laws, Chapter 40, Section 8-C as it may hereafter be amended, to be managed and controlled by the Conservation Commission of the Town of Billerica for the promotion and development of the natural resources and for the protection of the watershed resources of said Town.

MIDDLESEX 10574

040446



Witness our hands and seals this 9th day of Jan. 1978

VIRGINIA REALTY TRUST

Robert B. Innis, Trustee

Phyllis V. Innis, Trustee

Robert L. Innis, Trustee

The Commonwealth of Massachusetts

Middlesex, ss.

January 9, 1978

Then personally appeared the above named Robert B. Innis, Phyllis V. Innis and Robert L. Innis, TRUSTEES OF VIRGINIA Realty TRUST

and acknowledged the foregoing instrument to be their free act and deed, before me

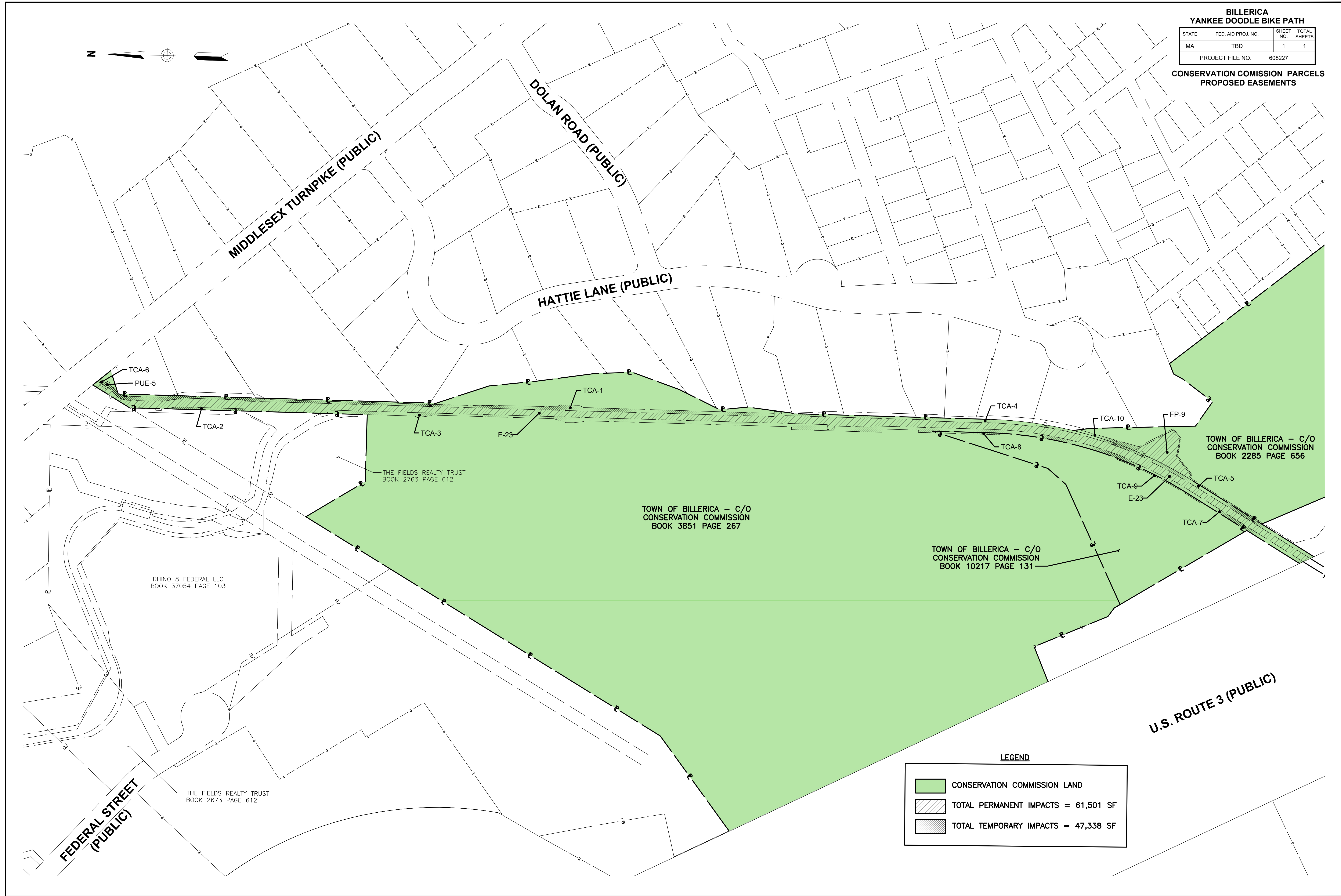
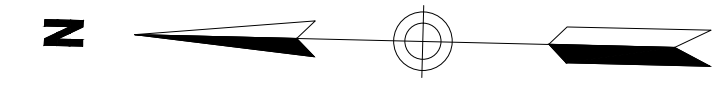
Notary Public seal for John J. Crovo, My Commission Expires SEPTEMBER 25, 1983

Rec Jan 11 1978 2:11PM #534

**BILLERICA
YANKEE DOODLE BIKE PATH**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TBD	1	1
PROJECT FILE NO.		608227	

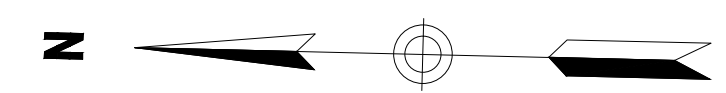
**CONSERVATION COMMISSION PARCELS
PROPOSED EASEMENTS**



LEGEND

	CONSERVATION COMMISSION LAND
	TOTAL PERMANENT IMPACTS = 61,501 SF
	TOTAL TEMPORARY IMPACTS = 47,338 SF

**PRELIMINARY RIGHT OF WAY
ARTICLE 97 IMPACTS**



BEGIN PROP STATE HIGHWAY
ALTERATION NO. 9031 (SECTION 2)

Town of Billerica Conservation Commission - Deed Book 2285 Page 656

Permanent Easements		Temporary Construction Areas	
Parcel	Area (sf)	Parcel	Area (sf)
FP-9	6,308	TCA-10	2,471
Total:	6,308	Total:	2,471

TOWN OF BILLERICA - C/O
CONSERVATION COMMISSION
BOOK 2285 PAGE 656
TOTAL PROPERTY
AREA=87,120 SF

TOWN OF BILLERICA - C/O CONSERVATION COMMISSION
BOOK 3851 PAGE 267

THE FIELDS REALTY TRUST
BOOK 2763 PAGE 612
TOTAL PROPERTY
AREA= 101,059 SF

TOWN OF BILLERICA - C/O
CONSERVATION COMMISSION
BOOK 3851 PAGE 267
TOTAL PROPERTY
AREA= 1,354,716 SF

Town of Billerica Conservation Commission - Deed Book 3851 / Page 267

Permanent Easements		Temporary Construction Areas	
Parcel	Area (sf)	Parcel	Area (sf)
E-23	55,089	TCA-1	12,110
PUE-5	104	TCA-2	985
Total:	55,193	TCA-3	17,362
		TCA-4	5,784
		TCA-5	3,904
		TCA-6	156
		TCA-7	3,208
		Total:	43,509

TOWN OF BILLERICA - C/O
CONSERVATION COMMISSION
BOOK 10217 PAGE 131

Town of Billerica Conservation Commission - Deed Book 10217 Page 131

Permanent Easements		Temporary Construction Areas	
Parcel	Area (sf)	Parcel	Area (sf)
-	-	TCA-8	659
Total:	-	TCA-9	699
		Total:	1,358

RHINO 8 FEDERAL LLC BOOK
37054 PAGE 103
TOTAL PROPERTY
AREA=375,628 SF

THE FIELDS REALTY TRUST
BOOK 2673 PAGE 612
TOTAL PROPERTY
AREA=54,673 SF

ONNURI MISSION ALLIANCE
BOOK 38870 PAGE 208
TOTAL PROPERTY
AREA=121,184 SF

TOTAL PERMANENT:	61,501 sf
TOTAL TEMPORARY:	47,338 sf
TOTAL COMBINED:	108,839 sf

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

BILLERICA YANKEE DOODLE BIKE PATH			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TBD	1	52
PROJECT FILE NO.		608227	

**PRELIMINARY RIGHT OF WAY
TITLE SHEET & INDEX**

PLAN AND PROFILE OF YANKEE DOODLE BIKE PATH

IN THE TOWN OF
BILLERICA
MIDDLESEX COUNTY

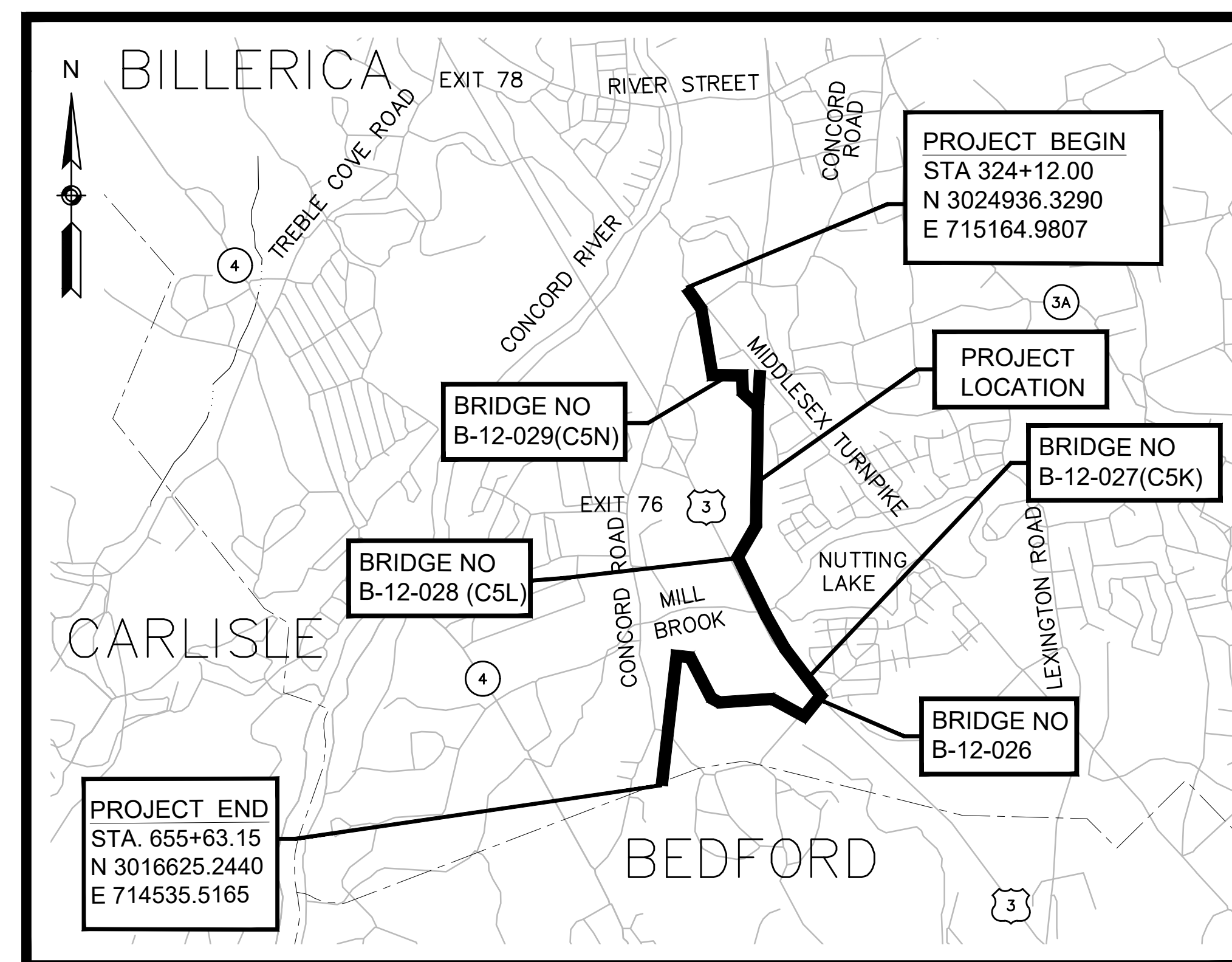
PRELIMINARY RIGHT OF WAY PLANS

FEDERAL AID PROJECT NO. TBD

THESE PLANS ARE SUPPLEMENTED BY THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.

SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2	LEGEND, ABBREVIATIONS AND PROJECT DESCRIPTION
3-6	TYPICAL SECTIONS
7-23	CRITICAL PROFILES
24-29	PARCEL SUMMARY SHEETS
30-34	LOCATION PLANS
35-52	PROPERTY PLANS

INDEX



THE LAYOUT LINES, AS REPRESENTED ON THE PRELIMINARY RIGHT OF WAY PLANS, ARE BASED UPON AN INSTRUMENT SURVEY THAT MEETS 250 CMR 6.00 AND ARE SUITABLE TO BE USED FOR A RECORDABLE PLAN, AND MEET THE STANDARDS SET FORTH IN BOTH 250 CMR 6.01 AND 6.02.

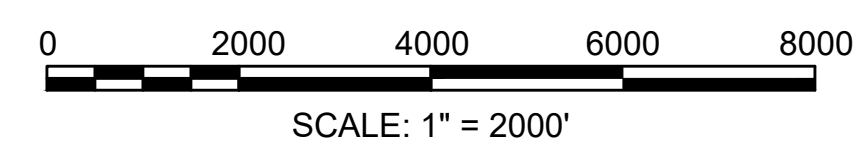
OWNERSHIP WITHIN THE RAILROAD RIGHT OF WAY WAS REVIEWED BY THE TOWN COUNSEL AND IS SHOWN BASED ON THEIR FINAL DETERMINATION.

DATE	DESCRIPTION	REV #
02-20-2025	100% REV1 SUBMISSION ADDED PARCELS: E-71 ALTERED PARCELS: 23-EG-1, E-15, TE-75 DELETED PARCELS: PUE-8	10
01-24-2025	100% REV1 SUBMISSION	9
12-19-2024	100% REV1 SUBMISSION	8
10-09-2024	100% SUBMISSION	7
09-11-2024	100% SUBMISSION	6
07-26-2024	100% SUBMISSION	5
04-19-2024	100% SUBMISSION	4
11-22-2023	REV 75% SUBMISSION	3
08-15-2022	75% SUBMISSION	2
02-02-2018	INITIAL PROW SUBMISSION	1

DATE _____ SCOTT R. JALBERT

BASE MAP NOTES

- THE SURVEY BASE PLAN WAS PREPARED BY HANCOCK ASSOCIATES IN APRIL 2014 AND SUPPLEMENTED BY HANCOCK ASSOCIATES IN JANUARY 2016, SUMMER AND WINTER OF 2017, APRIL 2023, AND SEPTEMBER 2024.
- THE MOST RECENT SITE VISIT WAS COMPLETED IN OCTOBER 2024 TO VERIFY THAT THE EXISTING CONDITIONS SHOWN ON THE PLAN ARE THE CURRENT CONDITIONS IN THE FIELD.
- THE PROPERTY LINES SHOWN ON THE PLAN WERE COMPILED FROM DEEDS AND PLANS RECORD AND CERTIFIED BY SCOTT R. JALBERT, A PLS IN DIRECT CHARGE AND SUPERVISION OF THE SURVEY BASE PLAN.
- LAYOUT LINES ARE UNAMBIGUOUSLY RETRACEABLE AND DEPICTED ACCURATELY ON THE RIGHT OF WAY PLANS BY AN ON-THE-GROUND SURVEY PERFORMED IN ACCORDANCE WITH 250 CMR 6.01 AND 6.02
- THE OWNERS HAVE BEEN CHECKED AND UPDATED PER THE REGISTRY OF DEEDS AS OF OCTOBER, 2024.
- THE PREQUALIFIED SURVEYOR UNDER THE S3 CATEGORY IS PARTICIPATING IN THE DEVELOPMENT OF THE ROW PLANS. HANCOCK ASSOCIATES HAS VERIFIED HIGHWAY LAYOUT BASELINES AND SIDELINES, VERIFIED MUNICIPAL LAYOUTS, VERIFIED THAT ABUTTERS PROPERTY LINES ARE CREATED BASED ON RECORD DEEDS AND PLANS, VERIFIED CURRENT ABUTTERS OWNERSHIP INFORMATION, VERIFIED EXISTING PERMANENT EASEMENTS, AND VERIFIED ANY OTHER ELEMENTS IN THE SURVEY BASE PLAN THAT AFFECTS DISPOSITIONS AND LAND ACQUISITIONS.



LENGTH OF PROJECT = 14,419.0 FEET = 2.731 MILES

SURVEYOR OF RECORD:
HANCOCK ASSOCIATES
185 CENTRE STREET DANVERS, MA, 01923
VOICE (978) 777-3050, FAX (978) 774-7816
WWW.HANCOCKASSOCIATES.COM

ROW PLANS PREPARED BY:
vhb
260 ARSENAL STREET #2
WATERTOWN, MA 02471

massDOT
Massachusetts Department of Transportation
Highway Division

RECOMMENDED FOR APPROVAL

CHIEF ENGINEER

DATE

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		JERSEY BARRIER ON BRIDGE OR JERSEY BARRIER
		CATCH BASIN
		CATCH BASIN CURB INLET
		FLARED END SECTION (FES)
		FLAG POLE
		GAS PUMP
		MAIL BOX
		POST SQUARE
		POST CIRCULAR
		WELL
		ELECTRIC HANDHOLE
		FENCE GATE POST
		GAS GATE
		BORING HOLE
		MONITORING WELL
		TEST PIT
		HYDRANT
		LIGHT POLE
		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE OR LEACHING BASIN
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		MASSACHUSETTS HIGHWAY BOUND
		MONUMENT
		STONE BOUND
		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
		TROLLEY POLE OR GUY POLE
		TRANSMISSION POLE
		UTILITY POLE W/ FIREBOX
		UTILITY POLE WITH DOUBLE LIGHT
		UTILITY POLE W / 1 LIGHT
		UTILITY POLE
		BUSH
		TREE
		STUMP
		SWAMP / MARSH
		WATER GATE
		PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		MSE RETAINING WALL / TEMPORARY SHEETING
		BALANCE STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD RAILING
		SPLIT RAIL WOOD FENCE
		COMPOST FILTER TUBE
		TREE LINE OR LIMIT OF CLEARING AND GRUBBING
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT
		FULL DEPTH PAVEMENT
		RIP RAP SLOPE PROTECTION AND MODIFIED ROCK FILL
		WETLAND FLAG & LIMITS

TRAFFIC SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		RAILROAD SIGNAL
		SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)
		MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)
		HIGH MAST POLE OR TOWER
		SIGN AND POST
		SIGN AND POST (2 POSTS)
		MAST ARM WITH LUMINAIRE
		OPTICAL PRE-EMPTION DETECTOR
		CONTROL CABINET, GROUND MOUNTED
		CONTROL CABINET, POLE MOUNTED
		FLASHING BEACON CONTROL AND METER PEDESTAL
		LOAD CENTER ASSEMBLY
		PULL BOX 12"x12" (OR AS NOTED)
		ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)
		TRAFFIC SIGNAL CONDUIT

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		STOP LINE
		CROSSWALK
		SOLID WHITE LINE
		SOLID YELLOW LINE
		BROKEN WHITE LINE
		BROKEN YELLOW LINE
		DOTTED WHITE LINE
		DOTTED YELLOW LINE
		DOTTED WHITE LINE EXTENSION
		DOTTED YELLOW LINE EXTENSION
		DOUBLE WHITE LINE
		DOUBLE YELLOW LINE

ABBREVIATIONS

GENERAL

ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
BIT.	BITUMINOUS
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CEM	CEMENT
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
DIA	DIAMETER
DW	DRIVEWAY
ELEV (or EL.)	ELEVATION
EOP	EDGE OF PAVEMENT
EXIST	EXISTING
FDN.	FOUNDATION
GP	GATE POST
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HMA	HOT MIX ASPHALT
L&S	LOAM AND SEED
LT, L	LEFT
MAX	MAXIMUM
MB	MAILBOX
MIN	MINIMUM
NTS	NOT TO SCALE
PROP	PROPOSED

ABBREVIATIONS

GENERAL (CONTINUED)	
OD	OUTSIDE DIAMETER
PVM/T	PAVEMENT
PCR	PEDESTRIAN CURB RAMP
REM	REMOVE
REMOD	REMODEL
RET	RETAIN
R&D	REMOVE AND DISCARD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT, R	RIGHT
SGE	SLOPED GRANITE EDGING
STA	STATION
SUP	SHARED USE PATH
TCA	TEMPORARY CONSTRUCTION AREA
TEMP	TEMPORARY
TOS	TOP OF SLOPE
TYP	TYPICAL

UTILITIES

CIP	CAST IRON PIPE
-----	----------------

CIT	CHANGE IN TYPE
COND	CONDUIT
DB	DIRECT BURIAL
FES	FLARED END SECTION
F&C	FRAME & COVER
F&G	FRAME & GRATE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT
LB	LEACHING BASIN
PVC	POLYVINYL CHLORIDE PIPE
PWW	PAVED WATER WAY
RCP	REINFORCED CONCRETE PIPE
TSV&B	TAPPING SLEEVE, VALVE, & BODY
UP	UTILITY POLE

ALIGNMENT/GRADING

BC	BOTTOM OF CURB
CC	CENTER OF CURVE
HP	HIGH POINT
LP	LOW POINT

PC	POINT OF CURVE
PI	POINT OF INTERSECTION
PNT	POINT
PCC	POINT OF COMPOUND CURVE
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENT

25.45
SPOT ELEVATION

PROFILES

AD	ALGEBRAIC DIFFERENCE IN RATES OF GRADE
ELEV (or EL)	ELEVATION
HSD	HORIZONTAL SIGHT DISTANCE
K	RATE OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVC	POINT OF VERTICAL CURVE
PVT	POINT OF VERTICAL TANGENT
PVRC	POINT OF VERTICAL REVERSE CURVE
PVCC	POINT OF VERTICAL COMPOUND CURVE
SSD	STOPPING SIGHT DISTANCE
VC	VERTICAL CURVE

**BILLERICA
YANKEE DOODLE BIKE PATH**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TBD	2	52

**PRELIMINARY RIGHT OF WAY
LEGEND, ABBREVIATIONS AND
PROJECT DESCRIPTION**

PROJECT DESCRIPTION:

THE TOWN OF BILLERICA IS PROPOSING A NON-MOTORIZED, ADA-ACCESSIBLE, SHARED-USE PATH. THE PROJECT WILL CONSTRUCT A 10-FOOT WIDE MULTI-USE PATH WITH 3-FOOT SHOULDERS FROM THE INTERSECTION OF MIDDLESEX TURNPIKE AND CONCORD ROAD TO THE BEDFORD TOWN LINE, APPROXIMATELY 2.7 MILES. THE PROPOSED PATH WILL CONNECT TO THE NARROW-GAUGE RAIL TRAIL IN BEDFORD. THE PATH HAS BEEN DESIGNED TO MAXIMIZE THE BENEFITS OF SUCH TRAILS FOR THE COMMUNITY WHILE MINIMIZING ITS IMPACTS ON TOWN RESIDENTS AND THE NATURAL ENVIRONMENT. THE PATH WILL ULTIMATELY CONNECT THE TOWN CENTER OF BILLERICA TO THE MINUTEMAN BIKEWAY AND WILL PROVIDE AN ALTERNATIVE MODE OF TRANSPORTATION TO BILLERICA AND THE MANY SURROUNDING COMMUNITIES. THE PATH LINKS EDUCATIONAL, RECREATIONAL AND CONSERVATION AREAS IN THE SOUTHERN PORTION OF TOWN.

THERE ARE THREE AT-GRADE ROADWAY CROSSINGS WITHIN THE PROJECT LIMITS: CONCORD ROAD (AT THE INTERSECTION OF MIDDLESEX TURNPIKE); TECHNOLOGY PARK DRIVE (APPROXIMATELY 270 FEET WEST OF WALL STREET) AND AT SPRING ROAD (AT THE INTERSECTION OF ASTRIG WAY). AT CONCORD ROAD, BICYCLES WILL CROSS DURING THE EXISTING PEDESTRIAN PHASE. AT THE OTHER CROSSING LOCATIONS WARNING DEVICES (FLASHING BEACONS) ARE PROPOSED THAT WILL BE ACTIVATED BY PUSH BUTTONS.

TOWN OF BILLERICA

PARCEL NO.	PLAN SHEET NO.	TITLEHOLDER	TITLE REFERENCE				ROW PARCEL		PROPERTY TOTALS (S.F.)			FRONTAGE ON ROW PLAN (FT.)	PROPERTY ADDRESS	ZONING DISTRICT	REMARKS	LAND RESTRICTION FROM THE DEED
			DEED BOOK	PAGE NO.	LCC NO.	CERT NO.	INTEREST ACQUIRED	AREA (S.F. +/-)	TOTAL TAKEN	REMAINING	TOTAL PROPERTY AREA (RECORD)					
E-23	38-41	TOWN OF BILLERICA - C/O CONSERVATION COMMISSION	3851	267			PERM	55,089			1,354,716	57	REAR MIDDLESEX TPK	INDUSTRIAL	DEDICATION BY LICESENSE AGREEMENT. SHARED USE PATH, BICYCLE RACKS, WOOD RAILING, GRASS SWALE, PERMEABLE PAVEMENT PARKING LOT, GUY POLE, SIGN, STONE PAD, FENCE REMOVAL. LEACHING BASIN, BOULDER BARRIER, GRAVEL DRIVE, PEDESTRIAN CURB RAMP, LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING	ARTICLE 97
PUE-5	38	TOWN OF BILLERICA - C/O CONSERVATION COMMISSION					PERM	104							DEDICATION BY LICESENSE AGREEMENT. GPL RELOCATION, LOAM & SEED, CLEARING AND GRUBBING, SLOPING AND GRADING (4:1 MAX)	ARTICLE 97
TCA-1	38, 39	TOWN OF BILLERICA - C/O CONSERVATION COMMISSION					TEMP	12,110							TEMPORARY CONSTRUCTION AREA THAT WILL BE GRANTED BY AGREEMENT. PROP TREES, LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING, SEDIMENT CONTROL BARRIER	ARTICLE 97
TCA-2	38	TOWN OF BILLERICA - C/O CONSERVATION COMMISSION					TEMP	985							TEMPORARY CONSTRUCTION AREA THAT WILL BE GRANTED BY AGREEMENT. LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING, SEDIMENT CONTROL BARRIER	ARTICLE 97
TCA-3	38-40	TOWN OF BILLERICA - C/O CONSERVATION COMMISSION					TEMP	17,362							TEMPORARY CONSTRUCTION AREA THAT WILL BE GRANTED BY AGREEMENT. FENCE REMOVAL, LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING, SEDIMENT CONTROL BARRIER	ARTICLE 97
TCA-4	39,40	TOWN OF BILLERICA - C/O CONSERVATION COMMISSION					TEMP	5,784							TEMPORARY CONSTRUCTION AREA THAT WILL BE GRANTED BY AGREEMENT. LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING, SEDIMENT CONTROL BARRIER	ARTICLE 97
TCA-5	40	TOWN OF BILLERICA - C/O CONSERVATION COMMISSION					TEMP	3,904							TEMPORARY CONSTRUCTION AREA THAT WILL BE GRANTED BY AGREEMENT. WETLAND REPLICATION - MINIMUM 10 YEAR TERM, LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING, SEDIMENT CONTROL BARRIER	ARTICLE 97
TCA-6	38	TOWN OF BILLERICA - C/O CONSERVATION COMMISSION					TEMP	156							TEMPORARY CONSTRUCTION AREA THAT WILL BE GRANTED BY AGREEMENT. LOAM & SEED, CLEARING & GRUBBING, SLOPING AND GRADING (4:1 MAX)	ARTICLE 97
TCA-7	40	TOWN OF BILLERICA - C/O CONSERVATION COMMISSION					TEMP	3,208							TEMPORARY CONSTRUCTION AREA THAT WILL BE GRANTED BY AGREEMENT. LOAM & SEED, CLEARING & GRUBBING, SLOPING AND GRADING (4:1 MAX)	ARTICLE 97
TCA-8	39,40	TOWN OF BILLERICA - C/O CONSERVATION COMMISSION	10217	131			TEMP	659				NO ACCESS	REAR DEERFIELD STREET	INDUSTRIAL	TEMPORARY CONSTRUCTION AREA THAT WILL BE GRANTED BY AGREEMENT. CLEARING & GRUBBING	ARTICLE 97
TCA-9	40	TOWN OF BILLERICA - C/O CONSERVATION COMMISSION					TEMP	699							TEMPORARY CONSTRUCTION AREA THAT WILL BE GRANTED BY AGREEMENT. CLEARING & GRUBBING	ARTICLE 97
TE-105	38	WILLIAM P. MCLEAN & DEBORAH A. MCLEAN	4678	122			TEMP	45				120	429 MIDDLESEX TPK	NEIGHBORHOOD RESIDENCE	CLEARING & GRUBBING	
TE-37	38	JOHN P. MCCURDY & PATRICIA A. MCCURDY	9191	157			TEMP	1,846				124	437 MIDDLESEX TPK	NEIGHBORHOOD RESIDENCE	LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING & GRUBBING	
TE-106	38	FERRARI REALTY TRUST	7406	66			TEMP	139				238	439 MIDDLESEX TPK	NEIGHBORHOOD RESIDENCE	CLEARING & GRUBBING	
TE-51	39	KEVIN G. CLARK	36492	253			TEMP	716				106	21 HATTIE LANE	NEIGHBORHOOD RESIDENCE	CLEARING & GRUBBING	
TE-52	39	PHILLIP T. LASKA & CHRISTINE M. LASKA	7265	49			TEMP	1,415				182	25 HATTIE LANE	NEIGHBORHOOD RESIDENCE	LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING & GRUBBING	
TE-53	38,39	SIGISMONDO ANGELO & DEBRA A. ANGELO	7234	276			TEMP	537				147	27 HATTIE LANE	NEIGHBORHOOD RESIDENCE	CLEARING & GRUBBING	
TE-149	40	RAYMOND E. HINXMAN, III & MICHELLE E. HINXMAN	26181	60			TEMP	389				77	29 HATTIE LANE	NEIGHBORHOOD RESIDENCE	CLEARING & GRUBBING	
TE-55	40	CHRISTINE MARIE KEMP	16419	163			TEMP	1,247				154	31 HATTIE LANE	NEIGHBORHOOD RESIDENCE	LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING, SEDIMENT CONTROL BARRIER	
TE-58	40	ROBERT A. SEARS & HAEWON SEARS	7380	170			TEMP	1,275				142	33 HATTIE LANE	NEIGHBORHOOD RESIDENCE	LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING	

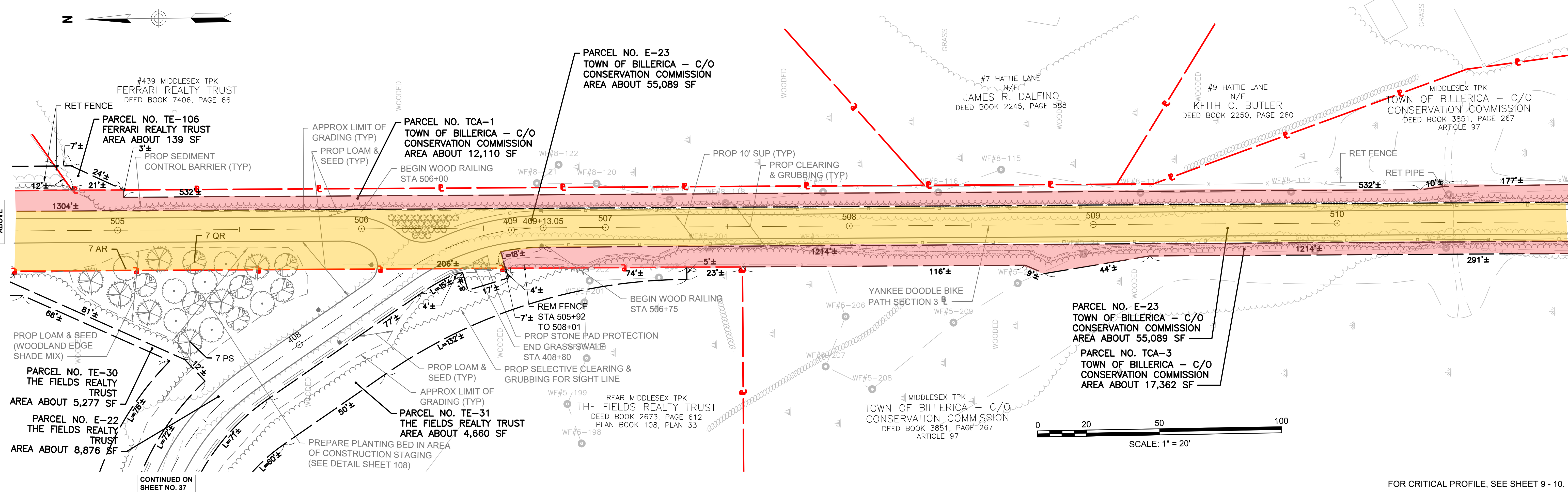
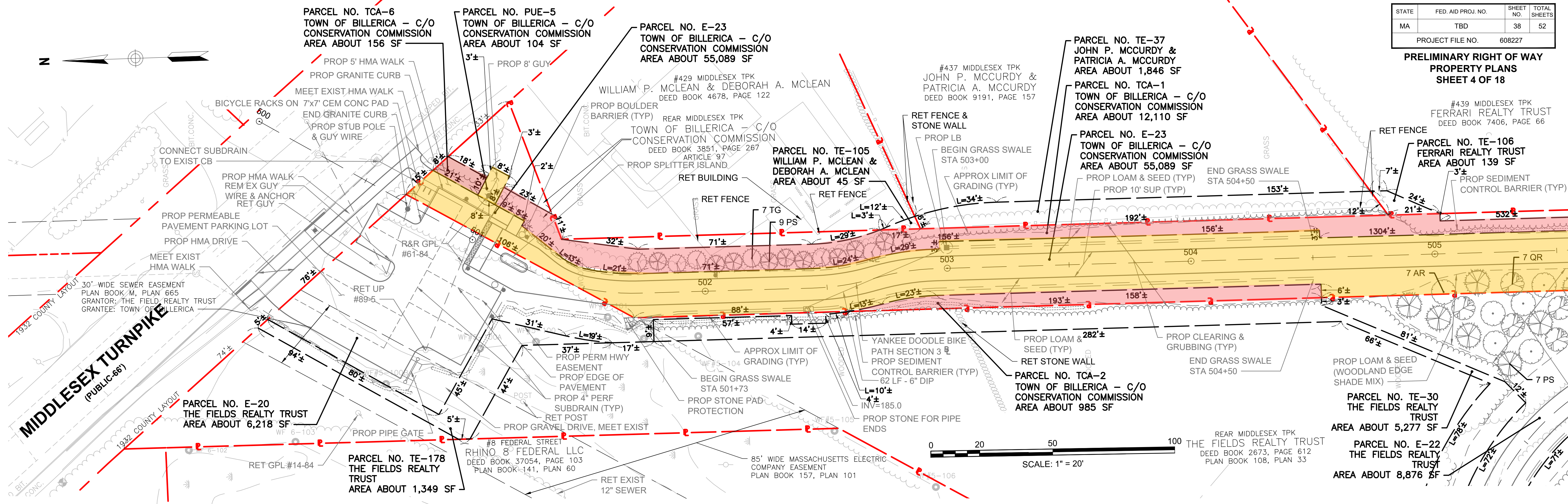
TOWN OF BILLERICA

PARCEL NO.	PLAN SHEET NO.	TITLEHOLDER	TITLE REFERENCE				ROW PARCEL		PROPERTY TOTALS (S.F.)			FRONTAGE ON ROW PLAN (FT.)	PROPERTY ADDRESS	ZONING DISTRICT	REMARKS	LAND RESTRICTION FROM THE DEED
			DEED BOOK	PAGE NO.	LCC NO.	CERT NO.	INTEREST ACQUIRED	AREA (S.F. +/-)	TOTAL TAKEN	REMAINING	TOTAL PROPERTY AREA (RECORD)					
FP-9	40	TOWN OF BILLERICA - C/O CONSERVATION COMMISSION	2285	656			PERM	6,308			87,120	NO ACCESS	REAR BLACKWOOD AVE	NEIGHBORHOOD RESIDENCE	DEDICATION BY LICESENSE AGREEMENT. COMPENSATORY FLOOD STORAGE, LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING, SEDIMENT CONTROL BARRIER	ARTICLE 97
TCA-10	40	TOWN OF BILLERICA - C/O CONSERVATION COMMISSION					TEMP	2,471							TEMPORARY CONSTRUCTION AREA THAT WILL BE GRANTED BY AGREEMENT. LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING	ARTICLE 97
TWLR-17	40	TOWN OF BILLERICA - C/O SELECT BOARD	20230	285			TEMP	6,124				NO ACCESS	REAR BLACKWOOD AVE	NEIGHBORHOOD RESIDENCE	WETLAND REPLICATION - MINIMUM 10 YEAR TERM, LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING, SEDIMENT CONTROL BARRIER	
E-28	44,45	E INK CALIFORNIA LLC, C/O E INK CORPORATION	37546	108			PERM	7,876			220,457	122	1400 TECHNOLOGY PARK DRIVE	INDUSTRIAL	SHARED USE PATH, PEDESTRIAN CURB RAMP, LOAM & SEED, SLOPING AND GRADING (4:1 MAX), EXISTING PATH REMOVAL, CHANGE IN TYPE, CATCH BASIN, R&R HYDRANT	
E-29	44,45	E INK CALIFORNIA, LLC, C/O E INK CORPORATION					PERM	2,723							SHARED USE PATH, PEDESTRIAN CURB RAMP, WOOD RAILING, LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING	
D-36	44	E INK CALIFORNIA, LLC, C/O E INK CORPORATION					PERM	138							CATCH BASIN, 12" RCP	
D-37	44	E INK CALIFORNIA, LLC, C/O E INK CORPORATION					PERM	90							CATCH BASIN, 12" RCP	
D-38	44	E INK CALIFORNIA, LLC, C/O E INK CORPORATION					PERM	99							CATCH BASIN, 12" RCP	
D-49	44,50	E INK CALIFORNIA, LLC, C/O E INK CORPORATION					PERM	37,546							CLEARING & GRUBBING, LOAM & SEED, SLOPING AND GRADING (2:1 MAX), DRAINAGE MAINTENANCE ACCESS	
D-50	45	E INK CALIFORNIA, LLC, C/O E INK CORPORATION					PERM	2,131							CLEARING & GRUBBING, LOAM & SEED, SLOPING AND GRADING (2:1 MAX), DRAINAGE MAINTENANCE ACCESS	
TE-69	44-46	E INK CALIFORNIA, LLC, C/O E INK CORPORATION					TEMP	8,156							LOAM & SEED, R&R GRANITE EDGING, ACCESS	
TE-70	44,45	E INK CALIFORNIA, LLC, C/O E INK CORPORATION					TEMP	2,235							LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING, SEDIMENT CONTROL BARRIER	
TE-159	44,45	E INK CALIFORNIA, LLC, C/O E INK CORPORATION					TEMP	846							LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING	
TE-113	45	BAC/JC TECH PARK LLC CO/ JUMBO CAPITAL			45848	8946J	TEMP	550				397	1100 TECHNOLOGY PARK DRIVE	INDUSTRIAL	LOAM & SEED, CEMENT CONCRETE PEDESTRIAN CURB RAMP, HMA WALK	
TE-174	45	BAC/JC TECH PARK LLC CO/ JUMBO CAPITAL					TEMP	1,375							ACCESS, LOAM & SEED, CEMENT CONCRETE PEDESTRIAN CURB RAMP, HMA WALK	
E-30	45	E INK CORPORATION	37546	88			PERM	2,849			435,600	NO ACCESS	1000 TECHNOLOGY PARK DRIVE	INDUSTRIAL	SHARED USE PATH, PEDESTRIAN CURB RAMP, CEMENT CONCRETE WALK, STONE MASONRY WALL REMOVED & REBUILT IN CEMENT MORTAR, R&R FOUNDATION, CLEARING & GRUBBING, SLOPING AND GRADING (2:1 MAX), LOAM & SEED, TREE REMOVAL	
E-52	45	E INK CORPORATION					PERM	7,814							SHARED USE PATH, PEDESTRIAN CURB RAMP, SLOPING AND GRADING (4:1 MAX), LOAM & SEED	
D-51	45	E INK CORPORATION					PERM	5,311							LOAM & SEED, SLOPING AND GRADING (2:1 MAX), DRAINAGE MAINTENANCE ACCESS	
TE-71	45	E INK CORPORATION					TEMP	6,947							STONE MASONRY WALL REMOVED & REBUILT IN CEMENT MORTAR, R&R FOUNDATION, LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING, REM TREES, TREE PROTECTION	
TE-136	45	E INK CORPORATION					TEMP	8,844							LOAM & SEED, R&R GRANITE EDGING, ACCESS	
E-31	45,46	880 TECHNOLOGY PARK OWNER	37440	148			PERM	3,634			158,763	NO ACCESS	880 TECHNOLOGY PARK DRIVE	INDUSTRIAL	SHARED USE PATH, WOOD RAILING, CLEARING & GRUBBING, SLOPING AND GRADING (2:1 MAX), LOAM & SEED, REM LANDSCAPING	
E-53	45,46	880 TECHNOLOGY PARK OWNER					PERM	7,838							SHARED USE PATH, R&R LP, TREE REMOVAL, SLOPING AND GRADING (2:1 MAX), LOAM & SEED	
D-39	45	880 TECHNOLOGY PARK OWNER					PERM	111							CATCH BASIN, 12" RCP, CHANGE IN TYPE	
D-40	46	880 TECHNOLOGY PARK OWNER					PERM	112							CATCH BASIN, 12" RCP	
D-52	45,46	880 TECHNOLOGY PARK OWNER					PERM	24,355							CLEARING & GRUBBING, LOAM & SEED, SLOPING AND GRADING (2:1 MAX), DRAINAGE MAINTENANCE ACCESS	
TE-72	45,46	880 TECHNOLOGY PARK OWNER					TEMP	2,452							LOAM & SEED, SLOPING AND GRADING (2:1 MAX), CLEARING AND GRUBBING, REM TREES, REM LANDSCAPING	
TE-140	46	880 TECHNOLOGY PARK OWNER					TEMP	10,199							LOAM & SEED, R&R GRANITE EDGING, ACCESS	

BILLERICA YANKEE DOODLE BIKE PATH			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TBD	38	52
PROJECT FILE NO.		608227	

**PRELIMINARY RIGHT OF WAY
PROPERTY PLANS
SHEET 4 OF 18**

#439 MIDDLESEX TPK
FERRARI REALTY TRUST
DEED BOOK 7406, PAGE 66



FOR CRITICAL PROFILE, SEE SHEET 9 - 10.

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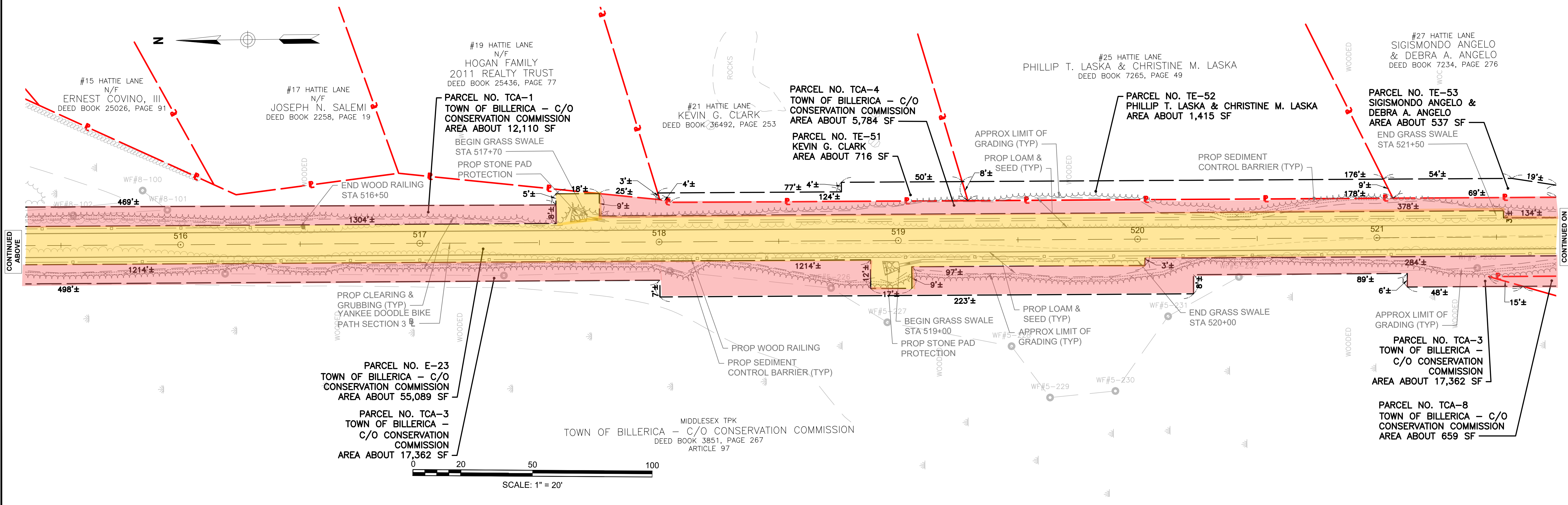
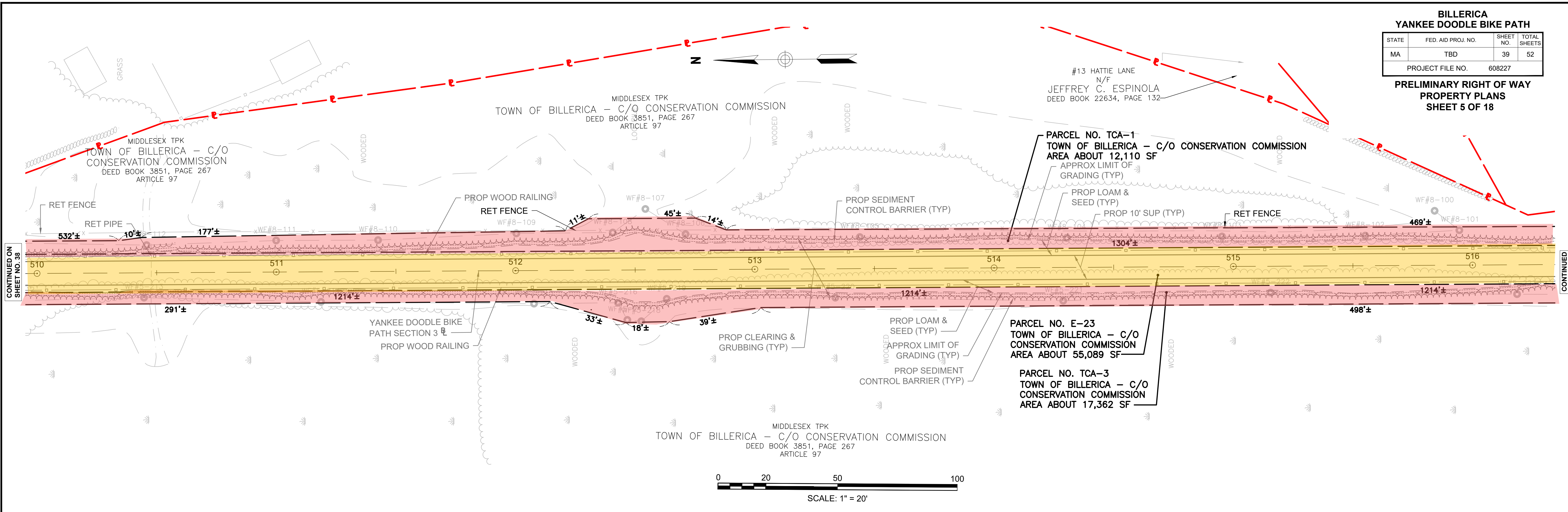
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**BILLERICA
YANKEE DOODLE BIKE PATH**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TBD	39	52
PROJECT FILE NO.		608227	

**PRELIMINARY RIGHT OF WAY
PROPERTY PLANS
SHEET 5 OF 18**



FOR CRITICAL PROFILE, SEE SHEETS 11 - 12.

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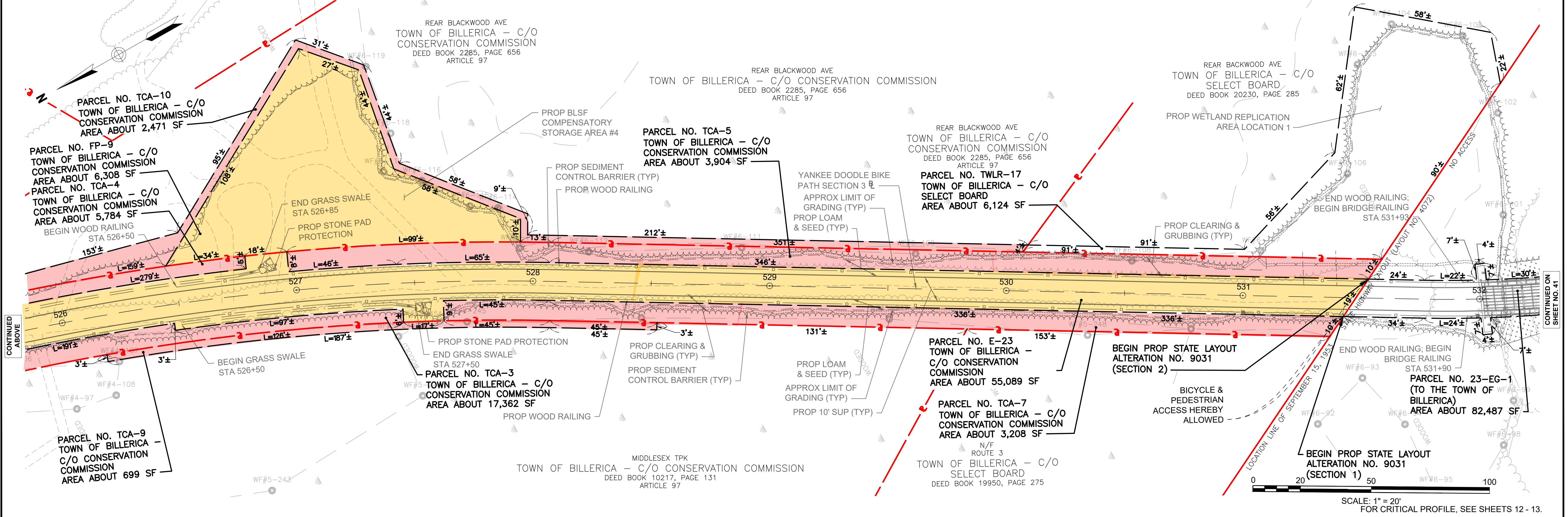
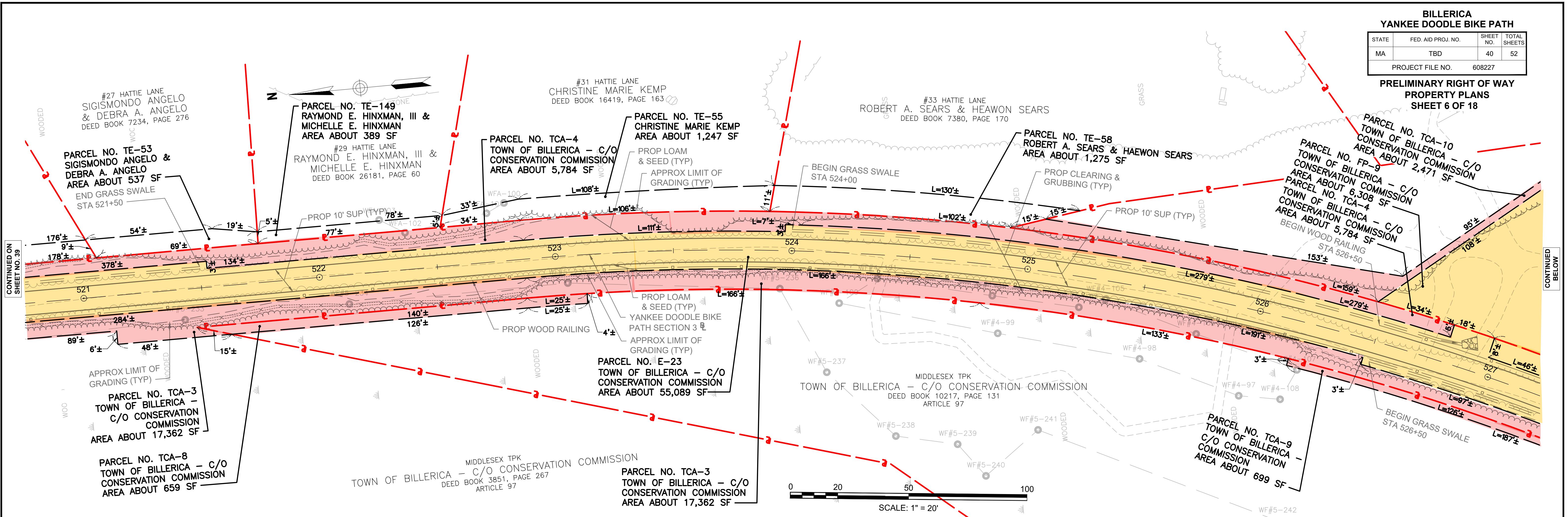
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BILLERICA YANKEE DOODLE BIKE PATH			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	TBD	40	52
PROJECT FILE NO. 608227			

**PRELIMINARY RIGHT OF WAY
PROPERTY PLANS
SHEET 6 OF 18**



CONTINUED ON
SHEET NO. 39

CONTINUED
BELOW

CONTINUED
ABOVE

CONTINUED
ON
SHEET NO. 41

Yankee Doodle Bike Path

Billerica, Massachusetts

PREPARED FOR

Town of Billerica
365 Boston Road
Billerica, MA 01821

PREPARED BY



101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

February 9, 2015



January 19, 2023

Ref: 12628.00

Billerica Conservation Commission
365 Boston Road
Office #211
Billerica, MA 01821

Re: Notice of Intent, Yankee Doodle Bike Path (MassDOT Project # 608227)
MassDEP File Number 109-1524

Dear Commission Members,

On behalf of the Applicant, the Town of Billerica, VHB is submitting the attached Alternatives Analysis for the Yankee Doodle Bike Path. The Project consists of a 10-foot-wide shared-use path with 3-foot shoulders from Billerica High School to the Bedford Town Line, approximately 3.9 miles.

The following is a summary report prepared in February 2015 and discusses the alternatives that were considered and resulting the preferred or selected alignment prior to proceeding with 25 percent design. This Analysis was presented to the Billerica Board of Selectmen and the Billerica Bike Committee for approval before initiating engineering design. Since 2015, the Path design has advanced through 25 percent design and 75 percent design undergoing review at each stage by the Town and MassDOT. During these design stages, the alignment has constantly been refined and revised based on design standards, comments received, and measures to reduce wetland impacts. The resulting Path alignment presented in the Notice of Intent (NOI) is a culmination of a nearly 10-year planning and design effort to create a buildable shared-use path alignment while minimizing impacts to wetland resources. Even as the NOI was being prepared, the Project features were being refined by adding boardwalks and bridges to further minimize impacts. Added to the end of the document are Figures 5 and 6. Figure 5 is the 2019 Preferred Alignment that was revised in 2021 to the Final Alignment that was included in the NOI.

If you have any questions or need any additional information, please feel free to contact me at (617) 607-1019, Monday through Friday from 9:00 am till 5:00 pm or via email at dcannata@vhb.com.

Regards,

Daniel Cannata
Environmental Scientist

Engineers | Scientists | Planners | Designers

101 Walnut Street
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Billerica Conservation Commission
Ref: 12628.00
January 18, 2023
Page 2



cc: MassDEP Northeast Regional Office
Kelley Conway, Town of Billerica Department of Public Works Engineering Division
Melissa Lenker - MassDOT



Executive Summary

The Town of Billerica has retained VHB to prepare the 25% design for the Yankee Doodle Bikepath, from the Billerica High school to the Bedford Town Line, for a total length of 2.5 miles. As part of the design, VHB has conducted an Alternatives Analysis for the bikepath alignment at three locations along the corridor, and the summary of this analysis is presented herein.

The purpose of this analysis is to evaluate various path alignments at the 3 locations noted above and to develop a draft report for the Billerica Bikeway Committee to use as a tool to select a preferred path alignment. The locations where this analysis was completed were: at the northern end of the project, at a parcel currently owned by the Cabot Company, where the abandoned rail bed intersects with Route 3; and at the southern end of the project (see Figure 1 – Key Sheet).

For the purposes of this analysis, the project has been divided into 4 sections.

Section 1 extends from the Billerica High school to Richardson Street.

Section 2 extends from Richardson Street to Middlesex Turnpike.

Section 3 extends from Middlesex Turnpike to just north of Route 3.

Section 4 extends from Route 3 to the Bedford Town line.

The alternatives analysis concentrated on Sections 1, 2 and 4, where the existing abandoned Boston and Maine railroad right-of-way bisects the Cabot Property, and terminates at Route 3.

VHB performed a site review on July 31, 2014. Subsequently, concept level plans on GIS mapping provided by the town were prepared to evaluate the different alternatives.

Methodology

The design criteria established in the MassDOT *Project Development Design Guide, dated 2006*, and amended, the *AASHTO 2012 Guide for the Development of Bicycle Bike Facilities*, and *The Rules and Regulations Governing the Subdivision of Land in Billerica, Massachusetts* were used to develop the design of the bikepath.

To determine the functional advantages and disadvantages of each bikepath alternative, the following criteria was considered:

- Private property impacts
- Environmental resource area impacts



- State Highway Layout access
- Constructability
- Design Costs
- Construction Costs

To determine environmental constraints, a desktop analysis was performed on the land area that surrounds the Yankee Doodle alignment and alternatives. Using currently available data layers offered from the Massachusetts Department of Geographical Information Systems (MassGIS), criteria evaluated included wetlands regulated under the Massachusetts Wetlands Protection Act (WPA) and the federal Clean Water Act, floodplains, state-listed protected species and vernal pools, historic places and areas, impaired waters and surface water standards that may impact development.

This criteria will be further discussed in the Proposed Alternatives and Tables presented in this report with a focus on Section 1, Alternative 1B, Section 2, Alternatives 2B and 2C, and Section 4, Alternative 4B.

Summary of Locations

The following four sections and alternative locations are included as part of the proposed bikeway alignment:

Section 1: the following two alternatives have been identified as part of this section (see Figure 2):

- **Alternative 1A:** the bikepath follows the abandoned Boston and Maine railroad alignment, from the BHS Alumni Memorial Field to Richardson Street Extension for an approximate length of 2,360 feet.
- **Alternative 1B:** the bikepath alignment borders the east side of the BHS Alumni Memorial Field to connect Good St with River St, and continues along River St to where it intersects the abandoned railroad alignment.

Section 2: The following three alternatives have been identified as part of this section (see Figure 2):

- **Alternative 2A:** the bikepath follows the abandoned Boston and Maine Railroad right-of-way (ROW), through the parcel currently owned by the Cabot Company from Richardson Street Ext. to Concord Road, and continues along the abandoned railroad ROW alignment from Concord Road to Middlesex Turnpike for an approximate total length of 3,400 feet.
- **Alternative 2B:** runs on the west side of the abandoned railroad ROW along the property line of the Cabot Property, parallel to the Concord River, from Richardson Street Ext. to Concord Road, and continues through the Federal Street office park from Concord Road to Middlesex Turnpike for an approximate total length of 6,080 feet.
- **Alternative 2C** runs on the east side of the abandoned railroad ROW along the property line of the Cabot Property, between Richardson Street Ext. and Concord Road for an approximate total length of 3,160 feet. Similar to Alternative 2A, this alternative uses the railroad alignment from Concord Road to Middlesex Turnpike.

Section 3: the bikepath follows the abandoned Boston and Maine Railroad ROW, from Middlesex Turnpike to a point west of Hattie Lane's Cul-De-Sac, prior to the Route 3 State Highway Layout for an approximate length of for an approximate total length of 2,560 feet (see Figure 2).



Section 4: the abandoned Boston and Maine Railroad ROW has been obliterated in this section. As a result, the two alternatives have been identified as part of this section (see Figure 3):

- **Alternative 4A** runs along the Route 3 Right-of-way and on-road along Orchard Road from a point west of Hattie Lane's Cul-De-Sac, prior to the Route 3 State Highway Layout to the Middlesex Community College entrance for an approximate total length of 4,640 feet.
- **Alternative 4B** runs along an independent pedestrian bridge over Route 3, and continues through Technology Park and Astrig Way at the southern end of the project from Old Concord Road to Springs Road for an approximate total length of 4,300 feet.
- **Alternative 4C** runs along the Spur to Nutting Lake, Route 3 Right-of-way and mostly on-road along Orchard Road, Technology Park Drive and Astrig Way from a point west of Hattie Lane's Cul-De-Sac, prior to the Route 3 State Highway Layout to Springs Road for an approximate total length of 8,530 feet.

The land use and context of the land surrounding the bikepath varies from the high school to the Bedford Town line. This following section describes the surrounding land use and context.

Section 1

The following two alternatives have been identified as part of this section (see Figure 2):

Alternative 1a

The bikepath alignment follows the abandoned railroad ROW, from the BHS Alumni Memorial Field to Richardson Street Extension (see Figure 1 – Section 1). This section that runs mostly off-road begins at an existing path on the high school campus and uses the abandoned ROW that is currently owned by the town. The land area surrounding the bikepath alignment is residential, with the 53 River Street condominiums adjacent to the ROW from the high school campus to River Street, and wooded between River Street and Richardson Street.

Alternative 1b

The bikepath alignment borders the east side of the BHS Alumni Memorial Field to connect Good St with River St, and continues along River St to where it intersects the abandoned railroad alignment.

This alternative runs mostly off-road by taking advantage of the town owned open space available behind the BHS to connect Good St with River St.

Alternative 1b continues along the north side of River St where granite curb separates the roadway from an existing cement concrete sidewalk. The path will extend on River St from across the entrance to the Parker Elementary School to where River St intersects the abandoned railroad alignment. Along this segment, there are two intersecting roads and one driveway at house #41 River St. (Figure 2).

Section 2

The following three alternatives have been identified as part of this section (see Figure 2 – Section 2 Alternatives):



Alternative 2a

This alternative runs mostly off-road along the abandoned railroad ROW through the parcel currently owned by the Cabot Company from Richardson Street Ext. to Concord Road, and continues along the abandoned railroad ROW from Concord Road to Middlesex Turnpike. The parcel is currently wooded, with the exception of the Cabot development, which is west of the railroad ROW.

Alternative 2b

This alternative diverts from the railroad ROW and runs west along the south side of Richardson Street Extension and then along the property line of the Cabot Property, parallel to the Concord River, from Richardson Street Ext. to Concord Road, and continues through the Federal Street office park from Concord Road to Middlesex Turnpike.

Richardson Street Extension is located north of the Cabot Corp. property. From the intersection with the abandoned railroad ROW, it continues for 1700 linear feet westerly direction towards the Concord River as an 18'± wide paved road. With the exception of one driveway that leads to the back of the Cabot property near the river, the south side of the road is wooded. On the north side, there are several houses with driveways for about half of the segment. The other half of the land adjacent to the roadway is wooded. An active sewer pump station is located near the river. At this point, an 18'± wide gravel/dirt road begins and continues for a distance of 200'±, where it narrows down to 10'± wide, and continues as a gravel/dirt road for an additional 100'±. Several sewer manholes and silt fence on the river side were noticed parallel to the gravel/dirt road during the site walk.



Richardson Street Extension



18'± Wide Gravel/Dirt Road Segment Parallel to the Concord River

At the end of the road, west of the Cabot property, a 5'± wide trail begins and continues in a southwesterly direction parallel to the river until it comes to an end at the northeast corner of the parking lot for the Rivertech Park. The trail surface appears to be the natural ground compacted possibly by bike/walk use. Along the way, two streams were encountered. One is located approximately half way down the trail with a 10'± wide channel bottom and running water. The other one is located close to the parking lot, has a 5'± wide channel bottom and was dry at the time of the site walk.



Trail parallel to the Concord River



The land east of Rivertech Park along Alternative 2B is wooded and the topography is generally level.



Segment East of Rivertech Park

The intersection of Middlesex Turnpike and Concord Road is located east of Rivertech Park. North of Concord Road, the dead end segment of Middlesex Tpk continues for a distance of 430'± past the barricades at the intersection. The first segment is paved for a distance of 180'±, followed by a grassed segment for a distance of 100'± that ends at a 3' to 5' tall retaining wall on the east side and rock riprap to the north. East of the retaining wall, a surface covered with tall grass / wild flowers continues for a distance of 150'± to the north. Beyond this point, the land is wooded and heavily overgrown. Along the paved segment of the road, a 3' to 5' tall retaining wall is located on the east side, and a pond is located on the west side.



Dead End Segment of Middlesex Turnpike

The intersection of Middlesex Tpke and Concord Road is signalized. The intersection has wheelchair ramps, pedestrian signals and crosswalks across all roadway approaches. Concord Road has four travel lanes and one turning lane. Middlesex Tpke has two travel lanes and one turning lane.

The segment of the proposed path on the south side of Concord Road west of Middlesex Tpke consists of a short sidewalk segment that is followed by a short grass strip and becomes an overgrown strip beyond the back of the property located at #401 Middlesex Tpke.



Middlesex Tpke and Concord Road Intersection

The segment of the proposed path Alternative 2B between Concord Road and the intersection of the abandoned railroad and Middlesex Tpke would be constructed in an area located between Middlesex Tpke and the east side of the Federal Street office park (See Figure 2 – Section 2 Alternatives).



Federal Street Office Park

Alternative 2c

This alternative runs on the east side of the abandoned railroad ROW along the property line of the Cabot Property, between Richardson Street Ext. and Concord Road, and continues along the railroad alignment from Concord Road to Middlesex Turnpike.

East of the abandoned railroad parallel to the back of the houses located on Concord Road between Richardson Street and Concord Road, the proposed alternative would be constructed in a wooded area where no trails leading to the wooded area were observed, and was heavily overgrown at the time of the site walk, and not accessible. However, north of the abandoned railroad intersection with Concord Road, it was possible to access the woods along the top of an embankment parallel to a channel that leads to the abandoned trolley underpass for a couple hundred feet, but the ground surface became heavily overgrown and made it impossible to make any significant field observations about the area.



East Side of the Railroad near Concord Road

Section 3

From Middlesex Turnpike to a point west of Hattie Lane's Cul-De-Sac, prior to the Route 3 State Highway Layout (see Figure 1 – Key Sheet) the abandoned railroad ROW.

Section 4

Section 4 extends from Hattie Lane to the end of the project. West of Middlesex Tpke, there is an existing informal trail that leads to Route 3 from the west side of Hattie Lane. Southwest of Hattie Lane's cul-de-sac, a 5'± wide gravel path continues for a distance of 600'± between wetlands to a point 150'± east of Route 3, where it comes to an end. Alternative 4A and 4B are on the same alignment heading south, until the Route 3 State Highway Layout. The terrain along the trail is generally level. Alternative 4C draws from portions of Alternatives 4A and 4B connected by Technology Park Drive. The alignment alternatives are described below. (see Figure 3 – Section 4 Alternatives).

Alternative 4a

Alternative 4A runs off-road along the east side of Route 3 right-of-way and on-road along Orchard Road from a point west of Hattie Lane's Cul-De-Sac, prior to the Route 3 State Highway Layout to the Middlesex Community College entrance. This alternative will require a crossing over Mill Brook, and the construction of a boardwalk structure through wetlands and flood plain behind the Route 3 noise wall. Due to the elevation difference

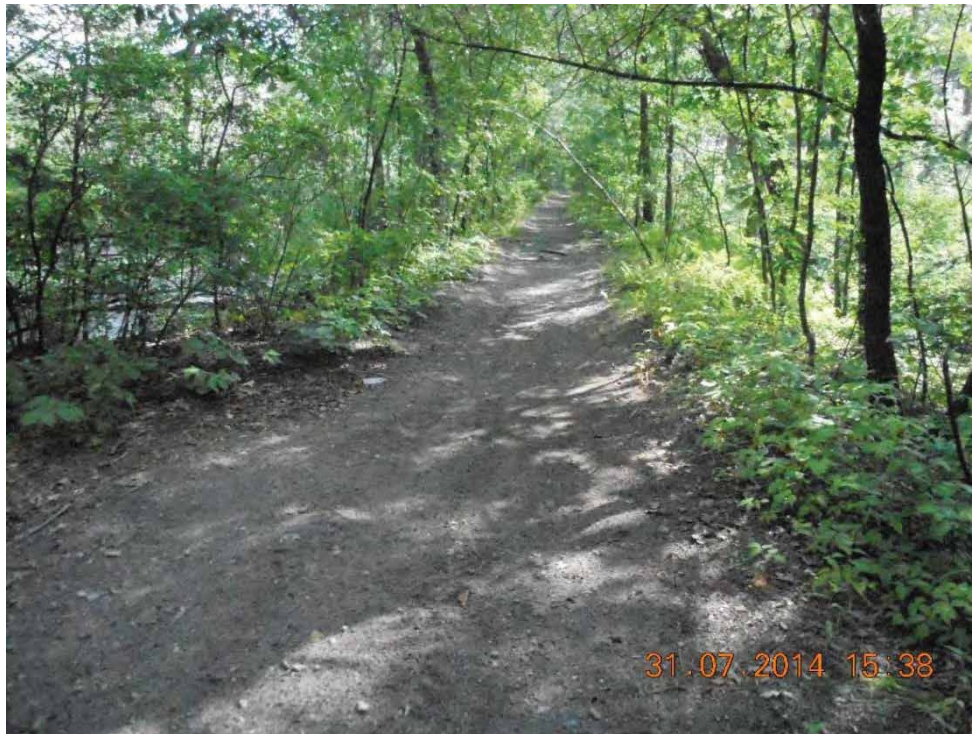


between the path along the Route 3 corridor, and Orchard Road, this alternative will also require a ramp at the end of the board walk and Orchard Road.

Alternative 4b

Alternative 4B runs mostly off-road along a new alignment to a proposed bicycle/pedestrian bridge over Route 3, and continues through Technology Park and Astrig Way at the southern end of the project from Old Concord Road to Springs Road.

The wetlands are 2' to 6' lower than the trail. From the end point of the gravel path, the informal path continues to Route 3 through an apparent wetland. On the day of the site walk, on both sides of this path, the existing ground is a combination of wet soil and standing water at the same elevation as the path. The grade of the path is generally level up to the embankment for Route 3. Route 3 is 8' to 10' higher in elevation.



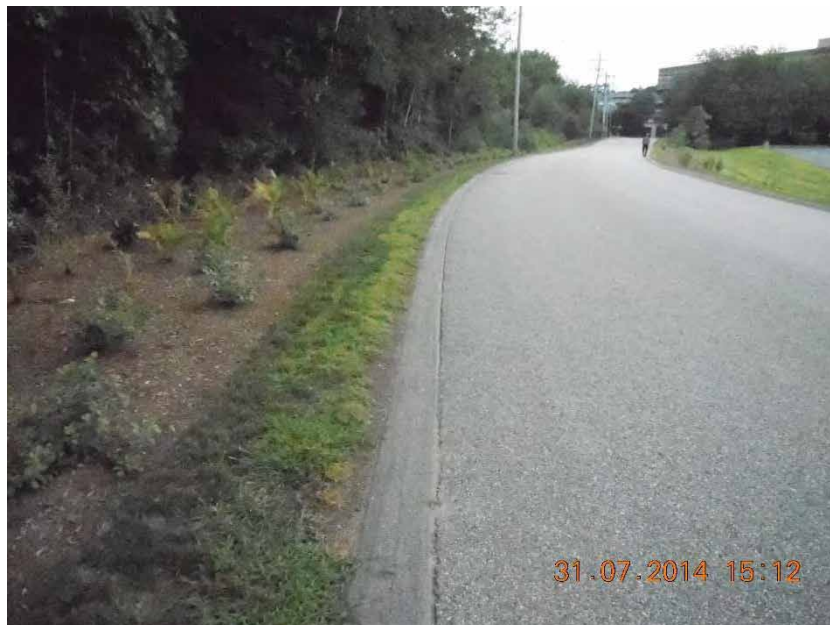
West Side of Hattie Ln near the Cul-De-Sac

Old Concord Road is located 200'± west of Route 3. Although it is possible to walk up to Route 3 from Old Concord Road, there is no trail to do so. The area is wooded and is heavily overgrown on the Route 3 side of the road. The topography of the area is generally level. The surface was dry at the time of the site walk. The existing ground elevation is slightly lower than the elevation of Route 3 and Old Concord Road.



Area between Route 3 and Old Concord Road

West of Old Concord Road, the proposed alternative would run in a westerly direction between the Mill Brook and the building located at #600 Old Concord Road for a short distance, and continue in a southwesterly direction along an existing walking trail located west of the office building to reach the intersection with Technology Park Drive. There are a number of utility poles along Old Concord Road that are in the vicinity of the alternative alignment.



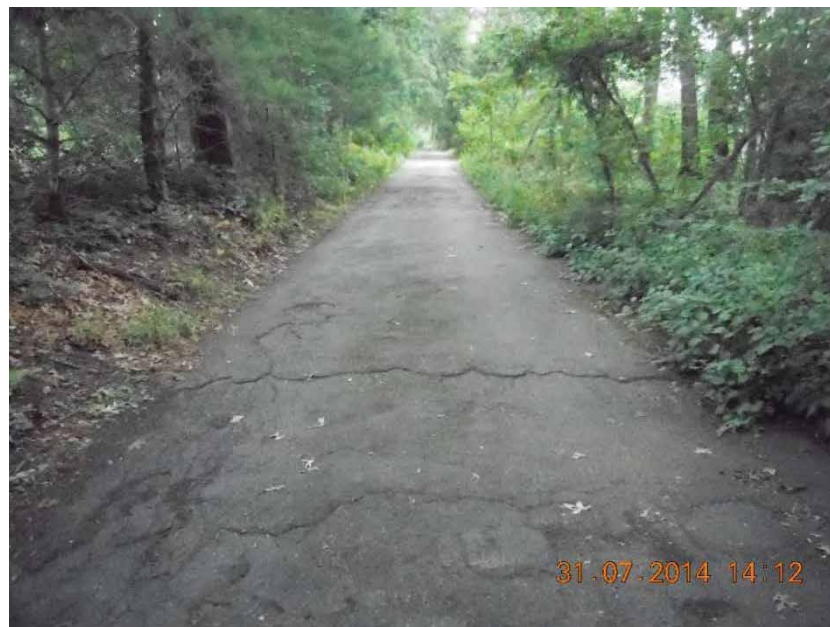
Old Concord Road

A narrow 3'± wide gravel trail connects Technology Park Drive to Astrig Way. The terrain along the trail is generally level with a gradual slope down towards Technology Park Drive. West of the trail, the topography is generally level and wooded. A stormwater basin is located on the east side.



Trail Connecting Technology Park Drive to Astrig Way

South of the trail is Astrig Way. At this end, Astrig way is a 10'± wide paved road. The end of Astrig Way leads to a rear driveway for house #350 Concord Road. This driveway was observed to be used by construction vehicles at the time of the site walk. Astrig Way continues as a 10'± wide paved road south towards Springs Rd for a distance of 450'±. Along the way, a driveway for house #3 Astrig Way is located on the east side.



10'± Wide Segment of Astrig Way



A short distance south of the driveway for house #3, the roadway becomes 18'± wide and extends for an additional 250'± to the intersection with Springs Rd. A driveway for house #1 Astrig Way is located on the east side 100'± north of the intersection with Springs Rd.



18'± Wide Segment of Astrig Way

Alternative 4c

Alternative 4C runs off-road along the east side of Route 3 right-of-way, and on-road along Elliot Street/Orchard Road from a point west of Hattie Lane's Cul-De-Sac, prior to the Route 3 State Highway Layout to the intersection with Technology Park Drive. Past the intersection, Alternative 4C continues running mostly on-road along Technology Park Drive and Astrig Way from Technology Park Drive to Springs Road.

Alternative 4C takes advantage of the Spur to Nutting Lake that starts west of Hattie Lane's cul-de-sac. This alternative will require the construction of a boardwalk structure through wetlands and flood plain to connect the end of the Spur to Nutting Lake back to the east side of Route 3 right-of-way, and a crossing over Mill Brook. Due to the elevation difference between the path along the Route 3 corridor and Elliot Street, this alternative will also require a ramp to connect to Orchard Road.

Past the intersection with Orchard Road, Alternative 4C continues along the east side Technology Park Drive, where granite edging separates the roadway from an existing bituminous concrete sidewalk. Along the way, there are 3 intersecting roads and two driveways for the properties located at 1000 (Northeast Market Center) and 880 (Raytheon) Technology Park Drive.

A narrow 3'± wide informal gravel trail connects Technology Park Drive to Astrig Way. The terrain along the trail is generally level with a gradual slope down towards Technology Park Drive. West of the trail, the topography is generally level and wooded. A stormwater basin is located on the east side.



South of the trail is Astrig Way. At this end, Astrig way is a 10'± wide paved road. The end of Astrig Way leads to a rear driveway for house #350 Concord Road. This driveway was observed to be used by construction vehicles at the time of the site walk. Astrig Way continues as a 10'± wide paved road south towards Springs Rd for a distance of 450'±. Along the way, a driveway for house #3 Astrig Way is located on the east side.

A short distance south of the driveway for house #3, the roadway becomes 18'± wide and extends for an additional 250'± to the intersection with Springs Rd. A driveway for house #1 Astrig Way is located on the east side 100'± north of the intersection with Springs Rd.

Proposed Conditions

Several different typical sections were developed in order to determine the functional advantages and disadvantages of each bikepath alternative (see Typical Sections).

As mentioned earlier, this alternatives analysis focuses on Section 1, Alternative 1B, Section 2, Alternatives 2B and 2C, and Section 4, Alternative A and Alternative 4B since these are the locations for the Alternatives Analysis. Table 1 – Alternatives Comparison, summarizes the information described below.

Section 1 – Alternative 1b

This alternative borders the east side of the BHS Alumni Memorial Field to connect Good St with River St, and continues along River St to where it intersects the abandoned railroad alignment for an approximate total length of 1,910 feet.

Impacts

- Impacts to private property:

Based on information shown on assessors maps obtained from the Town's website, a portion of the bikeway alignment is within Recreational/School Town owned land, and the rest is within River St right-of-way; therefore, impacts to private property are unlikely.

- Impacts to environmental resource areas:

No impacts to environmental resource areas are anticipated as part of this alternative.

- Access on State Highway Layout:

No impacts related to access on State Highway Layout would be anticipated for this alternative.

- Constructability:

It is anticipated that the portion of the alignment that connects Good St with River St would be constructed using a combination of Roadside and Off-Road Sections. The Roadside Section would be installed in areas adjacent to the existing parking lots, and the Off-Road Section would be constructed where the open space available makes it possible. Only minor vegetation clearing and grading to construct the bikeway would be anticipated in this area.

Along the River St segment, sidewalk widening would be required, as well as the implementation of minor temporary traffic control devices and police/flaggers to guide motorists during construction at the intersections.



- Design Costs:
The design cost would be a percentage of the estimated construction cost.
- Construction Costs (See Table 3 - Construction Cost Estimates per segment):
Alternative 1b has an estimated construction cost of \$580,000.00
The estimate assumes the following:
 - Costs for environmental resource areas mitigation are unlikely; however, if required, these costs have not been included.
 - Design will conform to MassDOT and ASSHTO Standards
 - Right-of-way acquisitions are unlikely; however, if required, these costs have not been included.
 - Construction prices based on August 2014 MassDOT Weighted Average Bid Unit Costs
 - Aerial electric transmission line exists within RR ROW; no pole relocations are anticipated
 - Railroad tracks, ties and ballast have been removed from the RR ROW; no hazardous materials will be encountered, contaminated soil handling, transport and disposal are minimal

Section 2 – Alternative 2b

This alternative runs on the west side of the railroad along the property line of the Cabot Property, parallel to the Concord River, from Richardson Street Ext. to Concord Road, and continues through the Federal Street office park from Concord Road to Middlesex Turnpike for an approximate total length of 6,080 feet.

Impacts

- Impacts to private property:
Based on information shown on assessors maps obtained from the Town's website, with the exception of a segment of Richardson Street Extension and the intersection of Middlesex Tpke and Concord Road that are within public right-of-way, a high percentage of the bikeway alignment for this alternative is on private property and permanent right-of-way takings would be required.
- Impacts to environmental resource areas:
Impacts to environmental resource areas would be anticipated as part of this alternative (see Table 2 – Summary of Environmental Constraints).
- Constructability (see Figures 4A and 4B):
Roadway widening would be required along Richardson Street Extension. The implementation of temporary traffic control devices and police/flaggers to guide motorists during construction would be anticipated along Richardson Street Extension, and on Concord Road and Middlesex Turnpike. Along the off-road segments, vegetation clearing, and grading to increase the width of existing trails and constructing the bikeway would be necessary. In addition, measures to mitigate impacts to environmental resources areas during construction would need to be implemented.
- Construction Costs (See Table 3 - Construction Cost Estimates per segment):
Alternative 2B has an estimated construction cost of \$1,060,000. This cost could decrease or increase by a small percentage depending on the option selected near the end at Middlesex Turnpike.



The estimate assumes the following:

- Costs for environmental resource areas mitigation will likely be required; however, these costs have not been included.
- Design will conform to MassDOT and ASSHTO Standards
- Right-of-way Acquisitions will likely be required; however these costs have not been included
- Construction prices based on August 2014 MassDOT Weighted Average Bid Unit Costs
- Aerial electric transmission line exists within RR ROW; no pole relocations are anticipated
- Railroad tracks, ties and ballast have been removed from the RR ROW; no hazardous materials will be encountered, contaminated soil handling, transport and disposal are minimal

Section 2 – Alternative 2c

This alternative runs on the east side of the railroad along the property line of the Cabot Property, between Richardson Street Ext. and Concord Road for an approximate total length of 3,160 feet. As Alternative 2A, this alternative uses the railroad alignment from Concord Road to Middlesex Turnpike.

Impacts

- Impacts to private property:
Based on information shown on assessors maps obtained from the Town's website, a high percentage of the bikeway alignment for this alternative is on private property and permanent right-of-way takings would be anticipated.
- Impacts to environmental resource areas:
Impacts to environmental resource areas would be anticipated as part of this alternative (see Table 2 – Summary of Environmental Constraints).
- Access on State Highway Layout:
No impacts related to access on State Highway Layout would be anticipated for this alternative.
- Constructability (see Figure 4B):
Minor temporary traffic control devices and police/flaggers to guide motorists during construction would be anticipated at the intersections with Richardson Street Extension and Concord Road. Vegetation clearing and grading to construct the bikeway would be necessary. In addition, measures to mitigate impacts to environmental resources areas during construction would need to be implemented.
- Design Costs:
The design cost would be a percentage of the estimated construction cost.
- Construction Costs (See Table 3 - Construction Cost Estimates per segment):
Alternative 2C has an estimated construction cost of \$440,000.
The estimate assumes the following:
 - Costs for environmental resource areas mitigation will likely be required; however, these costs have not been included.
 - Design will conform to MassDOT Standards



- Right-of-way Acquisitions will likely be required; however these costs have not been included
- Construction prices based on August 2014 MassDOT Weighted Average Bid Unit Costs
- Aerial electric transmission line exists within RR ROW; no pole relocations are anticipated
- Railroad tracks, ties and ballast have been removed from the RR ROW; no hazardous materials will be encountered

Section 4 – Alternative 4a

This alternative runs mostly off-road southerly along Route 3 to Elliot Street, where a ramp system will connect to Elliot Street, north of the roadway overpass of Route 3. The path would continue on Orchard Road as a separated shared used path on the north side of the roadway to the entrance to the Middlesex Community College. The trail would connect to the Bay Circuit Trail system through the college campus. Alternative 4A has an approximate total length of 4,640 ft.

Impacts

- Impacts to private property:

Based on information shown on assessors maps obtained from the Town's website, a portion of the bikeway alignment is within the railroad right-of-way on public land, within the Route 3 State Highway Layout, and within the Elliot Street/ Orchard Road county layout. Easements may be needed from MassDOT to develop the trail within the State Highway Layout. No impacts to private property are anticipated.
- Impacts to environmental resource areas:

Major impacts to environmental resource areas are anticipated as part of this alternative (see Table 2 – Summary of Environmental Constraints).
- Access on State Highway Layout:

Impacts to access on State Highway Layout (SHLO) would be anticipated for this alternative. In initial conversations with Representatives of MassDOT, DOT would allow for the trail to be within SHLO behind the noise barriers along this alternative alignment.
- Constructability:

This alternative involves a ramp system from the SHLO to Elliot Street, where the bikepath would be on-road, with pavement markings and signage on Orchard Road.

This alignment will also require a crossing over Mill Brook.
- Design Costs:

The design cost for this section would include the bike path, board walk and ramp system onto Orchard Road.
- Construction Costs (See Table 3 - Construction Cost Estimates per segment):

Alternative 4A has an estimated construction cost of \$2,740,000.

The estimate assumes the following:

 - Costs for environmental resource areas mitigation will likely be required; however, these costs have not been included.
 - Design will conform to MassDOT Standards



- Right-of-way Acquisitions will likely be required; however these costs have not been included
- Construction prices based on August 2014 MassDOT Weighted Average Bid Unit Costs
- Aerial electric transmission line exists within RR ROW; no pole relocations are anticipated
- Railroad tracks, ties and ballast have been removed from the RR ROW; no hazardous materials will be encountered

Section 4 – Alternative 4b

This alternative runs mostly off-road along an independent pedestrian bridge over Route 3, and continues through Technology Park and Astrig Way at the southern end of the project from Old Concord Road to Springs Road for an approximate total length of 4,300 feet.

Impacts

- Impacts to private property:
Based on information shown on assessors maps obtained from the Town's website, a portion of the bikeway alignment is within the railroad right-of-way on public land; however, a high percentage of the bikeway alignment for this alternative is on private property and permanent right-of-way takings would be anticipated.
- Impacts to environmental resource areas:
Major impacts to environmental resource areas are anticipated as part of this alternative (see Table 2 – Summary of Environmental Constraints).
- Access on State Highway Layout:
Impacts to access on State Highway Layout would be anticipated for this alternative to construct an independent pedestrian bridge over Route 3.
- Constructability (see Figures 4A, 4B, 4C and 4D):
This alternative involves sophisticated techniques to construct a new bicycle/pedestrian bridge over Route 3. The clearance of the bridge over Route 3 would be a minimum of 17 feet.

In addition to the bridge, long access ramps would need to be constructed in close proximity to wetlands, and through overhead utilities on Old Concord Road.

This alternative will also require a crossing over Mill Brook. Roadway widening would be required along Astrig Way. Along the off-road segments, vegetation clearing, and grading to increase the width of existing trails and construct the bikeway would be necessary. In addition, measures to mitigate impacts to environmental resources areas during construction would need to be implemented.

- Design Costs:
The design cost would be a higher percentage of the estimated construction cost due to the structural component associated with this alternative.
- Construction Costs (See Table 3 - Construction Cost Estimates per segment):
Alternative 4B has an estimated construction cost of \$4,230,000.
The estimate assumes the following:



- Costs for environmental resource areas mitigation will likely be required; however, these costs have not been included.
- Design will conform to MassDOT Standards
- Right-of-way Acquisitions will likely be required; however these costs have not been included
- Construction prices based on August 2014 MassDOT Weighted Average Bid Unit Costs
- Aerial electric transmission line exists within RR ROW; no pole relocations are anticipated
- Railroad tracks, ties and ballast have been removed from the RR ROW; no hazardous materials will be encountered

Section 4 – Alternative 4c

This alternative runs mostly off-road southerly along Route 3 to Elliot Street, where a ramp system will connect to Elliot Street, north of the roadway overpass of Route 3. The path would continue on Orchard Road as a separated shared used path on the north side of the roadway to the intersection with Technology Park Drive, and continue mostly on-road through Technology Park Drive and Astrig Way at the southern end of the project from Orchard Road to Springs Road for an approximate total length of 8,530 feet.

Impacts

- Impacts to private property:

Based on information shown on assessors maps obtained from the Town's website, a portion of the bikeway alignment is within the railroad right-of-way on public land, within the Route 3 State Highway Layout, and within the Elliot Street/Orchard Road county layout. Easements may be needed from MassDOT to develop the trail within the State Highway Layout. In addition, a high percentage of the bikeway alignment for this alternative is on private property and permanent right-of-way takings would be anticipated.

- Impacts to environmental resource areas:

Major impacts to environmental resource areas are anticipated as part of this alternative (see Table 2 – Summary of Environmental Constraints).

- Access on State Highway Layout:

Impacts to access on State Highway Layout (SHLO) would be anticipated for this alternative. In initial conversations with Representatives of MassDOT, they would allow for the trail to be within SHLO behind the noise barriers along this alternative alignment.

- Constructability:

This alternative involves a ramp system from the SHLO to Elliot Street, where the bikepath would be on-road, with pavement markings and signage on Elliot Street/Orchard Road. It also requires a crossing over Mill Brook. The implementation of temporary traffic control devices and police/flaggers to guide motorists during construction would be anticipated along Technology Park Drive. Roadway widening would be required along Astrig Way. Along the off-road segments, vegetation clearing, and grading to increase the width of existing trails and construct the bikeway would be necessary.

- Design Costs:

The design cost for this section would include the bike path, board walk and ramp system onto Elliot Street.



- Construction Costs (See Table 3 - Construction Cost Estimates per segment):

Alternative 4C has an estimated construction cost of \$3,330,000.

The estimate assumes the following:

- Costs for environmental resource areas mitigation will likely be required; however, these costs have not been included.
- Design will conform to MassDOT Standards
- Right-of-way Acquisitions will likely be required; however these costs have not been included
- Construction prices based on August 2014 MassDOT Weighted Average Bid Unit Costs
- Railroad tracks, ties and ballast have been removed from the RR ROW; no hazardous materials will be encountered

Environmental Permitting

Wetlands meeting state and federal jurisdiction definition are subject to regulation under the Massachusetts Wetlands Protection Act and Sections 401 and 404 of the federal Clean Water Act. All wetland resource areas identified adjacent to the project have been assumed to be subject to both state and federal jurisdiction. Field investigation is required to confirm this assumption.

Any alteration or work proposed within the state regulated wetlands would be limited to 5,000 square feet of alteration unless the proposed work qualified as a "limited project" (310 CMR 10.53). There is no limited project status for a bike path altering vegetated wetlands; there is an exemption from Riverfront Area standards for a bike path if not in another resource area (such as floodplain). A Notice of Intent would need to be filed with the Billerica Conservation Commission under the Act for approval of alteration of a wetland resource area or for work within 100 feet of BVW or Bank. All perennial stream crossings, and some intermittent, will be required to comply with the Massachusetts Stream Crossing Standards (MSCS). Perennial waterways within the project area include the Concord River, Mill Brook and an unnamed waterway. The standards stipulate design conditions including the width of the crossing, the height or openness of the crossing and use of a natural substrate.

Under federal regulation, projects which fill less than 5,000 square feet of regulated wetlands do not require an individual 401 Water Quality Certification, provided that the work is done with a valid Order of Conditions (from the Billerica Conservation Commission) and that 1:1 wetland replacement is provided. Projects filling greater than 5,000 square feet of federally regulated wetlands require an individual 401 Water Quality Certification. If the area of impact exceeds 1 acre, an individual permit is needed from the U.S. Army Corps of Engineers (USACE). Projects filling less than 1-acre of federal wetlands may be covered under a General Permit (GP).



Roadway Crossing Treatments

Crossing treatments should be designed to not only address cross traffic movements, but should also address turning movements of users entering and exiting the path. Each of the roadways that the bike path intersects has varying volumes of traffic, and has a highway functional classification ranging from a local roadway to a collector or arterial roadway. The crossing treatments for the roadways would range from pavement markings and signage on both the bike path and roadway alerting the user (of both the trail and road) that there is a trail crossing ahead, a signalized crossing such as a rectangular rapid flashing beacon that alerts a roadway user of an approaching trail user, or a Pedestrian Hybrid Beacon System (HAWK) signal that is installed on a mast arm over the roadway, and flashes when a trail user activates it, so that traffic stops for the crossing. The use of any of the crossing treatments would be designed to federal standards, and meet pedestrian warrants, as applicable.

It should be noted that before any signalized crossing treatment is designed and during later design phases, a thorough warrant analysis would be conducted in accordance with standards outlined in the Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD). Typical crossing treatment details and warrants are shown in Attachment B.



Recommended Alignment

VHB met with the Billerica Bike Committee on November 19, 2014 to discuss this alternatives analysis, and the trail as a whole. Although each alternate alignment through Segments 2 and 4 had advantages and disadvantages, the Bike Committee approved the following trail alignment to advance.

Segment 1A*

Segment 2B along the Concord River

Segment 3, without the connection to the Rizza Recreation Facility

Segment 4C, modified to extend along the abandoned railroad spur to Nuttings Lake, over Mill Brook, where it continues on the original Segment 4C alignment until reaching Technology Park Drive, where the trail will follow the Drive until Astrig Way.

The Bike Committee also voted to terminate the southern limit of the bikepath at the Bedford Narrow Gage, at the intersection of Astrig Way and Springs Road.

The total cost for the preferred alignment has been estimated at \$5,240,000.00.

The Bike Committee presented the recommended alignment to the Billerica Board of Selectmen on December 15, 2014, and requested that the BOS endorse the recommended alignment, and vote to submit a Project Information Form to MassDOT to request construction funding.

*Note: after the Bike Committee and Board of Selectmen voted on the preferred alignment, there were concerns raised by a project abutter about the alignment of the trail through the Concord Crossing Condominium property. Town staff identified an alternative alignment 1B to be considered through design development. For the purposes of developing a construction cost estimate for the project, the more conservative costs of 1B was used.



Figures

- Figure 1 – Key Sheet
- Figure 2 – Section 1 and 2
- Figure 3 – Section 3 and 4
- Figure 4 – Preferred Alternative
- Figure 5a-d – Typical Sections

Tables

- Table 1 – Alternatives Comparison
- Table 2 – Summary of Environmental Constraints
- Table 3 – Construction Cost Estimates per segment

Appendix

- A - Photograph Inventory
- B - Letters of Support



Figures

- Figure 1 – Key Sheet
- Figure 2 – Section 1 and 2
- Figure 3 – Section 3 and 4
- Figure 4 – Preferred Alternative
- Figure 5a-d – Typical Sections

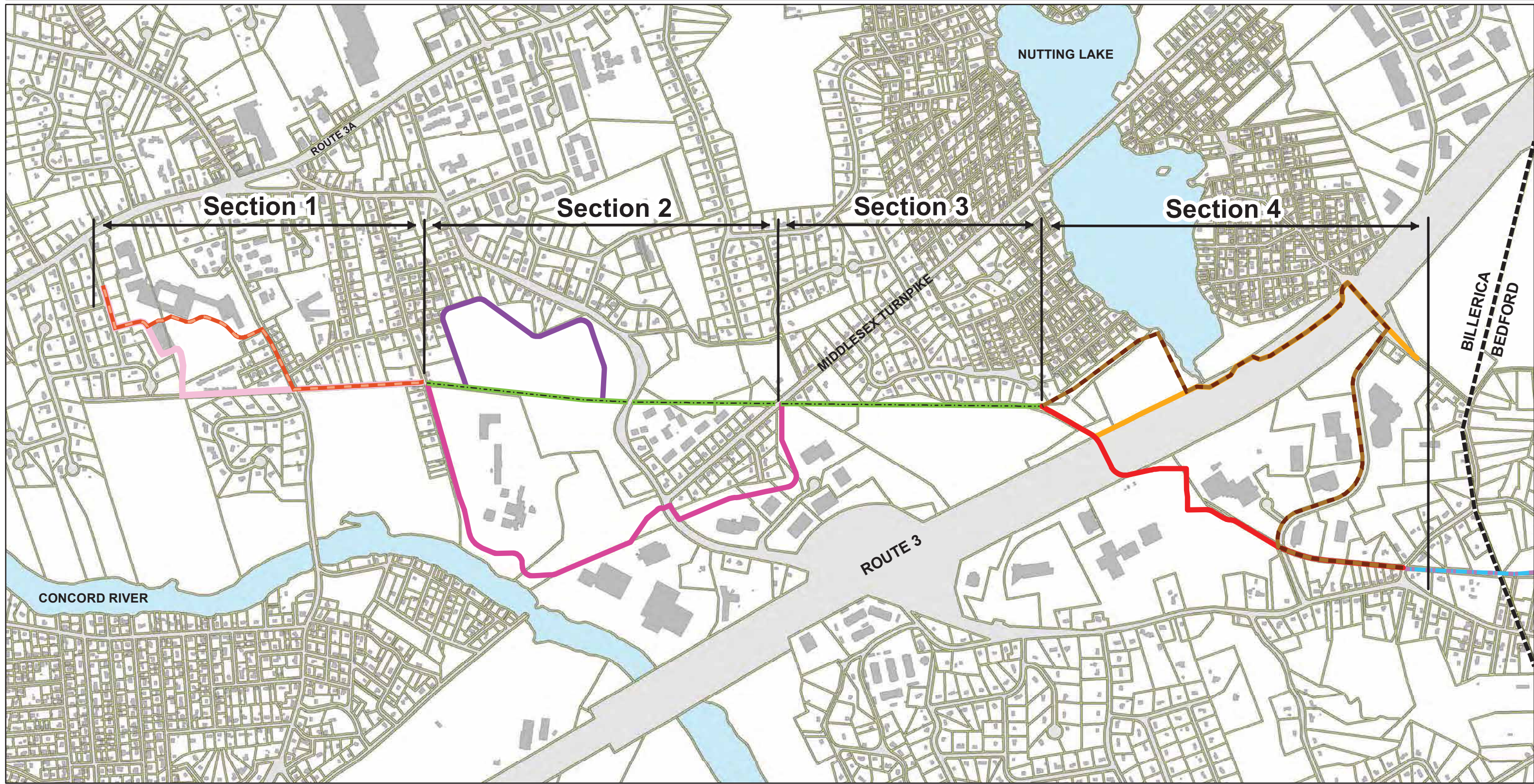
Tables

- Table 1 – Alternatives Comparison
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Appendix

- A - Photograph Inventory
- B - Letters of Support

Figure 1 – Key Sheet



Source: BING 2013, MassGIS 2009, 2013 & 2014 & VHB 2014

Vanasse Hangen Brustlin, Inc.

Figure 1
 Key Sheet
 Yankee Doodle Bike Path
 Alternatives Analysis
 Billerica, Massachusetts

- Mainline
- Alternative 1A
- Alternative 1B
- Alternative 2B
- Alternative 2C
- Alternative 4A
- Alternative 4B
- Alternative 4C
- Narrow Gauge Rail Trail

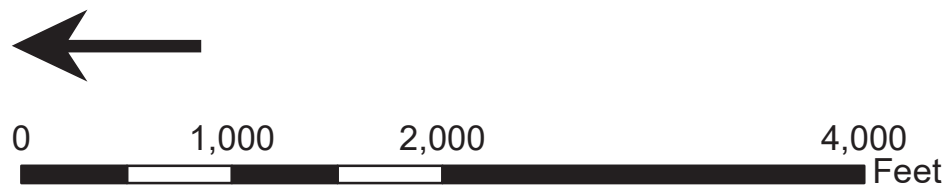
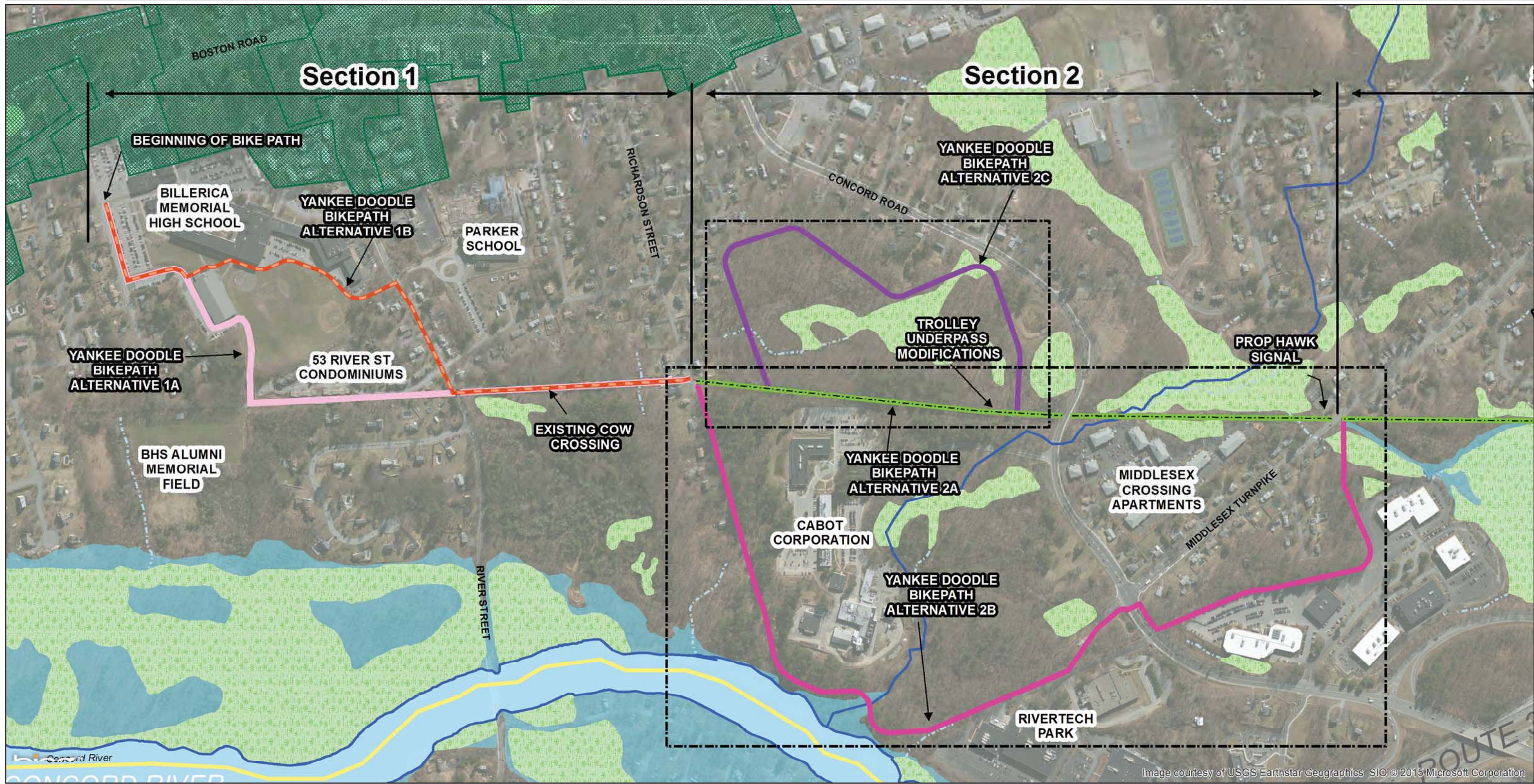


Figure 2 – Section 1 and 2



Source: BING 2013, MassGIS 2009, 2013 & 2014 & VHB 2014

Vanasse Hangen Brustlin, Inc.

Figure 2
Yankee Doodle Bike Path
Section 1 & 2 Alternatives

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> — Mainline — Alternative 1A — Alternative 1B — Alternative 2B — Alternative 2C | <ul style="list-style-type: none"> — Alternative 4A — Alternative 4B — Alternative 4C — Narrow Gauge Rail Trail | <ul style="list-style-type: none"> ▨ Bordering Vegetated Wetland — Perennial Stream — Intermittent Stream — Open Water — 100-Year Floodplain ▨ Historic Area — Impaired Waterway ▨ Impaired Waterbody |
|--|---|--|

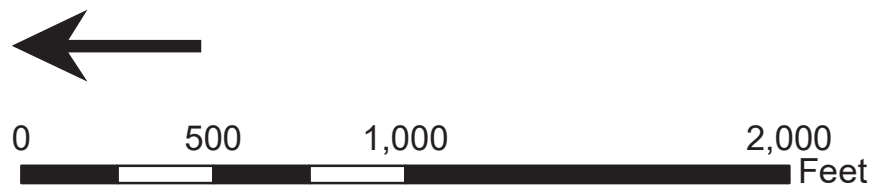
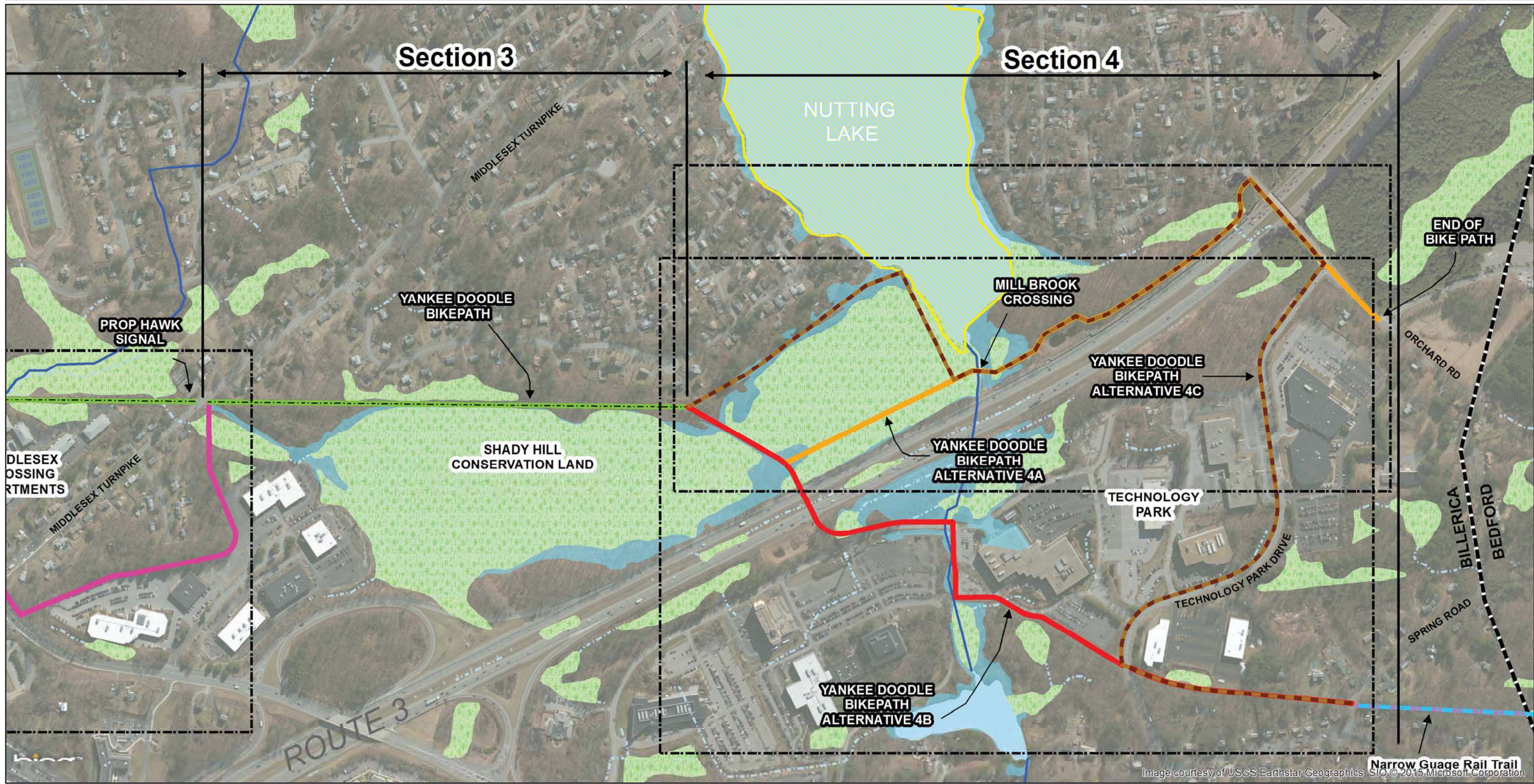


Figure 3 – Section 3 and 4



Source: BING 2013, MassGIS 2009, 2013 & 2014 & VHB 2014

Vanasse Hangen Brustlin, Inc.

Figure3
Yankee Doodle Bike Path
Section 4 Alternatives

- | | | |
|------------------|---------------------------|-------------------------------|
| — Mainline | — Alternative 4A | — Bordering Vegetated Wetland |
| — Alternative 1A | — Alternative 4B | — Perennial Stream |
| — Alternative 1B | — Alternative 4C | — Intermittent Stream |
| — Alternative 2B | — Narrow Gauge Rail Trail | — Open Water |
| — Alternative 2C | | — 100-Year Floodplain |
| | | — Historic Area |
| | | — Impaired Waterway |
| | | — Impaired Waterbody |

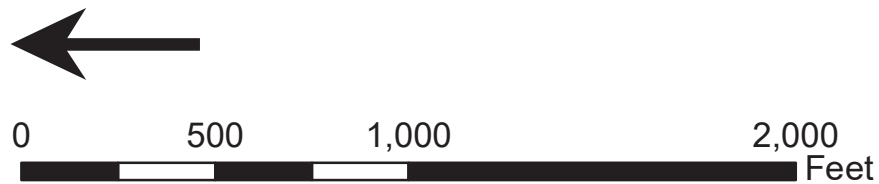
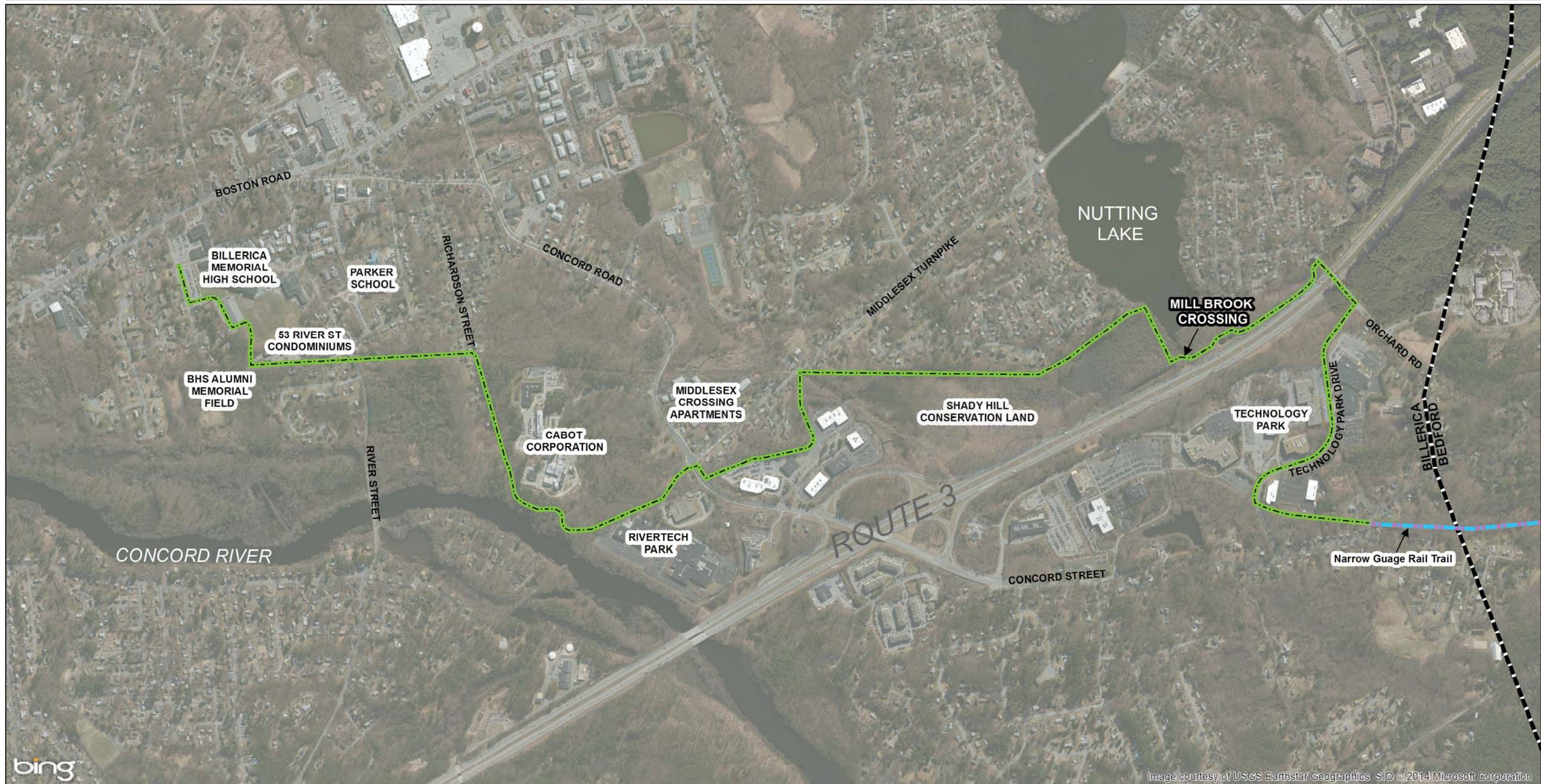


Figure 4- Preferred Alternative



Source: BING 2013, MassGIS 2009, 2013 & 2014 & VHB 2014

Vanasse Hangen Brustlin, Inc.

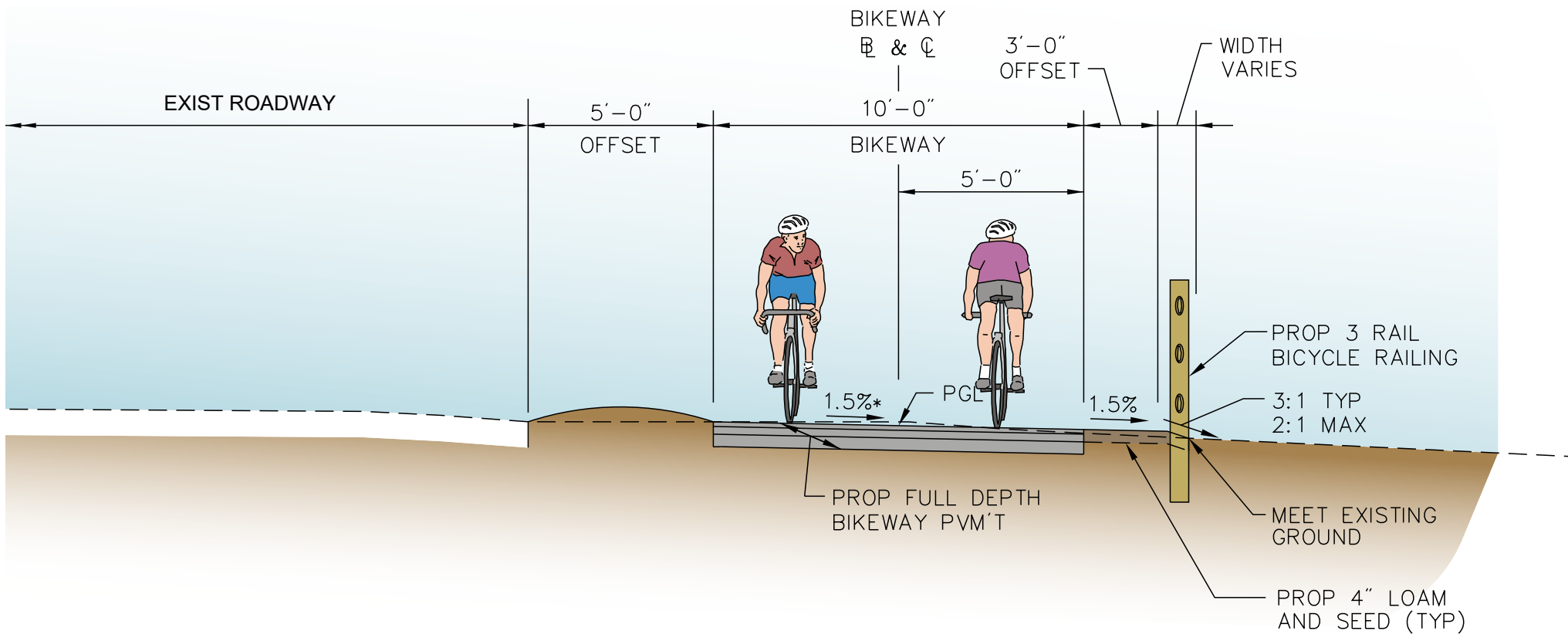
Image courtesy of USGS Earthstar Geographics SIO © 2014 Microsoft Corporation

Yankee Doodle Bike Path Alternatives Analysis
Billerica, Massachusetts

- Preferred Alternative
- Narrow Gauge Rail Trail



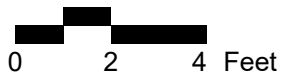
Figure 5a to 5d – Typical Sections

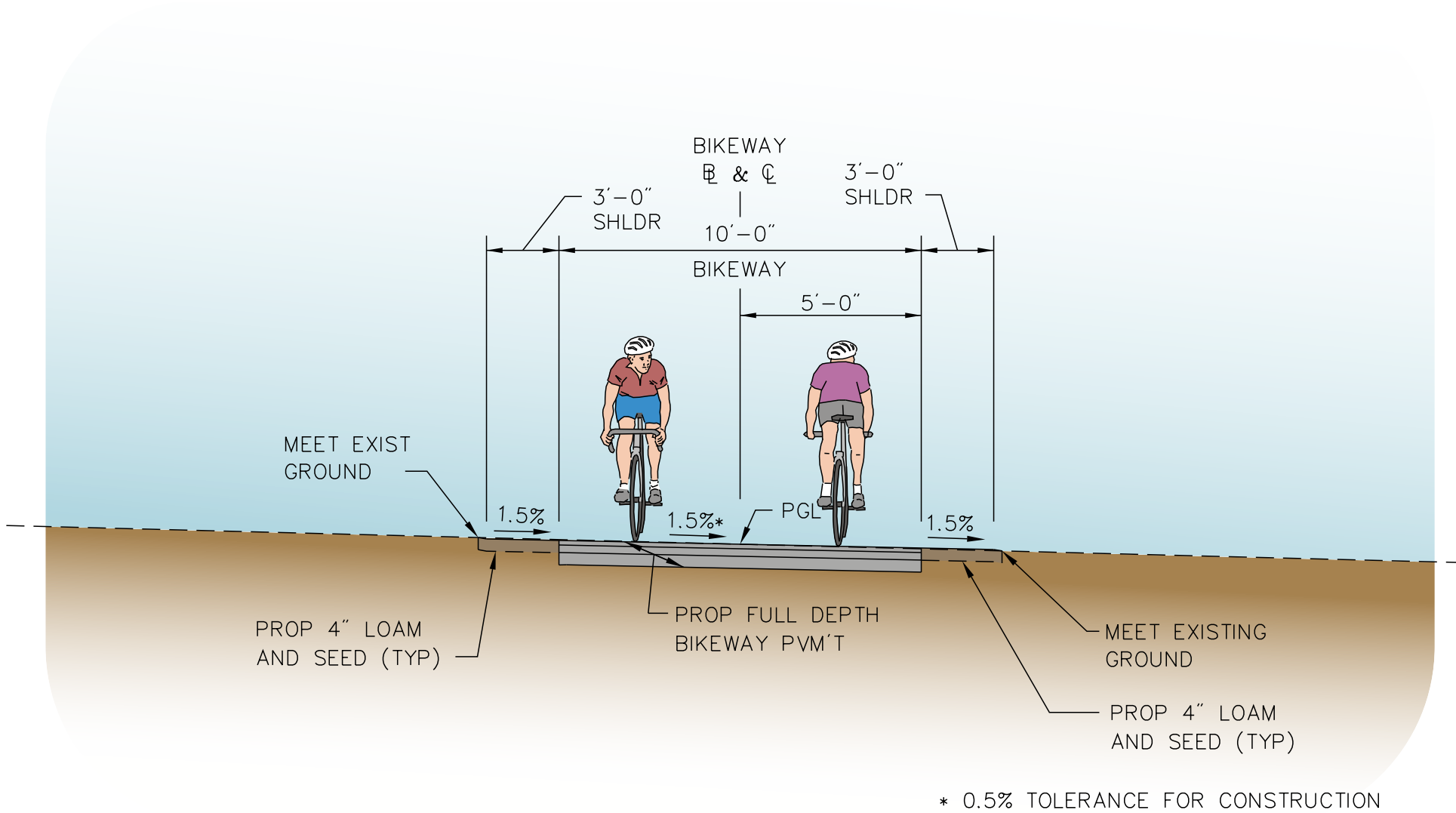


* 0.5% TOLERANCE FOR CONSTRUCTION

Vanasse Hangen Brustlin, Inc.

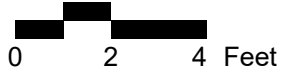
Yankee Doodle Bike Path
Typical Bikeway Section
Roadside Shared Use Path

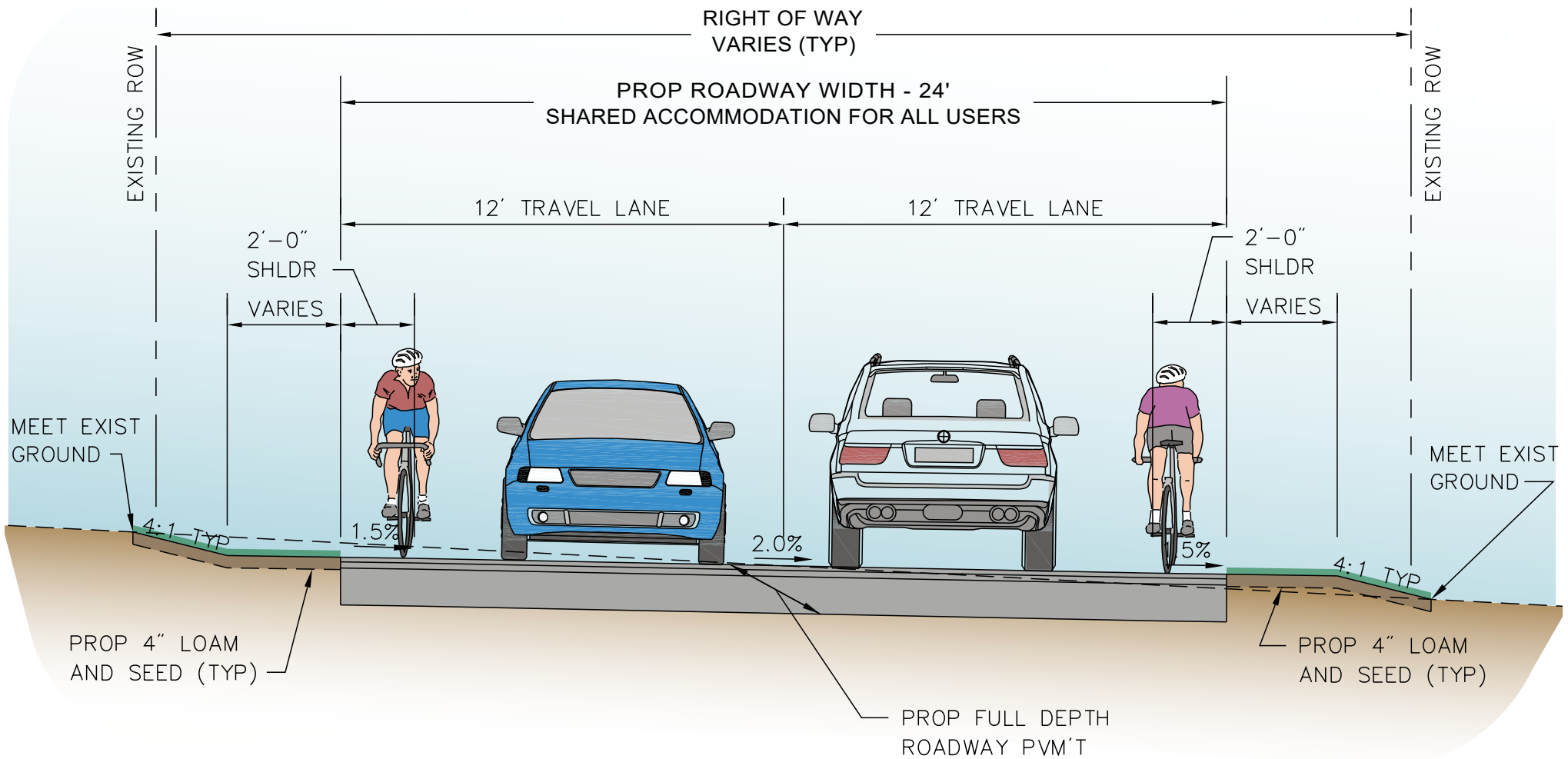




Vanasse Hangen Brustlin, Inc.

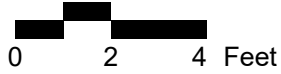
Yankee Doodle Bike Path
Typical Bikeway Section
Off-Road Section

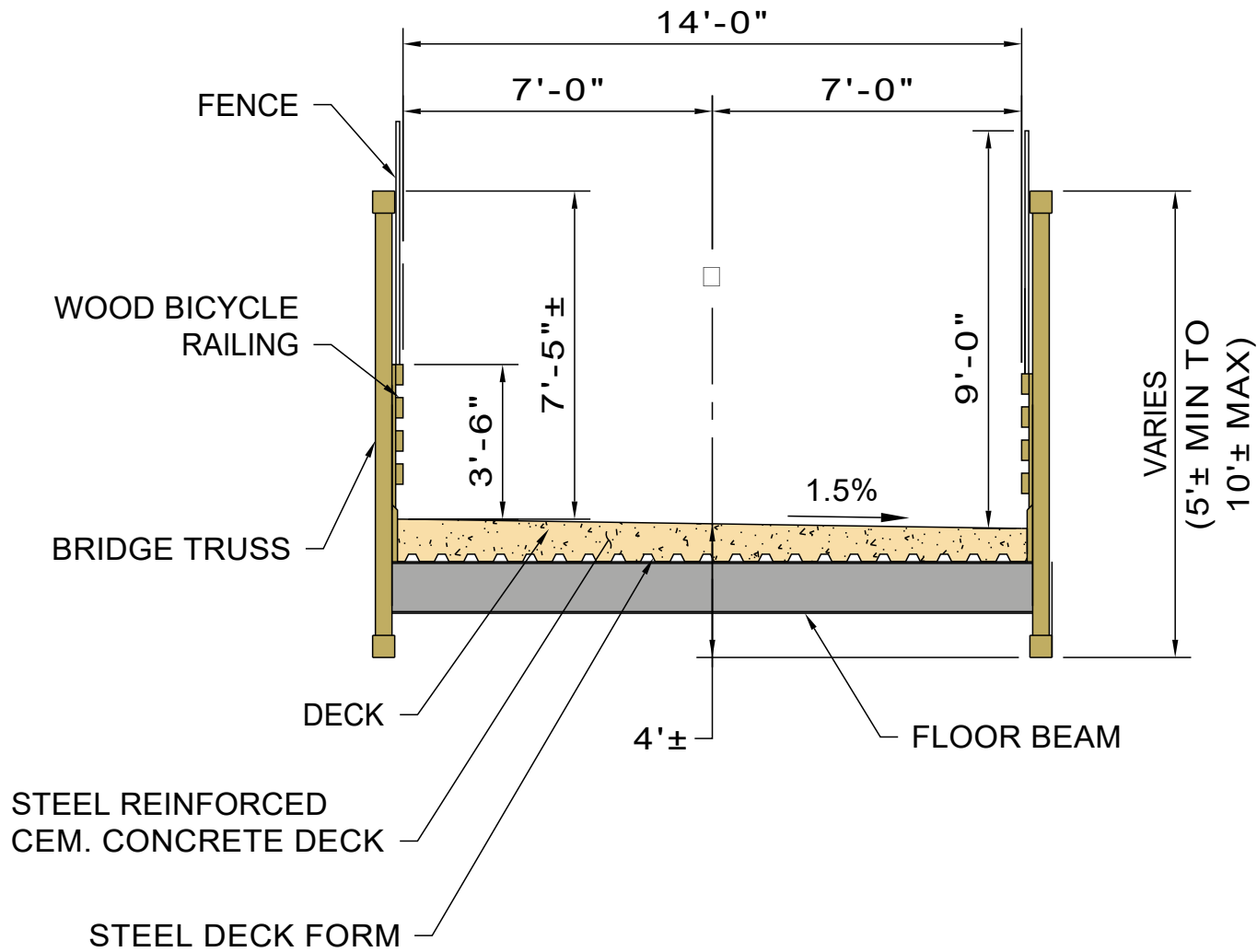




Vanasse Hangen Brustlin, Inc.

Yankee Doodle Bike Path
Typical Roadway Section
Low Speed / Low Volume Roadway





Vanasse Hangen Brustlin, Inc.

Figure 4D
Yankee Doodle Bike Path
Typical Section
Pedestrian Bridge

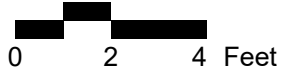


Table 1- Alternative Comparison

TABLE 1 – ALTERNATIVES COMPARISON

LOCATION	LENGTH	IMPACTS TO PRIVATE PROPERTY	ENVIRONMENTAL PERMITS*	CONSTRUCTIBILITY	CONSTRUCTION COSTS
SECTION 1 – ALTERNATIVE 1A	2,360 FT	NO	Notice of Intent	<ul style="list-style-type: none"> - Majority is off-road along abandoned railroad alignment - Crosses River St and Richardson St - Possible hawk signal 	\$410,000
SECTION 1 – ALTERNATIVE 1B	3,180 FT	NO	Notice of Intent	<ul style="list-style-type: none"> - Roadside section adjacent to existing parking lots in Town owned land - Off-road section where open space is available in Town owned land - Minor vegetation clearing and grading - Sidewalk widening on River Street - Possible HAWK signal 	\$580,000
SECTION 2 - ALTERNATIVE 2A	3,400 FT	NO	Notice of Intent	<ul style="list-style-type: none"> - Majority is off-road along abandoned railroad alignment - Crosses Concord Rd and Middlesex Turnpike - Possible pedestrian signal or hawk signal 	\$640,000 Richardson St to Concord Rd = \$ 424,000 Concord Rd to Middlesex Tpke = \$216,000
SECTION 2 - ALTERNATIVE 2B	6,080 FT	YES	Notice of Intent	<ul style="list-style-type: none"> - Roadway widening on Richardson Street Extension - Vegetation clearing - Grading to increase width of existing trails - Grading to construct bikeway on off-road segments - May use Concord Road and Middlesex Turnpike signal 	\$1,060,000
SECTION 2 - ALTERNATIVE 2C	3,160 FT	YES	Notice of Intent	<ul style="list-style-type: none"> - Vegetation clearing - Grading to construct the bikeway - Possible pedestrian signal or hawk signal 	\$440,000
SECTION 3	2,560 FT	NO	Notice of Intent	<ul style="list-style-type: none"> - Majority is off-road along abandoned railroad alignment - No roadway intersection crossings 	\$270,000
SECTION 4 – ALTERNATIVE 4A	4,640 FT	NO	Notice of Intent	<ul style="list-style-type: none"> - More complex - Uses Route 3 right-of-way - Requires crossing over Mill Brook - Requires Construction of boardwalk structure - On-road portion along Orchard Rd - Orchard Rd overpass pavement markings to accommodate bike lanes - Southern end at Middlesex Community College 	\$2,740,000
SECTION 4 - ALTERNATIVE 4B	4,300 FT	YES	Wetland Protection Act Variance Water Quality Certification Massachusetts Category 2 General Permit	<ul style="list-style-type: none"> - Independent pedestrian bridge over Route 3 - Long access ramps to meet ADA compliance of 5% profile - Crosses Technology Park Drive - Requires crossing over Mill Brook - Roadway widening on Astrig Way - Vegetation clearing - Grading to increase width of existing trails - Grading to construct bikeway on off-road segments - Southern end at Astrig Way and Narrow Gauge Rail Trail - Permission from property owner to put path on roadway - Utilities along Old Concord Rd relocate for crossing 	\$4,230,000
SECTION 4 – ALTERNATIVE 4C	8,530 FT	YES	Wetland Protection Act Variance Water Quality Certification Massachusetts Category 2 General Permit	<ul style="list-style-type: none"> - Uses Route 3 right-of-way - Requires crossing over Mill Brook - Requires Construction of boardwalk structure - On-road portion along Orchard Rd, Technology Park Drive and Astrig Way - Orchard Rd overpass pavement markings to accommodate bike lanes - Roadway widening on Astrig Way - Vegetation clearing - Grading to increase width of existing trails - Grading to construct bikeway on off-road segments - Permission from property owner to put path on roadway - Southern end at Astrig Way and Narrow Gauge Rail Trail 	\$3,330,000

*Environmental permit assumptions are based on desktop analysis and may change based on field investigation to confirm resource area limits. Bold represents preferred alternative.

Table 2 – Environmental Constraints Summary

Table 2. Summary of Environmental Constraints

Alternative	Wetland Impact	Bank Impact	Riverfront Area Impact	Floodplain Impact	Rare Species Habitat	Certified Vernal Pool	Stream Crossings		Zone II	IWPA	Historic District
							Intermittent	Perennial			
Section 1 - Alternative A	Yes	Yes	No	No	No	No	1	0	No	No	No
Section 1 - Alternative B (Part of Preferred Alternative)	Yes	Yes	No	No	No	No	1	0	No	No	No
Section 2 - Alternative A - Along the Property Line of the Cabot Property	Yes	Yes	Yes	No	No	No	1	1	No	No	No
Section 2 - Alternative B - Along the Property Line of the Cabot Property (Riverside) (Part of Preferred Alternative)	Yes	Yes	Yes	Yes	No	No	1	1	No	No	No
Section 2 - Alternative C - East of the Abandoned Railroad	Yes	Yes	Yes	No	No	No	1	0	No	No	No
Section 3 (Part of Preferred Alternative)	Yes	No	No	Yes	No	No	0	0	No	No	No
Section 4 - Alternative A	Yes	Yes	Yes	Yes	No	No	2	1	No	No	No
Section 4 - Alternative B - Along an Independent Pedestrian Bridge Over Route 3 & At the Southern End of the Project, Along Technology Park Drive and Astrig Way	Yes*	Yes	Yes	Yes	No	No	2	1	No	No	No
Section 4 - Alternative C - Spur to Nutting Lake, Along Orchard Street, Technology Park Drive and Astrig Way (Part of Preferred Alternative)	Yes	Yes	Yes	Yes	No	No	3	1	No	No	No
Preferred Alternative - Full Extent	Yes	Yes	Yes	Yes	No	No	5	2	No	No	No

* Impacts are over 5,000 square feet

Table 3 - Construction Cost per Segment



*** Prices Based on Weighted Average Bid Prices (August 2014)**
Yankee Doodle Bike Path
Section 1
Billerica, Massachusetts
Sep-14

<u>Description</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Total Cost</u>
Full Depth Pavement - Bikeway	\$41.00 /SY	3,000 SY	\$123,000.00
Loam Borrow & Seed	\$10.00 /SY	1,200 SY	\$12,000.00
Signing, Striping & Pavement Markings	\$976.50 /LS	1 LS	\$976.50
Clearing and Grubbing	\$11,000.00 /AC	0.9 AC	\$9,548.00
3 Rail Bicycle Railing	\$40.00 /FT	868 FT	\$34,720.00
Landscaping	\$10,850.00 /LS	1 LS	\$10,850.00
At-Grade Crossing & HAWK Signal	\$40,000.00 /LS	2 LS	\$80,000.00
Police	\$500.00 /DAY	10 DAY	\$5,000.00
		SUBTOTAL:	\$276,094.50
		Mobilization @ 3%	\$8,282.84
		Contingency (20%)	\$55,218.90
		MassDOT Construction Contingency (25%)	\$69,023.63
		Construction Total	\$408,619.86

SAY:	\$410,000.00
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* Prices Based on Weighted Average Bid Prices (August 2014)

Yankee Doodle Bike Path

Section 1 - Alternative 1B (Part 1, Beginning of Alt 1B to River St and RR Intersection)

Billerica, Massachusetts

Feb-15

<u>Description</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Total Cost</u>
Full Depth Pavement - Bikeway	\$41.00 /SY	2,122 SY	\$87,011.11
Hot Mix Asphalt Driveway	\$58.00 /SY	20 SY	\$1,160.00
Loam Borrow & Seed	\$10.00 /SY	1,556 SY	\$15,555.56
Granite Curb	\$4,320.00 /LS	1 LS	\$4,320.00
Signing, Striping & Pavement Markings	\$4,000.00 /LS	1 LS	\$4,000.00
Drainage Modifications/Improvements	\$59,400.00 /LS	1 LS	\$59,400.00
Cleaning and Grubbing	\$11,000.00 /AC	1 AC	\$11,000.00
Landscaping	\$4,000.00 /LS	1 LS	\$4,000.00
Erosion Control Barrier	\$7.50 /FT	191 FT	\$1,432.50
Construction Staking	\$7.00 /FT	1,910 FT	\$13,370.00
Police	\$500.00 /DAY	10 DAY	\$5,000.00
		SUBTOTAL:	\$206,249.17
		Mobilization @ 3%	\$6,187.48
		Contingency (20%)	\$41,249.83
		MassDOT Construction Contingency (25%)	\$51,562.29
		Construction Total	\$305,248.77

SAY:	\$310,000.00
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* Prices Based on Weighted Average Bid Prices (August 2014)
 Yankee Doodle Bike Path
 Section 1 - Alternative 1B (Part 2, River St to Richardson St)
 Billerica, Massachusetts
 Feb-15

<u>Description</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Total Cost</u>
Full Depth Pavement - Bikeway	\$41.00 /SY	1,411 SY	\$57,855.56
Loam Borrow & Seed	\$10.00 /SY	564 SY	\$5,644.44
Signing, Striping & Pavement Markings	\$2,970.00 /LS	1 LS	\$2,970.00
Clearing and Grubbing	\$11,000.00 /AC	1 AC	\$11,000.00
3 Rail Bicycle Railing	\$40.00 /FT	318 FT	\$12,700.00
Landscaping	\$3,500.00 /LS	1 LS	\$3,500.00
At-Grade Crossing & HAWK Signal	\$40,000.00 /LS	2 LS	\$80,000.00
Police	\$500.00 /DAY	5 DAY	\$2,500.00
		SUBTOTAL:	\$176,170.00
		Mobilization @ 3%	\$5,285.10
		Contingency (20%)	\$35,234.00
		MassDOT Construction Contingency (25%)	\$44,042.50
		Construction Total	\$260,731.60

SAY:	\$270,000.00
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*** Prices Based on Weighted Average Bid Prices (August 2014)**

**Yankee Doodle Bike Path
Section 2 - Alternative 2A
Billerica, Massachusetts
Sep-14**

<u>Description</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Total Cost</u>
Full Depth Pavement - Bikeway	\$41.00 /SY	3,861 SY	\$158,305.56
Loam Borrow & Seed	\$10.00 /SY	1,544 SY	\$15,444.44
Bridge - Trolley Underpass	\$100,000.00 /LS	1 LS	\$100,000.00
Signing, Striping & Pavement Markings	\$1,255.50 /LS	1 LS	\$1,255.50
Clearing and Grubbing	\$11,000.00 /AC	1.1 AC	\$12,276.00
3 Rail Bicycle Railing	\$40.00 /FT	1,116 FT	\$44,640.00
Landscaping	\$13,950.00 /LS	1 LS	\$13,950.00
At-Grade Crossing & HAWK Signal	\$40,000.00 /LS	2 LS	\$80,000.00
Police	\$500.00 /DAY	10 DAY	\$5,000.00
		SUBTOTAL:	\$430,871.50
		Mobilization @ 3%	\$12,926.15
		Contingency (20%)	\$86,174.30
		MassDOT Construction Contingency (25%)	\$107,717.88
		Construction Total	\$637,689.82

SAY:	\$640,000.00
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*** Prices Based on Weighted Average Bid Prices (August 2014)**
Yankee Doodle Bike Path
Section 2 - Alternative 2B
Billerica, Massachusetts
Sep-14

<u>Description</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Total Cost</u>
Full Depth Pavement - Bikeway	\$41.00 /SY	4,863 SY	\$199,396.67
Full Depth Pavement - Roadway	\$55.00 /SY	1,133 SY	\$62,333.33
Hot Mix Asphalt Driveway	\$58.00 /SY	180 SY	\$10,440.00
Pavement Milling & Overlay	\$32.00 /SY	3,400 SY	\$108,800.00
Loam Borrow & Seed	\$10.00 /SY	8,428 SY	\$84,283.33
Signing, Striping & Pavement Markings	\$7,577.00 /LS	1 LS	\$7,577.00
Drainage Modifications/Improvements	\$46,600.00 /LS	1 LS	\$46,600.00
Clearing and Grubbing	\$11,000.00 /AC	3 AC	\$33,000.00
3 Rail Bicycle Railing	\$40.00 /FT	2,189 FT	\$87,540.00
Landscaping	\$14,000.00 /LS	1 LS	\$14,000.00
Erosion Control Barrier	\$7.50 /FT	1,307 FT	\$9,802.50
Cosntruction Staking	\$7.00 /FT	6,077 FT	\$42,539.00
Police	\$500.00 /DAY	15 DAY	\$7,500.00
		SUBTOTAL:	\$713,811.83
		Mobilization @ 3%	\$21,414.36
		Contingency (20%)	\$142,762.37
		MassDOT Construction Contingency (25%)	\$178,452.96
		Construction Total	\$1,056,441.51
		SAY:	\$1,060,000.00



*** Prices Based on Weighted Average Bid Prices (August 2014)**
Yankee Doodle Bike Path
Section 2 - Alternative 2C
Billerica, Massachusetts
Sep-14

<u>Description</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Total Cost</u>
Full Depth Pavement - Bikeway	\$41.00 /SY	3,508 SY	\$143,818.89
Loam Borrow & Seed	\$10.00 /SY	3,508 SY	\$35,077.78
Signing, Striping & Pavement Markings	\$5,000.00 /LS	1 LS	\$5,000.00
Drainage Modifications/Improvements	\$23,300.00 /LS	1 LS	\$23,300.00
Clearing and Grubbing	\$11,000.00 /AC	2 AC	\$22,000.00
3 Rail Bicycle Railing	\$40.00 /FT	789 FT	\$31,570.00
Landscaping	\$5,810.00 /LS	1 LS	\$5,810.00
Erosion Control Barrier	\$7.50 /FT	1,001 FT	\$7,507.50
Cosntruction Staking	\$7.00 /FT	3,157 FT	\$22,099.00
Police	\$500.00 /DAY	2 DAY	\$1,000.00
		SUBTOTAL:	\$297,183.17
		Mobilization @ 3%	\$8,915.50
		Contingency (20%)	\$59,436.63
		MassDOT Construction Contingency (25%)	\$74,295.79
		Construction Total	\$439,831.09
		SAY:	\$440,000.00



*** Prices Based on Weighted Average Bid Prices (August 2014)**
Yankee Doodle Bike Path
Section 3
Billerica, Massachusetts
Sep-14

<u>Description</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Total Cost</u>
Full Depth Pavement - Bikeway	\$41.00 /SY	2,844 SY	\$116,622.22
Loam Borrow & Seed	\$10.00 /SY	1,138 SY	\$11,377.78
Signing, Striping & Pavement Markings	\$927.00 /LS	1 LS	\$927.00
Clearing and Grubbing	\$11,000.00 /AC	0.8 AC	\$9,064.00
3 Rail Bicycle Railing	\$40.00 /FT	824 FT	\$32,960.00
Landscaping	\$10,300.00 /LS	1 LS	\$10,300.00
Police	\$500.00 /DAY	2 DAY	\$1,000.00
		SUBTOTAL:	\$182,251.00
		Mobilization @ 3%	\$5,467.53
		Contingency (20%)	\$36,450.20
		MassDOT Construction Contingency (25%)	\$45,562.75
		Construction Total	\$269,731.48

SAY:	\$270,000.00
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*** Prices Based on Weighted Average Bid Prices (August 2014)**
Yankee Doodle Bike Path
Section 4 - Alternative 4A
Billerica, Massachusetts
Sep-14

<u>Description</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Total Cost</u>
Full Depth Pavement - Bikeway	\$41.00 /SY	3,428 SY	\$140,538.89
Cement Concrete Wheelchair Ramps	\$100.00 /SY	70 SY	\$7,000.00
Loam Borrow & Seed	\$10.00 /SY	1,371 SY	\$13,711.11
Concrete Retaining Wall	\$550.00 /CY	0 CY	\$0.00
Timber Deck Bike Path	\$1,000.00 /FT	1,000 FT	\$1,000,000.00
Bridge - Mill Brook	\$500,000.00 /LS	1 LS	\$500,000.00
Signing, Striping & Pavement Markings	\$1,116.00 /LS	1 LS	\$1,116.00
Drainage Modifications/Improvements	\$55,600.00 /LS	1 LS	\$55,600.00
Clearing and Grubbing	\$15,000.00 /AC	1.0 AC	\$14,880.00
Modified Rock Fill	\$100.00 /TON	130 TONS	\$13,000.00
3 Rail Bicycle Railing	\$40.00 /FT	992 FT	\$39,680.00
Wetland Replication	\$80.00 /SY	500 SY	\$40,000.00
Landscaping	\$12,400.00 /LS	1 LS	\$12,400.00
Police	\$500.00 /DAY	18 DAY	\$9,000.00
		SUBTOTAL:	\$1,846,926.00
		Mobilization @ 3%	\$55,407.78
		Contingency (20%)	\$369,385.20
		MassDOT Construction Contingency (25%)	\$461,731.50
		Construction Total	\$2,733,450.48

SAY: \$2,740,000.00



*** Prices Based on Weighted Average Bid Prices (August 2014)**
Yankee Doodle Bike Path
Section 4 - Alternative 4B (Part 1, from independent ped bridge to Tech Park Drive)
Billerica, Massachusetts
Sep-14

<u>Description</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Total Cost</u>
Full Depth Pavement - Bikeway	\$41.00 /SY	3,431 SY	\$140,675.56
Loam Borrow & Seed	\$10.00 /SY	1,837 SY	\$18,373.33
Granite Curb	\$1,080.00 /LS	1 LS	\$1,080.00
Signing, Striping & Pavement Markings	\$5,000.00 /LS	1 LS	\$5,000.00
Drainage Modifications/Improvements	\$178,200.00 /LS	1 LS	\$178,200.00
Clearing and Grubbing	\$11,000.00 /AC	2 AC	\$22,000.00
3 Rail Bicycle Railing	\$40.00 /FT	1,385 FT	\$55,400.00
Landscaping	\$27,800.00 /LS	1 LS	\$27,800.00
Erosion Control Barrier	\$7.50 /FT	1,385 FT	\$10,387.50
Cosntruction Staking	\$7.00 /FT	3,088 FT	\$21,616.00
M.S.E. Retaining Wall	\$400.00 /SY	2,343 SY	\$937,200.00
Bridge - Independent Ped Bridge	\$710,000.00 /LS	1 LS	\$710,000.00
Bridge - Mill Brook	\$500,000.00 /LS	1 LS	\$500,000.00
Police	\$500.00 /DAY	30 DAY	\$15,000.00
		SUBTOTAL:	\$2,642,732.39
		Mobilization @ 3%	\$79,281.97
		Contingency (20%)	\$528,546.48
		MassDOT Construction Contingency (25%)	\$660,683.10
		Construction Total	\$3,911,243.94

SAY:	\$3,920,000.00
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*** Prices Based on Weighted Average Bid Prices (August 2014)**
Yankee Doodle Bike Path
Section 4 - Alternative 4B (Part 2, Tech Park Drive to Springs Road)
Billerica, Massachusetts
Sep-14

<u>Description</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Total Cost</u>
Full Depth Pavement - Bikeway	\$41.00 /SY	556 SY	\$22,777.78
Full Depth Pavement - Roadway	\$55.00 /SY	1,861 SY	\$102,373.33
Hot Mix Asphalt Driveway	\$58.00 /SY	100 SY	\$5,800.00
Loam Borrow & Seed	\$10.00 /SY	1,331 SY	\$13,311.11
Granite Curb	\$1,080.00 /LS	1 LS	\$1,080.00
Signing, Striping & Pavement Markings	\$3,946.00 /LS	1 LS	\$3,946.00
Drainage Modifications/Improvements	\$23,300.00 /LS	1 LS	\$23,300.00
Clearing and Grubbing	\$11,000.00 /AC	1 AC	\$11,000.00
3 Rail Bicycle Railing	\$40.00 /FT	125 FT	\$5,000.00
Landscaping	\$4,100.00 /LS	1 LS	\$4,100.00
Erosion Control Barrier	\$7.50 /FT	300 FT	\$2,250.00
Cosntruction Staking	\$7.00 /FT	1,198 FT	\$8,386.00
Police	\$500.00 /DAY	10 DAY	\$5,000.00
		SUBTOTAL:	\$208,324.22
		Mobilization @ 3%	\$6,249.73
		Contingency (20%)	\$41,664.84
		MassDOT Construction Contingency (25%)	\$52,081.06
		Construction Total	\$308,319.85
		SAY:	\$310,000.00



* Prices Based on Weighted Average Bid Prices (August 2014)

Yankee Doodle Bike Path

Section 4 - Alternative 4C (Part 1, Beginning of Section 4 to Orchard St)

Billerica, Massachusetts

Dec-14

<u>Description</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Total Cost</u>
Full Depth Pavement - Bikeway	\$41.00 /SY	3,428 SY	\$140,538.89
Cement Concrete Wheelchair Ramps	\$100.00 /SY	70 SY	\$7,000.00
Loam Borrow & Seed	\$10.00 /SY	1,371 SY	\$13,711.11
Timber Deck Bike Path	\$1,000.00 /FT	745 FT	\$745,000.00
Bridge - Mill Brook	\$500,000.00 /LS	1 LS	\$500,000.00
Signing, Striping & Pavement Markings	\$1,116.00 /LS	1 LS	\$1,116.00
Drainage Modifications/Improvements	\$55,600.00 /LS	1 LS	\$55,600.00
Clearing and Grubbing	\$15,000.00 /AC	1.0 AC	\$14,880.00
Modified Rock Fill	\$100.00 /TON	130 TONS	\$13,000.00
3 Rail Bicycle Railing	\$40.00 /FT	992 FT	\$39,680.00
Wetland Replication	\$80.00 /SY	500 SY	\$40,000.00
Landscaping	\$12,400.00 /LS	1 LS	\$12,400.00
Police	\$500.00 /DAY	18 DAY	\$9,000.00
		SUBTOTAL:	\$1,591,926.00
		Mobilization @ 3%	\$47,757.78
		Contingency (20%)	\$318,385.20
		MassDOT Construction Contingency (25%)	\$397,981.50
		Construction Total	\$2,356,050.48

SAY:	\$2,360,000.00
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* Prices Based on Weighted Average Bid Prices (August 2014)
Yankee Doodle Bike Path
Section 4 - Alternative 4C (Part 2, Technology Park Drive)
Billerica, Massachusetts
Dec-14

<u>Description</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Total Cost</u>
Full Depth Pavement - Bikeway	\$41.00 /SY	3,018 SY	\$123,728.89
Loam Borrow & Seed	\$10.00 /SY	2,414 SY	\$24,142.22
Granite Curb	\$11,880.00 /LS	1 LS	\$11,880.00
Signing, Striping & Pavement Markings	\$6,000.00 /LS	1 LS	\$6,000.00
Drainage Modifications/Improvements	\$178,200.00 /LS	1 LS	\$178,200.00
Clearing and Grubbing	\$11,000.00 /AC	1 AC	\$11,000.00
3 Rail Bicycle Railing	\$40.00 /FT	679 FT	\$27,160.00
Landscaping	\$8,200.00 /LS	1 LS	\$8,200.00
Erosion Control Barrier	\$7.50 /FT	679 FT	\$5,092.50
Construction Staking	\$7.00 /FT	2,716 FT	\$19,012.00
Police	\$500.00 /DAY	60 DAY	\$30,000.00
		SUBTOTAL:	\$444,415.61
		Mobilization @ 3%	\$13,332.47
		Contingency (20%)	\$88,883.12
		MassDOT Construction Contingency (25%)	\$111,103.90
		Construction Total	\$657,735.10
		SAY:	\$660,000.00



* Prices Based on Weighted Average Bid Prices (August 2014)
 Yankee Doodle Bike Path
 Section 4 - Alternative 4C (Part 3, Tech Park Drive to Springs Road)
 Billerica, Massachusetts
 Dec-14

<u>Description</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Total Cost</u>
Full Depth Pavement - Bikeway	\$41.00 /SY	556 SY	\$22,777.78
Full Depth Pavement - Roadway	\$55.00 /SY	1,861 SY	\$102,373.33
Hot Mix Asphalt Driveway	\$58.00 /SY	100 SY	\$5,800.00
Loam Borrow & Seed	\$10.00 /SY	1,331 SY	\$13,311.11
Granite Curb	\$1,080.00 /LS	1 LS	\$1,080.00
Signing, Striping & Pavement Markings	\$3,946.00 /LS	1 LS	\$3,946.00
Drainage Modifications/Improvements	\$23,300.00 /LS	1 LS	\$23,300.00
Clearing and Grubbing	\$11,000.00 /AC	1 AC	\$11,000.00
3 Rail Bicycle Railing	\$40.00 /FT	125 FT	\$5,000.00
Landscaping	\$4,100.00 /LS	1 LS	\$4,100.00
Erosion Control Barrier	\$7.50 /FT	300 FT	\$2,250.00
Construction Staking	\$7.00 /FT	1,198 FT	\$8,386.00
Police	\$500.00 /DAY	10 DAY	\$5,000.00
		SUBTOTAL:	\$208,324.22
		Mobilization @ 3%	\$6,249.73
		Contingency (20%)	\$41,664.84
		MassDOT Construction Contingency (25%)	\$52,081.06
		Construction Total	\$308,319.85

SAY:	\$310,000.00
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Appendix A – Photo Inventory



Abandoned Railroad Right-of-Way at Richardson Street Ext.



Richardson Street Ext.



Richardson Street Ext.



Richardson Street Ext.



Richardson Street Ext.



Richardson Street Ext.



Richardson Street Ext.



Richardson Street Ext.



Richardson Street Ext.



Richardson Street Ext.



Richardson Street Ext. Gravel/Dirt Road Continuation



Richardson Street Ext. Gravel/Dirt Road Continuation



Richardson Street Ext. Gravel/Dirt Road Continuation



Richardson Street Ext. Gravel/Dirt Road Continuation



Richardson Street Ext. Gravel/Dirt Road Continuation



Richardson Street Ext. Gravel/Dirt Road Continuation



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail End at Rivertech Park



Trail End at Rivertech Park



Trail End at Rivertech Park



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Trail at the End of Richardson Street Ext.



Richardson Street Ext. Gravel/Dirt Road Continuation



Richardson Street Ext. Gravel/Dirt Road Continuation



Richardson Street Ext. Gravel/Dirt Road Continuation



Richardson Street Ext.



Richardson Street Ext.



Richardson Street Ext.



Richardson Street Ext.



Richardson Street Ext.



Richardson Street Ext.



Richardson Street Ext.



Richardson Street Ext.



Abandoned Railroad Right-of-Way at Richardson Street Ext.



Abandoned Railroad Right-of-Way at Richardson Street Ext.



Richardson Street



Abandoned Railroad Right-of-Way at Richardson Street Ext.



Abandoned Railroad Right-of-Way at Richardson Street Ext.



Abandoned Railroad Right-of-Way at Richardson Street Ext.



Abandoned Railroad Right-of-Way at Richardson Street Ext.



Abandoned Railroad Right-of-Way at Richardson Street Ext.



Richardson Street



Richardson Street



Parker Street at Richardson Street



Parker Street



Parker Street



Parker Street



Parker Street



Concord Road at Campbell Road



West of Concord Road at Campbell Road



West of Concord Road at Campbell Road



West of Concord Road at Campbell Road



West of Concord Road at Campbell Road



Concord Road at Campbell Road



Concord Road at Campbell Road



Abandoned Railroad Right-of-Way at Concord Road



Abandoned Railroad Right-of-Way at Concord Road



Abandoned Railroad Right-of-Way at Concord Road



Abandoned Railroad Right-of-Way West of Concord Road



Abandoned Railroad Right-of-Way West of Concord Road



Abandoned Railroad Right-of-Way West of Concord Road



Abandoned Railroad Right-of-Way West of Concord Road



Abandoned Railroad Right-of-Way West of Concord Road



Abandoned Railroad Right-of-Way West of Concord Road



Abandoned Railroad Right-of-Way West of Concord Road



Abandoned Railroad Right-of-Way West of Concord Road



Entrance to the Cabot Property at Concord Road



Entrance to the Cabot Property at Concord Road



Entrance to the Cabot Property at Concord Road



Rivertech Park at Concord Road



Rivertech Park at Concord Road



Segment East of Rivertech Park



Segment East of Rivertech Park



Segment East of Rivertech Park



Segment East of Rivertech Park



Segment East of Rivertech Park



Segment East of Rivertech Park



Segment East of Rivertech Park



Segment East of Rivertech Park



Segment East of Rivertech Park



Segment East of Rivertech Park



Segment East of Rivertech Park



Segment East of Rivertech Park



Dead End Segment of Middlesex Tpke North of Concord Road



Dead End Segment of Middlesex Tpke North of Concord Road



Dead End Segment of Middlesex Tpke North of Concord Road



Dead End Segment of Middlesex Tpke North of Concord Road



Dead End Segment of Middlesex Tpke North of Concord Road



Dead End Segment of Middlesex Tpke North of Concord Road



Dead End Segment of Middlesex Tpke North of Concord Road



Dead End Segment of Middlesex Tpke North of Concord Road



Dead End Segment of Middlesex Tpke North of Concord Road



Dead End Segment of Middlesex Tpke North of Concord Road



Dead End Segment of Middlesex Tpke North of Concord Road



Dead End Segment of Middlesex Tpke North of Concord Road



Dead End Segment of Middlesex Tpke North of Concord Road



Dead End Segment of Middlesex Tpke North of Concord Road



Middlesex Tpke and Concord Road Intersection



Trail to Astrig Way at Technology Park Drive



Trail to Astrig Way at Technology Park Drive



Trail to Astrig Way at Technology Park Drive



Trail to Old Concord Road at Technology Park Drive



Trail from Technology Park Drive to Astrig Way



Trail from Technology Park Drive to Astrig Way



Trail from Technology Park Drive to Astrig Way



Trail from Technology Park Drive to Astrig Way



Astrig Way



Astrig Way



Astrig Way



Astrig Way



Astrig Way



Astrig Way



Narrow Gauge Rail Trail at Springs Road



Narrow Gauge Rail Trail at Springs Road



Narrow Gauge Rail Trail at Springs Road



Springs Road at Astrig Way



Astrig Way



Astrig Way



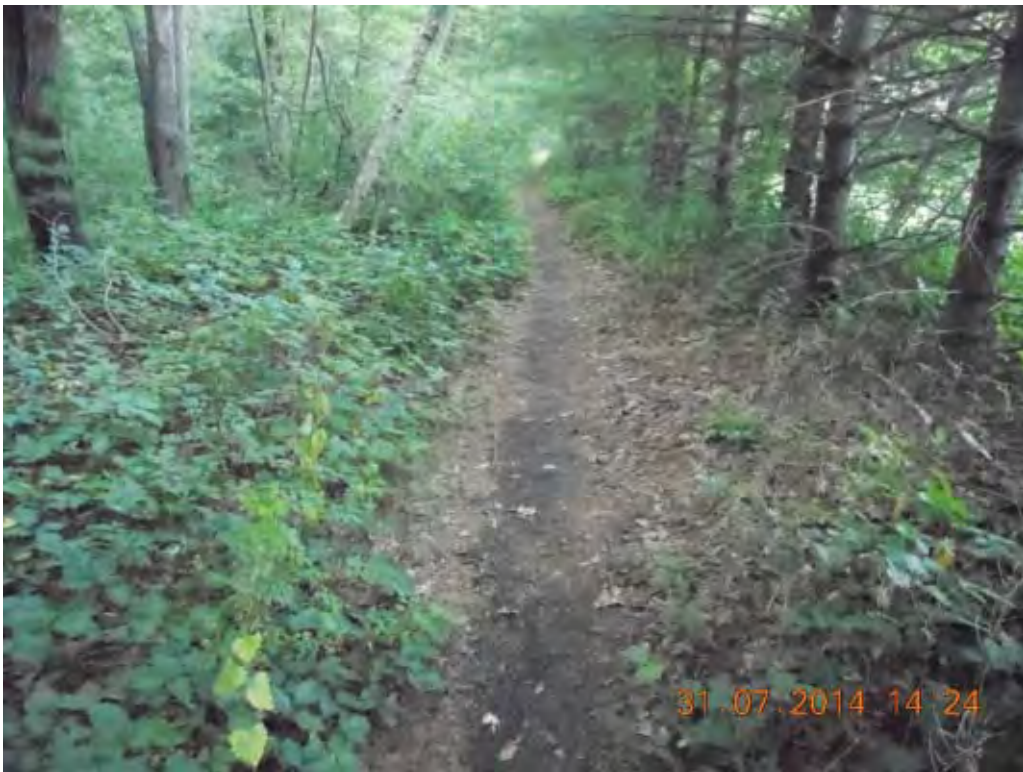
Astrig Way



Astrig Way



Trail from Technology Park Drive to Astrig Way



Trail from Technology Park Drive to Astrig Way



Trail from Technology Park Drive to Astrig Way



Trail from Technology Park Drive to Astrig Way



Area between Route 3 and Old Concord Road



Area between Route 3 and Old Concord Road



Area between Route 3 and Old Concord Road



Area between Route 3 and Old Concord Road



Area between Route 3 and Old Concord Road



Area between Route 3 and Old Concord Road



Area between Route 3 and Old Concord Road



Area between Route 3 and Old Concord Road



Area between Route 3 and Old Concord Road



Area between Route 3 and Old Concord Road



Area between Route 3 and Old Concord Road



Old Concord Road



Area between Route 3 and Old Concord Road



Old Concord Road



Area between Route 3 and Old Concord Road



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Route 3 Looking West Towards Old Concord Road



Route 3 Looking West Towards Old Concord Road



Route 3 Looking West Towards Old Concord Road



Route 3 Looking West Towards Old Concord Road



Route 3 Looking South



Route 3 Looking North



Route 3 Looking West Towards Old Concord Road



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3



Trail from Middlesex Tpke to Route 3

Appendix B – Letters of Support

BOARD OF SELECTMEN MEETING MINUTES
DECEMBER 15, 2014

A regular meeting of the Board of Selectmen was held on Monday, December 15, 2014 at 7:00 p.m. in the Conway Hearing Room. Present were Selectman Michael Rosa, Chairman, Selectman George Simolaris, Vice Chairman, Selectman Daniel Burns, Member, Selectman John Piscatelli, Member, Town Manager John Curran, and Assistant Town Manager Cathleen O’Dea. Absent from the meeting was Selectman Andrew Deslaurier, Secretary.

CALL TO ORDER

Chairman Michael Rosa called the meeting to order at 7:01 p.m.

OPEN MICROPHONE

Chris Musker, 12 Fawn Lane, came to the podium and expressed her opinion on the Board of Selectmen, the Town Manager, and the Town Center Pedestrian Improvement Project.

Kim Conway, 41 Buckingham Drive, Chairman of the School Committee, came to the podium and spoke about the FY16 Budget and its effect on the School Budget.

Mark Estrafiou, 33 Dudley Road, School Committee member, came to the podium and expressed his opinions and concern regarding FY16 Budget cuts.

ANNOUNCEMENTS

TEES

TOWN OF BILLERICA

NOTICE OF VACANCIES

BOARD OF SELECTMEN MEETING MINUTES
DECEMBER 15, 2014 – PAGE 2

Chairman Michael Rosa stated that the Board of Selectmen, Town Manager and Town Moderator are accepting applications for the following positions:

POSITION ***# MEMBERS***

BOARD OF SELECTMEN APPOINTMENTS

Cabot Land Reuse Committee	2
Commission on Disability	
Financial & Audit Compliance Committee	1
Historical Commission	5
Open Space & Recreation Committee	1
Scholarship Foundation Committee	4
Water/Sewer Oversight Board	3

11/5/2014

DISPOSAL OF CHRISTMAS TREES

Chairman Michael Rosa stated that residents may bring their Christmas trees down to the Billerica Highway Division at 250 Boston Road, starting on December 26 until January 31. There will also be one week of curbside collection on the week of January 5-9. Collection will be on the same day as trash and recycling. Please make sure that all lights, decorations, tinsel and the tree stand are removed.

A BILLERICA FAMILY NEW YEAR – DECEMBER 31, 2014 AT BILLERICA TOWN HALL FROM 4:00 PM. TO 8:00 P.M.

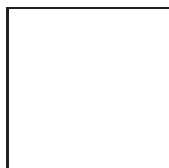
Chairman Michael Rosa stated “A Billerica Family New Year’ will be held on December 31, 2014 at the Billerica Town Hall from 4:00 p.m.-8:00 p.m. This year there will be music, games, crafts, food, entertainment, hay rides and much more. This year’s theme is “Take Me out to the Ballgame”. Volunteers are welcome.

BOARD OF SELECTMEN MEETING MINUTES

DECEMBER 15, 2014 – PAGE 3

PROJECT GENESIS HOME BUYER TRAINING CLASSES - 2015 SCHEDULE

Chairman Michael Rosa stated that the Project Genesis Home Buyer Training classes for 2015 will begin again.



Promoting responsible & sustainable home ownership.

**Project Genesis
Home Buyer Training Classes
2015 Schedule
Classes in English**

January 6, 7, 13, 14
January 27, 28, February 3, 4
February 24, 25, March 3, 4
March 17, 18, 24, 25
April 7, 8, 14, 15
April 28, 29, May 5, 6
May 26, 27, June 2, 3
June 15, 16, 17, 18
July 13, 14, 15, 16
September 1, 2, 8, 9
September 22, 23, 29, 30
October 13, 14, 20, 21
November 10, 11, 17, 18
December 1, 2, 8, 9

**Classes are held at Middlesex Community College, downtown Lowell.
Register online at www.mvhp.org or call 978-459-8490.**

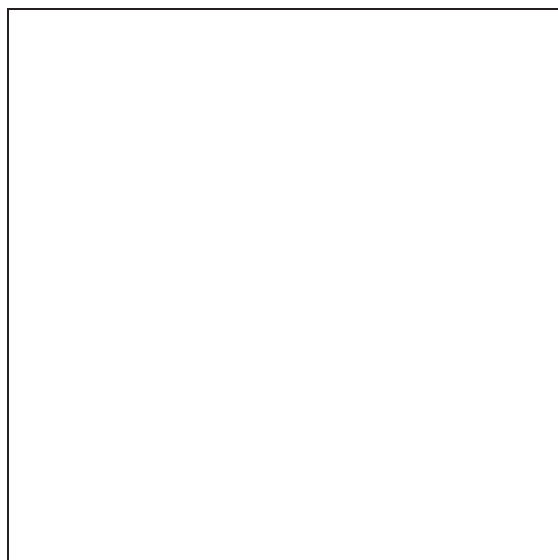
Classes en Español

Classes in Spanish are held on Saturdays from 8:00 a.m. to 1:00 p.m. at the MVHP office at 67 Middle Street, Downtown Lowell.

Please call the office for dates.

Classes in Khmer

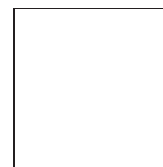
Classes in Khmer are done in collaboration with the Cambodian Mutual Assistance Association. The classes are held on Saturdays from 9:30 a.m. to 2:00 p.m. To register, please call CMAA at 978-454-6200.



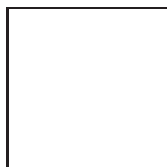
▪

Sent
To: jlegallo@town.billerica.ma.us
If you prefer not to receive
future e-mails of this type,
[click here](#)

Sent By: **Merrimack Valley Housing Partnership**
P.O. Box 1042
Lowell MA 01853-1042
U.S.A.



To view as a web page [click here](#).



Other announcements may be viewed on the town of Billerica Website, Selectmen's Page.

BOARD OF SELECTMEN MEETING MINUTES

DECEMBER 15, 2014 – PAGE 5

PRESENTATIONS

BIKE PATH COMMITTEE

Ellen Rawlings from the Bike Path Committee and Patricia Domigan, Senior Project Manager from VHB came to the podium and made a detailed presentation to the Board on the proposed Bike Path and the preferred alternative for the first phase of the Yankee Doodle Bike Path, and to advance the project by submitting the Project Initiation form to MassDOT, to seek approval of construction funding for the project, and to seek the Board's endorsement.

Prior to the presentation, Ms. Rawlings recognized members of the Bike Path Committee and others who have contributed to the project including DPW, Engineering, Board of Selectmen, Town Manager and Recreation Department. Ms. Rawlings also recognized the late Peggy Hannon-Rizza, Recreation Director, who was instrumental in this project.

After the presentation the Board and Town Manager thanked Ms. Domigan and Ms. Rawlings for their thorough presentation.

Chairman Michael Rosa commended Ms. Rawlings for her years of work and dedication to the Bike Path project.

Selectman Daniel Burns, seconded by Selectman John Piscatelli made a motion the Billerica Board of Selectmen accept the report of the Bike Path Committee and to use the preferred method as defined by the Bike Path Committee.

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

Selectman Daniel Burns, seconded by Selectman John Piscatelli made a motion that the Billerica Board of Selectmen approve the Form for MassDOT.

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

BOARD OF SELECTMEN MEETING MINUTES
DECEMBER 15, 2014 – PAGE 6

MINUTES

NOVEMBER 17, 2014

Selectman John Piscatelli, seconded by Selectman Daniel Burns made a motion to accept the Minutes of November 17, 2014.

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

NOVEMBER 18, 2014 (WORK SESSION)

Selectman John Piscatelli, seconded by Selectman Daniel Burns made a motion to accept the minutes of the November 18, 2014 Work Session.

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

PUBLIC HEARINGS

7:15 P.M. A. 247 BOSTON ROAD CORP., d/b/a BILLERICA LIQUORS, RE: TRANSFER OF PACKAGE STORE ALL ALCOHOLIC LICENSE FROM CVK CORPORATION D/B/A BILLERICA LIQUORS, AN ALTERATION TO THE LICENSED PREMISE AND PLEDGE OF LICENSE AND INVENTORY TO ROCKLAND TRUST.

Selectman John Piscatelli, seconded by Selectman Daniel Burns made a motion to open the Public Hearing.

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

Chairman Michael Rosa stated that due to the late arrival of pertinent information, it was his recommendation to continue the Public Hearing until the first meeting of the new year which would be January 5, 2014 at 7:30 p.m.

Selectman John Piscatelli, seconded by Selectman Daniel Burns made a motion to continue the Public Hearing to January 5, 2014 at 7: 30 p.m.

BOARD OF SELECTMEN MEETING MINUTES
DECEMBER 15, 2014 – PAGE 7

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

7:30 P.M. B. NATIONAL GRID AND VERIZON, RE: INSTALL ONE JO POLE AND ANCHOR ON BOSTON ROAD

Selectman John Piscatelli, seconded by Selectman Daniel Burns made a motion to open the Public Hearing.

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

Michelle Stacy from National Grid appeared before the Board to request permission for this Pole installation.

Chairman Michael Rosa asked if anyone from the Public wished to speak.

Chairman Rosa asked Town Manager John Curran if there were any issues with this request.

Town Manager John Curran stated there were two unresolved issues with National Grid. One was the removal of a pole on Andover and Gray. The other issue was the guide wire at Salem and Andover at King's Crossing that needs to be relocated.

Ms. Stacy stated she would look into these matters and report back to the Town.

Chairman Michael Rosa asked if these were long standing issues.

Mr. Curran responded they were from August and September; and he would recommend that the Board not vote this Agenda item until these matters are resolved.

Chairman Michael Rosa stated he agreed with Mr. Curran and that this was an ongoing issue with National Grid. Chairman Rosa stated his recommendation that this Public Hearing be continued until the Board's first meeting of the New Year, January 5, 2015.

Ms. Stacy stated this delay would hold up the customer's construction.

Selectman John Piscatelli suggested the Board could vote on this matter with contingencies so the customer would not be held up.

BOARD OF SELECTMEN MEETING MINUTES

DECEMBER 15, 2014 – PAGE 8

Selectman John Piscatelli, seconded by Selectman Daniel Burns made a motion to close the Public Hearing.

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

Selectman John Piscatelli, seconded by Selectman Daniel Burns made a motion that the Billerica Board of Selectmen conditionally approve the request to install and anchor the pole on Boston Road contingent upon work being successfully completed and validated by Town Engineer Kelley Conway in the areas of: Andover Road and Gray Street, and Andover and Salem Road consistent with the plan included in the Selectmen’s packets, which is Plan # 16516022.

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

OLD BUSINESS

TOWN MANAGER’S REPORT

Town Manager John Curran outlined for the Board items on his Town Manager’s Report.

Mr. Curran informed the Board that the Town Engineer is coordinating with the contractor in regards to the adjustment of the sign at Micozzi Beach that is blocked by the utility pole. The sign will be split and one side will be placed on the other side of the utility pole. It will be able to be viewed on both sides of the Street. Mr. Curran stated the signs and flashers will be split on both sides and activated

Chairman Michael Rosa asked if there had been any discussion with National Grid relative to moving the pole.

Mr. Curran stated that the proposed solution will probably be the easiest because there would be a great deal of stuff that would need to be moved if the pole was moved.

Chairman Michael Rosa asked Selectman Daniel Burns if he had any additional comments since there was another agenda item on this matter that he had put on.

Selectman Burns stated he was satisfied with the solution proposed.

BOARD OF SELECTMEN MEETING MINUTES
DECEMBER 15, 2014 – PAGE 9

Town Manager John Curran stated that in relation to the Town Center Pedestrian Improvement Project, it is buttoned up for the winter. The concrete was poured where necessary and the asphalt patching was done. The crosswalks will be done in the spring. Mr. Curran further stated the flashers on that side are in the process of getting the electrical work done.

Town Engineer Kelley Conway stated she wasn't sure about the timetable of the electrical inspection from the Town; but after that is completed, they will coordinate with National Grid to get the power up. She further stated that hopefully this will be in a two to three week time frame.

Selectman George Simolaris asked about the design of the crosswalk at the south side of the Common across from O'Connor Plaza. He felt it was difficult for wheel chairs to maneuver around it.

Town Engineer Kelley Conway responded that you need to leave room to get around utility poles which are located there.

Selectman Daniel Burns stated he noticed what Selectman Simolaris was speaking about and suggested Ms. Conway review it.

Chairman Michael Rosa asked Selectman Burns if the Agenda item on the Safety Pedestrian Improvements which he had put on the agenda could be morphed into this conversation.

Selectman Burns responded that one of the problems with project was a communication issue and that the Town Manager was reporting a status that was not as accurate as it should have been.

Selectman Burns asked if there was an analysis of the problems with that.

Town Manager John Curran responded the contractor was giving the Town information that was not accurate and the work they needed, when they finally got to, it took about two days. Mr. Curran further stated that they had not worked with this contractor previously; that was a product of the late in the season bid.

Mr. Curran stated that when working with a contractor it is easier to keep it together so the project will go through to completion. He further stated that it is a managerial judgment call that at what point do you call in the bond on the project.

Mr. Curran stated that on this particular job even though things were not going well, they did not want to stop the relationship because it was felt it was not in the best interest of the Town. It was a small job and it was known that it was going to be completed.

BOARD OF SELECTMEN MEETING MINUTS
DECEMBER 15, 2014 – PAGE 10

Selectman Daniel Burns stated his comments were not toward changing the Bond or pulling the contract, it was more towards adherence to the schedule. If there were deadlines not met for any reason, they would have been expected to be reflected in the updates the Town Manager was giving so there were no surprises when the job was not completed by the deadline.

Selectman George Simolaris stated he hoped the Engineering Department would be checking the contractor's work to make sure it was being done properly.

Selectman Simolaris also spoke about the contractor dumping concrete at the Pollard Field.

Selectman Simolaris stated that he would like to check the entire project before the Bond is released.

Town Manager John Curran stated he would follow up on the Pollard Field and in the future give the Board a project schedule.

Chairman Michael Rosa asked about the bump out that is marked out with barrels and paint. Now that the area is not going to be bumped out, will the yellow line be blacked out before winter?

Mr. Curran stated he would take care of it.

Chairman Rosa asked if the contractor has submitted a time line to pick up on when the project is resumed.

Town Engineer Kelley Conway stated that is one the first things that will be done next. Ms. Conway stated that normally road work is not allowed before April 15th.

Chairman Rosa asked to be kept apprised of how things were moving forward.

Selectman John Piscatelli asked if based on the failure of the contractor, would any cost concessions be given.

Ms. Conway replied that of the areas they had to pour asphalt, the Town would not pay for that and also would not pay to have it taken it out.

Selectman George Simolaris asked about paying more to get it done in season.

Town Manager Curran stated they had to pay more to get it done so late in the season.

BOARD OF SELECTMEN MEETING MINUTES
DECEMBER 15, 2014 – PAGE 11

Selectman John Piscatelli asked if the Town paid the premium for late season work, yet the work was not completed; will the premium be returned when they completed the project in season next Spring.

Ms. Conway replied that normally there are no price adjustments on contracts. She further stated that the unit prices that are set forth in the contract when it is bid out are the unit prices throughout the contract. She further stated that perhaps there is a liquidation damages clause that could be pursued.

Selectman Piscatelli asked even if those prices were based on premiums for work to be done in a particular time of year and not have it completed, would it be returned.

Ms. Conway stated the project was bid late and it was a small project with a lot of specialty work and contractors have to compete with each other to win the project.

Town Manager John Curran stated that perhaps this could be addressed during the course of the job.

Selectman John Piscatelli asked about the Economic Development Director hire process. He asked for a commitment from the Board to move forward with the position, despite proposed budget cuts.

Town Manager John Curran stated that if that was the will of the Board, he would comply.

Chairman Michael Rosa stated he agreed to have that position move forward.

Selectman Daniel Burns commented on the Lowell Sun article on the budget cuts. He stated it did not reflect the plans for the Budget coming forward and unfortunately discussed prior to a hearing in front of the Selectmen. The Board had yet to receive any feedback on what the impacts would be.

Selectman Burns further stated they are not looking to do lay-offs and it would not happen.

Selectman Burns stated they would be working with Mr. Curran to get a plan for 2016 and beyond the High School, sewerage, and any other projects that come along.

Selectman Burns suggested in the future before things are discussed with the Selectmen and people are asking questions, that the "no comment" line be used.

Selectman George Simolaris commented on the Lowell Sun article.

BOARD OF SELECTMEN MEETING MINUTES
DECEMBER 15, 2014 – PAGE 12

Chairman Michael Rosa stated that the Board has no intention to create a situation where lay-offs will occur.

ANNUAL TOWN ELECTION TO BE SET FOR APRIL 11, 2015, HOURS TO BE 8:00 A.M. TO 8:00 P.M. AND SET THE DATE FOR THE ANNUAL SPRING TOWN MEETING TO BE TUESDAY, MAY 5, 2014 AT 7:30 P.M.

Selectman John Piscatelli, seconded by Selectman George Simolaris made a motion that the Billerica Board of Selectmen set the Annual Town Election for April 11, 2015, hours to be 8:00 a.m. to 8:00 p.m. and set the date for the Annual Spring Town Meeting to be Tuesday, May 5, 2015 at 7: 30 p.m.

It was voted:

4 – In Favor
0 – Opposed
1 - Absent (Selectman Deslaurier)

NEW BUSINESS

PHOUNG LE, TAXI DRIVER FOR TRANS CONNECTION TAXI, 188 BOSTON ROAD

No one was present for this agenda item.

LIP PROGRAM FOR STONEWALL FARM CONDOMINIUM ON RANGEWAY ROAD

Attorney John McKenna came to the podium regarding this agenda item and stated that there were 10 house units and based upon the special permit in zoning that creates 10% of the new units is set aside for new developments. This would fit the special permit condition to create an affordable unit. In order to have the affordable unit counted against the Town's affordable housing, an application is submitted to the Department of Housing and Community Development. He is seeking the Board's support and sign off on the application.

Attorney McKenna described the Condominium development and explained the application process.

Chairman Michael Rosa clarified that this was not a 40B but any overlay that was put on the property and is being complied with the Town's local ordinance that 10% of the project will be affordable.

Attorney McKenna concurred with that.

BOARD OF SELECTMEN MEETING MINUTES
DECEMBER 15, 2014 – PAGE 13

Selectman John Piscatelli, seconded by Selectman Daniel Burns made a motion that the Billerica Board of Selectmen accept the LIP program for Stonewall Farm Condominium on Rangeway Road subject to the conditions documented in the special permit.

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

AUTHORIZE TOWN MANAGER TO SIGN THE WRITTEN OFFER LETTERS FOR THE ALLEN ROAD RECONSTRUCTION PROJECT

Town Manager John Curran stated this was a house cleaning item for easements on Allen Road. Mr. Curran stated that it has been recommended by Town Counsel that the Board delegate the authority to him to sign off on the easements.

Selectman George Simolaris, seconded by Selectman John Piscatelli made a motion that the Billerica Board of Selectmen delegate the authority to the Town Manager to execute the easements for the Allen Road reconstruction project.

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

LINA AND MINA, INC. D/B/A GIOVANNI'S ROAST BEEF & PIZZA, 331 BOSTON ROAD, RE: TRANSFER OF COMMON VICTUALER LICENSE FROM GIOVANNI'S ROAST BEEF & PIZZA OF BILLERICA, INC.

No one was present for this agenda item.

HIGH SCHOOL FINANCE PLAN REVIEW

Selectman John Piscatelli stated that in view of budget pressures, he thought it would be a good idea to review the High School Finance Plan.

Selectman Piscatelli reviewed the current plan thus far.

BOARD OF SELECTMEN MEETING MINUTES
DECEMBER 15, 2014 – PAGE 14

Selectman Piscatelli asked Town Manager John Curran if any of the numbers in the plan need to be updated, and if so, when would the appropriate time be to do that. Selectman Piscatelli also asked Mr. Curran if there is any flexibility in these assumptions that could be taken advantage of as a part of responding to the budget pressures.

Selectman Piscatelli also asked at what point does a decision need to be made, when is the right time to discuss 28 years versus 20 years as the updating and finalizing sewer projects and the High School as these will be the largest debt projects.

Town Manager John Curran stated the issues around the term and the rate will probably not change for a long time. Mr. Curran stated the assumption will probably be 4.5% or lower.

Mr. Curran said as for the term itself that probably will not be decided until it has gone out to bond and will be decided based on the market. Mr. Curran said if the rates are very low, they will probably go for a shorter term and if they are higher, it would be a little bit of a longer term to ensure that helps in the schedule.

Mr. Curran stated that in terms of the cost of the facility that will be the first thing that gets adjusted. Once the process of the design and project scope and budget scope has gone through, that number will be narrowed down to the real number and at that point things will change. Mr. Curran further stated he expected that to take place between now and next November.

Selectman George Simolaris commented on an article in the Lowell Sun relative to the proposed Cider Mill site.

Town Manager John Curran responded that the MSBA approved the Town to move ahead on due diligence on the site because the Town does not own it to see if it was viable. Mr. Curran said the point where the Building Committee authorized an appraisal and deed work for Cider Mill and Vietnam Veterans Park. The MSBA does not want the Town to do their due diligence on the feasibility study until the architect is on board which is expected to happen in the next few months. Mr. Curran continued, that when that happens work will begin on the present High School site because the Town owns it and at that time there will be more information about the current site.

Selectman George Simolaris stated that in today's paper that the cost of the High School would be \$130,000,000.

Town Manager John Curran stated he had not seen that article, but what he had been saying was the cost would be between \$130,000,000 and \$160,000,000. Mr. Curran further stated he

BOARD OF SELECTMEN MEETING MINUTES
DECEMBER 15, 2014 – PAGE 15

did not believe the cost would be much lower than \$130,000,000; but that was dependent on factors such as whether they do 8-12 or 9-12.

Selectman George Simolaris asked that if they kept the present site the state would probably not provide funds for demolition.

Mr. Curran replied that that was not a certainty, but Selectman Simolaris was probably correct.

Selectman Simolaris commented that it was probably more economical to use the present site

Mr. Curran stated in response to Selectman Simolaris' comment that they did not know the answer to that yet because the site work on the existing site could be such a premium that it affects some of the acquisition costs on other sites. Mr. Curran further stated that on the other hand that site might be too expensive.

Mr. Curran stated the answers to these questions are unknown now so the correct position the Town should take now is that all of these options are being looked at and would not dismiss anything out of hand until all avenues have been explored thoroughly.

Selectman Simolaris stated he agreed with Mr. Curran.

Chairman Michael Rosa raised questions about work on the present High School site and about the 43 acres in the back lot to see where the wetlands lie.

Chairman Rosa stated the Korean War Memorial and the baseball field will be used as access points for the Cider Mill property which is Town property as well as the Vietnam Veterans Park which is in the care of the Selectmen. Chairman Rosa asked that in regards to that, when do the Selectmen enter into the process.

Town Manager John Curran responded to Chairman that the Board will be brought in when it becomes a reality that there is a decision that the Town is looking to acquire that property. They are not even close to that, but he would keep the Board fully apprised.

Selectman Piscatelli raised a point of order that the Agenda item is the Finance Plan.

POLICY CHANGES FOR ONE DAY LIQUOR LICENSES AND REQUEST TO FORM SUBCOMMITTEE TO UPDATE LIQUOR LICENSE VIOLATIONS

Chairman Michael Rosa stated he was involved in a previous review of the Liquor Policies and Procedure with Police Chief Rosa and Deputy Chief Frost. Chairman Rosa stated that if the

BOARD OF SELECTMEN MEETING MINUTES
DECEMBER 15, 2014 – PAGE 16

Board wills, he would get back with the Chief and Detective Roach to review the policies and look where modifications can be made.

Chairman Rosa stated that in regards to One Day Liquor Licenses, the State allows up to 30 per year. He further stated he would like to cut them back to something more reasonable. Chairman Rosa stated a subcommittee could be created and appoint two people or he could meet with the Chief and whomever he appoints.

Selectman John Piscatelli stated he put this on the Agenda to tighten up the Liquor License violations and even though the State allows up to 30 One Day Liquor Licenses, the Town has the flexibility to decrease them. Selectman Piscatelli further stated the figure of 30 was higher than he would like to have.

Selectman Piscatelli stated he was fully supportive in creating a subcommittee.

Chairman Rosa asked if Selectman Piscatelli wanted the subcommittee or have him (Chairman Rosa) meet with the Chief and his designee and report back to the Board.

Selectman Piscatelli stated he was fine with that provided the Board had input.

Chairman Rosa stated the Board would have ample opportunity for input, but he just wanted to get the process started as expeditiously as possible.

REPORT OUT FROM FINANCIAL PLANNING WORKSHOP

Chairman Michael Rosa read a report of the outcome of the November 25, 2014 Board of Selectmen Work Session regarding financial planning.

TARANTELLA LAND DONATION

Town Manager John Curran stated there is an environmental assessment in the Selectmen's packets relative to this site. Mr. Curran stated this is a 17.9 acre parcel located at the apex of Boston and Treble Cove Roads and connects to state forest land.

Mr. Curran stated all due diligence has been done to accept this land as a donation of open space which is consistent with a goal to acquire open space.

Selectman Daniel Burns, seconded by Selectman John Piscatelli made a motion that the Billerica Board of Selectmen accept the donation of conservation land, Map 15, Block 237, Lot 2 located at Boston, Chelmsford and Treble Cove Road.

BOARD OF SELECTMEN MEETING MINUTES
DECEMBER 15, 2014 – PAGE 17

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

Town Manager John Curran expressed his appreciation to Environmental Affairs Director Isabel Tourkontonis and Principal Assessor Richard Scanlon for all of their efforts in this matter.

APPOINTMENTS BOARD OF SELECTMEN

ARTS COUNCIL

Selectman Daniel Burns, seconded by Selectman George Simolaris made a motion that the Billerica Board of Selectmen appoint Ruth Mingo, 11 Apollo AV , Billerica to the Arts Council

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

Selectman Daniel Burns, seconded by Selectman John Piscatelli made a motion that the Billerica Board of Selectmen appoint Maryanne Webster, 31 Whittier Road, Billerica to the Arts Council.

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

LICENSE RENEWALS 2015

Building Commissioner Mark LaLumiere came to the podium regarding issues with Garrison’s Restaurant and their Certificate of Inspection and maintaining the minimum life safety requirements and why the Building Department did not sign off on the license.

Commissioner LaLumiere recommended that it was the Board’s decision, but these are life safety issues that need to be addressed so people can egress out the building safely. He further stated he had no problem conditioning the License on completing a satisfactory inspection.

Chairman Michael Rosa asked the Town Manager if they could extend this License to the January 5, 2015 meeting and have until that time to complete the items.

BOARD OF SELECTMEN MEETING MINUTES
DECEMBER 15, 2014 – PAGE 18

Town Manager John Curran stated it would be a license to expire on January 5th and issue them a new license on January 5th.

Selectman Daniel Burns asked about potential liability if the license is extended knowing they are out of compliance.

Mr. Curran stated there would be some potential liability.

Commissioner LaLumiere stated he would have one of the inspectors stop by Garrison's tomorrow.

Discussion ensued regarding Garrison's License.

Selectman John Piscatelli, seconded by Selectman Daniel Burns made a motion that the Billerica Board of Selectmen renew Garrison's Restaurant License until January 5, 2015 contingent upon satisfying all concerns from the Building Department, Fire Department and Town Agencies prior to December 31, 2014.

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

Selectman John Piscatelli, seconded by Selectman Daniel Burns made a motion that the Billerica Board of Selectmen not renew the License for R & S Auto Sales, d/b/a Webb Brook Realty Trust, located at 630 Boston Road.

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

Selectman John Piscatelli, seconded by Selectman Daniel Burns made a motion that the Billerica Board of Selectmen renew all remaining licenses as documented in the License Renewal Manual for 2015.

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

BOARD OF SELECTMEN MEETING MINUTES
DECEMBER 15, 2014 – PAGE 19

TOPICS FOR DISCUSSION WHICH THE CHAIR COULD NOT HAVE REASONABLY ANTICIPATED 48 HOURS IN ADVANCE OF THE MEETING

Chairman Michael Rosa stated he felt it was appropriate to use this agenda item for discussion of the Saturday newspaper article.

Selectman George Simolaris stated he felt the article made the Town look like it was not on stable financial ground by saying there were going to be layoffs. Selectman Simolaris stated it made the Board and Town Manager look bad.

Selectman Daniel Burns stated he felt it was unfortunate that a discussion had not taken place with the Board before this was brought to the press. Selectman Burns further stated it was nothing more than a standard budgeting process and the process is just beginning.

Selectman John Piscatelli stated they did not want to go so far as to adversely impact services or lay off people. He further stated the process was only just beginning.

Selectmen Piscatelli stated he felt the process had been distorted in the article probably because only so many words of a quote can be printed.

Chairman Michael Rosa stated he was disappointed to see this article and believes it was handled poorly. Chairman Rosa stated he believed Mr. Curran had not received any feedback from Department Heads and should have had a “no comment”.

Chairman Rosa stated this Board has no intention of having lay-offs or adversely impacting services.

Town Manager John Curran stated the headline in the Lowell Sun was vastly different from the context of the article. They were two completely different stories.

Mr. Curran stated that in his position as Town Manager, he has to talk to the press on various occasions. He also stated that this matter was discussed by the School Department in a public forum.

Mr. Curran stated that in the article he did say the Town has been in the best financial position it has ever been in. He stated he also said in the article it would not be the end of the world no matter what was done.

Mr. Curran stated that there is a 2% guideline for the budget. He further stated that the Selectmen had a work session where this matter was discussed at length. Mr. Curran stated

BOARD OF SELECTMEN MEETING MINUTES
DECEMBER 15, 2014 – PAGE 20

that he had informed the Board at that time that significant cuts would be made should they stick to the 2% guideline. Mr. Curran stated that out of a \$140 million budget there is \$7 million in discretionary expenses. He further stated that to think it would not affect staffing, is unreasonable.

Mr. Curran stated he has an obligation to be transparent about what is going to happen because this was a directive to him from the Board. He further stated he has an obligation to inform people of ramifications.

Mr. Curran stated he told Chairman Rosa on Friday where the cuts would be made and suggested the Board discuss it further, and was told it was a 4-1 vote of the Board to come forward with a budget of 2%. Mr. Curran stated that the larger Departments have submitted where cuts could be made. Mr. Curran stated he always asks for two budgets; level funded and level service. Mr. Curran stated he did not instruct them to lay off personnel.

Chairman Michael Rosa stated he had spoken with Mr. Curran on Thursday, not Friday. He had taken the budget guidance item off the agenda because they had already met on budget guidance because of the vote on the direction of a 2% budget.

Further discussion, comments and questions ensued between the Board and the Town Manager.

MEETING SCHEDULE

The next meetings will be January 5 and January 26, 2015.

ADJOURNMENT

Selectman Daniel Burns, seconded by Selectman John Piscatelli made a motion to adjourn.

It was voted: 4 – In Favor
0 – Opposed
1 – Absent (Selectman Deslaurier)

Chairman Michael Rosa adjourned the meeting at 9:35 p.m.

A TRUE COPY ATTEST

Sue Aker, Recording Secretary



December 1, 2014

Dear Selectmen Rosa:

The Bay Circuit Alliance expresses its support for the Yankee Doodle Bike Committee's plan for the Yankee Doodle Bikeway. The bikeway will provide a right-of-way to connecting the hiking trail head at Bedford Community College, which would help close of a significant gap in the Bay Circuit trail in Billerica.

In 2001 the Bay Circuit Alliance, among many other interest groups, expressed concern to the Mass Highway that Modern Continental neglected to include a tunnel in the design to widen Route 3, which severed plans for the Billerica and Bedford Narrow Gauge Rail Trail. The Bedford Narrow Gauge Rail Trail is currently described in Rails-to-Trails documentation as "... the Billerica town line where the trail ends abruptly ..." A remote crossing was secured, Mass Highway offered an easement, Bedford brought the Bay Circuit to the Billerica line, but until recently Billerica has not been successful in bringing a connection to the Bedford line.

It has come to my attention that the Yankee Doodle Bike Path Committee recommends an alignment that will connect to the Bay Circuit Trail at the Bedford Middlesex Community College, as well as to the Bedford Narrow Gauge. The Bay Circuit Alliance supports submitting a Project Information Form, because it is an important step towards securing the closing of a significant gap in the trail, both to a hiking spur at the Bedford campus and to the Bedford Narrow Gauge Rail Trail.

Thank you for your time and attention to this important matter.

Best regards,

A handwritten signature in blue ink that reads "Kristen Sykes".

Kristen Sykes
Director of Operations
Bay Circuit Alliance

Billerica Board of Selectmen
365 Boston Road
Billerica, MA 01821

Good Day,

I am a realtor in Northampton, MA and have spoken widely about rail trails and their effect on the quality of life in communities and their effect on property values. I've been watching with interest as a study by VHB has come forward to lay-out a plan to build-out the path in Billerica. Finally. About 15 years in.

One thing I haven't heard about in this discussion, however, is the impact of the rail trail on residential property values. This is where I'd like to contribute my two cents to the discussion. My specialty is the sale of homes that are close to rail trails and other sorts of greenways. I know first-hand what it's like to live near a rail trail because my home is eight feet from the trail that connects the City of Northampton and five other communities.

Our house was built in 1865. Three years later the railroad came to town and was built right next to the house. To mitigate any damage from the shaking caused by passing trains, the RR officials kindly reinforced the plaster ceilings with lath strips nailed up from below. Because that wasn't very nice to look at, they hung taut but flexible canvas on the ceiling below the laths.

The railroad was abandoned 1969 and after a lengthy 5 year discussion beginning in 1976, the corridor opening in 1981 as the first muni-built trail in New England. Twenty years later, we came up on the scene bought a rundown house in 2001. And after renovating the place for two years, we opened as a bed & breakfast. We named it ***Sugar Maple Trailside Inn***. Since we see only cyclists and pedestrians going by, the house doesn't shake anymore.

I am the first realtor in the U.S. with a special niche, specializing in houses near rail trails and similar recreation ways. About half of my business is in this category. As a consequence, I am one of the top realtors in the Five College Area of western Massachusetts.

Several years ago I did a report for the Massachusetts Multiple Listing Service (MLS) on houses being sold near some of the regional rail trails. The report looked at listings that touted the proximity of properties to the trails and found that they sold for a higher proportion of the asking price than other houses did.

They also sold more quickly. This report—and many others—can be found on the website of the Bruce Freeman Rail Trail. www.BruceFreemanRailTrail.org

More recently, I was able to get the MLS to put a “NEAR THE BIKE PATH” button on the website that realtors use to post listings. This has institutionalized the concept that living near a rail trail, or a similar biking/walking/jogging facility, enhances property values.

Above all, rail trails can do much to revitalize communities while contributing to the quality of life for families who live anywhere near them. It would be a shame for Billerica to have to wait another 15 years to build out this pathway.



Craig Della Penna
62 Chestnut St.
Northampton, MA 01062
Craig.DellaPenna@gmail.com
413 575 2277

Figure 5- Preferred Alternative (2019)



HIGH SCHOOL ALIGNMENT

STRUCTURE TYPE REVISED FROM SWITCHBACK TO RAMP

NUTTING LAKE

MIDDLESEX TURNPIKE

MILL BROOK

ORCHARD STREET

RICHARDSON STREET

ROUTE 3

BEDFORD
BILLERICA

RIVER STREET

STRUCTURE TYPE REVISED FROM BRIDGE TO BOARDWALK

NEW BRIDGE CROSSING

NEW BOARDWALK LOCATION

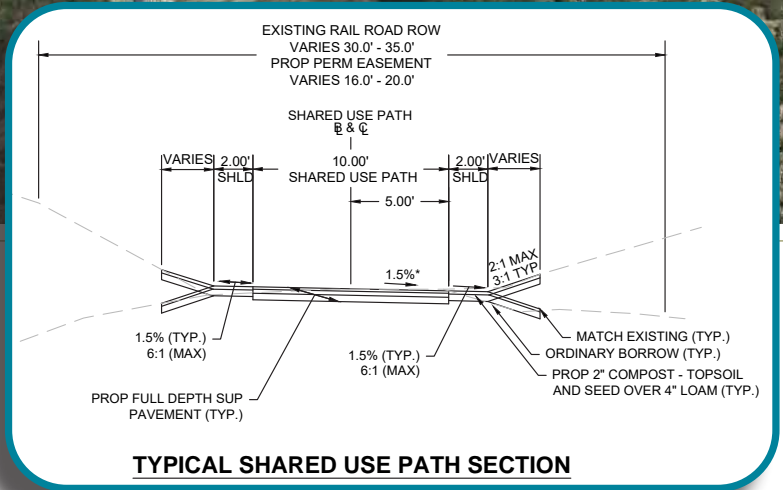
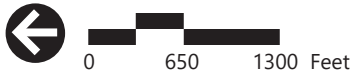
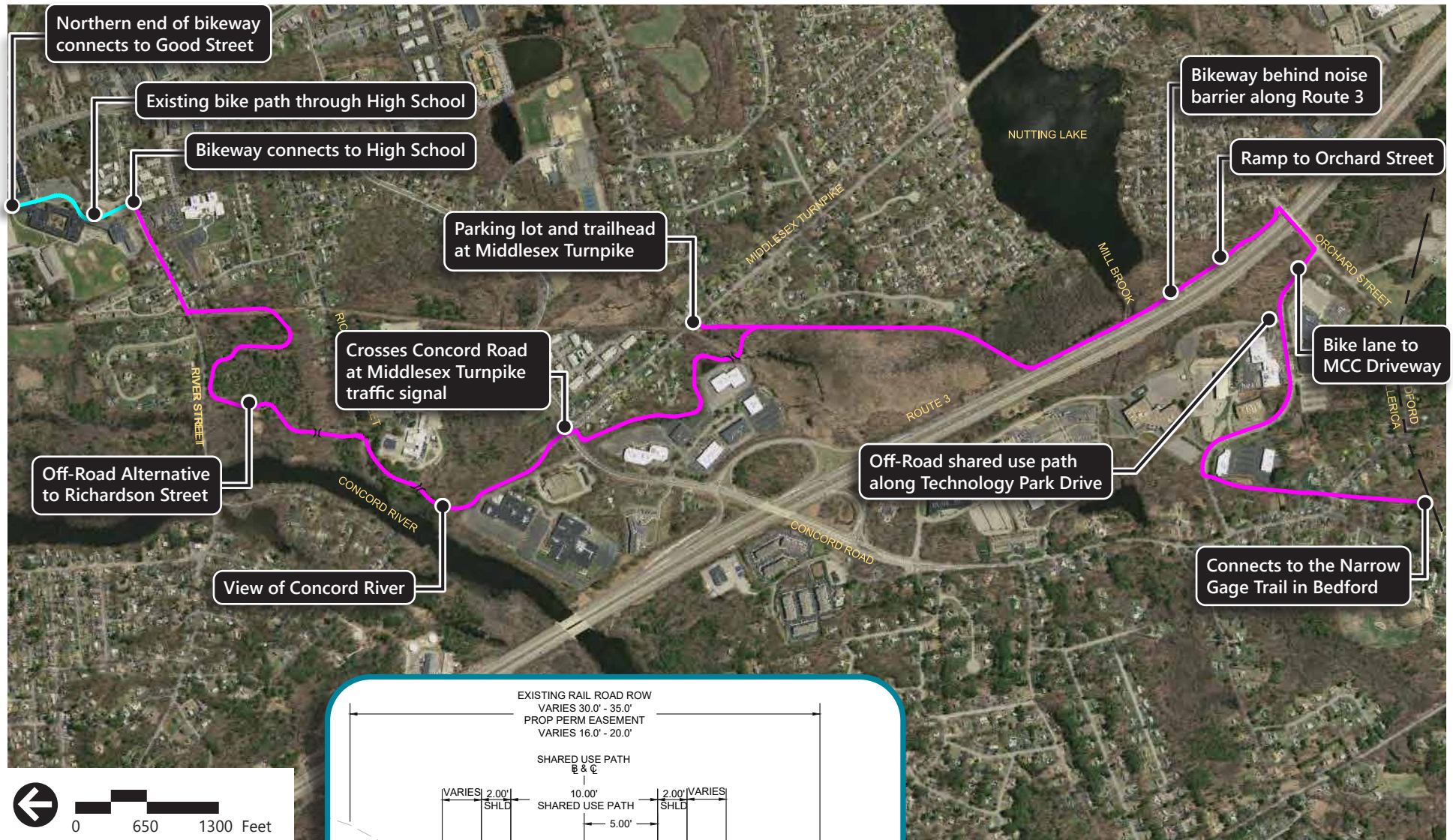
CONCORD ROAD

CONCORD RIVER

 = REVISED BIKE PATH ALIGNMENT
 = ORIGINAL BIKE PATH ALIGNMENT



Figure 6- Final Preferred Alternative (2021)



Yankee Doodle Bikeway
Billerica, Massachusetts
Proposed Alignment
August 31, 2021